WILDERNESS AND THE LAW

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LONG TITLE

THE IMPLICATIONS OF THE PROVISIONS OF SECTION 15(1)(a) OF THE SOUTH AFRICAN FOREST ACT 122 OF 1984 (AS AMENDED) INSOFAR AS THEY RELATE TO WILDERNESS AREAS: AN ECLECTIC REVIEW.

SUB-TITLE: A RATIONALE FOR A NEW LEGAL PRAXIS FOR THE PROTECTION OF WILDERNESS IN SOUTH AFRICA IN VIRTUE OF ITS INSTRUMENTAL, INTRINSIC AND BIOCENTRIC VALUE: A CONCEPTUAL AND COMPARATIVE COMMENTARY.

ABSTRACT

Wilderness areas face serious threats to their integrity and continued existence. The law has a critical role to play in their protection. To be effective, however, the law must be based on sound philosophical and socio-economic considerations.

There is increasing recognition, internationally and nationally, of the utilitarian, intrinsic and biocentric values of wilderness and wildlife. There is also an international trend toward recognition and accommodation of tribal cultures and their traditional natural resource harvesting rights within national legal and political systems. Effective protection of the wilderness resource on which South African tribal cultures depend for their continued existence is essential. Communities adjacent to wilderness areas must be allowed to participate in the determination of the boundaries of, the preparation and implementation of the management plans for, and the benefits derived from, such areas. Wilderness management in South Africa must be linked to economic planning and rural development.

The values of wilderness to humankind are increasingly being recognised and protected in international treaties and national legal systems. A comparative analysis of relevant events in the United States, in particular, clearly demonstrates that the most effective vehicle for establishment of a national wilderness system is a national wilderness statute. South Africa should acknowledge the international trend towards wilderness preservation, take instruction from the legal initiatives and protective mechanisms adopted in other countries, recognise that its wilderness is a global heritage, and accept that it has an obligation to protect what remains of its wild country, not only in the interests of its present and future generations, but also in the interests of the world community.

A review of the history and current status of wilderness in South Africa, and of the laws which indirectly or directly provide protection of wilderness areas, wilderness values, or wilderness equivalents, suggests that there is a need for a new legal dispensation for the preservation of the remnants of South African wilderness. At present there is statutory protection of declared wilderness areas in State forests only, in terms of the Forest Act 122 of 1984. There is no direct legislative protection of wilderness on other public lands, and no legal protection of wilderness on private land. Effective and sustainable protection of South African wilderness will best be achieved through the medium of an appropriate national Wilderness Act.

CHAPTER THREE

PREFACE

As the new South Africa awakens and we discover new objectives and loyalties, we cannot afford to overlook our essential common loyalty to that which sustains all of us, the planet earth. On this threshold of new opportunities it is in our hands to make our world a better place for all our people and for our children. In the current mood of political and legislative reform, the opportunity should be seized to motivate for the effective protection of the remnants of our wilderness heritage.

The main focus of this work is on the role of law in protecting terrestrial wilderness in South Africa. That the law can play a role in protecting wilderness is perhaps obvious. The proposition that it should do so may be arguable, and thus requires discussion. The purpose of protection is also a matter of debate. This work is therefore concerned not only with how wilderness may best be protected, but why and to what extent it should be protected. Relevant laws and the concept, nature and values of wilderness are examined from historical, socio-economic, jurisprudential, philosophical, comparative and international perspectives, and a new legal praxis for more effective, sustainable protection of wilderness in South Africa is proposed in the form of a draft Wilderness Act. In the light of current socio-economic and political developments in South Africa, and the inevitable and legitimate continuing and increasing demands on its natural resources, such an Act should have contemporary relevance; but, perhaps more importantly, it may go some way toward ensuring a wilderness legacy for future generations. The passage of a Wilderness Act will not be the end of what American author Michael Frome has described as the 'Battle for Wilderness';[1] it will, however, at least be a beginning. There is much still to be learnt about wilderness in the twentieth century and the relationship of humankind to it. A great deal of wisdom, scientific knowledge, restraint and management expertise will be required to ensure the continuance of wilderness as an enduring resource. There are influences which are difficult to predict. We know not what the effects of the expanding hole in the ozone layer or of global warming will be. Predictably, as has occurred in the United States, there will be increased recreational and spiritual utilisation of wilderness areas once they

[1]The title of Frome.

are set aside and the scarcity theory of value begins to operate in their favour. It is often said, and bears repeating, that this is the last generation that will be able to exercise the option of saving what little remains of our unique South African wilderness for posterity. Let us at least try to do so.

The basic questions addressed in this work, therefore, are:

- What is wilderness?
- What are the qualities or values of wilderness that make it worthy of protection?
- Should aboriginal rights to wilderness and its constituent wildlife be accommodated in modern legal systems and, if so, to what extent and how?
- Why and how has wilderness been protected in other countries?
- How has wilderness been protected in South Africa?
- How should wilderness be protected in South Africa?

What follows is essentially a conceptual analysis and comparative survey. Accordingly, although reference will be made in the text to declared wilderness areas, candidate areas, *de facto* wilderness on private land, and other areas deserving of wilderness status, no attempt will be made to identify all such areas geographically - that task is being undertaken by others with a view to lobbying for their protection once an appropriate framework and the legal machinery have been established. The decision as to how much wilderness should be set aside is essentially a political one. It is also beyond the scope of this work to attempt to present or prescribe detailed management policies or plans although, again, some reference to these will be made from time to time in the text when relevant to the discussion or the proposed wilderness legislation.

The library is the jurist's primary research instrument. Moreover, the nature of the subject matter of this work is such that the research methodology employed in its production consisted mainly of literature search and review, and analysis and interpretation of relevant South African and foreign texts and legislation. Consequently, although primary sources were consulted wherever possible, considerable reliance was necessarily placed on the writings of others in the fields of environmental law, environmental ethics, ecology, conservation of natural resources and related disciplines.

As with all research of this nature, therefore, this study draws heavily on the published work of others. Where appropriate their work is acknowledged in the bibliography and footnotes.

The chapters are in the main organised from the abstract to the concrete in content and general format. The discussion is arranged in four parts, with an introductory chapter.

Chapter 1 introduces the topic of wilderness and the law, offers definitions of wilderness and other basic concepts, articulates the nature of the problem of diminishing wilderness and the purpose of protection, reviews the role of law and other methodologies of protection, and indicates the parameters, perspectives and analytical frameworks employed in the discussion.

In Part 1, comprising Chapters 2 and 3, wilderness is considered from historical, philosophical and socio-economic perspectives. A major focus of this Part is the need for a sound philosophical base for the law, with due regard to socio-economic factors and the dilemmas confronting developing nations.

In Part 2 the aboriginal rights of indigenes to the wilderness resource are discussed. In Chapter 4 the implications for wilderness of the international trend towards recognition and accommodation within national legal systems of aboriginal harvesting rights are considered. Chapter 5 addresses the question of traditional rights to the land and wilderness in South Africa.

Part 3 presents an overview of initiatives internationally, and in other countries, in the development of the concept of wilderness and the evolution of its legal protection. The focus of Chapter 6 is on wilderness lore and law in North America, an important focus as it is that sub-continent which provided the matrix within which the modern concept of wilderness was shaped, and which was the birthplace of the institution of statutory wilderness. Moreover, in many other respects developments in the United States have particular relevance in a developing South Africa, historically, socio-economically and in the field of environmental conservation. In Chapter 7, the growth of international

recognition and protection of wilderness is reviewed; it is submitted that wilderness is part of the global commons and that its protection is not only a parochial matter, but that all countries which still have some wild country left, including South Africa, have an obligation to the international community to ensure that some of what remains of it is set aside as legally secured wilderness.

The meaning and significance of wilderness having been articulated in Part 1, aboriginal extractive rights having been considered in Part 2, and developments elsewhere having been reviewed for purposes of example and instruction in Part 3, Part 4 deals with the history and current status of administrative and legal initiatives for the protection of wilderness values and wilderness areas in South Africa, and concludes by presenting a draft Wilderness Act as a proposed legal praxis for the sustainable protection of wilderness for the benefit of the environment, all South Africans, the world community and future generations.

Two final introductory comments need to be made. It is in the nature of South Africa's history and socio-political dispensation that reference is required to be made in this work to different ethnic and racial groups. When it is necessary to do so, such words as 'Africans', 'blacks' and 'whites' will be used for their usual and familiar connotation, purely for ease of reference and without racist or pejorative intent, as will such words as 'group', 'native', 'aborigine' and 'Indian' be used in the discussion of the rights and needs of indigenous people in other countries. Secondly, and similarly, no sexism is intended in the employment of pronouns and collective or generic terminology suggestive of masculine exclusivity, when the context clearly indicates otherwise. As is commonly expressed in legal contracts, masculine includes feminine, and singular includes plural, unless a contrary intention is manifest.

In terms of the applicable regulations it is hereby declared that this thesis is the candidate's own original work and has not been submitted for a degree in any other university.

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Most of the research for this thesis, and of the writing of it, was undertaken outside of 'normal' working hours. It could not have been completed without the patience, understanding, encouragement and support of my family, and especially Fi. To them I owe a special debt of gratitude. Thank you for bearing with me, and for accompanying me along that long, winding and often trying path to completion.

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LIST OF ABBREVIATIONS AND ACRONYMS

CILSA:	Comparative and International Law Journal of Southern Africa
CITES:	Convention on International Trade in Endangered Species of Wild Fauna and Flora
FAO:	Food and Agricultural Organization of the United Nations
IUCN:	International Union for the Conservation of Nature and Natural Resources
LR:	Law Review
SALJ:	South African Law Journal
Stell LR:	University of Stellenbosch Law Review
THRHR:	Tydskrif vir Hedendaagse Romeins-Hollandse Reg
UNEP:	United Nations Environment Programme
UNESCO:	United Nations Educational, Scientific and Cultural Organisation
United States:	United States of America
WWF:	World Wildlife Fund

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CHAPTER ONE

DEFINITION AND OVERVIEW

1.1 INTRODUCTION

This work is about the concept of wilderness and the need for its effective protection in South Africa by legislation.

Incidentally, but necessarily, it also deals with the ethics and aesthetics of wilderness.

This work is also about conflict. The conflict is between those who advocate the preservation of wilderness and those who seek to exploit its wildlife, minerals, timber and other natural resources. The protection of a wilderness area may result in some short term loss of material gain; permitting human disturbance, resource extraction or development in the area will inevitably destroy some if not all of its wilderness values. In principle there is no compromise position. In practice some compromises are necessary. Because of pervasive human impact on the total environment, some management of wilderness areas is necessary. Because of the subsistence needs of people in rural areas, recognition of their aboriginal harvesting rights in or on the periphery of wilderness areas may be necessary.

The Forest Act 122 of 1984 makes provision for the setting aside of wilderness areas.[1] No land set aside as a wilderness area, and no part of it, may be withdrawn from such

[1]Section 15(1)(a).

setting aside without the approval of Parliament.[2] What are wilderness areas and what is it about them or within them that warrants this degree of legislative protection? What is their historical background, how does such protection fit jurisprudentially into our legal system, and what are the philosophical and socio-economic implications of their preservation? Is statutory wilderness consistent with the aboriginal harvesting rights of indigenous people? How is wilderness regarded and treated in other countries and by the international community, and how best can its preservation be achieved? These are the questions which are addressed in this work, the assertion of which will be that wilderness and its wildlife have such intrinsic, biocentric and instrumental value that an even greater measure of protection than is at present accorded to them in our law is warranted.

The essential thesis of this work, therefore, is that there is a demonstrable and compelling need for dedication and effective legal protection of some of the remnants of South Africa's unmodified wild country, which will only be achieved by selection of appropriate representative areas for elevation to the status of statutory wilderness within a National Wilderness Management System. The main purpose of this work, accordingly, is to suggest the basis and possible format of a Wilderness Act for South Africa. Although the importance of wilderness protection is undoubtedly achieving general recognition,[3] it is necessary to provide a theoretical foundation and rationale for such an Act. An appreciation of wilderness values is so central to this suggestion, and

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[2]Section 15(2). The relevant provisions of the Forest Act are discussed in Chapter 8.

[3]International recognition is evidenced by the many wilderness conferences that have been held in recent years. The First World Wilderness Congress was held in October 1977 in South Africa. Delegates to the Congress came from 26 countries and represented many different disciplines. The Second World Wilderness Congress was held in Australia in 1980, the Third in Scotland in 1983, and the Fourth in the United States in 1987. All were well attended. Further reference to these congresses and developments in other countries will be made in Chapter 7. In the United States, the Wilderness Society has a membership of 85 000 - Hendee 96. The use of wilderness for recreation has become so popular in the United States that it is in danger of being 'loved out of existence' - from 1945 to 1974 wilderness-type recreation grew by more than 1 200 percent, and in 1970 wilderness visitation was estimated to have doubled over the previous decade, and was projected to increase ten times by the year 2000 - Environment LR (1975) 531. The Wilderness Action Group, formed in 1983 by some of the South African delegates to the Third World Wilderness Congress, is active in promoting the cause of wilderness conservation in this country - Flockemann 20-1. In September 1989, a well supported two day 'Southern African Wilderness Conference' was held in Durban.

Chapters 2 and 3 will, therefore, be devoted primarily to discussion of these values. But first it is necessary to define wilderness and other relevant concepts and terms.

1.2 WHAT IS WILDERNESS?

Definitions of wilderness vary from person to person and from place to place. Nash has said that the word 'wilderness' resists easy definition because it is 'so heavily freighted with meaning of a personal, symbolic, and changing kind' - the difficulty, he says, is that 'while the word is a noun it acts like an adjective.'[4] The fact is that there is no universally accepted definition of wilderness. It is essentially a culturally derived notion. There is an elusiveness about the concept that is both appealing and frustrating. Like Nash, one is tempted to let the term define itself - wilderness is what people *think* it is.[5] Perhaps it is the nature of wilderness that it is neither possible nor desirable that its qualities should ever be reduced to precise definition. It is a multi-faceted concept that has captured the imagination of the international conservation community. Ranney describes it as

> 'one of those omnipotent ideas that grips the mind, heart, body, and spirit which surfaces once or twice in the history of mankind and revolutionizes thinking. ...a concept of land ethics, of man-nature relationships, a philosophy, a counterpoint to man's appetite to consume everything nature has to offer.'[6]

Part of the problem in defining wilderness lies in the multitude of benefits which different people ascribe to it.[7] It is unlikely that there will ever be complete agreement on an appropriate definition. The nature of wilderness has been debated at national and

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[4]Nash 1.

[5]Nash 5.

[6]Ranney 1.

[7]Lewis 185.

international forums at length,[8] and the debate will no doubt continue. However, notwithstanding the difficulty of definition and the varying perceptions of its nature, there is growing recognition by both developed and developing countries that wilderness has value and should be protected. Some definition is therefore necessary, even if it is only a working definition and to some extent open ended so as to accommodate differences of opinion as to its true character and values.

1.2.1 Etymological roots

Funk & Wagnalls Dictionary defines wilderness as: an uncultivated, uninhabited or barren region, a waste, as of an ocean, a multitudinous and confusing collection, derived from the Old English *wilder* a wild beast (*wilde* wild + *deor* an animal, deer) + -ness.[9]

The Oxford English Dictionary describes it, *inter alia*, as: wild or uncultivated land (distinguished from desert, in that the latter denotes an uninhabitable region, and implies entire lack of vegetation); a wild or uncultivated region or tract of land, uninhabited, or inhabited by wild animals; 'a tract of solitude and savageness'; a waste or desolate region of any kind, eg of open sea, of air; something figured as a region of a wild or desolate character, or in which one wanders or loses one's way; wildness, uncultivated condition; wildness of character.[10]

The Concise Oxford Dictionary describes it as: desert, uncultivated and uninhabited tract; part of garden left wild (probably from obsolete *wildern* savage, from Old English *wildeor* wild beast + -en, + -ness).[11]

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[8]The published proceedings of the First, Second, Third and Fourth World Wilderness Congresses reveal many different perspectives and interpretations of the concept of wilderness - see Player (1979), Martin (1982), Martin & Inglis and Martin (1988) generally.

[9]Funk & Wagnalls Vol 2 1439.

[10]Oxford English Dictionary Vol XII W124-5.

[11]Concise Oxford Dictionary 1470.

According to Nash the etymological roots of the word lie in the early Teutonic and Norse languages, originally deriving from *willed*, meaning self-willed, wilful or uncontrollable, from which came *wild*, meaning lost, unruly, disordered or confused. Combined with the old English word *deor*, meaning animal, *wildeor* denoted animals which were not under the control of man. This became *wilder*, then *wildern*, and eventually *wilderness*, meaning place of wild beasts. This heritage, Nash suggests, implies forested wild land, since northern Europe was heavily treed, and the forests were the most likely place to find wild beasts or become lost or confused. On the other hand, in Biblical terms wilderness was desert wasteland, because of conditions in the near East. Common in both backgrounds, however, are the absence of humans and their works, and the presence of wild animals.[12]

Monkhouse & Small suggest that the word 'wilderness', when used in the context of conservation, indicates an area left untouched in a natural state, with no human control or interference.[13]

Etymologically, therefore, it is the absence of humans and their works which is the hallmark of wilderness. However, as will appear from the discussion which follows, the total absence of human influence under modern conditions is neither possible nor desirable.[14]

1.2.2 Sociological wilderness

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[12]Nash 1. For further discussion of the etymological roots and meaning of the word 'wilderness', see Nash 1-7.

[13]Monkhouse & Small 315.

[14]The evidence of human influence is everywhere; nowhere is it totally absent. Stankey (1982) 159-160, writing about the subtle and far reaching threats to wilderness, records that even in the far reaches of the Antarctic investigators report the presence of radio-active fallout, chlorinated hydrocarbons and heavy metals - 'pervasive global deterioration of the environment means that virtually no area is free from human influence.' Wilderness areas therefore need to be managed to ameliorate the negative impacts of such influences, and it is desirable in some areas to respect and accommodate aboriginal rights to wilderness (see Part 2).

There is an inherent subjectivity about the word 'wilderness' which compounds the problem of definition. It means different things to different people. A city dweller, for example, may well regard most of northern Zululand as wilderness, whereas a Thonga villager would very likely regard the streets of Johannesburg as a wilderness. From this perspective the word is descriptive of a state of mind rather than definitive of a particular condition. Not only does the way in which it is perceived vary from individual to individual and from place to place at a given time, human attitudes toward wilderness have changed considerably over time as the frontiers of unsubdued country have retreated, and continue to change. The word has always been emotive and symbolical, but the emotions and symbols have changed with the advance of civilization. Human perceptions of wilderness, therefore, depend upon traditional, cultural, geographical and historical background and circumstances.[15]

Hendee, Stankey & Lucas draw a useful and practical distinction between *legal* wilderness and *sociological* wilderness. The former is a narrow perspective: wilderness as defined by statute. At the other extreme wilderness is whatever people think it is, potentially the entire universe, the *terra incognita* of people's minds. This they call sociological wilderness, remarking that deriving a universally acceptable definition seems unlikely because of widely varying perceptions.[16]

1.2.3 A state of mind

Subjectively wilderness is an attitude or state of mind, reflecting the way in which wilderness is perceived. Wilderness conditions often provoke profound aesthetic, emotional, psychological and even spiritual reaction. It has been described, in Jungian terms, as reflecting man's inner wilderness.[17] It has even been referred to as sacred

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[15]The evolution of human attitudes toward wilderness is discussed in Chapter 2.

[16]Hendee, Stankey & Lucas (1990) 4.

[17]Meier 152.

space.[18] In this context, the word 'wilderness' relates to the perception of, or reaction to, a particular condition rather than the condition itself.

1.2.4 A place

The phrase 'wilderness area' connotes a spatial dimension, a geographical area of wilderness, demarcated with reference to defined boundaries if formally dedicated as wilderness.[19] The phrase 'a wilderness' has a similar meaning.

1.2.5 A condition of place

Objectively the word 'wilderness' is descriptive of the condition of a place. If it is wild, relatively large and free from the presence and impact of humans, it is a wilderness. But how wild must an area be in order to qualify for legal designation as wilderness? To what degree should the impact of humans and their works be unnoticeable? How large should the area be?[20] How primitive and free from roads? Clearly it should be stated as excluding evidence of substantial human impact, but this is a question of degree - there are very few areas on earth, if any, which are completely devoid of the evidence of human impact - and it may not be possible to define precisely where the line should be drawn. Is it enough that such evidence should not be too obvious? The difficulty of definition is compounded if human disturbance from off-site sources like acid rain and pesticide pollution are taken into account. Frome suggests that the basic criterion should be the prevalence of nature and the absence of the by-products of civilisation:

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[18]For example the title of Graber's monograph: *Wilderness as Sacred Space*.

[19]The word 'area' suggests spatial definition, a tract or portion of the earth's surface, a superficial extent - see Funk & Wagnalls 77.

[20]Prescription of a minimum size to qualify as wilderness does not appear to be critical. Section 2(c) of the United States Wilderness Act specifies that an area of wilderness must include at least 5 000 acres or be of sufficient size 'as to make practicable its preservation and use in an unimpaired condition'. This allows preservation of areas of less than 5 000 acres, such as islands and other areas which can be adequately protected as wilderness. On the question of size, Frome 12 expresses the opinion that 'large areas are desirable, but wilderness embraces a sample of the primitive in any degree. ... Even the sight, sound, or smell of a miniwilderness furnishes a tranquilizing and enriching interval, a subconscious reminder of man's rootstocks in nature.'

> 'Others insist that wilderness must be restricted by standards of purity to utterly primeval lands looking exactly as they did before man evolved from the apes. In this age of fallout there are no places left on the earth free of human disturbance, not even at the polar icecaps, but this need not be the basic criterion. Wilderness is where man's sounds, chemicals, and other by-products of civilized life are not dominant. It can be any area where nature prevails or might prevail given the passage of time. It can be any place, of any size, so long as active ecological succession, structural diversity, and naturalness are permitted.'[21]

1.2.6 A resource

The word 'wilderness' is increasingly being used to describe a particular kind of natural resource, in much the same way that the words 'wildlife', 'water' and 'timber' are descriptive of particular resources. It is also regarded as a cultural resource.[22] This is an anthropocentric, utilitarian perspective.

For practical purposes wilderness may be regarded simply as a form of land use. As such it should be an essential component in national and international planning. The desirability of setting aside parks in towns and cities seems to be generally accepted. Common sense suggests that it must be good planning to do the same in the ecumenicity which is earth. Wilderness could therefore be considered as a specific land use in the broad context of land use planning, having its own peculiar planning and conservation objectives and management programmes. In planning terms, therefore, wilderness may be seen simply as occupying a particular, albeit important, niche in the land use continuum - the least modified extreme on the spectrum of land uses. In Nash's terms, the scale ranges 'from the primeval to the paved' - wilderness and civilisation are 'antipodal influences which combine in varying proportions to determine the character of an area.'[23] In the context of recreational planning, wilderness is a desirable

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[21]Frome 12.

[22]Hendee, Stankey & Lucas 5 refer to wilderness as 'a valued cultural resource.' The policy of Congress as articulated in s2(a) of the United States Wilderness Act is to secure for 'present and future generations the benefits of an enduring resource of wilderness.' The resource and other values of wilderness are discussed in Chapter 2.

[23]Nash 6.

component in a Recreation Opportunity Spectrum that ranges from urban recreation areas to wilderness, with intermediate forms of use such as campgrounds, nature reserves and national parks, thereby providing a variety of natural environments to cater for the different needs and interests in our society.[24]

1.2.7 Definition for management

How can wilderness areas be managed without roads, or should they be managed at all, and if not, should a non-management stipulation be included in their legal definition? Since definition will indicate, or at least influence, management policies, should it refer to limitations on human access, not only in respect of mode of access (for example on foot and by horseback only), but numbers also? Should wilderness be defined with reference to primeval experience and, if so, should over-flying be prohibited?

It is clearly not practical for legal definition alone to provide answers to all management questions; but it is possible for it to be normative and prescriptive. This has been done in the United States Wilderness Act,[25] in which the definition (quoted below) *prescribes* conditions for areas included in the National Wilderness Preservation System, *indicates the purposes* that management programmes for these areas are designed to achieve, and has thus, as Hendee, Stankey and Lucas point out, lent both quantitative and qualitative substance to the traditionally elusive question, what is wilderness?[26]

1.2.8 Legal wilderness

How does one translate all the contradictions and conceptual uncertainties surrounding wilderness into a workable legal definition? Perhaps we shall be constrained to use

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[24]For further information on the Recreation Opportunity Spectrum (ROS), see Hendee, Stankey & Lucas (1990) 209, and BC Glavovic 73-102.

[25]Public Law 88-577 (1964).

[26]Hendee, Stankey & Lucas (1990) 5.

unusual words such as 'untrammelled' as the Americans have done in their legal definition, which reads as follow:

> 'A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's works substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.'[27]

But what of indigenous people who may have been living in harmony with wilderness, and as part of it, since time immemorial? Should they be regarded, as Nash suggests the North American Indians were regarded, as a form of *wildeor* whose savageness is consistent with the character of wild country?[28] Would 'untrammelled by *modern* humans' not be more appropriate?

It seems likely that no legal definition will ever be entirely and lastingly satisfactory. Wilderness is essentially what we think it is, and our understanding and attitudes are changing all the time. It may not be possible for legal definition to encapsulate the manifold meanings and varying perceptions of wilderness. For practical purposes, however, it may capture the essence of wilderness, serve as a starting point for determining its nature and purpose, and provide a context within which the principles of wilderness may be discovered and developed. Frome makes the point as follows:

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[27]Section 2(c). The word 'untrammelled' is taken to mean 'not subject to human controls and manipulations that hamper the free play of natural forces' by Hendee, Stankey & Lucas (1978) 68. It is given a similar meaning in the *US Forest Service Manual* (1969) quoted by Foote 258-9.

[28]Nash 7.

'The law ...serves only as a starting point for determining - or discovering - what wilderness really is, what it does, and whom it serves. ...It is more than a place, but equally an idea, a principle, a state of mind, even a dream. While the state of wilderness exists in the mind, it does so only to the degree it exists somewhere on the ground. It becomes worthy of description as wilderness because of its character, not because of any particular purpose it serves. Once it retains that character, however, it serves many purposes. ...The principles of wilderness are based on the completeness of all life, rather than on the dominion of man alone.'[29]

1.2.9 Formal definitions

Notwithstanding the difficulties of definition referred to above, substantive legislative definition (and thus prescription) is important as it will serve as an authoritative guide to administrative interpretation and implementation of national policy. In this section, brief reference will be made to the most recent IUCN definition of wilderness (for an international perspective), and to the most recent nationally determined definition in South Africa. Other relevant phrases used in this work are also defined. The definitions formally adopted in other countries will be discussed in Chapter 7. For the purposes of the general discussion, the word 'wilderness' will be used as descriptive of areas of roadless land substantially unmodified by modern humans, and worthy of dedication as statutory wilderness because of their wilderness values.

1.2.9.1 *International*

The IUCN Commission on National Parks and Protected Areas defines wilderness as follows:

'Wilderness is an enduring natural area protected by legislation and of sufficient size to protect the pristine natural environment which serves physical and spiritual well-being. Wilderness is an area where little or no persistent evidence of human intrusion is permitted, so that natural processes will take place largely unaffected by human intervention.

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[29]Frome 11.

> Wilderness areas stress non-mechanized access. As pristine natural areas, they should be established to ensure that future generations will have an opportunity to seek understanding in largely undisturbed areas.'

and the 'objectives' of wilderness areas as follows:

> 'To maintain essential ecological processes and to preserve biological diversity in an undisturbed state, in order to have representative examples of the natural environment available for scientific study, environmental monitoring, education, and for the maintenance of genetic resources in a dynamic and evolutionary state. Research activities need to be planned and undertaken carefully to minimize disturbance.'[30]

1.2.9.2 *South Africa*

The 1991 President's Council Report describes wilderness as:

> 'a natural or undeveloped landscape, unspoiled and unscarred by man's activities, and far removed from areas of development and human habitation. To merit recognition as wilderness in the categorisation of nature areas, it must be of sufficient size to be ecologically viable and also to provide what is termed the wilderness experience, as experienced by our forefathers.'[31]

1.2.9.3 *De facto wilderness*

Wilderness which exists in fact, but which does not enjoy statutory protection as wilderness, is referred to as *de facto* wilderness. Wilderness which occurs on land which is in private ownership is one example. Another is an area which possesses all the qualities of wilderness and which is located in a national park or nature reserve, but which is not zoned or managed as wilderness.

1.2.9.4 *Candidate wilderness areas*

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[30]Eidsvik (1990) 14.

[31]President's Council Report (1991) 80.

Candidate wilderness areas are *de facto* wilderness areas which have been identified as appropriate for formal declaration and protection by statute. The Tewate wilderness area in Natal is such an area, being an area which possesses all the essential attributes of wilderness but which has not yet formally been declared as such.[32]

1.2.9.5 *De jure wilderness*

The phrase '*de jure* wilderness' is used to describe wilderness areas which are protected by law, either

(a) directly, by laws the primary or stated purpose of which is such protection - these are the wilderness areas at present declared as such under the Forest Act, and which are also referred to as statutory wilderness (see below); or

(b) indirectly, by laws having some other primary or stated purpose but which nonetheless have the secondary or incidental effect of affording such protection - an example would be an area identified and managed as a wilderness area or zone within a national park.

1.2.9.6 *Statutory wilderness*

The phrase 'statutory wilderness' refers to wilderness areas which are directly and deliberately protected by legislation. In South Africa these are the areas declared as such in terms of the Forest Act 122 of 1984, a list of which is provided in Appendix C.

The United States Wilderness Act contains the relatively comprehensive statutory definition quoted above, which will be discussed in more detail in Chapter 6. The South

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[32]The Tewate area is *de facto* wilderness which has been identified as a candidate area because it qualifies in all respects as wilderness, and is therefore deserving of statutory protection, particularly in the light of the likely impacts on the area if the proposed mining on the Eastern Shores of Lake St Lucia proceeds. Tewate is the last *de facto* wilderness on the entire eastern coastline of South Africa. It is portion of the Greater St Lucia Wetland Park, and is under the control of the Natal Parks Board. The Eastern Shores State Forest provides an appropriate wilderness buffer area.

African Forest Act adopts the simpler approach of declaring wilderness areas to be those that are declared as such[33] 'for the preservation of an ecosystem or the scenic beauty'[34] which, of course, is not a substantive definition, and which will be discussed in more detail in Chapter 8.

The following definition, which will be proposed and discussed in Chapter 10, is a definition of 'legal wilderness', not 'sociological wilderness' - it is intended to serve as a statutory definition, as 'a starting point' and not a statement of 'what wilderness really is, what it does, and whom it serves':

> For the purposes of this Act, a wilderness area is a predominantly natural and unmodified area upon which the impact of modern humans has been minimal, retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions, and which:
>
> (a) generally appears to have been affected primarily by the forces of nature, with the imprint of human works substantially unnoticeable;
>
> (b) has outstanding opportunities for solitude or a primitive and unconfined type of recreation;
>
> (c) is of sufficient size to make practicable its preservation and use in an unimpaired condition;
>
> (d) may also contain ecological, geological, or other features of scientific, educational, scenic, historical or cultural value;
>
> or which is capable of rehabilitation to such wilderness condition.

1.2.10 Wilderness and other protected areas

[33]Section 1.

[34]Section 15(1)(a)(ii).

It is generally accepted that the provision of a full spectrum of natural environments is a desirable response to the broad range of tastes, interests and needs of society.[35] South African law provides for the formal establishment of a wide variety of protected areas, including national parks, nature reserves (provincial, local, private, forest and special), protected natural environments, mountain catchment areas and marine reserves. An overview of the laws relating to protected areas in South Africa is presented in Chapter 9. In addressing the question 'what is wilderness?', however, it is necessary at the outset to note and emphasise the essential ways in which wilderness differs from all other protected areas. The differences relate to both its nature and its purpose. The unique characteristics of wilderness are that it is

(a) the least humanly modified extreme on the spectrum of land uses (free of persistent evidence of human intrusions such as vehicular access and plantations),

(b) entirely free of permanent improvements (for example roads or power lines) or human habitation (for example rustic accommodation), and

(c) managed in such a way as to allow natural processes to continue without human interference (unlike management of other protected areas, wilderness management is essentially the management of human use and influences to preserve naturalness and solitude, not the management, alteration or control of the natural resources or processes themselves[36]).

The other necessary characteristics of wilderness, which are indicated in the proposed legal definition above, may occur in varying degrees in other protected areas. A national park, for example, may be a predominantly natural area, substantially of primeval character and influence, managed so as to preserve its natural conditions, with opportunities for solitude or a primitive and unconfined type of recreation, and of

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[35]Hendee, Stankey & Lucas (1991) 4. Carter 168 also emphasises the role of wilderness in a country's nature conservation strategy.

[36]See Hendee, Stankey & Lucas (1991) 15, and generally on wilderness management.

sufficient size to make practicable its preservation and use in an unimpaired condition. It may also contain ecological, geological, or other features of scientific, educational, scenic, historical or cultural value, and it may be capable of rehabilitation to a wilderness condition. But a primary object of a park is that it be used for the benefit and enjoyment of visitors,[37] for whom accommodation and facilities within the park may be provided, as well as roads, bridges, buildings, dams, fences, etc.[38] None of these is consistent with wilderness designation. However, within a national park there may be a wilderness area, provided that it is of sufficient size and possesses the other features required to qualify as such.

In sum, the essential distinguishing features of wilderness are found, as to its nature, in the degree of its 'wildness' and freedom from human manipulation, and as to its purpose, in its formal and uncompromising dedication to retention of its wilderness character and the maintenance of long-term ecological processes. The purpose of the review of other protected areas presented in Chapter 9 is to assess the extent to which they may qualify as wilderness equivalents, or serve to protect wilderness values, so as to determine whether or not South African legislation should be modified or expanded to protect its wilderness heritage.

1.3 DEFINITION OF RELATED CONCEPTS AND TERMS

The concepts of 'preservation' and 'conservation' are relevant to any discussion of humankind's relationship with nature, and therefore require definition. The word 'wildlife' is capable of different meanings, and therefore also requires definition. The legal protection of wilderness falls under that branch of law which has come to be known as 'environmental law.' 'Wildlife law' may be regarded either as a branch of environmental law, or as a discrete branch of law. Both terms are used in this work, and therefore also require explanation.

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[37]Section 4 of the National Parks Act 57 of 1976.

[38]Section 12(2).

1.3.1 Preservation and conservation

Aldo Leopold described 'conservation' as 'a state of harmony between men and land.'[39] This is a pithy and appealing definition. The word 'harmony' implies accord, symmetry, an agreeable state of order and completeness in humankind's relationship with other entities. For legal prescription, however, more precise definition is required.

According to the Oxford English Dictionary, 'preservation' means: to keep safe from harm or injury, to keep in safety, save, take care of, guard, to keep alive, to keep in existence, keep from decay, make lasting.[40] 'Conservation' means, *inter alia*: the action of conserving, preservation from destructive influences, natural decay, or waste; and 'conserve' means: to preserve, to keep in safety, or from harm, decay, or loss, to preserve with care, now usually to preserve in its existing state from destruction or change.[41] These definitions are not very helpful - they draw little, if any, meaningful distinction between the two concepts.

Monkhouse & Small define 'conservation' as: the preservation from destruction of natural resources (soil, vegetation, animals) by careful control and management, especially for the benefit of posterity, which is not so much a 'holding-back' as the maintenance of a favourable balance in the use of the environment.[42]

According to Trefethen, the word 'conservation' as it applies to natural resources only became part of the English language in 1907. Until then, resource managers used the terms 'protection' and 'preservation', which implied non-use or 'locking up' of natural resources. There was no single word to describe their sustained-yield use until Gifford Pinchot (one of the first advocates of sustained-yield management policies for American

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[39]Leopold 207.

[40]Oxford English Dictionary Vol VIII P1308.

[41]Oxford English Dictionary Vol II C855.

[42]Monkhouse & Small 67.

forests) and others, in discussing this gap in their vocabulary, came up with the term 'conservation', implying prudent use and protection of renewable natural resources, and apparently derived from 'conservator' which was the title of an office in colonial India under the British Civil Service. Pinchot discussed the term with Roosevelt, who adopted it as the keynote of his administration. Conservation was the theme of a White House Conference of Governors called by Roosevelt in 1908 and it was this meeting, Trefethen alleges, that put the new meaning into the dictionaries.[43]

The World Conservation Strategy (1980) defines conservation as:

> 'the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. Thus conservation is positive, embracing preservation, maintenance, sustainable utilization, restoration, and enhancement of the natural environment.'[44]

In modern usage, the word 'preservation' implies a 'locking-up' of natural resources, the retention of their natural condition free from human interference and extractive use; 'conservation' implies extractive use, but prudent use so as to ensure a sustainable yield of natural resources.[45] In short, conservation means wise use, which may include preservation.[46] To illustrate the difference: the controlled harvesting of wildlife, for example, would be permissible in a conservation area (as in the case of the Kruger National Park where regular culling of elephant takes place so as to maintain herds at viable population levels), but not in an area protected in terms of a preservation policy. It is therefore more correct to speak of wilderness *preservation* rather than wilderness *conservation*. A wilderness area is therefore also more accurately described as a *protected* area rather than as a *conservation* area, because the only compatible uses are non-

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[43]Trefethen 126-7.

[44]World Conservation Strategy (1980) 10.

[45]Prescott-Allen 82 suggests: 'Development is production, and conservation is the maintenance of the means of production. Both are necessary for human survival and wellbeing.'

[46]Frome 61 suggests that conservation does not only mean 'wise use' but preservation when no immediate uses are apparent.

extractive (such as aesthetic enjoyment, hiking, photography, education, spiritual renewal and scientific research). The United States has a National Wilderness Preservation System.[47] Because the word 'preservation' implies a complete 'locking up' of natural resources, the notion of such a system is likely to meet with some resistence in a developing South Africa. There is also a need in this country for formal acknowledgement of traditional harvesting (extractive) rights.[48] The system that will therefore be proposed for South Africa in Chapter 10 is a National Wilderness System. The emphasis in the draft is on appropriate *management*, rather than preservation or conservation. The notion of wilderness management is consistent with use being primarily non-extractive; it does not imply a complete 'locking up' of resources; and it suggests custodianship and the maintenance of wilderness character, quality and values.

1.3.2 Wildlife

Wildlife is a major component of wilderness. Because wilderness, by definition, is more free from human interference than most, if not all, other protected areas, it is the prime natural habitat for much wildlife. There is, therefore, frequent reference to 'wildlife' in this and the following chapters. As the term may have different meanings, it is desirable that it be defined for the purposes of the discussion which follows.

Funk & Wagnalls Dictionary defines 'wildlife' as: wild animals, trees, and plants collectively, especially as objects of government conservation.[49] Precise legal definition is more complex. There are at least three elements of this dictionary definition which require clarification for legal purposes.

First, it is questionable whether animal life and plant life do fit comfortably into one category, even if it is scientifically correct so to place them. Even in biological terms

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[47]See Chapter 6.

[48]See Chapter 5.

[49]Funk & Wagnalls 1439.

animals comprise only one faction of living organisms and plants the other.[50] Conceptually plant life is different from animal life. Plants and animals appear to experience different levels of consciousness. Definition becomes even more difficult if microorganisms and animate products of genetic engineering are brought into consideration.[51]

Secondly, what constitutes an animal? Does the term include all living things other than plants? Does it include humans? Biologically humans are animals, but for most purposes they are regarded as being different from non-human animals. Does it include insects, birds and fish? There are decided cases in the United States in which it was held that chickens and goldfish are animals.[52]

Thirdly, what is 'wild'? The basic legal distinction is between wild and domestic animals. Thus, ownership of a wild animal will be lost, but not that of a domestic animal, if it escapes and the owner no longer exercises effective control over it.[53] The distinction appears to be one of perception. A wild animal is one which is perceived to be wild, historically and for reasons of utility, and the concept will therefore vary from community to community. An elephant may be regarded as domestic, or at least domesticated, in parts of India and Africa, but wild in London or New York.[54]

It is not required for a discussion on wilderness to provide a precise legal definition of wildlife. Wildlife law is mainly statutory, and the relevant statutes and ordinances generally contain adequate definitions for their particular purposes. Whenever the term

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[50]Favre & Loring 15 footnote 8.

[51]A bizarre illustration of what can happen when courts are called upon to consider such questions of definition is given in Bean 4 footnote 7 where reference is made to a Canadian court decision in which it was allegedly concluded that a pony saddled with a down pillow was a 'bird' within the meaning of a statute defining the term as a 'two legged animal covered with feathers'. The court reasoned that two legs were the statutory minimum and that the feather covering need not be natural.

[52]See cases quoted in Favre & Loring 15 footnotes 6 and 7.

[53]The subject of ownership of wild animals is discussed further in section 1.5.2.1 below.

[54]For a discussion of the problems of terms and categories in this context, see Favre & Loring 6-19.

'wildlife' is used hereafter, unless the context indicates otherwise, it is used as applying to all forms of non-human, undomesticated animal, bird, reptile and insect life which would normally be regarded as 'wild' and a constituent life form in a natural wilderness, and not to plant or other life.

1.3.3 Environmental Law

As has occurred in other countries, environmental law is beginning to achieve recognition in South Africa as a discrete branch of law, a body of rules with its own identity and content, and having as its purpose an holistic and co-ordinated treatment of society's environmental problems. In the same way that ecology has emerged as a new branch of science, so too has environmental law emerged as a new branch of law, in response to the perceived need for a coherent body of laws to protect our environs. Ecology is that branch of biology which deals with the habits of living organisms and their relation to their surroundings. The word ecology comes from the Greek work *oikos* meaning house.[55] The environment has been described as the house created on earth for living things, ecology as the science of planetary housekeeping and, building on these definitions, environmental law as the law of planetary housekeeping - as such environmental law is concerned with protecting the earth and its inhabitants from activities that upset its life-sustaining capacities.[56] It is therefore the body of rules which is aimed at regulating human conduct with a view to protection of our surroundings. This is definition with reference to purpose, not content. Whatever it is, environmental law clearly is not a branch of law in the traditional or conventional sense. It has been described by an American writer as a hodge-podge of rules,[57] and is really a mixture of administrative law, constitutional law, criminal law, industrial law, the laws of delict and property, and some jurisprudence and income tax law thrown in for good measure. The academic purist may therefore justifiably criticize the elevation of this collection of laws to the same status as a recognized branch of common law.

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[55]The Concise Oxford Dictionary.

[56]Rodgers (1977) 1.

[57]Sive 614.

Notwithstanding that its boundaries are still somewhat vague at this stage in its development, however, there is no doubt that environmental law has emerged as a separate and distinct field of law, and is regarded in several countries as having its own identity and content, for example in the United States, Australia, New Zealand and Japan. It is in this general sense, namely as that branch of law that relates specifically to the protection and sustainable utilisation of the environment, that the term 'environmental law' will be employed in the discussion that follows.[58]

1.3.4 Wildlife Law

Wildlife and the natural areas in which it is found have acquired such scarcity value that it has become opportune, if not essential, for our legal system to provide a clearly defined body of law which is reflective of the importance now accorded to them in society's hierarchy of values. That body of law is conveniently described as wildlife law. But what is wildlife law? Within what analytical frameworks are its nature, purpose, scope and methodologies to be determined? What are its basic concepts, parameters, content and what perspectives should be employed in its definition? In the United States wildlife law has achieved recognition as a distinct body of law. The law schools of some American univerities offer courses in wildlife law,[59] and books have been written on the subject.[60] However, even in the United States it is accepted that it is difficult to state precisely what constitutes wildlife law, and this is partly because it is a body of law which is still evolving and expanding in that country.[61] Its boundaries are as yet uncertain. Clearly it includes those laws and doctrines which have the conservation of wildlife as their specific purpose. But there are many other laws which, although they may have other stated purposes, nonetheless significantly affect wildlife.

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[58]For further discussion of the nature of Environmental Law see generally Cowen, and Rabie (1991).

[59]For example, Duke University, North Carolina, and Detroit College of Law, Michigan. Since 1990 Wildlife Law has also been offered as a course in the coursework Master of Laws (Environmental Law) programme at the University of Natal, Durban, South Africa.

[60]See Bean, Lund and Favre.

[61]Bean 3.

Examples are laws relating to land use and pollution control. Almost any human activity will impact in some way upon the natural environment, and thus upon wildlife or its habitat. The potential scope of coverage is so wide as to make inclusion of all relevant laws impractical. Notwithstanding these difficulties of definition, containment and exposition, and the fact that in South Africa wildlife law is not yet generally recognised as a distinct branch of law, it is a convenient descriptive title for encompassing all those laws which directly or indirectly have the effect of protecting wildlife and controlling its use,[62] and it is this meaning that is intended when the phrase 'wildlife law' is used in this work.

1.4 THE NATURE AND EXTENT OF THE PROBLEM

Genesis tells us that man was created in the image of God; that humans, male and female, are blessed, and have divine authority to rule over all the earth:

> 'Then God said, "Let us make man in our image, in our likeness, and let them rule over the fish of the sea and the birds of the air, over the livestock, over all the earth, and over all the creatures that move along the ground."
>
> So God created man in his own image, in the image of God he created him; male and female he created them.
>
> God blessed them and said to them, "Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground."
>
> Then God said, "I give you every seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be yours for food." '[63]

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[62]Some of the material in the text is presented in an article which elaborates on the nature of wildlife law and its emergence as a discrete branch of law, and suggests its legal framework - see Glavovic (1988 SALJ).

[63]Genesis 1:26-29, The Holy Bible 2.

Whether this powerful mandate was intended as despotic dominium or some form of stewardship is perhaps debatable.[64] What is beyond debate is that, in the process of being fruitful and multiplying, and in so efficiently filling and subduing the earth, humans have succeeded in reducing large numbers of other species to the point of actual or imminent extinction and in making their inheritance 'detestable':

> 'I brought you into a fertile land to eat its fruit and rich produce. But you came and defiled my land and made my inheritance detestable.'[65]

We live in an age of environmental alarm, spawned by fear - the fear of impending human disaster. And not without reason, if one considers some of the cataclysmic threats to humankind that have emerged in recent years: the Bhopal gas leak,[66] the nuclear plant accident at Chernobyl, the Exxon tanker oil spill, the Antarctic mining threat, ocean contamination, the expanding 'hole' in the stratospheric ozone layer, the continuing dangerous disposal of radio-active, toxic and noxious wastes, desertification, deforestation,[67] global warming and climatic change,[68] extinction of species,[69] famine

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[64]Barbour 24-5, for example, argues that throughout the Bible humankind is not regarded as possessing absolute and unlimited dominion, but remains responsible to God. The earth is the Lord's because He created it. We are only its trustees, caretakers or stewards, and accountable for our treatment of it. The biblical outlook is neither anthropocentric nor biocentric, but theocentric. The issue of despotism versus stewardship is discussed further in Chapter 2.

[65]Jeremiah 2:7, The Holy Bible 848.

[66]According to various media reports during December 1984, referred to in Soni 273 footnote 89, the world's worst pollution disaster in terms of loss of human lives occurred during the first week of December 1984 when a leak developed at Union Carbide's plant in the Indian town of Bhopal. During the 40 minutes that it took to plug the leak a cyanide type of gas escaped, which caused the deaths of over 2 000 victims and more than a quarter of the total population of the town to suffer from temporary blindness, emphysema and long-lasting discomforts.

[67]The destruction of forests produces atmospheric and climatic changes. This process is already taking place. The composition of the atmosphere is changing. Concentrations of atmospheric carbon dioxide, carbon monoxide, methane and nitrous oxide are increasing on a global scale, and these variations in atmospheric chemistry are expected to modify climate, the distribution of temperature, rainfall and evaporation over the earth, and to alter the patterns of weather systems and ocean currents. Even the quantity and quality of solar radiation reaching the earth's surface is subject to change through chemical effects on the stratosphere. See Prance 33-4, 54 and 104.

[68]On the subject of global warming and atmospheric change, with particular reference to the importance of the role of tropical forests, see Prance generally - at 43 it is suggested that tropical ecosystems are particularly sensitive and especially important in determining the overall global response to the diverse range

in African countries, transboundary air pollution and acid rain,[70] - and so the list goes on and on. For the first time in recorded history, humankind faces the threat of systemic environmental damage, environmental problems that have become so serious as to assume biospheric proportions.[71]

On 23 May 1977, President Carter directed the Council on Environmental Quality and the Department of State in the United States to make a study of the probable changes in the world's population, natural resources and environment to the end of this century. The study took three years to complete, and resulted in *The Global 2000 Report to the President* which contained projections based on the assumption that policy trends would continue without major change. In the 'Letter of Transmittal' of the report, it is stated that its conclusions are disturbing, and 'indicate the potential for global problems of alarming proportions by the year 2000.' The report contains the following projections:

> 'For the one-quarter of humankind that depends primarily on wood for fuel, the outlook is bleak. Needs for fuelwood will exceed available supplies by about 25 per cent before the turn of the century. ...The world's forests are now disappearing at the rate of 18-20 million hectares a year.... The projections indicate that by 2000 some 40 per cent of the remaining forest cover in LDC's (lesser developed countries) will be gone. ...Extinctions of plant and animal species will increase dramatically.

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of disturbances introduced by humans. Tropical wilderness, therefore, may serve as benchmarks for measuring such human impacts.

[69]A great deal has been written about the extinction of species. See, for example, Ehrlich generally. Most of the public interest that has been aroused focuses on the big, the cuddly and the furry creatures (for example, the rhinoceros and giant panda). Wilderness offers protection for many other creatures, equally important but not so obvious, that daily are threatened with extinction. In writing about insects and snails, which are indispensable in the cycle of life, Frome 66 notes that in the last 200 years humans have wiped out an estimated 10 000 species, and many more land snail species are currently on the verge of extinction; but there is scant reference to them in the lists of endangered species, and they are hardly ever included in natural resource inventories.

[70]Acid rain, described in *Time* (8 November 1982) as 'the silent plague', is also an alarming international ecological problem. Acid rain is rain containing dilute solutions of nitric and sulphuric acids discharged into the atmosphere by industrial plants such as electrical generating plants, boilers and smelting plants, and which then causes damage to buildings and destruction of fish and plant life.

[71]We have entered a new age of environmental danger, a period in which the security of the biosphere itself is threatened - Johnston 72, and 85 footnote 1.

> Hundreds of thousands of species on earth ... will be irretrievably lost as their habitats vanish, especially in tropical forests.'[72]

It has been said that today we are witnessing a biological holocaust the like of which has never been seen in the three and a half billion years of the history of life on this planet - we are witnessing the wholesale systematic demolition of natural systems, the destruction not just of beautiful landscapes but of whole ecosystems and biomes.[73] Tropical moist forests, which contain half the species of plants and animals on earth, are being cleared at the rate of 11 hectares every minute.[74] Quite apart from the fact that the impoverishment of nature is clearly contrary to human self-interest, in a world in which one species is becoming extinct every day,[75] the question must be asked what moral right humans have to conquer, subjugate and exterminate other living beings at will.

In a rural subsistence economy, each person consumes over one ton of wood per annum for cooking, heating and building, and the World Bank has estimated that unreplaced clearance of third world forests is proceeding at the rate of 50 hectares every minute of every night and day. If this unreplaced clearance rate is continued, it is projected that the whole of the third world will be as tree bare as the Middle East in less than two generations.[76]

South Africa is not immune from this process of degradation. Each day 1900 people are added to its population, imposing ever-increasing demands on its natural resources. The

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[72]Global 2000 Report, Preface and 2-3.

[73]Lutzenberger 39.

[74]Grainger 25. Precisely how fast tropical forests are disappearing is not clear, partly because of differing definitions of forests. In 1986, the World Resources Institute estimated that by 1980 25 to 40 per cent of the original extent of the tropical forests was lost; that the best current estimate was that about 80 000 km^2, an area the size of Austria, was lost by conversion to non-forest use each year, with about 1½ times as much being damaged to some degree - World Resources Institute 2.

[75]Grainger 26. At current rates of tropical loss, a million species could become extinct by the year 2000, most of which will have disappeared without ever having been discovered - World Resources Institute 3.

[76]Hanks (1980) 5.

destruction of the natural vegetation and overutilisation of land has not only reduced the availability of potential food sources, but has also aggravated drought and flood conditions. In KwaZulu, an area in which dongas are five metres deep and 200 million tons of soil are being washed into the sea each year, the human population is expected to double itself before the year 2000.[77] Many parts of KwaZulu are in a state of ecological collapse.[78]

Quite apart from the other benefits that wilderness offers to man, which will be elaborated and discussed in the next chapter, wilderness areas act as climatic regulators and reservoirs of genetic diversity. The protection of wilderness therefore offers a substantial contribution to the solution of our planet's, and South Africa's, serious environmental ills. The problem is that our wilderness stock is rapidly being depleted, and with it our biotic capital. Diminishing wilderness and extinction of species represent irrecoverable loss of those benefits, which will not only inevitably reduce our quality of life, but ultimately also threaten our very survival.

Extinction of a species is forever. Destruction of a wilderness area is forever - with all their technology and ingenuity, scientists cannot recreate wilderness. The following statement is true of both wilderness and wildlife:

> 'The beauty and genius of a work of art may be reconceived though its first material expression be destroyed; a vanished harmony may yet again inspire the composer; but when the last individual of a race of living things breathes no more, another Heaven and another Earth must pass before such a one can be again.'[79]

In recent years more and more people have begun to feel uneasy about the continuing worldwide depletion of wilderness and wildlife. New techniques such as remote sensing have produced more accurate evaluations of the rate of destruction of tropical forest

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[77]Hanks (1979) 255-6.

[78]Hanks (1980) 1.

[79]William Beebe (1877-1962), quoted in Salvadori & Florio, Foreword (facing page). Beebe was First Curator of Birds, Bronx Zoological Park, New York Zoological Society.

habitats. Other advances in the relatively new science of ecology have resulted in a clearer understanding of the effects of deforestation on the atmosphere, climate and hydrology.[80] There is a greater public awareness of the actual and potential effects of environmental degradation. In this new era of environmental crisis, it seems now generally to be accepted that we are rapidly losing something of inestimable value and that what remains deserves effective protection. As society's perception of this value has heightened, so too has recognition of the importance of the protective role of the law.

1.5 RESPONSES TO THE PROBLEM: METHODOLOGIES OF PROTECTION

The majority of people have a dualistic world view: humanity is divorced from nature, and wilderness is seen as a mass of raw materials available for human consumption. Legal constraints are necessary to defend the environment from human appetite, in humanity's own interests and whether inspired by utilitarian or altruistic motives. Legal prescription by itself, however, is not enough. As Bulkley puts it:

> 'the most effective, most *practical* solutions to our environmental problems can only emerge from a combination of legislation, technology, philosophical reflection, *and* changes in human consciousness. No single one of these approaches will suffice. All of them are valuable and "practical" to the extent that they contribute to the process of making lasting changes in the ways humans treat the environment. The better we are able to integrate these different approaches and stimulate dynamic, cooperative relations between them, the more successful will be our efforts to defend the environment.'[81]

In considering the nature and extent of the legal prescription required for the protection of wilderness, it is necessary to determine how effective non-legal methods of protection are. This section presents a brief overview of both the non-legal and legal tools and methodologies which are directly or indirectly available for such protection.

1.5.1 Overview of means of protection and the role of law

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[80]See Prance generally.

[81]Bulkley 154.

Assuming that wilderness has value and that it should therefore be protected, by what means is this to be achieved, and what is the role of law? In the formulation of legal mechanisms it must be recognised that there exist other means of protection with varying degrees of effectiveness. The foremost of these is education.

1.5.1.1 *Education*

> 'If you plan for a year, sow the seed
> If you plan for a decade, plant a tree
> If you plan for a century, educate the people'[82]

Wilderness will only survive if the people want it to survive. But the people must be able to make informed decisions. They must be educated in the meaning and significance of wilderness. It is essential that the public be informed of the values of wilderness and the need for its protection, in the schools and universities, through the mass media, and in the various extension and community service programmes, and particularly in the rural areas.[83]

The legal prescription for wilderness must make provision for public participation, research and education. The more the people are involved in wilderness management and information programmes, the better informed and appreciative of the values and benefits of wilderness they will be.

But knowledge alone is not enough.[84]

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[82] Old Chinese proverb, quoted in New Zealand Newsletter 6.

[83] On the education efforts of the Wildlife Society of Southern Africa, see Pringle 254 and 275, and of the Wilderness Leadership School, Woodward generally.

[84] See Pepper 3, where it is argued in the wider context of planetary environmental problems that, whilst a study of the history and philosophy of environmental *ideas* provides an invaluable perspective to those who are attempting to find a way out our predicaments, a study of the facts alone seems to lead nowhere. 'Scores of books have been written about these facts - of chronic imbalances in population/resource ratios, of ecologically damaging technology, of wasteful consumption patterns - such that substantial acreages of forest must have been consumed in the process. Yet one can legitimately argue that little change of a truly *fundamental* nature has been achieved by the environmental movement .... The spread of detailed knowledge about how man degrades and threatens his own planet has not of itself produced the likelihood of serious or

1.5.1.2 *Non-government organisations*

Non-government organisations (NGOs) play an important, often decisive, role in conservation issues. In the United States, it was largely the result of the efforts of the Sierra Club and similar NGOs that the 1964 Wilderness Act was passed.[85] In Australia, Mosley writes that proposals made in 1967, and again between 1972 and 1974, to destroy Lake Peddar National Park in South West Tasmania by constructing a hydro-electric power reservoir 'made us begin to think as a nation of our national treasures.' Legislation was passed to assess projects with potential damage to the Australian national estate and to protect such treasures once they had been set aside; but this legislation was not in time to save Lake Peddar. It did, however, save Fraser Island, the world's largest sand island, from beach sand mining. In the case of the Great Barrier Reef, too, the lobbying of conservationists in the late 1960s and early 1970s resulted in a moratorium on oil drilling and the enactment of legislation to protect the Great Barrier Reef.[86] In South Africa, the efforts of NGOs, especially the Wildlife Society, stopped the threat of coking coal mining in the Kruger National Park. They have not been successful in stopping the kaolin mining in Hout Bay, and it remains to be seen whether they will succeed in preventing the mining of the dunes on the Eastern Shores of Lake St Lucia and their conversion into vegetated mine dumps.[87]

1.5.1.3 *Economic incentives: the private sector*

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permanent remedial action.'

[85]See Chapter 6. The National Wildlife Federation, formed in 1936, is the largest lay conservation group in the United States - Arnett 143. It has 4,3 million members, and has grown 2,7 fold since 1970. The Wilderness Society is one of the smallest NGOs, perhaps because it is so specific in its objectives, an has a membership of 85 thousand - Hendee 96.

[86]Mosley 171.

[87]The proposed kaolin mining in the Cape, and the dune mining on the Eastern Shores, are current issues which have not yet been resolved. It was largely as a result of the efforts of NGOs, however, that full environmental impact assessments (which are not yet mandatory in South Africa) have been undertaken in both cases. On the earlier lobbying efforts of the Wildlife Society of Southern Africa, see Pringle 273-280, and generally. Another NGO, the Wilderness Action Group, is actively involved in wilderness conferences and seminars, and in lobbying for wilderness legislation.

Another means of affording protection, at least of some pockets of wilderness, or of areas that retain some wilderness criteria or values, is by way of fiscal incentives and disincentives.[88] In the agricultural sector fiscal laws can and should be devised so as to afford tax relief and thus incentive to farmers who conserve their wild natural resources. The private sector can and does play an important role and should be assisted in the promotion of private game ranches, nature conservancies, natural heritage sites and conservation servitudes.[89]

1.5.1.4 *The role of law*

What is the role and purpose of law? This question seems to be the logical starting point for consideration of the legal framework within which the protection of wilderness is to be located. Having determined its role and purpose, the legal tools and methodologies or techniques which may be employed in affording that protection will be reviewed.

In Marxist theory law is essentially a matter of economic necessity.[90] In the context of environmental conservation, law is a matter of environmental necessity - we need law to protect the environment. Law also serves society by protecting what society perceives to be of value. If it be accepted as a basic premise that wilderness has value, it follows logically that it should be protected. Proceeding from the theoretical to the practical, the next question is how best can its protection be secured, not only in the short term, but also for future generations. This is a matter for the law. It is the primary function of the law to deal with not the *what*, or the *why*, or the *how much*, but the *how*. How in the long term can we best protect that which patently requires protection? For so long as there is any wilderness left, there will be something in it capable of producing

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[88]On environmental improvement through economic incentives generally, see Anderson *et al.*

[89]Game ranches and conservancies can promote conservation of wilderness values, and they are referred to further in Chapter 9. The concepts of natural heritage sites and conservation servitudes (easements) also provide opportunities for voluntary dedication by private landowners of suitable portions of their property as wilderness, and they should be encouraged to do so by fiscal incentives and management assistance.

[90]It is also 'a cloak for class violence' - Hirst 97.

commercial profit and it is therefore at risk. If for no other reason, simply to exclude the effects of human greed, there must be proper legal protection. Given the nature of humans, there is no satisfactory or effective substitute. Public opinion is not enough. Some measure of public support is essential, because public acceptance is what makes the law effective, but by itself it obviously is not enough. Administrative protection is not enough, because administrations, managers and policies can and do change, especially in an era of social and political change such as the present era in South Africa.

Legal protection of wilderness is in its infancy in South Africa, and there is therefore no body of case law upon which to draw in discussing the efficacy and role of law in this context. No private legal rights exist which are relevant to wilderness, and such legislative provisions that have been enacted for its protection have not as yet come before the courts for interpretation or application; nor is it likely that they will as the law stands at present. Development of the law in this field will have to be legislatively inspired, and this will only occur if there is sufficient political will to motivate it.

The law can and should also serve a proactive and educative role. In the new South Africa, there is more likelihood of wilderness being protected if its protection is entrenched in the statute books. The values that are deserving of protection in wilderness are such that their protection should not be left to bureaucratic whim, political expediency, or even enlightened administrative policy.

In discussing the relationship of law to the administrative process, Baxter refers to the fundamental role of law in *initiating*, *facilitating* and *regulating* the administrative process.[91] Each of these three functions of the law is essential for the proper protection of wilderness. Administration of wilderness areas must be legislatively initiated or empowered, and the law should be designed in such a way as to ensure that the task of the officials charged with their administration is not only facilitated, but directed and regulated. The role of law in this context, therefore, is to confer upon officials not only powers, but also duties, with respect to the administration and

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[91] Baxter 71.

management of wilderness.[92] Clear definition of the standards of administration required will ensure coherence, consistency, understanding, and co-ordination as well as clarity of rule application and decision making. It is, however, not enough that public sector involvement in wilderness protection be prescribed. The conduct of private individuals with respect to wilderness must also be regulated. The regulation of human conduct for some purpose is the fundamental role of law. Where the purpose is the protection of a public good such as wilderness, it makes good sense for the law to assume a normative role by prescribing not only rules but norms.[93]

In the United States the law played its familiar and traditional role of reflecting and responding to the needs of society. As society's appreciation of the value of wilderness increased, so did the protection of the law. In 1964, the Wilderness Act was passed, the concept and philosophy of wilderness became institutionalised, the remnants of American wilderness became legally secured, and the debate as to whether or not wilderness should or should not be preserved had been resolved in favour of wilderness. The continuing debate in the United States now focuses on three aspects of wilderness: its nature and the nature of its values, how much wilderness should be set aside, and what management practices should be applied.[94] The situation in South Africa is entirely

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[92] See Baxter 77 where, in discussing law and the administrative process, he states: 'By conferring a combination of powers and duties (of varying strength) upon the administration, the law is able to facilitate *and* direct the administrative process.' All administrative action must be authorised by law, but administrative law consists of more than just rules. At 93 Baxter summarises the function of administrative law as follows: '... the law creates a network of rules, standards, principles and discretionary powers which are or ought to be used in various combinations to :
1. create, by means of rules, the institutions of public administration;
2. empower, by means of rules and discretionary provisions, these institutions and their officers;
3. restrict ('confine'), by means of rules, the scope of the powers conferred;
4. 'structure' discretionary decisions by means of rules, principles and standards which stipulate the referents that must be taken into account and the procedures that must be followed;
5. provide, by means of procedures, rules, standards and principles, the institutions and devices necessary for 'checking' or correcting the exercise of discretionary and non-discretionary powers.'

[93] For a discussion of the minimalist and normative concepts of legality, see Baxter 78-80.

[94] In 1976 Irland 51 wrote: 'Allocation, then is becoming an issue of the past; but, if the predictions of ever rising wilderness use are correct, we can expect the management of existing wilderness areas to generate increasing controversy. Wilderness management is already an administratively complex process: the Minnesota Boundary Waters Canoe Area is governed by 40 pages of law and regulations; the management plan for Arizona's Superstition Wilderness fills about 75 pages. We can expect wilderness management to become even more complex in the future.' Recreational overuse is potentially destructive of wilderness as a resource. But the dilemma is that management can be equally destructive of wilderness as an experience because it may

different. Only a handful of wilderness areas have been designated under the Forest Act;[95] existing legislation affords inadequate protection;[96] Government has not yet formulated a national policy on nature conservation;[97] and there is not the same degree of public appreciation of the value of wilderness as there is in the United States. The structure of our society is different, having both first world and third world elements. Large sections of our population live in rural areas under primitive conditions and are, of necessity, more concerned with the present generation's day to day problems of survival than with the rights of future generations and other less tangible wilderness values. Ultimately, as in the United States, there will probably be a general awareness and acceptance of the need to establish and protect wilderness areas in South Africa. But the pressures of over-population and technological advancement are such that we no longer have the time to await such an evolutionary development. In the United States public awareness and pressure produced the necessary legal change. In South Africa a reversal of roles is necessary. The function of the law in this context should be expanded to include a pedagogical role. By enlightened definition and application, the law itself is able to make a major contribution to environmental education. The role of law should be to encourage and foster public awareness of the values of wilderness, and to give direction and leadership to the executive and judicial arms of government, as well as to enforce protection of our wilderness areas when this is necessary. Appropriate

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impinge on the user's freedom of movement and solitude - the basic concept of wilderness implies that it is not only a natural area, but also an unrestricted area. On the management of wilderness generally, see Hendee, Stankey & Lucas (1990).

[95]See Appendix C.

[96]See Chapters 8 and 9.

[97]On 2 November 1984 the Minister of Environment Affairs and Tourism issued a formal press statement accepting the findings of the Council for the Environment on its investigation into the request by the National Parks Board that the Cedarberg Wilderness area be made available for the purposes of establishing a national park. One of Council's recommendations was that no further action be taken on such request until such time as a national conservation policy has been approved. It is remarkable that South Africa does not as yet have such a policy (the Minister of Environment Affairs has not yet exercised the power given to him by s2(1) of the Environment Conservation Act 73 of 1989, which provides that he *may* - not must - determine a general environmental policy after consultation with the Council for the Environment and the administrators of each province, and with the concurrence of various Ministers). It is almost incredible that any attempt should be made to deproclaim one of our few designated wilderness areas and reduce its conservation status to that of a national park in which roads and recreation facilities may be established in terms of sl2(2) of the National Parks Act 57 of 1976.

legislation can serve as an instrument for reform of attitudes. It is for this reason that it has been argued that there is need for legislative adoption of a conservation ethic.[98] The draft Wilderness Act which is proposed for South Africa in Chapter 10 is therefore premised on the conviction that the law can and must serve these functions in conservation.[99]

1.5.2 The legal framework

1.5.2.1 *Private law*

South African private law, founded in an adversary system and based on direct and usually pecuniary interest, offers little or no protection to wilderness or its constituent wildlife. Wild animals are classified in South African property law as *res intra commercium*, that is as things which are capable of being owned. They are *res nullius* in their natural wild state, but become owned things as soon as they are 'occupied', that is captured or killed and taken under effective control by *occupatio*. They revert to *res nullius* once that control is lost.[100] Their legal status is that of objects, not subjects of rights.[101] Because of this status, there are no private law remedies available to protect wild animals from being disturbed, captured, injured or killed, unless they are already the property of another.[102] The law does not permit intervention by concerned persons

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[98]Glavovic (1984) 144.

[99]The contrary argument is that no law will succeed if it is not generally accepted, and that legislation should conform to public opinion, rather than public opinion yield to legislation. However, in environmental issues an interventionist approach is suggested for reasons of conservation and survival rather than ideology. The law can serve an active role as an agent in the creation of new ecological norms. For development of the notion that the legal order serves a dual function as a reactor to but increasingly as initiator of, social change, see Friedmann generally.

[100]See van der Merwe & Rabie 38, and van der Merwe 138-42 for reference to Roman Law and Roman Dutch Law authorities. The Game Theft Act 105 of 1991 has altered the common law to some extent by introducing some protection for game farmers and ranchers - see para 9.1.5.3 of Chapter 9.

[101]In the United States not only may they be bought and sold individually and collectively, it appears that entire species of animal life may now be traded. In April 1987, the United States Patent and Trade-mark Office agreed to accept patent applications for new species of animals created by genetic engineering - see ALDF Newsletter.

[102]See, for example, *Richter v Du Plooy* 1921 OPD 117, and *R v Mafohla* 1958 2 SA 373 (SR).

or organisations on their behalf. The rules relating to standing to sue (*locus standi in judicio*) are strict. Any person seeking relief from the courts, for example an interdict to restrain a development which is likely to produce the extinction of an endangered species, must show 'that he is suffering or will suffer some injury, prejudice, or damage or invasion of right peculiar to himself and over and above that sustained by members of the public in general.'[103] The requirements for *locus standi* should be relaxed, as has been done in the United States,[104] so as to allow intervention on behalf of threatened species or natural areas, including wilderness. Nor do the common law crimes of theft and malicious injury to property provide any legal protection to unowned wild animals. Without specific conservation legislation, wild animals would be without any effective legal protection.

It is arguable that no theory of justice is truly complete unless in some way it accommodates the notion that rights are extended to animals, and that a modern legal order can contain such an accommodation within its framework. There are indications that this evolution is taking place in the United States.[105] It is suggested that a similar development should be encouraged in South Africa. The legal position of animals is at present similar to that of human slaves in the early nineteenth century. Slaves did not enjoy legal rights of their own, but were subjects of special legal protection.[106] Inevitably lawyers will have to face the logic of the pattern of extension that has already evolved, in terms of which legal rights have gradually been granted to children, slaves, women, blacks, incompetents, and fictitious persons.

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[103]Diemont J in *von Moltke v Costa Areosa (Pty) Ltd* 1975 1 SA 255 at 258D (C). For further discussion of the issue of *locus standi* in South Africa, see generally Loots and Bray.

[104]The leading case in the United States on standing to sue in this context is *Sierra Club v Morton* 405 (1972) US 727, in which the Sierra Club, a non-government organisation, sought an interdict restraining development of an extensive ski resort in the Mineral King Valley, a natural area of outstanding beauty, basing its standing on an allegation that it had a special interest in the conservation and sound maintenance of the national parks, game refuges and forests of the country. The court held that this allegation was insufficient to establish standing, but in the process it expanded traditional standing doctrine to the extent that similar organisations would have little difficulty in doing so thereafter.

[105]On the possible extension of legal rights to wilderness, see Nash 270-1, and to animals, Favre & Loring 2-3.

[106]Favre & Loring 2.

The ethical and legal rights of wilderness and wildlife are discussed further in Chapter 2.

1.5.2.2 *Public law*

The state as sovereign controls the destiny of wilderness and wildlife. Public responsibility for the protection of wildlife was recognised early in the history of South Africa - in 1657, van Riebeeck introduced a placaat imposing restrictions on hunting, and since then many statutes and ordinances have been enacted specifically for the conservation of wildlife.[107] Because of their legal status, the extent to which wilderness and wildlife are or should be protected is at present a matter of public law - of legislative and administrative policy - as there is nothing of any substance in private law on which the judiciary can operate in the interests of protection. One way in which public law may be expanded in the interests of protection, is by the adoption and extension of the concept of a public trust doctrine.[108] Assuming, *arguendo*, that wilderness and wildlife are public resources and nothing more,[109] they are resources which should be protected and administered in the public interest. The state could proclaim more wilderness areas, and legislatively assume ownership of wildlife, as a public trust, to be held on behalf of the nation, with the effect that the state as trustee will have not only the right but also the obligation to deal with these resources, which constitute the *corpus* of the trust, in the best long term interests of present and future citizens as the beneficiaries.[110]

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[107]For reference to the legislative historical development and a summary of the relevant laws enacted from time to time, see Fuggle & Rabie 197-217.

[108]In the United States the notion that ecological integrity is a public trust right and that the public has a right to expect certain lands and natural areas to retain their natural characteristics is finding its way into American law through interpretation and expansion of the common law public trust doctrine - see Rieser generally.

[109]The non-utilitarian values of wilderness and wildlife are discussed in Chapter 2.

[110]On state ownership and public trust, see Favre & Loring 28-45. Cf van der Merwe & Rabie (1974) 47-8 and van der Merwe & Rabie (1990) 126. The South African Law Commission (1989), however, argues against a system under which ownership of wild animals vests in the State, on the basis that this would 'render nugatory an important mode of acquisition of ownership of wild animals, viz *occupatio*.' They miss the point, of course, because this is precisely what the system intends: no private acquisition by *occupatio*, but only controlled transfer from the State under a permit system. In any event, the common law has now been changed in accordance with the Commission's recommendations at 48. Section 2 of the Game Theft Act 105 of 1991

Legislative adoption of a conservation bill of rights would also enhance protection of wilderness and wildlife.[111] Administrative policy and regulation should be more clearly enunciated and directed by the adoption of a formal national conservation strategy or wilderness preservation policy, the formulation of which should involve public participation.[112] The public should also be involved in the preparation and proper application of management plans for wilderness areas, as has been done in the United States for many years. These are all public law issues which need to be taken into account in any legal dispensation for the protection of wilderness.

1.5.2.3 *The major wildlife law methodologies*

The means by which public law offers protection of wilderness and wildlife is international treaty and legislation, which may conveniently be grouped into the following four categories under the general heading of Wildlife Law.

(a) International Wildlife Law

Wildlife issues often span geographical borders. The flyways of migratory species of birds, for example, traverse many national boundaries, and there is little point in one country imposing restrictions on shooting and trapping if neighbouring states do not do so too. Marine mammals do not recognise domestically defined territorial waters, and land mammals, too, pay scant regard to the lines drawn on maps by humans. The adverse impacts on wildlife of the transcontinental ivory and fur trades are well-known illustrations of the need for international cooperation. Bilateral or multilateral

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provides that a person who keeps or holds game or on behalf of whom game is kept or held on land that is sufficiently enclosed, or keeps game in a pen or kraal or in or on a vehicle, shall not lose ownership of that game if the game escapes from such enclosed land or from such pen, kraal or vehicle. Land is deemed to be sufficiently enclosed if the provincial Administrator has issued a certificate to that effect.

[111]For elaboration of this submission, see Glavovic (1988 CILSA). Cf South African Law Commission (1991) 540-581 and 696.

[112]The President's Council has recommended that the involvement of the public in environmental conservation and management should be encouraged wherever possible, and that high priority should be given to the declaration of an environmental policy. See President's Council Report (1991) 115 and 187.

agreements with neighbouring states and legally effective participation in international treaties are an essential component of any national system of wildlife law.[113]

(b) Incidental protection

Because so many human actions affect the natural environment in some way, the potential scope of enquiry into laws which may incidentally afford some measure of protection to wilderness and wildlife is almost limitless. Even Antarctica, described as 'the highest, coldest, windiest, driest, iciest, remotest continent - the most alien place on earth', shows traces of industrial contamination as a result of global pollution.[114] Even in the far reaches of the Antarctic, radio-active fallout, chlorinated hydrocarbons and heavy metals have been detected in Antarctic ecosystems. Pervasive global deterioration of the environment has resulted in virtually no area being free from human influence.[115] In the interests of containment it is necessary to impose limits, albeit somewhat arbitrary limits, on the subject matter of the enquiry.[116] Laws relating to mining,[117] commerce in wildlife,[118] soil conservation,[119] air[120] and water[121]

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[113]South Africa is a signatory to several such treaties. Examples are the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (RAMSAR), the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), and the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention). The subject of international wildlife law is dealt with further in Chapter 7. For a fuller treatment of the subject, see Lyster, and Boardman, generally.

[114]Eidsvik (1989) 58-9, citing National Geographic Society *National Geographic's Atlas of the World* 5ed (1981).

[115]Stankey (1982) 159-160.

[116]Coggins & Smith 587 make the point that any body of law must necessarily be finite in order to be comprehensible. The compiler must at some point arbitrarily impose limits on his subject matter to keep it manageable.

[117]Mining and wilderness are incompatible. The issue of mining in wilderness is addressed in Chapters 9 and 10.

[118]Control of commerce or trade in wildlife and wildlife products may incidentally protect wilderness in that it may inhibit intrusions into wilderness areas for the purpose of harvesting. The relevant provisions of the four provincial nature conservation ordinances will be dealt with in some detail in Chapter 9; but the sections and regulations referring to such commerce will not be enumerated and discussed in detail.

pollution, for example, will not be dealt with; nor will integrated environmental management (IEM)[122]. However, no introduction to the topic of wilderness and the law would be complete without some treatment of the laws relating to the following matters, all of which do have relatively substantial implications for wilderness and wildlife, either directly or indirectly. They therefore cannot be excluded from consideration altogether. Although it is beyond the scope of this work to consider them in detail, further reference will be made to them in Chapters 8 and 9. They are:

- agricultural law and policy[123]
- pesticide pollution[124]
- zoos[125]
- national monuments[126]

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[119]The Conservation of Agricultural Resources Act 43 of 1983 contains extensive provisions aimed at soil conservation. Soil conservation measures on agricultural land adjacent or near to wilderness could indirectly promote wilderness preservation. The provisions of this Act will not be referred to in any detail; but agricultural law and policy do directly affect wilderness and will therefore be dealt with in Chapter 8.

[120]Acid rain is a form of air pollution which can affect wilderness areas. It is an international problem. It substantially affects soils, water, vegetation, forestry and fisheries - see Flinterman *et al* 45, 134-5. Many hundreds of lakes in the United States and Canada are 'dead' in the sense that they are so acidified as to be incapable of supporting fish or much plant life. The most important statute for control of air pollution in South Africa is the Atmospheric Pollution Prevention Act 45 of 1965.

[121]Polluted streams or rivers entering wilderness areas will obviously have a negative impact. The most important statute for controlling water pollution is the Water Act 54 of 1956.

[122]The purpose of IEM is to ensure that environmental considerations are efficiently and adequately taken into account at all stages of development processes, and it encompasses methodologies such as terrain evaluation and ecological studies (see Council for the Environment (April 1989) 4). Wilderness and wildlife values, when relevant, should therefore be taken into account.

[123]For a discussion of the environmental effects of agricultural law and policy during the apartheid era, see Glavovic (1987) and Chapter 9.

[124]For a discussion of the effects of persistent pesticides on the environment, see Glavovic (1985 SALJ) 674.

[125]Zoos are established and controlled in terms of the four provincial nature conservation ordinances. These ordinances, and the ethics and efficacy of zoos in protecting endangered wildlife species and returning them to nature, are discussed in Chapter 8.

[126]The proclamation of Table Mountain, for example, as a national monument in terms of the National Monuments Act 28 of 1969, means that its wildlife is protected, at least in theory. Protection is by means of criminal sanction - ss 12(2)(a) and 16(a). The concept of a national monument when applied to natural areas

· South African Defence Force.[127]

(c) Species protection

One of the primary objectives of wildlife law is specific protection of individual species. In the United States, over-exploitation resulted in the total demise of the passenger pigeon and the near extinction of the bison. Legislation has been enacted at the federal level of government for the protection of endangered species,[128] migratory birds[129] and marine mammals.[130] There is also legislative recognition of the symbolic and historical value of certain species in that country in the laws passed for the protection of the bald eagle,[131] wild horses and burros.[132] In South Africa, legal protection of specific species is attempted mainly at provincial level by means of nature conservation ordinances, which divide wildlife into a variety of different categories.[133] One category is that of 'vermin' or 'problem animals', so designated for the purpose of their control and organised killing because of their interference with farming operations.[134] A less offensive category, at least in terms of respect for other living creatures, is that of 'endangered species', which are afforded a measure of protection in an endeavour to

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is interesting because it implies preservation as opposed to conservation or sustained yield.

[127]For a brief commentary on the SADF's role in nature conservation see African Wildlife (Nov/Dec 1987) 290-291. On the controversial siting of a missile guidance test range within the De Hoop nature reserve, see Hey 288-293 and 296-298.

[128]Endangered Species Act 16 USC §§ 1531-1543.

[129]Migratory Birds Treaty Act 16 USC §703.

[130]Marine Mammals Protection Act 16 USC §1371.

[131]Bald Eagle Protection Act 16 USCA §668.

[132]Wild, Free-Roaming Horses and Burros Act 16 USCA §§1331-40. See Bean generally for discussion of the American statutes.

[133]The relevant provisions of the ordinances are discussed in Chapter 9. The most ancient category of wildlife is 'game', which was defined and controlled by statute in old English law - Favre & Loring 14-15. See Fuggle & Rabie 198-217 for a useful summary of relevant South African laws.

[134]See discussion in Fuggle & Rabie 213-217, and Chapter 9.

ensure their continued survival. Because most wildlife species are dependent on their wild habitat for survival, effective protection of specific species because they are endangered or threatened, or for other reasons, may incidentally serve to protect wilderness as its habitat.[135]

(d) Habitat protection

The modern approach to conservation of natural resources is to try to maintain biotic diversity by protecting entire ecosystems, and this approach is obviously more directly relevant to wilderness. The protection of species cannot effectively be achieved without protection of their habitats. Together they constitute natural ecosystems, in utilitarian terms: two aspects of the same basic resource. Habitat destruction or modification is the major threat to this resource. In South Africa, as in other countries, the law recognises a wide variety of natural areas as deserving of protection for, *inter alia*, their wildlife values;[136] but wilderness, in which human interference is reduced to a minimum, is the prime habitat for its wildlife, and wilderness designation is therefore the ultimate natural form of habitat protection that the law can provide.

1.5.2.4 *Administrative Law*

The other side of the coin of legislation is administration. The best informed legislative enactment is only as effective as its implementation.

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[135]In 1973 the United States became party to an international agreement designed to control trade in endangered or threatened flora and fauna. In the same year the Federal Endangered Species Act was enacted, replacing previous 1966 and 1969 versions of the statute. In 1978 this Act was amended so as to provide for the determination of critical habitat at the time of the listing of an endangered species. This amendment came about partly as a result of the well known Snail Darter case, *TVA v Hill* 437 US 153 (1978), which for a time stopped the completion of the Tellico Dam notwithstanding that it had already been substantially constructed and several million dollars would have been lost if the project were halted. The case highlighted the fact that there is little point in protecting a specific species without protecting its habitat. The United States Congress subsequently legislatively authorised completion of the Tellico project - see Bean 365, where the author comments that this appears to be 'the first conscious human decision to extirpate another species'. He goes on to report that subsequently, however, new and apparently naturally occurring populations of snail darters have been discovered elsewhere. See also the comments on the Snail Darter case by Favre & Loring 225, Bean 362-366 and Randall 321-330.

[136]Protected areas legislation and its relevance to wilderness are discussed in Chapter 9.

The establishment of a wilderness preservation system and the declaration of wilderness areas require appropriate legal machinery. However, once this has been done, the system must be administered and the declared areas must be managed. The determination of wilderness management policy, selection of areas for dedication, definition of boundaries, preparation of 'edge effect' and buffer zone programmes, settlement of compensation issues, formulation of management plans, review procedures, dispute resolution, and the question of *locus standi*, all involve administrative decision and action. The administrative processes necessary will inevitably involve not only discretion and compromise of competing claims and values, but also a degree of coercion. Public acceptance of the decision-making and management processes, and a high degree of public participation in those processes, are essential for the system to be effective and enduring. These are all issues of great importance to the management and protection of wilderness. They are all issues which fall under the rubric of administrative law.

Administrative law is a complex subject. It permeates virtually every facet of the legal system, and is the branch of public law that regulates the legal relations of public authorities *vis-á-vis* private individuals, organisations and other public authorities. Baxter suggests that there are two aspects to administrative law, the general and the particular, defined as follows:

> '1. General administrative law comprises the general principles of law which regulate the organization of administrative institutions and the fairness and efficacy of the administrative process, which govern the validity of and liability for administrative action and inaction, and which govern the administrative and judicial remedies relating to such action or inaction.
>
> 2. Particular administrative law comprises the legislation governing, and legal principles and policies developed in respect of, specific areas of administration.'[137]

[137]Baxter 2, 55.

General administrative law provides an organising framework within which all administrative action may be evaluated.[138] This work is concerned only with particular administrative law, namely those legal principles, rules and policies relevant to the specific area of administration relating directly to the establishment of wilderness areas and their protection. In this narrow context, the key administrative law issues, which are addressed directly in Chapter 10, relate to the location of authority and responsibility for (a) the determination of wilderness policy, and (b) the management of wilderness areas.

1.6 FOCUS AND SCOPE OF ENQUIRY

This work is essentially about the regulation of human conduct relative to wilderness. It identifies existing solutions or methodologies of protection of wilderness and its constituent wildlife, and seeks to provide an appropriate legal framework for such protection. Extra-legal protective mechanisms and the role of law in providing protection of natural areas and non-human organisms, and in inculcating and promoting a conservation ethic, were referred to in the previous section. The legal methodologies of protection are outlined in Chapters 8 and 9. The concepts and policies that underly the legal framework are considered with a view to determining the proper nature, scope, purpose and content of the law in this context. A conceptual approach and comparative analysis and evaluation are employed rather than a listing or recital and discussion of all conceivably relevant laws. Almost any human activity will impact directly or indirectly in some way upon the natural environment, and the potential scope of coverage of all directly and indirectly relevant laws is therefore so wide that any attempt at an exhaustive recital of substantive law would pose substantial problems of containment and exposition. Moreover, it is a field of law in which rapid change is likely, so that a detailed survey or narration of all the relevant statutes, ordinances, regulations and administrative control techniques would soon become obsolete.[139]

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[138]Baxter 3, 190.

[139]The President's Council has recommended that the four different provincial Nature Conservation Ordinances be consolidated into one uniform Nature Conservation Act, and that all legislation dealing with conservation areas be reconsidered with a view to rationalising the situation by establishing an Act dealing comprehensively with all conservation areas. See President's Council Report (1991) 167 and 168.

1.6.1 Geographical focus

A major conclusion and recommendation of this work will be that a wilderness management system be established in South Africa by act of parliament. It will be argued that statutory dedication of wilderness, effectively implemented, will not only contribute to global environmental integrity, but will also constitute a priceless and timeless gift of African wilderness to all its inhabitants and to the international community. Apart from discussion of comparative and international aspects and perspectives, therefore, the primary geographical focus will be those areas which can effectively be included within the purview of such a statute, namely those areas which are within the legal jurisdiction of the Republic of South Africa. The legal protection of wilderness in those other states on the subcontinent of southern Africa which are at present politically, legally or constitutionally independent of South Africa will accordingly not be addressed directly. Indirectly, however, the other territories in southern Africa which are in theory independent of South Africa at present must be taken into account, for two reasons. The current political scene in southern Africa is highly volatile, and it is quite likely that the so-called independent homelands will be re-incorporated into a post-apartheid South Africa. Secondly, even if this does not occur, it is quite likely that similar legislation will be enacted in neighbouring territories - in other words, the South African Wilderness Act could serve as a precedent for other southern African states with substantially the same environmental conditions and problems.

1.6.2 Terrestrial focus

What of ocean wilderness? Does the concept of 'wilderness' apply to ocean areas and, if so, should wilderness legislation not in some way accommodate protection of ocean wilderness?[140] Consistent with the principle of effectiveness, it would be competent for this to be done to some extent, because South Africa's legal jurisdiction extends beyond its coastline and seashore to include territorial waters extending for twelve nautical miles

[140]For a brief discussion of the possibility of applying the terrestrial concept of wilderness to ocean areas, see Foster & Lemay 71-4.

and a fishing zone of two hundred nautical miles.[141] Moreover, in terms of magnitude,[142] inaccessibility,[143] and relative freedom from human impact,[144] there is no doubt that oceanic wilderness is deserving of consideration and legal protection.[145] For the reasons indicated below, this work's primary focus is terrestrial, and the important marine ecosystems constituting or occurring within ocean wilderness will not be considered in detail. However, because the sea arguably contains the last true wilderness remaining on earth (apart from Antarctica which, unlike Arctic polar regions, has no human indigenous inhabitants[146]), a brief excursus into the nature of these areas, and the reasons for their exclusion from consideration is appropriate.

1.6.3 Ocean wilderness: exclusion and excursus

To exclude marine wilderness from a detailed discussion is not to deny its value or importance. International recognition of its worth was implicit in the exhortation to the

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[141]In terms of the Territorial Waters Act 87 of 1963, as read with the Seashore Act 21 of 1935.

[142]Ocean trenches, for example, reach tremendous depths, far deeper and more impressive than equivalent features on land. See Salm & Clark 142, where the authors list the 22 major trenches, which average a depth of 8 552 metres, and the deepest of which is 11 022 metres.

[143]Little is known about ocean trench faunas and microfloras. The cost and time required for their study is great, and monitoring trench ecosystems with present-day technology is not feasible - see Salm & Clark 144.

[144]Ocean trenches are remote systems. Access to them is very difficult, and we remain in great ignorance of these unique ecosystems. Moreover, with our present knowledge and technology, they offer no known exploitable mineral resources so that direct human interference, at present at least, is unlikely to create conservation problems - see Salm & Clark 144.

[145]There are international treaties relating to the management of ocean resources by means of the establishment of protected areas, the regulation of harvesting, the protection of fishery resources, and the protection of seabed habitats by regulating waste disposal and seabed mining. The mechanisms of protection and control that do exist, however, are not regarded as satisfactory - see Salm & Clark 148-9, who comment that the open sea is still regarded as a commons, as frontier country in which people can exploit living resources as they please as long as they have the technology to do so. They suggest that species confined to the open ocean should be regarded as the common resource of all humanity, and species that move between the open ocean and waters under national jurisdiction as shared resources. Special provisions to conserve both groups of species is therefore needed. At 209 they comment that, given 'how little we know of the ecosystems of the seas, how much we are depleting and destroying them, and their potential value to people, we need to secure examples of them for investigation and possible future uses.' And at 139: '...perhaps more than anywhere else, the open sea now offers ... the opportunity to establish large managed marine wildernesses. These areas would preserve options for research and future uses in a substantial portion of our least known realm.'

[146]See Salm & Clark 165.

governments of nations with marine environments by the First World Conference on National Parks held in Seattle, Washington, in 1962, to 'examine as a matter of urgency the possibility of creating marine parks or reserves to defend underwater areas from all forms of human interference ....'[147]

There is undoubtedly a link between marine, coastal and terrestrial realms. A marine area cannot effectively be managed independently of its adjacent land habitats, and coastal ecosystems include both land and water components. The ecological relationship between mountain catchment areas, rivers, estuaries and the sea is fundamental, and the management of any one part should relate to the others. However, notwithstanding these basic inter-relationships, there are differences between terrestrial ecosystems and marine and coastal ecosystems, which make the legislation and management techniques which have been developed for conservation of the former difficult to apply to the latter.[148]

The main difference between the two is the continuous mobility of the water body as compared with the relatively static nature of land areas. Marine organisms move laterally and vertically, and are also highly mobile, often moving vast distances. As far as demarcation of boundaries is concerned, the ecosystems of coastal and marine areas are by their nature more open and difficult to define.[149] Marine areas have horizontal and vertical components, both of which should be defined, but the seaward boundary may be jurisdictionally confined to territorial waters although it may be ecologically

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[147]Resolution 15 of the Conference, quoted in Mondor 10, and Langley 65 where it is remarked that this somewhat extreme approach of defence from *all* human interference has become ameliorated through recognition that not all resources merit curation, and that managing rather than hoarding marine resources may often be more appropriate.

[148]Rice 45-9.

[149]Four examples of marine component boundary definition are the national marine parks established in Canada between 1969 and 1972, the offshore boundaries of which were described as follows: 'Boundary follows offshore barrier islands', 'About 10 fathom contour', '805 meters offshore from low water mark', and 'Headland to headland fiords' - see Mondor 12.

desirable for it to extend to the edge of the continental shelf or beyond.[150] Because species in a marine reserve area would spend much of their lives outside the reserve, boundaries become almost irrelevant as far as managing biological resources within the reserve are concerned. Ecosystems can be defined in terms of physical space on land, but not in the sea. The migratory nature of most marine fish and mammals make it almost impossible to define the physical limits of marine ecosystems. Direct protection of individual species is a role of terrestrial protected areas, but it would be unrealistic to expect marine reserves to do so. Another important role of protected areas is to conserve critical habitats. The problem in the sea is that there are transient critical habitats, with shifting positions and no fixed boundaries, as well as fixed critical habitats such as coral reefs. Marine protected areas therefore cannot play the same sort of preservationist role as their land counterparts; nor, logically, can there be the same sort of controls over resource exploitation.[151] The protectionist philosophy applied to resource management on land has very limited application in the protection of marine resources.[152] Another difference, accordingly, is the extent and nature of human utilisation of natural resources. Coastal and marine area resources have in general been subjected to a more intense and different kind of harvesting and economic exploitation.[153] Where marine parks have been established, commercial fishing has continued, whereas terrestrial national park policy generally prohibits all commercial exploitation of natural resources (apart from limited hunting and culling programmes).

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[150]Salm & Clark 153 observe that it is unlikely that any one nation can establish a self-contained protected area in the open sea of its jurisdiction - the critical habitats of open sea species and their support systems and ecological processes in the ocean will generally cross national boundaries. The fluid nature of the ocean and the movements of food, nutrients, organisms, and water masses within it, are such that it may even be necessary to establish shifting protected areas.

[151]See Brown 51-3 and Mondor 56-7. Most marine parks and sanctuaries established worldwide permit resource exploitation to some extent. The Parks Canada policy for National Marine Parks provides for the continuation of commercial fishing, subject to regulation.

[152]Mondor 55 observes that one cannot 'fence off' parks in the marine environment and guarantee the ecological health and protection of the enclosed area.

[153]See Salm & Clark generally. The overexploitation of fish stocks in continental shelf and slope waters, which contain perhaps eighty percent of the world's harvestable fish, resulted in national controls over fisheries being extended to 200 miles. See J Lien & R Graham 3-4, where this process is described as being from wilderness to commons, then from commons to enclosures.

On land one of the major conservation problems is species extinction, whereas in the sea the risk is more one of genetic impoverishment through the extinction of individual populations of species, for example as a result of overfishing or pollution.[154] Yet another difference lies in population dynamics. The land has more species than the sea,[155] and therefore greater biological diversity, whereas marine organisms exhibit more genetic variability, and hence greater genetic diversity. Genetic diversity is a measure of a population's ability to adapt to environmental change and thus to survive so that, again, entirely different principles of conservation apply from those relevant to terrestrial species and ecosystems.[156]

Because the physical and biological structure of marine ecosystems are different, traditional land park policies and philosophies do not apply to the marine environment.[157] The legal rules and institutions must also be different. Experience in other countries has demonstrated that laws designed for the protection of natural areas on land do not in most cases adequately address the peculiar characteristics and use of marine and coastal environments.[158] Whilst it may theoretically be possible to adapt programmes for terrestrial protected areas to coastal and marine situations, ideally separate planning, management and legislative dispensations should be formulated for coastal and marine environments. They are essentially different planning and conservation zones.[159]

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[154]Salm & Clark 5, 18.

[155]Salm & Clark 140 make the point that the ocean covers 70,8 percent of the earth's surface, yet a relatively small percentage of the world's species inhabit this immense environment.

[156]It is also doubtful whether the biogeographic classification methods that have been applied to the terrestrial realm are relevant in the open sea - see Salm & Clark 19, 20 and 209-210.

[157]Mondor 10, 11 and 57.

[158]Mondor 15, and Salm & Clark 35.

[159]See Salm & Clark 35 *et seq*. At 48-9 the authors suggest that, where feasible, joint management of terrestrial and adjacent marine protected areas should be established by legislation in a coastal zone programme. Under this umbrella, water and land components of marine protected areas can be joined by extending marine areas landward or terrestrial areas into the marine environment. At 236-8, they record suggested categories of conservation areas for marine environments, such as strict marine reserve, marine national park, marine sanctuary and protected seascape. Mondor 39 refers to Canadian experience: in 1970

On the other hand, although it may be impractical to include 'wilderness' areas occurring on and beyond the continental shelf, in the open sea and in ocean trenches within a wide-ranging umbrella wilderness statute, there may be components of the coastal zone such as certain dunes, mangroves, lagoons and estuaries, which should be afforded wilderness status and protection because of their ecological importance. The Lake St Lucia wilderness zone in Natal is an example.

The world may, therefore, be divided into three principal realms: terrestrial, coastal and ocean. The coastal zone represents the interface between the other two realms, being part wet and part dry, part salt water and part fresh.[160] For the reasons outlined above, the discussion which follows will proceed on the basis that wilderness legislation is appropriate for the terrestrial realm and for components of the coastal realm, but not for other parts of the latter, nor the ocean. A wilderness statute should be one element only in a planned national network or system of protected area legislation.

1.6.4 Wildlife: a secondary theme

The discussion which follows therefore relates primarily to the concept of wilderness on land; but a secondary theme and a major focus throughout this work will be on the protection of wildlife, which is both logical and inevitable for the following reasons:

- Wildlife is an essential component of wilderness. It is difficult to imagine any wilderness, even desert wilderness, without any wildlife.

Canada was divided into 48 natural regions for national park purposes, 39 terrestrial and 9 marine; but studies of the marine regions over 14 years 'highlighted a number of limitations that reduce their usefulness as a framework for the development of a proposed system of national marine parks', and new proposals have emerged based on the delineation of Canada's marine environment into 11 marine biophysical provinces, in turn subdivided into more homogeneous and manageable regions of the second order for identifying marine areas of significance for protection. Cf Rabie (1987)).

[160]Salm & Clark 209-210.

- For many species of wildlife wilderness is their prime habitat, and may conceivably become their final refuge.[161]

- If wilderness and wildlife are considered in utilitarian terms as natural resources they are, more often than not, inextricably interwoven and essentially parts of the same resource.

- In biocentric terms wilderness and wildlife together constitute one ecosystem.

- Protection of wilderness necessarily implies protection of wildlife; protection of wildlife promotes protection of wilderness.

- Historically wildlife generally evolved in wilderness conditions and remains an integral part thereof.

- Aesthetically, conceptually, and indeed in all respects, it is inconceivable that either can exist without the other.[162]

- Worldwide realisation that true wilderness once lost can never be recovered, and concern for the protection of the few remnants that remain, is a relatively recent phenomenon. There has been an awareness of the threats to wildlife and recognition of its value for much longer, but hitherto the legal response to the perceived problem has been inadequate because of lack of emphasis on habitat protection. Drawing on the reservoir of concern for wildlife that has built up over time should advance the cause of wilderness protection. Further articulation of the value of wildlife, and the threats to it, therefore, should produce a more holistic legal approach, more consistent with recent advances in ecology and the

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[161]Zoos can play a role in preserving endangered species; but the purpose of such preservation programmes is to return viable breeding stocks to their natural habitats. This role of zoos is discussed further in Chapter 9.

[162]Some species can be kept and bred in captivity; but can it be said that an eagle in a cage is truly an eagle?

management of natural resources, to the advantage of wildlife habitats in general and wilderness in particular.

1.7 ANALYTICAL FRAMEWORKS AND PERSPECTIVES

What we perceive the role of law to be, what we believe its purpose and objectives to be, will determine both its content and formulation. Before putting pen to paper, the legal draftsman must have a brief, he or she must know what the law will be designed to achieve. The following perspectives are employed in this work in an attempt to gain insight into the purpose and objectives of the legal regulation of human conduct relative to wilderness and its wildlife so as to determine its most effective format and content.

1.7.1 Historical perspective

In plotting a course for the future, it would be unwise to ignore the legacy of the past. Not only does historical study place contemporary issues and developments in context, it aids interpretation, definition and determination of purpose. To be effective, law must be respected or at least accepted. An appreciation of the way in which human attitudes towards wilderness have changed and evolved over time is therefore essential. The purpose of historical enquiry in this work is therefore twofold: to assist in determining the future role and purpose of the law in the protection of wilderness, and to determine the likely measure of acceptance of the legal reform that will be proposed. An essential assertion of this work is that legislative recognition of the values of wilderness and the institution of statutory wilderness are the inevitable and logical conclusion of the historical evolutionary pattern of protection which preceded it. Evolving human attitudes towards wilderness are therefore discussed in Chapter 2, and the antecedents of current laws in Chapters 6, 7 and 8.

1.7.2 The philosophical framework

Much has been written about the value of wilderness to humans - its spiritual, educational, historical, scientific, aesthetic, and recreational usefulness.[163] This is the traditional utilitarian perspective which, in the United States, combined with the concept of wilderness as a cultural heritage to produce a groundswell of public opinion in favour of wilderness preservation which ultimately found expression in the 1964 Wilderness Act.

There is another perspective of wilderness that is gathering momentum, a perspective with ethical connotations. A greater ecological awareness is emerging, a new kind of nature awe and respect for wilderness simply as wilderness and not because it represents survival or usefulness. One of the pioneers of this attitude, Aldo Leopold, who is regarded as one of the fathers of wilderness conservation in the United States,[164] conceived of a 'land ethic', in terms of which a thing is only right when it tends to preserve the integrity, stability and beauty of the biotic community and wrong when it tends otherwise.[165] The shift has been from an anthropocentric to a biocentric perspective, in terms of which humans are regarded as part of nature and not apart from it, essentially participatory members of the biotic community. We, like trees, have our roots in nature - wilderness is our source, not just a resource. The ethical dimension of this non-utilitarian attitude is the acknowledgment of stewardship, recognition that future

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[163]See, for example, the books published after the four World Wilderness Congresses that have been held so far: Player (1979), Martin (1982), Martin & Inglis and Martin (1988). For an economic cost-benefit analysis of the value of wilderness see Bigelow. See too Sax and Irland, generally. In the context of wilderness values, and as an introduction to discussion of them, the oft-quoted words of Wallace Stegner of Stanford University (quoted in Environment LR (1975) 511) bear repeating:

> 'Something will have gone out of us as a people if we ever let the remaining wilderness be destroyed; ...if we pollute the last clear air and dirty the last clean streams and push our paved roads through the last of the silence, so that never again will Americans be free in their own country from the noise, the exhausts, the stinks of human and automotive waste. And so that never again can we have the chance to see ourselves single, separate, vertical and individual in the world, part of the environment of trees and rocks and soil.... Without any remaining wilderness we are committed wholly, without chance for even momentary reflection and rest, to a headlong drive into our technological termite-life, the Brave New World of a completely man-controlled environment. We need wilderness preserved - as much of it as is still left, and as many kinds - because it was the challenge against which our character as a people was formed. The reminder and the reassurance that it is still there is good for our spiritual health even if we never once in ten years set foot in it. It is good for us when we are young, because of the incomparable sanity it can bring briefly, as vacation and rest, into our insane lives. It is important to us when we are old simply because it is there - important, that is, simply as [an] idea.'

[164]McCabe 448-9.

[165]Leopold 224-5.

generations, other creatures[166] and wilderness have moral, if not legal, rights to environmental integrity.[167]

The North Americans, having achieved a large measure of pragmatic success in wilderness preservation,[168] are now delving deeper into the concept of wilderness and humankind's relationship with it. A form of 'naturecentrism' or 'ecophilosophy' is developing, even 'eco-theology'. In the present context of South Africa's social, economic and political needs it is too soon to expect general acceptance of an extension of ethical and perhaps even legal rights to nature and other entities because of their intrinsic worth, and not simply because they serve human utilitarian needs. There are, however, sound ethical reasons for recognising that our fellow creatures have some rights, and all the ecological evidence and projections indicate that our survival is dependent upon some reorientation of our conduct and policies from an anthropocentric to a biocentric perspective. We are part of nature and must recognise that we are dependent upon nature and the maintenance of biological diversity and natural evolutionary processes.

Ideally law should be defined with reference to its purpose and have a sound philosophical base. The reason for regulating conduct should determine or at least affect the format and substance of any body of law. To clarify that purpose it follows that an attempt should be made to place wilderness and wildlife law within a jurisprudential or philosophical framework. Philosophers, however, do not agree on the proper basis of the relationship between humankind and nature. Is it possible to find a common thread

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[166]A great deal has been written on the subject of animal rights. Reference may be made, for example, to Salt, Rollin, Regan and Regan & Singer. Cf Thompson for opposing views on animal rights.

[167]In an article in *The New York Times* of 9 April 1984 celebrating the 20th anniversary of the Wilderness Act, for example, the following was written: 'Is not a million years or 10,000 of evolving landscapes and fragile beauty worthy of our most attentive stewardship? The ultimate test of man's conscience may be his willingness to sacrifice something today for future generations whose words of thanks will not be heard.' MacDonald ACJ in *King v Dykes* 1971 (3) SA 540 (RAD) at 545 expressed the opinion that an owner holds his land in trust for future generations.

[168]By 1983 264 wilderness areas were designated encompassing over 32 million hectares (Block 75). Compare this with the 8 wilderness areas covering a total area of 244 500 hectares set aside in the South Africa at that time (Bainbridge 123).

of purpose in the different philosophies? In an attempt to do so, how is the trap to be avoided that in attempting to satisfy all viewpoints the law may ultimately satisfy none? These are some of the questions which will be addressed in the following chapters, more particularly in Chapter 2 in which the values of wilderness will be considered from anthropocentric, inherent worth, and biocentric perspectives. In Chapter 3, the values of the wilderness resource are discussed from a utilitarian perspective.

1.7.3 Socio-economic perspectives

For any legal dispensation to be effective and enduring, it should be socially and economically relevant. South Africa is still a developing country, a mix of first world and third world elements, and its laws must in some way accommodate the apparent dilemma of conserving natural resources whilst at the same time recognising the subsistence needs of indigenous people. It is essential that the last remnants of our wilderness be legally protected; but the laws, regulations and management plans should, if at all possible, be so formulated and applied as to permit of controlled taking on the peripheries of, and in exceptional circumstances[169] within, wilderness areas on a sustained yield basis, particularly in those areas where the traditional way of life is dependent upon access to flora and fauna for food, fuel, medicine and building materials. At the same time, provision must be made to ensure the biotic integrity of the wilderness areas, and for the legitimate interests and needs of all the other sectors of the South African community. In Chapter 3 the instrumental value of wilderness to both industrialised and non-industrialised communities are considered. In Chapter 4 the aboriginal harvesting rights of indigenous people in other countries are discussed, with particular reference to those of native Americans, with a view to drawing on their experience and extracting principles relevant to South African conditions. Chapter 5 deals with traditional rights to the land and wilderness in South Africa.

1.7.4 International perspective

[169]For example by a San tribe living within a desert area which is proclaimed as a wilderness area.

In the context of environmental law, no national system can be complete without reference to international treaties and a 'one-world' perspective. One of the important lessons to be learnt from ecology is that an holistic treatment of environmental issues is essential. The protection of wilderness and wildlife is not just a matter of domestic concern. The effects of their preservation or demise span geographical boundaries. Deforestation in Brazil may affect the climate of most of the planet earth, and will certainly affect rainfall patterns in neighbouring countries.[170] Acid rain emanating from industry in the United States affects the forest and lake systems of Canada.[171] The flyways of migratory species of birds traverse many national boundaries, and there is little point in one country imposing restrictions on shooting and trapping if neighbouring states do not do so too. Marine mammals do not recognise domestically defined territorial waters, and land mammals, too, pay scant regard to the lines drawn on maps by humans. The accommodation of these patterns of behaviour is essential in any national system of wildlife law, and they must be borne in mind when any national wilderness preservation system is designed. The growth of international recognition of wilderness will be discussed in Chapter 7.

1.7.5 Comparative perspective and evaluation

In any assessment of domestic law it is useful to employ comparative perspective and evaluation. It is possible to learn from the experience of other countries, and in particular the United States because of its well documented recent history of environmental concern and efforts to protect what remains of its wilderness, whilst at the same time respecting the traditional harvesting rights of its indigenous inhabitants. The first national park in the United States was established in 1864. Since then numerous natural areas have been set aside and legally protected. The first Wilderness Bill was introduced as long ago as 1956 and, almost three decades ago, on 3 September 1964,

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[170]The tropical moist forests contain half of all the carbon stored in vegetation on earth. Their destruction contributes to the so-called 'greenhouse effect' - carbon dioxide build-up in the atmosphere and consequent changes in global climate - see Grainger 26.

[171]Hundreds of lakes in North America have become so acidic that they can no longer support fish life - see Findley & Farber 322-323, and Laitos 149-151.

Congress passed the Wilderness Act,[172] an enactment which represents the genesis of the concept of statutory wilderness and a watershed in the evolution of humankind's attitude towards and relationship with wilderness. The United States also has much in common with South Africa. Both countries have their historical roots in native and colonial, pioneering cultures. Both need to accommodate the rights and needs of indigenous people, and both have large undeveloped natural areas and a great but depleted wealth of wildlife and wilderness.

Acknowledging the obvious differences that do exist between the United States and South Africa (for example, indigenes constitute a small minority of the population of the former but a substantial majority of the latter), it would be foolhardy not to learn from the considerable wealth of knowledge and experience gained over the many decades during which the United States sought, through its federal and state laws, to conserve natural ecosystems, wildlife habitats, and ultimately wilderness. Consideration of developments in that country will therefore be presented in some detail in Chapter 6. There have also been developments in other countries in the protection of their wilderness, and these are discussed in Chapter 7.

1.8 CONCLUDING INTRODUCTORY REMARKS

We can learn a great deal from the experience of other countries, and from international initiatives such as the establishment of a global network of biosphere reserves, which are intended to protect natural resources yet at the same time promote sustained development and international understanding of socio-economic and ecological problems.[173] The concept of a biosphere reserve has particular relevance to South

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[172]Public Law 88-577 (codified at 16 USCS §§ 1131-1136).

[173]The Man and Biosphere Programme (MAB) was launched in 1971 as a division of UNESCO, and the first biosphere reserves were designated in 1976. By 1986, 266 such reserves had been designated in 70 countries (excluding South Africa which, by virtue of its political isolation from the international community, does not yet participate in the programme). A biosphere reserve is defined as a representative ecological area combining conservation with ecological research, monitoring, educational, training, and traditional land use. MAB's objective is to secure international cooperation in promoting sustainable development and in establishing harmonious relationships between people and their environment in all nations (see generally MAB

African conditions because of the need to balance conservation of natural resources with the subsistence requirements of local communities. An important component of most biosphere reserves is a wilderness core. South Africa has laws for the protection of wilderness and wildlife but, it will be argued, there is an urgent need for a reassessment of those laws, their foundations, purpose, content, effectiveness and future direction. Wildlife law as an accepted discipline or body of law is still in an embryonic stage in South Africa. In the United States it has been given birth, has passed through the stage of infant emergence, and has been described as already having proclaimed its robust adolescence.[174] In South Africa legislative reform is required to remedy the deficiencies which exist in our legal system, which has not kept pace with developments in international understanding of ecological processes.[175] Current conservation programmes are inadequate to meet the challenges confronting a developing South Africa.[176]

The draft Wilderness Act presented in Chapter 10, in effect, proposes a new paradigm of protection for wilderness. It will be argued that such protection is urgently required. Wilderness could be part of the foundation upon which a new age of environmental integrity may be constructed in South Africa. The enactment of such legislation, together with the recognition and development of wildlife law as a discrete and important branch of law, will materially assist in achieving a comprehensive, co-ordinated, and holistic approach to the serious environmental challenges which face our country. Not only will the creation of a formal National Wilderness Management System be an indication of political maturity, it will also be an important contribution by South Africa to international environmental security. Hopefully it will also help to provide a

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Proceedings). Biosphere reserves are discussed further in Chapter 7.

[174]Coggins & Patti 171.

[175]The relevant laws and their deficiencies are discussed in Part 4.

[176]Hey 311 writes: 'I doubt whether the conservation strategies and practices of today are adequate to meet the challenges of the future. We need a new approach to nature conservation.' At 314-315 the concluding words of his book are: '...immediate and positive steps will have to be taken, for tomorrow it may well be too late. On our shoulders rests the final responsibility for the future of wildlife on planet earth, for we are the last generation in a position to exercise the option of choice. We are also the stewards of the natural heritage of the generations to come!'

proper response to the biblical mandate to man to 'Rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground.'[177]

These are the arguments and perspectives that will be presented and developed in the remainder of this work. Apart from setting the stage for the discussion which follows, the most important points to emerge from the overview of material presented in this chapter, and which will be dealt with in more detail in the following chapters, are:

- It is essential that there be a clear definition of wilderness if it is to be effectively protected. The wording of the definition must relate to the purpose of definition. If the purpose is statutory protection, there are two important implications and determinants: the wording must be precise and it must be legally enforceable. It will therefore be a definition of *legal* wilderness, but must take into account the perceived nature and values of *sociological* wilderness in order meaningfully and effectually to serve the essential purposes of preservation.

- The definition and purpose of wilderness should be articulated in a national wilderness policy, which should be legislatively, not administratively, determined.

- Wilderness legislation should be a component of a planned national network or system of protected areas legislation.

The two chapters comprising Part 1 are devoted to discussion of the meaning and significance of wilderness. The first of these, Chapter 2, deals with the historical background and philosophical framework within which wilderness legislation should be located.

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[177]Genesis 1:26-29.

PART ONE

THE MEANING AND SIGNIFICANCE OF WILDERNESS

Reduction of wilderness is a manifestation of systemic environmental degradation. Wilderness areas and their constituent life forms face serious threats to their integrity and continued existence. The law has a critical role to play in their protection.

In Chapter 1 the topic of wilderness and the law was introduced in general terms. Definitions of key concepts were presented. The nature of the problem was stated, and the legal and other responses to the problem outlined. The parameters, conceptual frameworks and perspectives employed in the discussion and assessment of the relevant laws were indicated.

Part One seeks to synthesise and provide theoretical links between historical, philosophical and socio-economic material relevant to wilderness and perceptions of wilderness. The meaning and significance of wilderness in human society are discussed with a view to identifying those values of wilderness which the law should be designed to protect.

Chapter 2 presents an historical overview of evolving human attitudes toward wilderness and wildlife; the utilitarian, intrinsic and biocentric values of wilderness and wildlife are identified; and the necessity for their effective protection in both industrialised and developing nations is considered. A major focus of this chapter is on the need for a sound philosophical base for the law.

In Chapter 3 the utilitarian values of the wilderness resource are considered in the context of the socio-economic realities and dilemmas confronting South Africa and other developing nations.

CHAPTER TWO

HISTORICAL BACKGROUND AND PHILOSOPHICAL FRAMEWORK

2.1 PERCEPTIONS OF WILDERNESS: AN HISTORICAL OVERVIEW

2.1.1 The purpose of historical enquiry

There are many good reasons for employing an historical perspective in any intellectual enquiry into human relationships. Perhaps the most oft-expressed rationale for the need for historical imagination is that humans cannot truly know where they are going without some knowledge and understanding of where they came from, or, as Prance puts it: 'We cannot afford to ignore the legacy of the past if we are to chart a wise course to the future.'[1]

As indicated in Chapter 1, a primary thesis of this work is that legislative recognition of the value of wilderness is the inevitable and logical conclusion of the historical evolutionary pattern of protection which preceded it. Not only is historical enquiry therefore vital to the development of the argument in favour of statutory wilderness; it will assist in determining the role and purpose of the law, in assessing the effectiveness of existing laws, and in predicting and making recommendations in regard to their future evolution. Wilderness appreciation is a recent and still awakening phenomenon in South Africa. It is a phenomenon which requires explanation if the law is to respond effectively in fulfilling its role as protector of perceived societal values.

Changing perceptions of wilderness, however, cannot be viewed in isolation. They are but part of the history of ideas that has resulted in the international wilderness movement. This section accordingly presents a brief introductory synthesis of changing human impacts on the natural environment, shifting attitudes toward nature, evolving

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[1]Prance 43.

perceptions of wilderness and its constituent life forms, and the laws reflecting these changes. Further historical evaluation with more specific geographical focus is undertaken in Chapters 6 (United States) and 9 (South Africa).

2.1.2 Attitudinal change: towards the new age of environmentalism[2]

With the increase of human population and technological advancement, human impacts upon wilderness have changed. As these changes have occurred, so too have human attitudes towards wilderness, and the law has evolved in its protective role in reflection of changed perceptions. The trend has been from a pioneering conquering attitude towards nature, to increased emphasis on its recreational and aesthetic values. These essentially utilitarian attitudes were followed by recognition of stewardship, trust responsibility to future generations and, more recently, by a *gestalt* or paradigm shift in the attitudes of many thinkers to a respect for non-human entities and systems as repositaries of inherent or intrinsic worth. The significance of attitudinal change is that laws will not be effective or endure without general acceptance of them, or at least lack of resistance to them. The purpose of enquiry into evolving human attitudes, therefore, is to determine the likely measure of acceptance of the proposed law or reform - in the present context, statutory wilderness.

2.1.2.1 *Cultural filters*

In determining appropriate laws for the protection of nature and, in particular, the extent to which the law should protect wilderness, it is necessary to consider not only how natural processes operate and the physical attributes of wilderness, but perhaps more importantly from a lawyer's perspective, what society's perceptions are of the physical environment. It is how our society perceives the environment that will determine the effectiveness of the law. How wilderness is perceived will be determined by society's socio-economic and culturally based presuppositions, all of which colour this

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[2]In the context of this brief overview, it is not possible to present a detailed exposition and discussion of modern environmentalism. For a useful and interesting summary and discussion of its roots, see Pepper generally.

perception. This concept has been referred to as the cultural filter.[3] An historical perspective of the development of ideas, attitudes and values is therefore important not only for understanding the present and for 'charting a wise course for the future', but also for the pragmatic purpose of legislative drafting.

Our perception of our natural environment is a function of our cultural filter and the often unexpressed assumptions in it. As Jeans puts it:

> 'Man consciously responds to his environment as he perceives it: the perceived environment will usually contain some but not all of the relevant parts of the real environment, and may well contain elements imagined by man and not present in the real environment .... The real environment ... is seen through a cultural filter, made up of attitudes, limits set by observation techniques, and past experience. By studying the filter and reconstructing the perceived environment the observer is able to explain particular options and actions on the part of the group being studied.'[4]

As Pepper points out, therefore, '(b)y looking at the history of the development of commonly-used cultural filters in environmental debates, we should be able to understand more clearly what we need to do to achieve the shift in attitudes which it is generally agreed is necessary to attain a more socially and ecologically harmonious society.'[5]

Because there is a difference between 'real' and perceived environments, environmental perceptions are different in different cultures. Because humans perceive nature through their cultural filters, perceived environments are the more important influence on decision making. Because wilderness means different things to different people, and has so many different values, some arguably imagined, and because of the socio-economic and political history and disparities of South Africa, it is essential, therefore, that the

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[3]Pepper 6-10.

[4]D Jeans 'Changing Formulations of the Man-Environment Relationship in Anglo-American Geography' (1974) 73 (3) *Journal of Geography* 36-40, cited in Pepper 7.

[5]Pepper 11.

protection of wilderness, real or perceived, be considered with some reference to our cultural filters.

2.1.2.2 *The fear circle*

Our ancestors were part of nature and its evolutionary processes. Even as hunter-gatherers the impact of humans on their natural surroundings was minimal. The early inhabitants of South Africa lived as part of nature and had little, if any, adverse impact on their environment. In Hey's words, 'the Bushmen walked lightly over the veld'.[6] As human control over natural processes and domestication of animals and plants increased, so did we become more and more removed from the rest of nature. Wilderness came to be regarded with apprehension and fear. It represented the dark, the unknown, the untamed. As human populations changed and increased, so did our impacts upon our surroundings. Natural areas have been destroyed or modified to make way for agriculture and development, and many species of wildlife have become extinct or threatened with extinction in the process. The cumulative effects of these impacts have produced a new fear. The impoverishment of nature[7] not only reduces our quality of life, it threatens our very survival. This is the new fear: fear for the survival of the human race. The World Commission on Environment and Development in 1987 warned: 'There are thresholds that cannot be crossed without endangering the basic integrity of the system. Today we are close to many of these thresholds; we must be ever mindful of the risk of endangering the survival of life on Earth.'[8]

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[6]Hey 159.

[7]The following extract from Hey 310 is an indication of the nature and extent of human exploitation and the impoverishment of nature in South Africa: 'Up to as recently as fifty years ago we were inclined to regard nature as an inexhaustible treasure chest, to be plundered at will for personal gain or so called sport. The exploits of big game hunters in Africa are well documented. Cornwallis-Harris collected over 400 trophies in a year, while another famous big game hunter claimed to have shot 102 elephants in one day! As recently as 1860, five thousand antelope were killed during a hunt in the Orange Free State for the entertainment of the young Prince of Wales. Between 1948 and 1951, one hundred and two thousand wild animals were shot in an endeavour to clear areas of Southern Rhodesia of tsetse fly. The steady decline of our once exceptionally rich marine resources is largely due to over-exploitation.' On the reduction of wilderness and wildlife in South Africa, see Chapter 9, and Pringle generally.

[8]Brundtland Report 32-33. The World Commission on Environment and Development was created in consequence of General Assembly resolution 38/161 adopted at the 38th session of the United Nations in 1983, with the mandate, inter alia, to consider ways and means by which the international community can deal more

It is a fear compounded by our apparent inability to find solutions timeously. As Johnston has put it:

> 'This is the age of ecology. Like it or not, we are all the children of Hiroshima and Rachel Carson. Today, 40 years after Hiroshima, we are infinitely more sophisticated about the range of threats we pose to the planet and the harms we actually inflict. As our ecological understanding improves, both the scope and focus of our environmental concerns become more clearly defined. Yet we are still in the infancy of environmental management. For many kinds of serious environmental problems, effective "solution" is still beyond reach.'[9]

Hiroshima is, of course, the city in Japan on which the atomic bomb was dropped in the Second World War. Rachel Carson's *Silent Spring*, first published in 1962, focused attention on the harmful effects of persistent pesticides and was instrumental in ushering in the new era of environmental awareness.[10]

Modern history in the evolution of ideas about nature may be divided into four stages: the romantic phase, the scientific era, the populist period, and the age of environmental alarm.

2.1.2.3 *The romantic era*

The first period, which began 150 years ago, has been described as the 'romantic' phase:

> 'The mood was captured by poets and writers in many countries, notably Wordsworth, Chekhov, Emerson, Thoreau and Muir. They saw in the natural world an allegory of how human society ought to live. They passionately believed that the woods, the rivers and the mountains had a life of their own, every bit as important as that found in human consciousness. These powerful ideas appeared

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effectively with environmental concerns - Brundtland Report ix and 352. The chairperson was Gro Harlem Brundtland, Prime Minister of Norway, and its report, published as *Our Common Future* in 1987, is generally referred to as the Brundtland Report.

[9]Johnston 71.

[10]This era is referred to by O'Riordan as the 'new environmentalism', the fourth in a series of 'revolutions' in the development of our environmental consciousness - Timothy O'Riordan, 'The Natural Habitat for Green Politics' *The Times Higher Educational Supplement* (26 October 1984) 13, cited in Johnston 72.

just when the alarm was being sounded over the social and economic consequences of the industrial revolution and the rise of the modern industrial city.'[11]

2.1.2.4 *The scientific period*

The second period, beginning in the early twentieth century, was both 'scientific' and 'bureaucratic', characterized by advances in understanding of resource conservation requirements and the application of that knowledge to the purposes of management. It was the era of the 'environmental technocrat' who sought to manipulate environmental processes and increase economic wealth by intervention and alteration of landscapes for the good of humankind. The emergence of applied ecology and policies of sustainable yield forestry, soil conservation, and desert irrigation are associated with this period.[12]

2.1.2.5 *The populist period*

During the third 'populist' period, which began in the late 1950s, global media attention was captured by major environmental concerns, such as oil spills, deforestation, endangered species, and toxic chemicals. These concerns produced public reaction to placing exclusive and uncritical trust in environmental managers, and promoted the process of public participation in environmental planning. It was 'a period of institution building, sweeping environmental regulation and the rise of scientifically respectable, politically articulate, litigious pressure groups.'[13]

It was in this period, during the 1960s and 1970s, according to Nash, that 'environment' and 'ecology' became household words, and wilderness became a vogue in modern American thought. Cosmetic conservation, based on quality of life ideas, lost momentum as the 1960s ended, and was supplanted by a new-style environmental movement. Underlying this shift in attitudes was countercultural unrest and fear. It was a new fear,

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[11]O'Riordan *op cit* cited in Johnston 72, 85 footnote 2.

[12]Johnston 72 and 85 footnote 3, citing O'Riordan *op cit*.

[13]Johnston 72, and 85 footnote 4, citing O'Riordan *op cit*.

stemming from a new environmental awareness - 'not', as Nash puts it, 'the old fear of running out of resources and losing the competitive edge in international politics that had alarmed the generation of Theodore Roosevelt and Gifford Pinchot', not the fear of ugliness in the world, but fear for life itself. The new environmental awareness entailed a more general recognition that humans were part of nature, and were placing 'heavy strains on the delicate balances that support life on earth.' A major difference between the previous scientific period and this populist period was that conservation issues now tended to be defined in ethical rather than economic terms. Nash sums up the role of wilderness in this period as follows:

> 'The reality, but especially the idea, of wilderness played an important role in the new ecology-oriented environmentalism. It was a pointed reminder of man's biological origins, his kinship with all life, and his continued membership in and dependence on the biotic community. ...This idea of a continuous and interrelated web of living things and natural processes, and of man's total dependency on it, characterized the new environmentalism. Wilderness underscored the message.'[14]

2.1.2.6 *The age of environmental alarm*

> 'The earth is wounded and bleeding to death around us.'[15]

The mid-1980s saw the emergence of the new, and still current, age of environmental alarm, an era in which continuing global systemic environmental damage poses a very real threat to the survival of humankind on earth. The rise of general, almost universal, environmental concern is a modern phenomenon. LR Brown writes that, in 1989,

> 'the news of the planet's health was dire enough to keep the environment on magazine covers and in television broadcasts day after day. And it finally brought the issue into the political mainstream. Concern over the future of the planet pushed the environment toward center stage in political

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[14]Nash 254-5. This was also the period of the 'hippy' movement and 'drop out' communities, which Pepper suggests had very clear philosophical links with the romantic and wilderness movements of the 19th and early 20th centuries, representing attempts 'to re-establish the close and fundamental links with nature and "mother earth" which were imagined to have existed in pre-industrial society', and to recapture 'a simplicity and an innocence and gentleness which were perceived to have been lost' - Pepper 16-7.

[15]van der Post 14.

> structures at all levels, from town councils to the U.N. General Assembly. International diplomacy, national political campaigns, and grassroots political activity are increasingly being shaped by environmental issues. In every corner of the world, environmentalism is on the rise.'[16]

He asks whether this recent political awakening is too little and too late, and concludes that, overall, the effort to protect the earth's life-support systems is lagging badly.[17] The 'new environmentalism' perspective suggests the need for re-evaluation of our basic assumptions about our social and economic priorities.[18]

The remarkable economic advances made in most countries since World War II have produced what has been described as 'the illusion of progress' - illusory because national and international accounting systems did not take into account the depreciation of natural capital and the environmental degradation caused by economic progress.[19]

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[16]LR Brown 12-3.

[17]LR Brown 16.

[18]Economics and politics continue to confuse environmental priorities. Adverse economic conditions produce a reduction of environmental sensitivity - see Lowe & Goyder 9-32 and Pepper 22 about the rise and fall of environmental consciousness relative to economic growth. Pepper 18 refers to the fall off in levels of broad popular concern about the environment, but notes that '(s)ingle issues continue to take much media time and attention, and the more that reactionary Western governments (like those of President Reagan and Mrs Thatcher) intensify policies which are environmentally detrimental, the more will concern grow.' The point, as far as wilderness is concerned, is that economic need and greed and political expediency will usually prevail over ethical and environmental issues, given the nature of humankind, so that it is essential that wilderness be effectively legally protected to avoid development intrusion.

[19]See LR Brown 3, who writes that for most of the nearly four fifths of humanity born since World War II, life has seemed to be a period of virtually uninterrupted economic progress - the global economic product nearly quintupled; on average the additional economic output in each of the last four decades has matched that added from the beginning of civilisation until 1950; world food output grew at a record pace; and the world's grain harvest multiplied 2,6 times since mid-century. No other generation has witnessed gains even remotely approaching this. But, during the same period, the world has lost nearly one fifth of the topsoil from its cropland, a fifth of its tropical rain forests, and tens of thousands of its plant and animal species - 'Historians in the twenty-first century', he comments, 'may marvel at this economic performance - and sorrow over its environmental consequences.' Grainger 191-2 expands on the tropical rainforests 'dying at human hands' with the following statistics: 'The product of 60 million years of evolution and the world's richest biome will be almost totally obliterated within less than a human life-span.
This magnificent wilderness amounts to about 935 million hectares in area, enough to more than cover the Australian continent and about the same size as the USA including Alaska. But it is disappearing at a rate of about 15 million hectares a year, an area the size of England and Wales combined. Every second a rainforest the size of a soccer pitch is destroyed. ...The World Wildlife Fund estimates that 276 species of mammals, 345 species of birds, 136 species of amphibians and reptiles, 99 species of fresh water fishes and no less than 20,000 species of plants living in the rainforest are currently threatened with extinction. Worldwide, one species of life vanishes from the planetery stage every day. Cutting down the tropical rainforest is like

Twenty four billion tons of topsoil are lost each year in some of the world's major food-producing regions.[20] Soil erosion, shrinking forests, deteriorating rangelands, expanding deserts, acid rain, stratospheric ozone depletion, the buildup of greenhouse gases, air pollution, and the loss of biotic diversity, have wrought physical changes to the earth which significantly and negatively affect food production. Food scarcity in developing countries, which already affects hundreds of millions of people, has emerged as a most profound and immediate consequence of global environmental degradation.[21] As LR Brown observes, 'We can no longer separate our health from that of our home. If the health of the planet continues to deteriorate, so will that of its inhabitants.'[22]

Related to the 'illusion' of economic and industrial growth is the problem of population growth - the population 'bomb'. It has been projected that the annual addition to the world's human population, which reached a record high of 88 million in 1989, is likely to average 96 million during the 1990s.[23] In the light of persisting, massive environmental degradation, we need to re-examine our capacity for systemic risk management and famine protection. The new environmentalism is founded on the simple and patent truth that the problems of conservation and development, of environment and growth, are inextricably linked. Environmental issues must be addressed at the level of their root causes in the policies of the governments, of both developed and developing countries, relating to non-environmental fields such as international relations, economics, trade, agriculture, energy and population management and control. The difference between sustained growth and sustainable development must be recognised. There are indeed limits to growth.[24] The concept of sustainable

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bulldozing the homes of up to half the number of species on our planet.'

[20]LR Brown 3.

[21]LR Brown 10.

[22]LR Brown 12.

[23]LR Brown 16.

[24]See D Meadows, D Meadows, J Randers & W Behrens *Limits to Growth* London, Earth Island: 1972, in which a Massachusetts Institute of Technology team concluded, with the use of computer simulations, that if population and industrial production continued to grow exponentially, global limits would be exceeded within

development compels the discipline of growth control in order to avert the imposition of limits by systemic collapse.

What does all this have to do with wilderness, apart from the obvious fact that mismanagement of environmental risks and systemic collapse will spell the end of it? Johnston gives eight examples of systemic environmental problems, arranged 'somewhat in the order of intractability': climate change, systemic food production failure, desertification, deforestation, long-range transboundary air pollution, ozone destruction, ocean contamination and the endangerment of species.'[25] The protection of the earth's remaining wilderness areas would contribute substantially to addressing all of these problems, and is consistent with the concept of earth stewardship. The recognition of the concept of earth stewardship heralds the fifth 'revolution' of ideas and environmental consciousness in general. And it is to the evolution of ideas concerning wilderness in particular that we now turn.

2.1.3 Evolving human attitudes toward wilderness

There is a curious ambivalence and circularity in the history of thought regarding wilderness. Nash sees ancient biases against the wild as being deeply rooted in human psychology and in the human compulsion to understand, order, and transform the environment in the interest of survival and, later, of success. Wilderness was the unknown, the disordered, the uncontrolled, and much of the energy of early civilizations was directed at defeating the wilderness in nature and controlling it in human nature.[26] Humans sprang from wilderness, struggled to free themselves from its bonds, left it because of insecurity, and are now returning to it for succour and security.

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a few decades. The book is one of what Pepper 22 describes as the 'three landmark publications of the environmental heyday period', the other two being The Ecologist 'Blueprint for Survival' (1972) 2 (1) *The Ecologist* 1-43, which focused on the kind of changes required to solve the fundamental problems identified by *Limits*, and F Schumacher *Small is Beautiful: Economics as if People Really Mattered* London, Abacus: 1973, which considers the philosophical roots of the problems. For brief commentary on these three important works, see Pepper 22-6, and on *Limits* and the debate over resources and growth, Barbour 274-293.

[25]Johnstone 73.

[26]Nash xi.

2.1.3.1 *Early humans and wilderness*

Nash describes the advent of herding and agriculture some 15 000 years ago as a central turning point in human relationship to the natural world. Before that humans were hunter-gatherers, predators completely dependent on the ebb and flow of natural processes. Even though they used fire and tools, they were part of nature. With the domestication of animals and plants came the beginning of civilisation and human control of natural processes. Before this the concepts of 'wild' and 'wilderness' were irrelevant. Everything was shared habitat. Domestication produced wild animals. Cultivated fields and cities produced wilderness. Civilization created wilderness. Nash refers to investigations which suggest that our bodies and our minds bear the imprint of the very ancient past - 'the most profound explanations of human conduct and ideas lie not in the five-thousand-year veneer we call history but in the mind-boggling milennia that went before.'[27] What then, Nash asks, in this enormous past gives us a clue to our wilderness attitudes? He begins with the anthropological axiom that until roughly twenty million years ago our prehuman ancestors dwelt in an arboreal environment, at which distant point in time there was no dichotomy between prehumans and wild country. About fifteen million years ago it appears that climatic changes and fire began to reduce the area of forest in central Africa and other seedbeds of man. Prehumans gradually left the shrinking arboreal habitat and began to adapt to life on the plains and grasslands. In these open environments vision assumed an importance it lacked in the dense wilderness. Prehumans adapted and developed keen visual ability, which compensated for the superior sense of smell and hearing and the speed, size, and strength of other animals. Good vision and a developing brain gave them a competitive edge. Sight and openness meant security, and for millions of years our ancestors preferred open environments to the primeval forest. The thickets neutralised visual advantages. Forests were burned in order to convert them to open grassland, and edges of clearings and heights of land became favoured living and hunting locales.[28]

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[27]Nash xiv.

[28]Nash xiii-xvi.

2.1.3.2 *Modern humans and wilderness*

The word 'wilderness' appeared in the 14th century English translation of the Bible from Latin and was used as a synonym for the inhospitable, uninhabited and arid lands of the Near East. Wilderness was perceived as cursed land, land to which people were banished if God was displeased with them or sought to punish them. Adam and Eve were driven out of the Garden of Eden. The Israelites were condemned to wander in the wilderness for forty years. But attitudes toward wilderness were already changing, and in this transition period there was ambivalence. Wilderness was at once seen as the setting for punishment, but also a place where the Israelites could prove themselves worthy of the promised land. Wilderness was a place for purging and cleansing the soul. Jesus spent forty days in the wilderness preparing to speak to God. Christian hermits and monks found refuge in wilderness for meditation, spiritual insight and moral perfection. But the ancient biases against wilderness persisted.[29]

The history of North America's westward expansion, Nash submits, offers additional evidence of the persistence of ancient biases based on vision:

> 'In the thick Eastern forests pioneers felt uneasy. Account after account describes how the wilderness hemmed man in, concealing a host of real and imagined dangers. Wilderness was termed "dark", "gloomy", and "nightmarish". The pioneers' obsession was to clear the land and bring light into darkness. ...the spiritual significance of illuminating a heathen environment was often close to the surface. The civilizing process was thought to be an enlightening one; evil retreated to the West. The American pioneer, in short, reexperienced the environmental situation and the anxieties of early man. Neither felt at home in the wilderness.'[30]

In addition to physical, psychological and spiritual need to subdue the wilderness, there was also an economic motive. In Frome's words, the 'American earth was becoming not simply a place to live on but a commodity with a price tag to be bought and sold like an agricultural product or a manufactured item. Wilderness destruction was profitable and

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[29]Hendee, Stankey & Lucas (1990) 5 and Nash 18.

[30]Nash xvi.

prestigious....'[31] And it was economics that forced another shift in human attitudes. Wilderness became so reduced that it acquired scarcity value. It is a sad characteristic of humans that they only begin to appreciate something when they have lost it or are about to lose it. As Lund puts it, 'the extent to which wilderness exists appears to bear an inverse relationship to interest in its preservation.'[32]

Another perspective of modern attitudes is offered by Trefethen, and that is the perspective of distance. Wilderness takes on an entirely different aspect when viewed from without. The more removed a person is from it the less he takes it for granted, and the more he seems to be able to appreciate its theoretical values. In Trefethen's words, '(t)he perspective from a Minnesota dairy farm in the shadow of the wolf woods is different from that from the campus dormitory or a Boston penthouse.'[33] Perceptions of wilderness are understandably different when viewed from the city streets of Johannesburg than those of a tribesman in Maputaland.

With this historical background of complex and contradictory wilderness associations, it is not surprising that modern attitudes toward it remain ambivalent. Gradually, however, with the increase of scientific understanding and the emergence of the new science of ecology,[34] people began to perceive wilderness and other natural phenomena in terms of science rather than ancient biases and theology, and to appreciate its aesthetic, inspirational and other values.[35]

2.1.4 Evolving human attitudes toward wildlife: emergence of wildlife law

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[31]Frome 30.

[32]Lund 110.

[33]Trefethen 289.

[34]According to Hallman 100 footnote 5, although the German biologist Ernst Haeckel coined the word 'ecology' in the 1860s, the science of ecology did not develop into a distinct field of biology until about 1900.

[35]See Hendee, Stankey & Lucas (1990) 6, who suggest that this 'gradual evolution of thinking about relationships of humans to their environment represented an important precondition to the recognition of wilderness as a source of human values and to the eventual development of programs for its preservation.' For further commentary on the evolution of American attitudes toward wilderness, see McCloskey 289-295.

The attitudes of the people sought to be bound by any law will to a large extent determine the effectiveness and measure of acceptance of that law. An appreciation of evolving human attitudes towards wildlife and society's perceptions of its value is therefore essential to a proper understanding of wildlife law and the extent to which it is reflective of those changing attitudes and perceptions.

In discussing the emergence of wildlife law as a recognised branch of law in the United States, Coggins & Smith state that laws affecting wildlife are at least as ancient as civilisation.[36] They describe early wildlife law as 'a pastiche of superstition, totemic taboo, ecclesiastical ordinance, and, in the end, cultural prejudice' - Jews were forbidden to eat most wildlife, Greeks cherished dolphins, Eqyptians made the killing of a cat a capital offence, medieval Europeans tried and executed pigs and rats, and 'anyone asserting the positive attributes of wolves in 17th century Massachusetts would likely have been burned as a witch.'[37]

In medieval Europe, and particularly in England, the sovereign had the exclusive right to hunt in certain areas. Prior to the Norman conquest, the Roman notion that wild game belonged to no one, and was capable of ownership by any person who killed it,[38] was generally applicable in Saxon England.[39] However, under Norman rule this became a sovereign prerogative, and all deer belonged to the king.[40] Hunting for food became

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[36]Coggins & Smith 588. For a brief history of wildlife law in the United States, see Favre & Loring 29-35.

[37]Coggins & Smith 589.

[38]See van der Merwe & Rabie 38, and van der Merwe 138-42, for reference to Roman Law authorities.

[39]The eighteenth century English commentator Blackstone described the legal status of wild animals as that of things belonging to the 'common stock', in which only a usufructuary interest could be acquired. They are things which, 'so long as they remain in possession, every man has a right to enjoy without disturbance; but if only they escape from his custody, or he voluntarily abandons the use of them, they return to the common stock, and any man else has an equal right to seise and enjoy them afterwards' - Blackstone 129.

[40]About the consequences of the Norman conquest, and the introduction of forest and game laws, Blackstone 212-3 scathingly wrote: 'This remarkable event wrought as great an alteration in our laws, as it did in our ancient line of kings.... Another violent alteration of the English constitution consisted in the depopulation of whole counties, for the purposes of the king's royal diversion; and subjecting both of them, and all the antient forests of the kingdom, to the unreasonable severities of forest laws imported from the continent, whereby the slaughter of the beast was made almost as penal as the death of a man. In the Saxon times, though no man was allowed to kill or chase the king's deer, yet he might start any game, pursue, and

poaching, which was a crime punishable at various times by death or castration and banishment.[41] In discussing English wildlife law before the American revolution, Lund describes weapons control as one of the major goals of early English legislation - the earliest game laws were part of feudal policy to exclude the defeated from the use of arms, and nothing could do this more effectually than a prohibition of hunting and sporting.[42] Another goal was the favouring of particular groups. Wildlife may be treated as a unique form of wealth, and law makers may control the right to hunt, thereby granting privileges to a favoured class or group. Qualification statutes were passed which allowed the use of weapons for hunting only to those who had a vested interest in the established rule.[43] Early English law was clearly reflective of cultural prejudices, and was based on notions of economic privilege and class rights. These attitudes were not maintained in the American colonies, where a more robust, pioneering, free taking and subsistence ethos was essential in order to advance the frontiers.[44]

Although the colonists in South Africa also, in theory at least, opted for a free taking ethos by adoption of the Roman-Dutch law principle under which wild animals are *res nullius*,[45] in practice these early class distinctions became perpetuated in the form of

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kill it, upon his own estate. But the rigour of these new constitutions vested the sole property of all game in England in the king alone; and no man was entitled to disturb any fowl of the air, or any beast of the field, of such kinds as were specially reserved for the royal amusement of the sovereign, without express licence from the king, by a grant of a chase or free warren: and those franchises were granted as much with a view to preserve the breed of animals, as to indulge the subject. From a similar principle to which, though the forest laws are now mitigated, and by degrees grown entirely obsolete, yet from this root hath sprung a bastard slip, known by the name of the game law, now arrived to and wantoning in its highest vigour: both founded upon the same unreasonable notions of permanent property in wild creatures; and both productive of the same tyranny to the commons: but with this difference; that the forest laws established only one mighty hunter throughout the land, the game laws have raised a little Nimrod in every manor.'

[41]Coggins & Smith 594.

[42]Lund 3-6.

[43]Lund 7 *et seq*.

[44]See Lund generally.

[45]See van der Merwe & Rabie 38, and van der Merwe 138-42, for reference to Roman Law and Roman Dutch Law authorities.

colonial privileges. With this background it is not surprising that today's proponents of conservation still have to contend with the charge of elitism, or at least the suspicion of elitism, when they seek to promote more effective legal protection of wildlife and tighter control of the right to hunt.

Current attitudes toward wildlife vary widely. That it has instrumental value or value in terms of human utility is generally accepted. What is increasingly being debated is whether it has intrinsic value or inherent worth in its own right. There are sound ethical reasons for recognising that our fellow creatures have moral rights. In recent years it has even been seriously suggested that consideration should be given to extending legal rights to animals.[46] Midgley makes the point that for the first time in civilised history, people are interested in animals because they want to understand them rather than just to eat or yoke or shoot or stuff them - Darwin is at last getting through, she says.[47] That wildlife does have some value, whether it be utilitarian or intrinsic or both, seems to be universally accepted. Where it fits into society's hierarchy of values depends on cultural, geographic and socio-economic circumstances. The law, as protector of perceived values, evolves in accordance with, and reflects, attitudinal change. Thus, although we have fairly comprehensive and sophisticated laws for the protection of wildlife,[48] unlike the United States,[49] South Africa does not as yet recognise wildlife law as a distinct branch of law, and this is because of our different circumstances and levels of environmental awareness.[50]

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[46]Animal rights are referred to in the next two sections of this chapter. The utilitarian values of wildlife are referred to in Chapter 3.

[47]Midgley 13-14.

[48]Wildlife laws are discussed in Chapter 9.

[49]See Lund, Bean and Favre for examples of books on wildlife law as a distinct branch of law.

[50]The United States is generally recognised as a leader in the field of environmental law and protection. The evolution of attitudes towards wilderness and wildlife in the United States has also been a significant influence in the development of environmental awareness in other countries. Grove 21-2, however, makes the point that, although conservation has been hailed as one of America's chief contributions to world reform movements, the intellectual exchanges which took place between the colonies from the 1830s should not be overlooked in considering contemporary conservation ideologies. European colonial expansion and economic penetration in North America, Southern Africa and India caused major environmental changes. By the turn of the eighteenth century, deforestation was taking place at an alarming rate in many colonial territories. These

In modern society there are ethical and philosophical dimensions to wilderness and wildlife which raise normative questions. Norms are a prerequisite for proper prescription. In the next section, therefore, an attempt will be made to place wilderness and wildlife within an appropriate philosophical framework with a view, finally, to formulation of effective legal prescription for wilderness (which is the primary purpose of this work). But norms must be founded on reality. It is also necessary, therefore, to consider the pragmatic socio-economic and political implications of the utilisation and preservation of the wilderness and wildlife resources, and this will be done in Chapter 3.

2.2 A PHILOSOPHICAL FRAMEWORK

2.2.1 The purpose of philosophical enquiry

Law regulates human conduct for a particular purpose.[51] It is concerned with human activity. Philosophy provides the framework for human activity, in that it provides the reasons why we should act in a certain way. Laws should therefore be formulated with reference to their purpose and have a sound philosophical base. The reasons for regulating human conduct should determine or at least affect the format and content of the law.

The law traditionally does not recognise the existence of rights unless the repositary or subject of those rights, or their object, is of some value. Does wilderness have any value, either instrumentally, in terms of human utility, or intrinsically, in its own right? If its value is purely instrumental, will that value be sufficiently respected so as to make

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changes produced environmental concerns and these concerns, in turn, were translated into government action, initially in most cases in the form of forest conservation policies. Grove suggests that these anxieties first surfaced in the 1840s, and then gathered momentum 'in the period of social reassessment and philosophical turmoil in the natural sciences during the years leading up to and in the decade after the publication in 1859 of Darwin's *The Origin of Species*.' These anxieties in fact arose in the colonies and preceded the beginnings of government conservation efforts in the United States. See Grove 23-39, where the origins of conservation at the Cape are also discussed.

[51]The role of law and its normative function are referred to in Chapter 1.

protective laws effective? If it has intrinsic value or inherent worth, should it be the subject or object of legal rights, as opposed to moral or ethical rights?

This section is concerned with the philosophical perspectives which should be taken into account in drafting legislation for the protection of wilderness. The lawyer's task is complicated by the fact that philosophers do not agree on the proper basis of the relationship between humankind and nature. There is, for example, a vast conceptual difference in the approaches of animal rights activists and those advocating humane treatment of animals. If purpose of protection is to determine the nature and extent of protective laws, different philosophical commitments will produce different results. The controlled hunting of wild animals and the eating of their flesh will be acceptable from a biocentric perspective, provided that the integrity of the ecosystem is maintained. Controlled hunting is also acceptable from the utilitarian viewpoint which requires a sustained yield of natural resources. The animal rights view, however, eschews any acceptance of hunting or fishing for sport.

Wilderness is an important habitat of wildlife. In preserving wilderness, its resident wildlife will most effectively be protected. Much has been written about the value of wildlife, and it is generally accepted that it has value in terms of human utility.[52] What is increasingly being debated is whether it has some sort of intrinsic value or inherent worth. Much has also been written about the utilitarian value of wilderness to humankind, and it is generally accepted that it has great benefits in terms of spiritual,

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[52]A useful summary of the values of wildlife is given in Department of the Environment, London 50:

- as a contributory component of ecological stability and as a monitor of environmental pollution;
- for the maintenance of genetic variability and the provision of a source of renewable biological resources;
- for the needs of scientific research into the environment;
- for its cultural and recreational value and as a component of the aesthetic quality of the landscape;
- for environmental education;
- for the economic value of its resource, scientific and recreational components;
- to provide future generations with a wide choice of biological capital; and
- for moral and ethical reasons.

Generally in regard to the values of wildlife see also Myers (1979), Myers (1983), Passmore (1980), and Erlich (1982).

educational, historical, scientific, aesthetic, and recreational value.[53] In recent years views have emerged that humans have an obligation to future generations and should therefore preserve wilderness in the interests of their descendants, and also that wilderness has inherent worth and should be preserved for its own sake and not simply because it has utility for humankind. It has even been seriously suggested that consideration should be given to extending legal rights to animals and other natural objects, in the same way that legal rights have been extended to other non-humans, such as local authorities, trusts and companies.[54]

Most people will agree that *some* retention and protection of natural features and wildlife is desirable. The basis and extent of retention and protection, however, will vary according to whatever opinions prevail at a given time and place. It is these opinions, and differences of opinion, that must in some way be accommodated in a legal system. It will be argued that there is a commonality, a common thread of purpose in the different philosophies, which compels the conclusion that the *effective legal* protection of wilderness is not only desirable, but essential.

2.2.2 Anthropocentric perspectives

'Anthropocentricism' or its masculine synonym 'homocentricism', in one view at least, means human chauvinism, similar to sexism - simply substitute 'human race' for 'man'

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[53]See for example the books published after the four World Wilderness Congresses which have been held: Player (1979), Martin (1982), Martin & Inglis, and Martin (1988). See also Sax, Irland and, for an economic cost-benefit analysis of the value of wilderness, Bigelow.

[54]See, for example, Stone 450 and Lehmann 129. Another interesting perspective is offered by Favre & Loring 13-14. They argue that the idea that pets are distinct from other types of personal property is beginning to be recognised by American courts. They refer to a 1972 New York case which dealt with a no-pet provision in a lease, and in which the court said that '...the courts should attempt to preserve decent and reasonable rules by which mankind and animals may live together in harmony.' They also refer to another New York case, decided in 1979, in which the classification of a pet dog as merely an item of personal property was rejected in these terms: 'This court now overrules prior precedent and holds that a pet is not just a thing but occupies a special place somewhere in between a person and a piece of personal property.' After referring to other cases in similar vein, in one of which, in Texas in 1981, a wife in divorce proceedings was awarded the custody of the pet dog and the husband reasonable visitation rights, the authors comment that it is conceivable that the legal system will completely reverse the nineteenth century position of pets having no intrinsic value. If this is so with pets, why not other animals? There is no valid reason, conceptually at least, why the circle of legal recognition of inherent worth should not expand to include wildlife.

and 'all other species' for 'woman'. The idea that humans are 'the crown of creation, the source of all value, the measure of all things,' Seed writes, 'is deeply embedded in our culture and consciousness.'[55] Under an anthropocentric philosophy, wilderness is viewed primarily from a sociological or human-oriented perspective; the natural order and integrity of the wilderness is of secondary importance to direct human use.[56] Even from this perspective, the first question which must be asked is: why bother to protect wilderness? Is not the setting aside of large tracts of wild country, especially in countries with burgeoning populations, an extravagant appropriation of resources for the benefit of a small minority of latter-day backwoodsmen to the detriment of the many who favour cultured landscapes and material development? Are excursions into the wilderness not just some sort of affectation, snobbism or elitism? In tracing the history of American thought on the subject of wilderness, Nash refers to an editorial in *Saturday Evening Post*[57] which seriously posed the question 'Why shouldn't we spoil wilderness?' After all, everything good, both in nature and in the human heart, depended on beating the power of wilderness back and holding it at bay. Under their backwoods veneer, wilderness advocates were nothing more than 'decadents, aristocrats, and snobs' affecting 'old rumpled clothes, unshaven jaws, salty language; they spit and sweat and boast of their friendship with aborigines.' It was in response to such critics, and to developers with less theoretical criticism of wilderness preservation that, as Nash puts it, 'twentieth century defenders of wild things struggled to formulate a philosophy.'[58] It was not enough to rely on faith and unexamined premises alone. Political persuasion could not be based simply on individual preference, and economic arguments in favour of wilderness based on cost-benefit ratios were unconvincing. There was need for a philosophy of wilderness to counter residual pioneer attitudes and the belief that the relationship between humans and wilderness was essentially an adversary one, the belief

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[55]Seed 243.

[56]Hendee, Stankey & Lucas (1990) 18.

[57]The *Saturday Evening Post* of 6 November 1965.

[58]Nash 238-242.

that wildness was an insult to human ability to modify, convert and pastoralise the environment.

From an anthropocentric perspective wilderness preservation requires justification on the basis of the utilitarian values and benefits it provides for people. The socio-economic uses and potential of wilderness as a resource for human use in developed and developing countries are discussed in Chapter 3. Simply arguing that wilderness has utility, however, is not enough. In drafting legislation for its protection it is necessary to determine the nature and extent of the uses to which it can and may be put. This will depend on the philosophy behind wilderness protection and management. Is there a moral dimension to humankind's relationship with wilderness and, if so, to what extent should it be taken into account in legal prescription?

2.2.3 Religious & secular moral traditions

2.2.3.1 *Theocentric perspectives*

The Old Testament is regarded as sacred by the world's three major monotheistic religions - Judaism, Christianity and Islam.[59] The Book of Genesis tells the story of creation, and describes humankind's relationship with nature. 'Man' is made in God's image to rule over 'the fish of the sea and the birds of the air, over the livestock, over all the earth, and over all the creatures that move along the ground.' God created male and female, blessed them and said to them 'Be fruitful and increase in number; fill the earth and subdue it.' And God also said 'I give you every seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be yours for food.'[60]

This biblical passage is capable of a utilitarian interpretation, in terms of which man is absolute despot with unlimited dominium over nature which exists purely for his utility.

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[59]Fuggle (1983) 6, Passmore 10.

[60]Genesis 1:26-29, The Holy Bible 2.

The better interpretation, and the one held by most commentators, is that man is the shepherd, trustee, caretaker or steward of nature.[61] In commanding man to 'fill the earth', God did not intend that he should over-fill it. In making the earth's resources available to him for food, God made provision for man's essential need, not his greed.[62] Ebedes suggests that one need not delve too deeply into the scriptures 'to find a clear message that it was God's intention for the Israilites of old and for modern man to protect and conserve wildlife and wilderness areas.' He argues that the Israelite wilderness experience (their exodus from Egypt and sojourn in the Sinai wilderness for forty years) is a very clear message 'that wilderness and all it contains was intended to be left undisturbed as wilderness for the sake of wilderness, and is essential for man's survival.'[63] There are numerous references in *The Holy Bible* to indicate that man is part of nature; that God, not man, is Lord of all creation; that all creation glorifies God, not man; and that other creatures and the environment have intrinsic value to God apart from their utility to man - after He created them He was pleased with them and blessed them. Even before He created them, He viewed the earth and its resources as good. He also directed the fish and the birds to multiply. Noah was directed to take with him in the Ark pairs of every kind of animal and bird irrespective of their usefulness to man. After the Flood God made His covenant not only with Noah and his progeny, but also with the birds and animals, and He instructed every type of living creature, not man alone, to breed abundantly and be fruitful and multiply. Jesus said that our Heavenly Father also cares for birds and flowers - they have value and are important because God created them and cares for them, and not just because they serve humans.[64]

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[61]See, for example, Barbour 24-5, Passmore 26, Ebedes 246-7 and Fuggle (1983) 6-7. On whether God's design for humans was that they be nature's exploiter or steward, see also Pepper 44-6. Pepper 46 suggests that the truth is that *both* ideas, humans as dominant or as stewards over nature, can be found in Christianity - the former became '*selected* as the dominant (technocentric) ideology with the advent of the scientific revolution and the rise of capitalism.'

[62]Fuggle (1983) 6.

[63]Ebedes 246-8.

[64]See Fuggle (1983) 6-7 for relevant biblical references.

An essential feature of the Judeo-Christian tradition, however, is that only 'man' is created in the image of God, and this sets him apart from nature. This feature is captured in the following passage:

> 'It is man's power to judge all things that is symbolized by his rule over *the fishes in the sea, and all that flies through the air, and the cattle, and the whole earth and all the creeping things that move on earth*. (Gen 1:26) He rules them by his intelligence, which enables him *to take in the thoughts of God's spirit*. (1 Cor 2:14) If this were not so, man, despite the place of honour that is his, would have no understanding. He would be *matched with the brute beasts and no better than they*. (Ps 48:13 (42:19))'[65]

Humans have 'intelligence' and can 'take in the thoughts of God's spirit'. They are, therefore, at least in this respect, separate and removed from the 'brute beasts' over which they rule.[66] It is in this limited respect that religious tradition is founded on a dichotomy between man and nature.[67] But it is secular moral tradition which has made the separation complete.

It was the influence of Classical Greek philosophy and early modern European philosophy which led Christian theology to the perception of nature as nothing but a

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[65]Pine-Coffin 332-333.

[66]Singer 3 writes that one can point to one or two Christian figures, like John Chrysostom and Francis of Assisi, who have shown compassion and concern for non-human Creation (although there are conflicting views about the teachings of Francis); but as far as the history of Western attitudes to animals is concerned, both the 'dominion' versus 'stewardship' issue and the debate over the true nature of the teachings of Francis are beside the point - 'It is beyond dispute that mainstream Christianity, for its first 1,800 years, put non-human animals outside its sphere of concern. On this issue the key figures in early Christianity were unequivocal. Paul scornfully rejected the thought that God might care about the welfare of oxen, and the incident of the Gadarene swine, in which Jesus is described as sending devils into a herd of pigs and making them drown themselves in the sea, is explained by Augustine as having been intended to teach us that we have no duties towards animals. This interpretation was accepted by Thomas Aquinas, who stated that the only possible objection to cruelty to animals was that it might lead to cruelty to humans - according to Aquinas, there was nothing wrong *in itself* with making animals suffer. This became the official view of the Roman Catholic Church to such good - or bad - effect, that as late as the middle of the nineteenth century Pope Pius IX refused permission for the founding of a Society for the Prevention of Cruelty to Animals in Rome, on the grounds that to grant permission would imply that human beings have duties to the lower creatures.'

[67]Middle eastern religions did not draw a sharp distinction between God and nature. Nature was accounted sacred and revered. In Japan rocks or trees may still be found with sacred aprons and altars dedicated to them. In the main, however, the view of nature as a system of human resources, essentially an ideology of modern western societies, communist and capitalist, has been imported into the East - see Nash 20-2, 192-3 and Passmore 10, 26.

system of resources, available for humans to use, modify and transform as they please. The philosophies of Aristotle, the Stoics, the Epicureans, Plato and the Christian philosopher Descartes, all discouraged development of an ecological perspective, and promoted a conception of reality that made the idea of respect for nature conceptually difficult.[68]

2.2.3.2 *Utilitarian perspectives*

Sagoff offers the following formulation of classical utilitarianism:

> 'A voluntary action is right, whenever and only when no other action possible to the agent under the circumstances would have caused more pleasure; in all other cases it is wrong.'[69]

Most modern conservation strategies are based on a simple utilitarian philosophical assumption that environmental conservation will produce the greatest good for the greatest number of people for the greatest period of time. It is an essentially anthropocentric approach. 'Conservation,' in the words of the World Conservation Strategy (1980) 'is for people', and conservation is defined as: 'the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations.'[70]

From this perspective, wilderness is for people. The extent to which it should be protected and utilised will depend on its values as a human resource. The resource values of wilderness are discussed in Chapter 3. There is, however, an ethical dimension

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[68]Passmore 26, Attfield 128-133, and Singer 2. Attfield maintains that religion played a less fundamental role than philosophy in shaping ideas and attitudes that inhibit environmental protection - at 136 he argues that 'to write as if philosophy did not and does not inhibit environmental thought (as Passmore does) displays an inadequate critique of the history of philosophy....' He argues that much philosophy in the past has been hostile to environmental thought and that, until recently, the world has had to face its environmental problems with much more hindrance than help from the central discipline of Western civilisation, philosophy.

[69]Sagoff 205 footnote 2.

[70]World Conservation Strategy (1980) 1.

to wilderness preservation, and it is with this dimension that the remainder of this chapter is concerned.

2.2.4 Stewardship and future generations

> 'Conservation's concern for maintenance and sustainability is a rational response to the nature of living resources (renewability + destructibility) and also an ethical imperative, expressed in the belief that "we have not inherited the earth from our parents, we have borrowed it from our children".'[71]

The 1960s may be regarded as the decade of atomic optimism. This is well illustrated by the following remarkable example of hubris, a statement made by U Thant, the Secretary-General of the United Nations, in 1967:

> 'The truth, the central stupendous truth, about developed countries today is that they can have - in anything but the shortest run - the kind and scale of resources they decide to have ... It is no longer resources that limit decisions. It is the decision that makes the resources. This is the fundamental revolutionary change - perhaps the most revolutionary mankind has ever known.'[72]

As discussed in the previous section, the 1970s are generally regarded as the environmental decade, and the 1980s may perhaps best be described as the decade of environmental alarm, the period during which the ecological revolution gathered momentum with heightened awareness of the consequences of resource depletion, erosion of the ozone layer of the stratosphere, toxic radioactive materials, the 'greenhouse effect', industrial waste contamination, the continuing destruction of tropical rain forests, and the irreversible loss of species and ecosystems. If humankind is to survive on earth, the environmental focus of the 1990s must be on stewardship. The notion of stewardship is therefore a survival concept as well as a moral or philosophical commitment to the interests of generations as yet unborn.[73]

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[71]World Conservation Strategy ((1980) 1.

[72]Quoted in Partridge xi.

[73]See Partridge generally. The book is an anthology of philosophical essays dealing with the moral issue of the duty to posterity.

The stewardship concept has ancient origins, as ancient as the Book of Genesis, as discussed above; but because of recent ecological insights, the idea of earth stewardship and its emphasis on the moral obligations owed by present generations to future generations 'has moved into the forefront of world thought.'[74] Frome refers to it as '(t)he new awareness - a recognition that a generation or nation or a whole society of nations cannot be the owners of the globe but only its trustees in behalf of succeeding generations'.[75] He maintains, further, that the trust responsibility is not only in favour of unborn generations of humans, but also in the interests of all of creation. Humans are the most highly evolved beings, the only animals capable of massive environmental changes. The fact of this superiority and power 'imposes special responsibilities as well as rights, a demand for compassion and stewardship.'[76] Myers makes the point that the only thing that we know for certain about the future is that it will be radically different from the past, and argues that:

> 'In face of this enormous uncertainty, the least we can do for future generations is to pass on to them as many of the planet's resources possible, provided that does not burden us with undue sacrifices. This approach applies especially to unique resources such as species, whose potential value remains largely undetermined - except that it could be very great. Were large numbers of species to be eliminated, the impoverishment for society would fall much more on future generations than on the present community.'[77]

Wilderness, therefore, has legacy value. It serves our instincts to provide for our children, not only subsistence but also quality of life. Part of the rationale for the setting aside of Yellowstone and Yosemite National Parks in the United States, for example, was the notion of legacy, dedication to posterity. In 1903, President Theodore Roosevelt declared his delight, when he toured these areas, that these 'bits of the old wilderness scenery and the old wilderness life are to be kept unspoiled for the benefit of our

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[74]Stewart L Udall 'Foreword' in Partridge xi.

[75]Frome 7.

[76]Frome 63.

[77]Myers (1979) 241.

children's children.'[78] A similar sentiment was expressed by Australian Prime Minister Bob Hawke: 'The environment can only be destroyed once. But when it is protected and preserved, the benefits are permanent and will be appreciated for generations to come.'[79]

The preservation of wilderness is part of the moral obligation owed to future generations, as is preservation of wildlife, genetic diversity and other natural ecosystems. Nature, it is often said, 'holds answers to more questions than we know how to ask.'[80] Wilderness, which by definition is nature substantially unaffected by people and their works, contains species and genetic codes which have evolved over countless years. Reduction of wilderness will lead to further loss of biotic diversity and impoverishment of our planet. Lost species and ecosystems simply cannot be restored or recreated. It may be argued that future generations will be able to do so, or at least adapt to a world without wilderness. However, some biologists and psychologists maintain that humans cannot adapt well to a totally artificial world - we need the environment in which we evolved as a species because that need is in our genes.[81] Wilderness preservation is therefore prudent, if not essential, for the wellbeing and survival not only of present but also future generations.

It seems now to have become widely accepted that we have an obligation to future generations. Wilderness preservation will help to ensure that the world that we pass on to them is not completely degraded. But how much wilderness would be an appropriate legacy? In answer to the more general, but related, question: 'How much wilderness is necessary to meet civilization's needs?' Frome answers: 'That should never be the question; what counts more is whether each succeeding generation must settle for an

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[78]Cited in Nash 150-1.

[79]Cited in Galvin 175.

[80]A statement attributed to the poet Nancy Newhall - Partridge 2.

[81]Partridge 13-14.

increasingly degraded world reflected in degraded, circumscribed living.'[82] As for future scientists, he writes:

> 'All wilderness areas, no matter how small or imperfect, have values to land science, whether real or potential. The stability and completeness of life make wilderness an indispensable source of study. To solve which specific riddles? Who can tell - and why try? Conservation does not only mean "wise use" but preservation when no immediate uses are apparent. Future scientists will appreciate the chance to identify a few uses on their own.'[83]

Recognition and acknowledgement of moral responsibility to unborn generations in the abstract is necessary, but not enough. Philosophy provides the framework for deeds. It offers us a vision or sense of purpose. Ethics is concerned with action. If we are to avoid robbing the future for short term present gain, we must have the ethical and political will to translate philosophical persuasion into action by setting aside and effectively protecting our unspoilt natural wilderness heritage so that it may be passed on as a legacy to our successors. A former United States Secretary of Agriculture once said: 'Wilderness is an anchor to windward. Knowing it is there, we can also know that we are still a rich nation, tending to our resources as we should - not a people in despair scratching every last nook and cranny of our land for a board foot of lumber, a barrel of oil, a blade of grass, or a tank of water.'[84] If we protect some of our wilderness areas, our children will have a better prospect of not being 'a people in despair.'

2.2.5 Non-human perspective

Before a decision can be taken as to whether or not it is necessary or desirable to make or improve laws for the protection of wilderness, the following questions need to be considered, the answers to which will, to some extent, affect determination of the purpose, content and format of such laws:

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[82]Frome xiii.

[83]Frome 61.

[84]Arnett 146, citing the late Clinton P Anderson.

- Do non-human entities have *inherent worth* or intrinsic value deserving of legal recognition and protection?
- Do they have ethical or *moral rights* which should be legally recognised and protected?
- Can and should they be given *legal rights*?

It is not proposed to undertake an exhaustive analysis of the different viewpoints relating to these issues; nor is it necessary for the purpose of this work to do so. All that is intended in this section is to identify those philosophical movements and ideas that should be taken into account in order to determine the measure of legal recognition and protection that should be accorded to the values and 'rights' of non-human entities, more specifically to wilderness and its wildlife.

2.2.5.1 *Inherent worth and moral rights*

Even in the context of pressing third world needs there should be recognition that wilderness and wildlife are deserving of humankind's utmost care and stewardship, not only because they have utilitarian values (which will be discussed in Chapter 3), but for two further reasons: first, because they are repositories of inherent worth, in Regan's words 'receptacles of intrinsic values',[85] and secondly, because humans have become so supreme as the dominating species on earth that they should think of themselves as having obligations, and not just rights, *vis-à-vis* non-human species. As Salm & Clark put it: 'Human beings have become a major evolutionary force, lacking the knowledge to control the biosphere, but having the power to change it radically. We are committed to our descendants and to other creatures to act prudently.'[86] It follows that the preservation of wilderness, and thus of its constituent wildlife species, is not just a matter of human economics or survival,[87] it is also a matter of ethics, an ethical imperative.[88]

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[85]Regan 328.

[86]Salm & Clark 8.

[87]See Chapter 3.

Wilderness preservation, therefore, implies respect for the earth, other creatures and evolutionary processes. Respect for wilderness is an essential human responsibility. Frome writes:

> 'All the land cannot be wilderness, as in the beginning, when the whole earth was a national park. But wilderness preserved marks humankind's respect for the earth and for itself. Albert Schweitzer espoused the reverence for life. Humans become ethical, Schweitzer taught, when life is sacred, not simply our own lives, but those of all humans and of plants and animals. And when we devote ourselves to other living things.'[89]

It is increasingly being questioned whether humans are the sole repositories of rights, whether other creatures or entities are not also deserving of the respect and consideration that flows from recognising that they too have rights. The basic ethical proposition in favour of non-human entities is that all forms of life on earth have a right to exist. It follows that humans do not have the right to exterminate a species, or by destruction of habitat eliminate a large number of species.[90] Ethical conflict arises when the respective rights of humans and non-humans clash, for example when wildlife species are obliterated in the process of a wilderness area being converted to agricultural use because of its high food production potential. Clearly, some compromises are necessary. Most concerns would be addressed by allowing that wildlife is entitled at least to some undisturbed habitat, with little or no interference in its evolution and destiny.

(a) Wilderness is for men, but not for men alone

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[88]The word 'bioethics' is sometimes used in this context, meaning 'the notion, in romanticism and eco-centricism, of man's moral duty towards, and respect and reverence for, nature. It holds that the natural world has *biotic rights*, including the right to existence, which are quite independent of any considerations of its usefulness to man. Bioethical principles are invoked heavily in modern attempts to legislate for the protection of wildlife and wilderness' - Pepper 235. Not all commentators agree that non-human entities have 'rights' however - it would be remarkable if they did. See Lehmann, generally, for an argument against *non*-homocentric justifications for the notion that wild areas have a *right* to be left alone.

[89]Frome xiv.

[90]Myers (1979) 46-7 challenges the right of humans to produce 'a fundamental and permanent shift in the course of evolution', or 'by conscious and rational decision, (to) obliterate this manifestation of life's diversity'.

Frome suggests that '(w)ilderness is a place for men, but not for men alone.' A river, he says, is accorded its right to exist because it is a river, rather than for any utilitarian service. Contrary to the more recent tradition which has sought only the transformation of resources, wilderness 'recalls a fundamental and older tradition of relationship with resources themselves.'[91] And in some cases, or in some places, wilderness should not be for men at all. Areas should be set aside for animals, insects, and plants 'to remind us of the genius of all God's creatures. ... There needs to be a recognition by man that, whether he takes a pack on his back or not, whether he ever sees or walks in the wilds, he is a little closer to eternity because somewhere a small part of earth's life has been granted its rights to be.'[92]

(b) Animal rights

The animal liberation movement is an articulate, well-informed and growing movement. It is a relatively new phenomenon, a product of the 1970s.[93] Singer suggests that it 'marks an expansion of our moral horizons beyond our own species and is thus a significant stage in the development of human ethics.'[94] Many volumes have been written on the subject of animal rights, and there is a growing body of literature arguing in favour of recognition, not only of moral rights, but also of legal rights for animals. The lawyer must take this body of opinion into account in drafting legislation for the

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[91]Frome 15.

[92]Frome 62-3.

[93]Singer describes the movement as a serious political movement, a product of the 1970s, the aims of which are quite distinct from the efforts of the more traditional organizations, like the societies for prevention of cruelty to animals, to stop people from treating animals cruelly. He points out that even these traditional concerns, however, are relatively recent when seen in the context of 3 000 years of Western civilization. Concern for animal suffering can be found in Hindu thought, and the Buddhist idea of compassion is universal, extending to animals as well as humans; but our Western traditions, rooted in Ancient Greece and in the Judeo-Christian tradition, are very different. In the conflict between rival schools of thought in Ancient Greece, it was the school of Aristotle that eventually became dominant. Aristotle propounded the view that nature is a hierarchy in which those with less reasoning ability exist for the sake of those with more reasoning ability. Plants exist for the sake of animals, and animals for the sake of humans, to provide them with food and clothing. Even in England, 'which has a reputation for being dotty about animals, the first efforts to obtain legal protection for members of other species were made only 180 years ago', and were greeted with derision - see Singer 1-3.

[94]Singer 1.

protection of its habitat. It will not be possible in this work to do justice to the subject of animal rights - reference should be made to the many excellent books dealing with the philosophical foundations of such recognition.[95] It is sufficient for our purpose to note the existence of this increasingly influential rights lobby.

To say that non-human entities have moral or ethical rights is to view such entities in terms other than simply serving human interests or utility.[96] But what does it mean to the lawyer to say that they should have such rights? How should this be recognised, reflected and implemented in legal prescriptions? The first step, logically, is to determine how the right should be formulated. It has been expressed in various ways, for example as the right 'to exist',[97] 'to be',[98] 'to remain wild',[99] 'to natural dignity',[100] 'to respectful treatment',[101] 'not to be harmed',[102] 'to ...life unmolested and uninjured except when this is in some way inimical to human welfare',[103] and 'to live its life in accordance with its nature'.[104] It is clearly impractical to suggest that non-human rights, however defined, should be absolute.[105] Humans also have 'rights'

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[95]Reference may be made, for example, to Singer, Salt, Rollin, Regan, Regan & Singer, Favre (1979) and Favre & Loring.

[96]Utilitarian philosophy is not, however, inconsistent with the notion of animal rights - see generally Singer and Regan.

[97]Hey 312, Frome 15. The term 'existence value' is used in 'Green economics' to mean non-instrumental value - something is intrinsically valuable if its value cannot be explained by or reduced to instrumental considerations, and because not everything can be instrumentally valuable, every theory must at some point admit intrinsic values - see Plumwood 141.

[98]Frome 62.

[99]Frome xiv.

[100]Hollands 170.

[101]Regan 276-9, 327.

[102]Regan 328.

[103]Salt 46.

[104]Rollin 84.

[105]Myers (1979) 46-8.

to survive which, in developing countries at least, are directly in conflict with the 'rights' of *all* wild animals and wilderness to exist or remain wild. Some compromise is necessary. The setting aside and legal protection of selected wilderness areas is a compromise which is not only practical and desirable from a wildlife rights perspective, but also consistent with human interests.

(c) Hunting ethics

Commercial hunting is a controversial topic. The phrase 'hunting ethics', for some, is a contradiction in terms. At best, killing other creatures for pleasure is tasteless or unethical. At worst, there is something almost obscene in the very notion of killing for sport, and justifying it on the basis that it produces useful and substantial revenue for nature conservation. There is no doubt that commercial hunting has in the past produced a great deal of money and foreign exchange, much of which has been applied toward nature conservation generally, and not only to ensuring a sustained yield of target game species. Favre argues that, whilst conceding that hunters have played a role in the concern and protection of wildlife at a time when very few others cared, 'prior good deeds cannot justify the continuation of hunting in light of new scientific and social concern.'[106]

Another argument advanced in justification of hunting is the need for culling. Culling is necessary to maintain viable communities of wildlife because the natural order has been disturbed by humans, particularly in the disruption of the natural migratory patterns of mammals, and hunting is a lucrative component of culling programmes. It has been questioned whether it really is necessary to kill wildlife for its own good, or whether a less immoral order would not simply be to protect ecosystems which have there own built-in balances.[107] In the United States, deer hunting is justified by some

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[106]Favre (1979) 274 footnote 148.

[107]Frome at 73, for example, writes: 'One may wonder whether it's really necessary to defend hunting by preaching that wildlife must be killed for its own good, or whether there would be no wildlife left if the emphasis was placed on protection of ecosystems with their own built-in balances rather than on the production of moving targets. Wilderness has its own natural ways.'

hunters on the basis that humans merely serve as substitute predators who control the deer population levels. Favre points out, however, that it is the intervention of the sports hunters themselves that has disturbed the natural predator-prey relationships. Moreover, the wildlife management programmes of several states are deliberately designed to increase the population levels of 'desirable' species such as deer. Favre argues that if the dignity and interests of individual animals are to be truly recognised, sport hunting must not be allowed to continue.[108]

Quite apart from the moral issues touched upon above, conceptually culling and wilderness are incompatible. Nevertheless, in African conditions the position is more complex. Unlike the position in developed countries, people in Africa still depend in large measure on wildlife as a food source. Cultural traditions include the harvesting of wildlife for subsistence, medicines and other purposes. From an animal rights perspective, it is doubtful that killing can be justified on the basis of tradition; but killing to survive, or in defence of person and property would be justified.[109] For the socio-economic reasons discussed in Chapter 3, and the desirability of recognising aboriginal rights discussed in Chapters 4 and 5, the traditional harvesting rights of indigenous people must be respected. To the extent that wilderness and its components are resources, they are resources which ideally should be dedicated to non-extractive uses. In relation to some wilderness areas, however, it may be necessary and desirable to allow aboriginal access rights within them, and not just in their buffer zones.

The question of hunting 'ethics' therefore only has relevance to wilderness in these contexts, and there is little doubt that in the context of the subsistence and other traditional harvesting rights of indigenes, hunting must in some way be accommodated in the legal prescriptions for wilderness protection.

2.2.5.2 *Legal rights*

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[108]Favre (1979) 274.

[109]Favre (1979) 274.

(a) The nature of legal rights

What is the nature of a legal right in this context? In general and simple terms, a legal right is a claim which is legally assertable. Stone suggests that an entity cannot be said to hold a 'legal right', if the phrase is to have any content at all, 'unless and until *some public authoritative body* is prepared to give *some amount of review* to actions that are colorably inconsistent with that "right"'; but, in addition, three additional criteria must be satisfied: 'first, that the thing can institute legal actions *at its behest*; second, that in determining the granting of legal relief, the court must take *injury to it* into account; and, third, that relief must run to the *benefit of it.*'[110] In discussing 'wildlife rights', Favre suggests that the basic elements of a legal right would apply as follows: '(1) individuals and species of wildlife are the holders of rights, (2) the acts of humans are limited by these rights, (3) wildlife and their habitats are the "res" of the right, and (4) human beings and their institutions will have duties imposed upon them due to the recognition of these new rights.'[111] There is, as Stone observes, no generally accepted standard for how the term 'legal rights' ought to be used.[112] Determination and analysis of the precise nature and content of 'legal rights' are, however, less important for present purposes than noting the historical fact of their evolution and gradual extension.

(b) Expanding circle of legal rights

Since the publication of Darwin's *The Origin of the Species* (1859) and *The Descent of Man* (1871), it is generally accepted that, biologically at least, the difference between humans and animals is one of degree rather than one of kind. In his classic essay, 'Should Trees Have Standing? - Toward Legal Rights for Natural Objects', Stone refers to Darwin's observation that the history of human moral development has been a continual extension of the objects of our 'social instincts and sympathies' -

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[110]Stone 11.

[111]Favre (1979) 252.

[112]Stone 11.

> 'Originally each man had regard only for himself and those of a very narrow circle about him; later, he came to regard more and more "not only the welfare, but the happiness of all his fellow-men"; then "his sympathies became more tender and widely diffused, extending to men of all races, to the imbecile, maimed, and other useless members of society, and finally to the lower animals."'[113]

Stone argues that the history of law suggests a parallel development.[114] As society has matured, the circle of persons elevated to the status of legal *personae* has expanded. Legal rights have gradually been extended to children, slaves, women, blacks, incompetents and artificial persons. In accordance with this ever-widening circle of concern and extension of legal rights, Stone proposes that 'we give legal rights to forests, oceans, rivers and other so-called "natural objects" in the environment - indeed, to the natural environment as a whole.'[115]

Arguing in favour of recognition of wildlife rights, Favre maintains that, by analogy to the rights of natural persons who lack capacity (for example infants and the mentally retarded), there is no conceptual problem with wildlife possessing legal rights, and it is now possible for the circle of recognised rights to expand further to bring wildlife within its confines. The mere fact that an animal cannot file a pleading or recognise the need to do so, he argues, should not create a barrier to the determination of whether or not it can be the holder of legal rights. Who or what should be treated as a legal person depends on the moral judgement and perceptions of a given society.[116]

(c) The effects of extending legal rights

One effect of granting legal rights to non-human entities would be that the law would recognise that they have *locus standi in judicio*, legal standing to sue in their own behalf. Their legal status would change from property to rights holders, from being the objects

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[113]Stone 3, citing C Darwin *Descent of Man* (2 ed, 1874) 119, 120-1.

[114]Stone 3-10.

[115]Stone 9.

[116]Favre (1979) 255-6.

of rights to subjects of rights. If injured, recoverable damages would accrue directly to them and not to their owners. The fact that they are unable to speak for themselves would not present a problem. They could be represented in court in the same way that natural persons lacking legal capacity and fictitious persons (for example corporations, partnerships, trusts and ships) are represented.[117]

If wildlife has the right to exist, it obviously has an interest in land, air and water. Favre suggests three possible approaches that a legal system could adopt to protect that interest: (1) allow wildlife to possess title to land, (2) impose limitations upon the property rights of legal persons, or (3) hold certain lands for the benefit of wildlife. The first alternative, he says, would be extremely difficult to implement; but either the second or third alternative could amply protect wildlife interests.[118] He goes on to say:

> 'The proper focus of concern should be the ecosystem rather than a particular bird or mammal because many animals are transient, and proof of interference with a particular animal on a given piece of land may be impossible. The ecosystem itself is always present and is the best measure of the actual and potential presence of the animal kingdom; as the common denominator, it is the best measuring device of the potential interference with the interests of wildlife. In addition, not all wildlife are found in all places, so the best measure of which wildlife have an interest in a particular geographic location is the natural ecosystem at that location.'[119]

Our intellectual and cultural traditions are such that the extension of legal rights to individual animals is simply not feasible. The according of collective rights to wildlife, however, by focusing on natural ecosystems, will adequately protect its interest in living a natural life. The proper focus, therefore, is the physical world of wildlife rather than 'the subjective and nonscientific morass of moral attitudes and religious precepts.'[120]

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[117]There are many examples of representative *locus standi*, to name but a few: executors of deceased estates, trustees of trusts and insolvent estates, curators *ad litem* and *bonis* for indigents and incompetents, guardians of minor children, liquidators and judicial managers of companies.

[118]Favre (1979) 266.

[119]Favre (1979) 267.

[120]Favre (1979) 273.

It follows that the setting aside and effective protection of wilderness areas would, at least in practical terms, be the perfect response to the pleas of the advocates for wildlife rights. A wilderness ethic, however formulated, therefore implies recognition that wildlife has species and property rights, if not individual rights.

(d) How achieved

The granting of legal rights to non-human entities could be achieved either by judicial extension of existing rights, or by legislative conferral.[121] In the United States, although there has been some judicial pronouncement in favour of attributing legal rights to non-human entities,[122] it seems likely that the United States Constitution would have to be amended to accommodate such rights in the American legal system.[123]

In South Africa it is unlikely that the judiciary will recognise or extend legal rights to non-human entities (other than companies and other artificial legal *personae*). It has been suggested that no theory of justice is truly complete unless in some way it accommodates the notion that rights are extended to animals, and that a modern legal order can contain such an accommodation within its framework.[124] The contrary and at present more realistic view has, however, also been expressed, namely that whilst 'we should have no difficulty with the idea that human beings have legal duties with respect to natural objects and animals', we should 'accept the traditional view that this does not mean that there must be correlative legal rights in the relevant natural objects and animals.'[125] That animals do not have legal rights in South Africa was, in fact, judicially confirmed in the 1987 case of *SPCA v University of the Witwatersrand.*[126] It

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[121]See Rollin 81-3.

[122]See the dissenting judgement of Mr Justice Douglas in *Sierra Club v Morton* 405 US 727 (1972).

[123]See Favre 279-280 for draft proposed constitutional amendments.

[124]Glavovic (1988 *SALJ*) 528.

[125]Cowen 22.

[126]Case No 23288 of 1987 (unreported).

is also extremely unlikely that the legislature could be persuaded to confer legal rights on non-human living entities. Nor is it necessary to do so. Appropriate legal prescription can be achieved without the adoption of what to many, perhaps most, people would appear as an unthinkable notion.[127] All that is required to accommodate most, if not all, viewpoints is for relevant laws to be based not only on utilitarian and biocentric principles, but also on recognition of the claims of non-human entities to moral 'rights' or concern. For practical purposes, therefore, it is not essential that such claims be *institutionalised* by conversion into legal rights.[128] However, legal prescription for the natural areas which comprise wildlife habitat, including wilderness, must have regard to the expanding circles of concern and legal rights referred to above.

2.2.6 Biocentric[129] perspective: wilderness as source

The web of life, the pyramid of life, the biotic clock - there are many ways of expressing the idea of the interdependence of all life forms, and the dependency of humans on their natural environment. Wilderness is our source. Or, as Frome puts it, 'humans exist and enjoy the world only by virtue of conditions created long before the arrival of man and

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[127]On the *unthinkable* nature of the notion of extending legal rights to natural objects, see Stone 3-10.

[128]In relation to ethics and the endangered future of the human race, Jonas 29 writes: 'No previous ethics had to consider the global condition of human life and the far-off future, even existence, of the race. Their now being an issue demands, in brief, a new concept of duties and rights, for which previous ethics and metaphysics provide not even the principles, let alone a ready doctrine.' The same may be said of the law in the context of the rights of non-humans: a new concept of duties and rights is required, for which previous laws provide not even the principles, let alone a ready doctrine.

[129]In the history of environmental ideas there are, in general terms, two schools of environmentalists: technocentrics and biocentrics or ecocentrics. Pepper 11 describes the former as 'technologically optimistic environmentalists'. At 37-67 Pepper traces the emergence of technocentric thought to the development of rationalism and the scientific revolution of the 16th century onwards, when attention focused on attitudes of dominance over nature. The contrasting ecocentric ideology, a mixture of ecology and the non-scientific philosophy of romanticism, suggests an equality between humans and nature, or subordination of humans to nature. These are the ecological environmentalists or ecocentrics. At 68-90 and 91-115, Pepper traces this school of ecocentric philosophy to its romantic and scientific roots. The difference between the romantics and modern ecocentrics is that the former ascribed a significance to nature which was not dependent on humans, because nature has an integrity of its own (even if humans were removed, nature would still be there), whilst the latter take a position beyond 'integrity' and subscribe to the 'bioethic' - the notion that nature has purpose and meaning in itself - Pepper 79.

maintained through the millennia by all other forms of life.'[130] He sums it up neatly and expressively in the following passage:

> '... earth history reveals animals, including man, and plants working together through patient, evolutionary channels over a period of 2 billion years, since life began. The algae of the sea and the humblest land plants convert the energy of the sun into organic chemicals, the first link in the food chain. Animals derive their nutrients either by eating plants or by eating animals that have eaten plants. The present atmosphere owes most of its oxygen and carbon dioxide to biological actions proceeding without interruption since the beginning. The oxygen we breath is a waste product of plants, while the carbon dioxide that plants use is a waste product from animal bodies. ... A very great number of tiny organisms at the base of the pyramid of life support a slightly smaller number of still larger ones, and so forth up to the mammals, and man. But without the creatures at the base, the whole pyramid may come tumbling down.'[131]

Woodhouse & Pager take the argument beyond symbiosis, and offer a deeper perpective of the relationship between humans and nature. They suggest that rock art studies in Southern Africa have revealed 'one of the vital messages of pre-history', namely 'that *sanctity* was accredited to the very animals that were the hunters' prey', and that 'the "*lines of magic force*" seem to demonstrate that a *close bond* existed between people and the animals around them' (emphasis added). They suggest that we should aim to re-establish such a bond, even if it less intimate due to circumstances of modern life.[132]

There are no doubt many other notions and philosophies which could be accommodated under the rubric of 'biocentric perspectives'; but the two most influential and relevant in the context of wilderness are the concepts of a land ethic and deep ecology.

2.2.6.1 *The land ethic*

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[130]Frome 63.

[131]Frome 57.

[132]Woodhouse & Pager 62.

'For some,' McCloskey writes, 'maintenance of wilderness is evidence of serious intent to meet newly conceived ethical obligations' - a moving 'beyond a mere humanistic "reverence for life".'[133] The most influential and oft-quoted articulation of this biocentric perspective (as opposed to the traditional anthropocentric perspective) is that of Aldo Leopold. According to Leopold, the basic concept of ecology is that land is a community; but the idea that land is to be loved and respected is an extension of ethics.[134] He advocated a new 'land ethic', in the following terms:

> 'Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.'[135]

Leopold argues that this extension of ethics is a process in ecological evolution. The first ethics dealt with the relation between individuals, the second with the relation between the individual and society. The third step in the ethical sequence is humankind's relation to an enlarged community which includes soils, waters, plants, and animals, or collectively: the land. The extension of ethics to this third element in human environment is both an evolutionary possibility and an ecological necessity. A land ethic changes the role of humans from conqueror of the land community to 'plain member and citizen of it.' It implies respect for his fellow members, and also respect for the land community as such. A land ethic does not prevent the alteration, management and use of natural resources; but it does 'affirm their right to continued existence, and, at least in spots, their continued existence in a natural state.'[136] Leopold's philosophy is a powerful argument in favour of wilderness preservation.

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[133]McCloskey 294.

[134]Leopold xiii-ix.

[135]Leopold 224-5.

[136]Leopold 202-4.

Leopold advocated a change in attitude toward the natural world, development of an 'ecological conscience'[137] so that we will recognise and accept our true place as dependent members of 'a biotic team',[138] as plain members and citizens of the land community rather than its conquerors.[139] This will require 'an internal change in our intellectual emphasis, loyalties, affections, and convictions.'[140] Wilderness has an important role to play in this reorientation of attitude. It serves as a model of ecological perfection, 'a base-datum of normality, a picture of how healthy land maintains itself as an organism.' Wild places reveal 'what the land was, what it is, and what it ought to be.' Evolution operated there without human hindrance, providing 'standards against which to measure the effects of violence.'[141] Wilderness therefore serves as a reminder of our true and actual relation to the natural world, a corrective to dispel the illusion that our welfare and even survival are distinct from that of the whole, and as a prompt for the development of an ethical relation toward the land. Because of our past carelessness, the preservation of wilderness is an act of national contrition. Wilderness is a disclaimer of biotic arrogance, a token of things hoped for, and a focal point for a new attitude and intelligent humility toward nature.[142]

An important consequence of the adoption of a land ethic is acceptance that all entities have a biotic right to continued existence, regardless of the presence or absence of economic advantage to humans:

> 'One basic weakness in a conservation system based wholly on economic motives is that most members of the land community have no economic value. Wildflowers and songbirds are examples. Of the

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[137]Leopold 207.

[138]Leopold 205.

[139]Leopold 204.

[140]Leopold 210.

[141]Aldo Leopold 'Wilderness as a Land Laboratory' (1941) 6 *Living Wilderness* 3, Aldo Leopold 'The Arboretum and the University' (1934) 78 *Parks and Recreation* 60, and Aldo Leopold 'A Biotic View of Land' (1939) 37 *Journal of Forestry* 730, all cited in Nash 198.

[142]See commentary in Nash 198-9.

> 22,000 higher plants and animals native to Wisconsin, it is doubtful whether more than 5 per cent can be sold, fed, eaten, or otherwise put to economic use. Yet these creatures are members of the biotic community, and if (as I believe) its stability depends on its integrity, they are entitled to continuance.'[143]

A system of conservation based solely on economic self-interest tends to ignore, and thus eventually to eliminate, many elements in the land community that lack commercial value, but that are essential to its healthy functioning. It falsely assumes 'that the economic parts of the biotic clock will function without the uneconomic parts.'[144] Leopold told his classes at the University of Wisconsin that 'when we attempt to say that an animal is "useful", "ugly", or "cruel" we are failing to see it as part of the land. We do not make the same error of calling a carburetor "greedy." We see it as part of a functioning motor.'[145]

Nash connects the land ethic to wilderness as follows:

> 'The lesson most frequently drawn from both ecology and wilderness was the need for humility on the part of man. Having gained the power to modify nature on a massive scale, man now had to develop the restraint prerequisite to responsible environmental citizenship. This, in turn, depended on extending ethics from man-to-man relationships to those involving man and the environment - the kind of "land ethic" that Aldo Leopold advocated in the 1930s and 1940s. Given the long-established blindness of man to the rights of the non-human, this would be neither quick nor easy. Wilderness, however, could help.'[146]

2.2.6.2 *Deep ecology*

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[143]Leopold 210-211.

[144]Leopold 214.

[145]Nash 196.

[146]Nash 256. See Callicott generally for a collection of interpretative and critical essays on Leopold's seminal book on environmental consciousness and ethics, *A Sand County Almanac*, viewed as a work of art, philosophy and social commentary.

The phrase 'deep ecology', as opposed to what has been described as 'the "stewardship" shallow ecology resource-management mentality of man-over-nature',[147] was coined by Arne Naess in 1973. The term was intended by him to describe the deeper, more spiritual approach toward nature exemplified by the writings of Aldo Leopold and Rachel Carson.[148] Ecology as a science is not concerned with value judgements. It is concerned with analysis, causes and consequences, but not with normative propositions. It does not ask what kind of society would be best for maintaining the biosphere or a particular ecosystem. These are questions for value theory, ethics and politics. In Devall's words, deep ecology 'goes beyond the so-called factual scientific level to the level of self and Earth wisdom', and:

> 'Deep ecology goes beyond a limited piecemeal shallow approach to environmental problems and attempts to articulate a comprehensive religious and philosophical worldview. The foundations of deep ecology are the basic intuitions and experiencing of ourselves and Nature which comprise ecological consciousness. Certain outlooks on politics and public policy flow naturally from this consciousness.'[149]

The central 'intuition' of deep ecology, as expressed by Australian philosopher Warwick Fox, is that

> 'It is the idea that we can make no firm ontological divide in the field of existence: That there is no bifurcation in reality between the human and the non-human realms ... to the extent that we perceive boundaries, we fall short of deep ecological consciousness.'[150]

Deep ecology, therefore, is diametrically opposed to the dominant worldview of technocratic industrial societies which regard humankind as fundamentally apart from and superior to the rest of creation. The ultimate norms or intuitions of deep ecology

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[147]Seed 245 footnote 3.

[148]See Leopold and Carson, generally.

[149]Devall 65.

[150]Warwich Fox 'The Intuition of Deep Ecology' (Paper presented at the Ecology and Philosophy Conference, Australian National University, September 1983), cited in Devall 66.

are self-realisation and biocentric equality. But the sense of self, in this context, is an identification which goes beyond humanity to include the non-human world. As Devall puts it, we 'must see beyond our narrow contemporary cultural assumptions and values, and the conventional wisdom of our time and place, and this is best achieved by the meditative deep questioning process. Only in this way can we hope to attain full mature personhood and uniqueness.'[151]

Deep ecology is spiritual as well as intellectual. It requires an inner voyage, a change of perspective, internalisation of the implications of evolution and ecology, 'thinking like a mountain',[152] rejection of the imagined separation of humans and nature. The distinction between 'life' and 'lifeless' is a mere human synthetic construct - everything is interconnected. The human species is threatened by imminent extinction through nuclear war and other environmental degradations. This threat is an invitation to change and evolve. Seed suggests that the change that is required is not some new resistence to radiation, but a change in consciousness, and deep ecology is the search for a viable consciousness.[153]

The intuition of 'biocentric equality' is that all things in the biosphere have an equal right to live and blossom and to reach their own individual forms of self-realisation. All organisms and entities are parts of the interconnected whole, and all are equal in intrinsic value. All are members of the biotic community. Because everything is interrelated, humans harm themselves when they harm other entities. Deep ecology requires that we perceive and respect non-human entities as individual organisms in their own right as parts of the whole, and not as hierarchies or a pyramid of species with us at the top. The practical implication of this approach is that that we should so conduct ourselves as to produce minimum rather than maximum impact on nature.[154]

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[151]Devall 66-7.

[152]Aldo Leopold's phrase - Leopold 129-133.

[153]Seed 243-4.

[154]Devall 66-9.

The basic principles of deep ecology are the following:

- The well-being and flourishing of human and non-human life on earth have value in themselves (intrinsic value or inherent worth). These values are independent of the usefulness of the non-human world for human purposes.
- Richness and diversity of life forms contribute to the realisation of these values and are also values in themselves.
- Humans have no right to reduce this richness and diversity except to satisfy *vital* needs.
- The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of non-human life requires such a decrease.
- Present human interference with the non-human world is excessive, and the situation is rapidly worsening.
- Policies must therefore be changed. These policies affect basic economic, technological and ideological structures. The resulting state of affairs will be deeply different from the present.
- The ideological change is mainly that of appreciating *life quality* (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
- Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes.[155]

An important point of deep ecology to note is that it is all things, and not just 'living' things, that are deserving of respect and biocentric equality. This norm applies, therefore, to what biologists might classify as 'nonliving', such entities, for example, as rivers, landscapes, ecosystems and wilderness areas. This concept of 'life' makes sense of slogans such as 'Let the river live' or 'Let the wilderness live'.[156]

2.2.7 Towards a wilderness ethic and aesthetic

2.2.7.1 *A wilderness ethic*

Fundamental to the argument for the Wilderness Act proposed in this work must be the conviction that, because of their intrinsic and utilitarian values, wilderness and its

[155]Devall 70.

[156]Devall 71.

constituent life forms are deserving of humankind's respect and protection - in brief, some sort of wilderness ethic, which could form the basis and rationale of a Wilderness Act, the essential features of which should be consistent with such an ethic.

We need to expand our ethics to include some measure of respect for wilderness. We need to inculcate into our collective cultural consciousness something in the nature of a wilderness ethic, if we wish to secure the benefits of wilderness for all our people and for future generations. For some of us this will involve a shift of value perception. Such a reorientation of perception is not only possible, but necessary, because of human ability to extirpate wilderness, and to fill in those blank spots on the map which represent the last remnants of wild country on the South African landscape.

An ethic relates to moral questions. It treats of moral value judgements, of what is perceived as right or wrong. The following articulation of a wilderness ethic is derived from Leopold's land ethic.[157] Adapting his words (additions italicised):

> Examine each question *which pertains to wilderness* in terms of what is ethically and aesthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the *wilderness* biotic communit*(ies)*. It is wrong when it tends otherwise.

Espousal, in some form, of such a wilderness ethic is more specific than, different from and goes beyond the concepts of ecological norm,[158] legislative conservation ethic,[159] and environmental bill of rights[160] which have been written about before in legal journals in South Africa. Formal adoption of such an ethic will have important normative value. It will provide parameters and direction for legal draftsmen and administrators. It is an approach which has successfully been adopted in other

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[157]Leopold 224-5.

[158]van Niekerk 78.

[159]Glavovic (1984) 144.

[160]Glavovic (1988 CILSA) 52.

jurisdictions, for example the United States in its Wilderness Act of 1964, through the medium of formal statutory policy declarations.[161]

Reference to such an ethic will provide ready answers to such questions as whether or not we should have a Wilderness Act, what provisions such an Act should contain, and what policies and regulations should be included in wilderness management plans. A wilderness ethic, philosophy, or policy, however one may wish to describe it, will also accommodate, promote or be consistent with all of the following interests, values, perspectives and movements (referred to in this Chapter and the next):

- species preservation
- habitat and ecosystem conservation
- deep ecology
- spiritual values of nature
- animal liberation and rights movements
- concepts of extended ethics
- the principle of stewardship and obligation to future generations
- traditional rights of indigenous people
- holism and 'one world' perspectives
- 'green' parties
- sustainable development
- genetic diversity.

2.2.7.2 *A wilderness aesthetic*

> 'We can't all reach outward to touch the moon, at least not yet, but we can reach inward to touch and appreciate and to protect the wonders of our own earth.'[162]

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[161]Section 2 of Wilderness Act 16 USCS UU1131-1136 (1964) - The United States Wilderness Act is discussed more fully in Chapter 6.

[162]Frome 8.

Wilderness is one of the wonders of our earth. Within the suggested wilderness ethic is a wilderness aesthetic, as it requires of us that we consider whether acts or omissions are *aesthetically* right, and whether they tend to preserve the *beauty* of biotic communities. The word 'aesthetic', as a noun, means 'the philosophy of the beautiful; the principles underlying beauty.' 'Aesthetics' is 'the science of beauty and taste.'[163] A wilderness aesthetic, therefore, encourages us to 'reach inward to touch and appreciate and protect the wonders' of wilderness. It also accommodates the following wilderness values (which will be discussed in the next chapter):

- heritage
- historical
- symbolic
- artistic
- recreational
- vicarious enjoyment
- psychological
- therapeutic
- solitude
- post-materialism.

2.3 CONCLUSION

An historical overview of human impacts on wilderness and other natural areas clearly demonstrates the urgent need in South Africa for a newly conceived plan of legal protection. Otherwise, the ever-diminishing natural areas will soon disappear altogether.

An historical overview of the evolution of human attitudes toward wilderness and wildlife, and the emergence of wildlife law as a discrete branch of law (in the United States if not yet in South Africa), suggests the need for re-assessment of the legal

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[163]Funk & Wagnalls 435.

dispensation for their protection consistent with current perceptions of their values. The effective legal protection of wilderness is a logical culmination of this evolution.

There is a trend in modern thinking towards deep ecology and a biocentric approach. There is a growing body of opinion that nature and its components have intrinsic value or inherent worth and are therefore deserving of respect for reasons other than human utility. Any legal disposition or prescription relating to wilderness should accommodate these trends.

Whilst there may not be universal consensus on the proper relationship between humans and the natural world, it is not beyond the ingenuity of lawyers to devise laws which may serve to accommodate all the philosophies briefly reviewed above. There is a common thread of purpose. One does not have to be a deep ecologist to recognise the basic human need, underlying the philosophies of most writers, for a healthy and high quality of natural environment - at least for humans, if not for all life - and, as Devall puts it, 'enough free flowing wilderness so humans can get in touch with their sources, the natural rhythms and the flow of time and place.'[164]

Wilderness may be regarded as a symbol of nature values and a new social paradigm. It mirrors the broader environmental movement, which is not yet strong in South Africa because of our preoccupation with human rights, survival and materialistic pursuits. It is useful as a cultural filter, and may be used as representative of the alternative lifestyle and alternative communities that will be required in the future.[165] But its value extends beyond symbolism. That the earth environment is deteriorating is beyond doubt. Countless volumes of facts and figures have been produced in recent years documenting the evidence of this. Nonetheless, the deterioration continues, and the old debate of conservation versus development in certain areas still rages. There is a need to articulate the causes and consequences of this deterioration, with constant declaration

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[164]Devall 68.

[165]Pepper 4 refers to 'the impending deterioration in material quantity in our lives which is seen as inevitable and desirable.' We need to substitute quality of life, which includes a heightened environmental quality, for material quantity.

and repetition so as to persuade and educate the mass of people, ultimately producing a groundswell of opinion which will form the nucleus of a strong political lobby. One essential component of this movement toward enlightened environmentalism is the necessity for affording the highest protection that the law will allow to the few remaining wild places containing genetic diversity and natural integrity.

In the context of South Africa's socio-economic and political needs, it is perhaps too soon to expect general acceptance of an extension of ethical and even legal rights to non-human entities because they have intrinsic value, and not simply because they serve humankind's utilitarian needs. However, all the ecological evidence and projections indicate that our survival is dependent upon a reorientation of our conduct and policies from an anthropocentric to a biocentric perspective. We are part of nature and must recognise that we are dependent upon nature and the maintenance of biological diversity. There are also sound ethical reasons for recognising that our fellow creatures have some rights.

In sum, the conclusions relevant to wilderness and the law that emerge from the discussion in this Chapter are as follows:

- Wilderness is at risk.

- Continuing reduction of wilderness will lead to further loss of biotic diversity and impoverishment of our planet.

- The preservation of wilderness is part of the moral obligation owed to future generations.

- The preservation of wilderness is part of the moral obligation owed to non-human entities.

- Perceptions of wilderness have evolved to the point that its effective legal protection will be tolerated, if not desired, by society.

In legal prescription for its protection, it is important that the purpose of protection be identified in a formal policy statement which incorporates reference to its values.

CHAPTER THREE

THE WILDERNESS RESOURCE: SOCIO-ECONOMIC PERSPECTIVES

3.1 THE ECONOMIC AND RESOURCE VALUES OF WILDERNESS: GOODS AND SERVICES

An essential function of law is to protect that which is valuable to the society it serves. What instrumental values or benefits to society, direct and indirect, reside in wilderness and wildlife? Why should the law protect the wilderness resource? The purpose of this chapter is to consider wilderness and its wildlife as resources for human use. Its focus and perspective, therefore, are anthropocentric and utilitarian.

The *World Conservation Strategy* (1980) identifies the following as the three main objectives of living resource conservation:

- **to maintain essential ecological processes and life-support systems** (such as soil regeneration and protection, the recycling of nutrients, and the cleansing of waters), on which human survival and development depend;

- **to preserve genetic diversity** (the range of genetic material found in the world's organisms), on which depend the functioning of many of the above processes and life-support systems, the breeding programmes necessary for the protection and improvement of cultivated plants, domesticated animals, and microorganisms, as well as much scientific and medical advance, technical innovation, and the security of the many industries that use living resources;

- **to ensure the sustainable utilization of species and ecosystems** (notably fish and other wildlife, forests and grazing lands), which support millions of rural communities as well as major industries.[1]

In 1987 the Director General of IUCN wrote:

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[1]World Conservation Strategy (1980) VI.

> 'It is gradually being realised that the world must have protected areas which are designed, planned, and managed to bring immediate and long-term benefits to people. Parks and reserves protect the water supply of many towns and agricultural regions and, in many cases, major industrial regions; they provide important sources of foreign exchange in many third world countries and a livelihood for many people. They are also vital sources of natural raw materials such as food and thatching grass and contain "genetic resources" such as crop relatives, medicinal plants and natural predators for biological control of pests.'[2]

The perceptions of wilderness in the third world are understandably different from those discussed in Chapter 2. People have a hierarchy of needs, and it seems that whilst they are involved in satisfying their lower needs, the attainment of higher levels is inhibited. Because they do not enjoy the affluence and leisure that allows time for reflection, many of the inhabitants of developing countries may not yet appreciate the spiritual, psychological, social and aesthetic values of wilderness. However, even in the third world, indeed probably more so than in the first world, wilderness areas require protection because of their potential for scientific, psychological and historical research, the study of natural ecological laws, the preservation of wild species and gene pools for biotic diversity, and as a source of supply of plants and compounds for medicine and education, tourism, and job opportunities. The concept of wilderness has particular relevance to South Africa, which is a mixture of first and third world elements and is thus representative, if not a microcosm, of the world as a whole. We are thus receptive to first world concepts and value perceptions, but must have regard to third world reality and the needs of our rural population in particular.

In this Chapter it is intended to examine and expand on these perspectives of living resource values and to relate and elaborate them according to their relevance to the benefits that humans can derive more specifically from the protection of wilderness areas. The more important wilderness benefits[3] will be listed and discussed, without any attempt to place them in order of importance, or to provide a comprehensive systematic

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[2]Kenton R Miller in Foreword to IUCN/UNEP.

[3]In this context, the word 'benefit' is used, as suggested by Driver *et al* 295, to denote a desirable change of state; it is a specific improved condition or state of an individual or a group of individuals, of a society, or even of nonhuman organisms. The essential focus of this Chapter, however, is anthropocentric.

articulation or taxonomy of them.[4] For the purposes of this Chapter, it is enough that the utilitarian values of wilderness be identified. There is, however, a categorisation of the benefits provided by wilderness that should be noted. Driver *et al* suggest that there are three categories:

- benefits that can be obtained only from wilderness;
- benefits that can be obtained from both wilderness and nonwilderness, but for which wilderness is strongly preferred as the source; and
- benefits that can be obtained from both wilderness and nonwilderness, but for which no strong preferences exist for wilderness as the source.[5]

Again, no attempt will be made hereunder to identify precisely what benefits are available exclusively from wilderness. Most of them are available from other protected areas to some degree as well; but neither individually nor collectively to the same extent. What is unique about wilderness benefits is that they derive from areas totally dedicated to the free play of natural forces and evolutionary processes without human interference, to the fullest extent that this is possible. In the following discussion, benefits derived solely from wilderness are included with benefits found in wilderness as well as in other natural areas, in an attempt to present an indication of the totality of benefits available from wilderness. Much of what follows will perhaps amount to a restatement of what have now become ecological truisms. Nevertheless, there is merit in reiteration, not only for emphasis of critical values, but because a clear understanding of such values is central to acceptance of the thesis that wilderness is deserving of strict and comprehensive legislative protection.

3.1.1 Economic evaluation

[4]Such a taxonomy is provided in Driver *et al* 298. For a general discussion of the utilitarian benefits of species preservation, see Myers (1979) 57-81, and Myers (1983) generally. For a summary of the practical values and benefits of rainforest wilderness conservation (apart from timber exploitation), see Valentine 126-7.

[5]Driver *et al* 297.

Whitney remarks (in relation to Alaska, but the point is relevant to all wilderness areas) that 'reasonable men can and do differ on what portion of this vast area should be "locked up" in perpetuity as undeveloped wilderness area and what part should be allocated to multiple use-resource development', and submits that there in no demonstrably right answer to a questions of this kind - such questions are decided by judgments based on subjective philosophical attitudes. There is, he writes, 'significant opposition to "locking up" wilderness in perpetuity when access to the natural resources it contains may shortly be necessary to maintain the economy or even to assure national security' (this point may have particular relevance to the 'new South Africa'). Whitney continues: 'One of the chief obstacles facing additional wilderness designations is that the resulting resource loss is viewed as yet another kind of environmental cost.' As for an economic rationale for setting aside wilderness, he accepts that it is 'extremely difficult to quantify or even to articulate the value or importance of wilderness to man'; that it is 'intrinsically very difficult to quantify an intangible environmental or aesthetic amenity'; and that it is 'particularly difficult to articulate in quantitative terms the value of preserving wilderness.' He then proceeds to list 'certain hard facts of life' (relating to America, but pertinent to most countries):

> 'First, economic well-being, financial security and an improved standard of living are the overriding concerns of most Americans. They will not long tolerate policies or programmes which endanger economic stability and growth.
>
> Second, most Americans show no disposition to comply with conservation measures which involve reduced consumption of energy, fuels and other non-renewable resources.
>
> Third, wilderness preservation would rank very low in the scale of environmental priorities of American citizens. I believe all but a tiny elite of wilderness buffs would rank air and water pollution and the other ills that directly affect the quality of their daily life as being far more important than wilderness preservation.
>
> Fourth, there is a growing public awareness that protecting and enhancing the environment is immensely costly and that we would be well-advised to reassess our situation to determine how much environmental reform we can afford.

> Finally, in any test of strength between public concern about the economy, or its ability to satisfy the demands of the American lifestyle, on the one hand, and wilderness preservation on the other, there would simply be no contest.'[6]

Whitney's submissions about the difficulty of quantifying the values of wilderness and the position it occupies in society's hierarchy of values are almost unanswerable in terms of economic evaluation. But is this the correct approach? It has been said that '(n)o one has ever been able to place a dollar sign on wilderness values.'[7] 'Economics and specific objectives', Frome submits, 'are probably the least valid scientific arguments for saving plants and animals and entire ecosystems. Millions of living species influence each other beyond our comprehension.'[8] McCloskey suggests that wilderness areas are, in effect, geographical secessions from the national economy, and that efforts to evaluate wilderness in economic terms 'will be sharply resisted for the very reason that wilderness is valued because it is outside the market economy.'[9] Pepper refers to the 'absurdities of such an approach (cost-benefit analysis)', and suggests that intangibles should remain intangible - environmental assets should not be subjected to attempts at 'hard-headed' economic appraisal.[10] Because of the strong materialistic inclination of Western society, however, it is necessary to pursue the question of economic analysis further and, if possible, offer some financial justification for wilderness dedication. This is not a simple task. It is far easier to describe the values of wilderness than to quantify them monetarily. Do the financial benefits of wilderness exceed the financial costs of setting it aside? In discussing possible answers to this question, two aspects should be borne in mind: the cost of setting aside, and the cost to society of *not* setting aside wilderness areas.

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[6]Whitney 177-8.

[7]A National Audobon Society member, quoted in Nash 211, at a public hearing in 1950 on a proposal to dam Green River at Echo Park which would threaten wilderness values in the Dinosaur National Monument.

[8]Frome 56.

[9]McCloskey 295.

[10]Pepper 21-2. He draws a distinction between economic values and environmental values, and refers, as an example, to the 'ludicrous' value of £11 000 (being the insurance value) placed on the fine Norman Church at the village of Stewkley (which would have to be dismantled if London's third airport were sited at Wing in Buckinghamshire) - 'this church has since become the symbol of the virtue and potency of allowing *intangibles* to remain intangible'.

Not all values can or have to be measured in conventional monetary terms. How, for example, does one quantify the value of wilderness as a nursery for commercially valuable or potentially valuable species? Or its value as a sanctuary for valuable endangered and migratory species? Other values are more easily determined, for example the value of wilderness tourism, which can be calculated or projected with reference to local and overseas statistics. Some future benefits no doubt have measurable economic value, but the value of keeping future options open may not be measurable. At least one aspect is clear: the management of wilderness areas is inexpensive as the approach of management is to leave natural processes alone as far as possible.[11]

Two additional values have been identified as being 'economically' relevant but difficult to quantify, namely existence value (the benefit of simply knowing that something exists) and bequest value (the benefit derived from knowing that it will still exist for future generations). People are prepared to spend money to maintain these values. Salm & Clark point out that the World Wildlife Fund[12] and other similar conservation organisations function because people are prepared to spend money to maintain the existence of wild places and endangered species, notwithstanding that they will almost certainly never see them.[13]

Various attempts have been made to evaluate nonmarket resources in terms of money,[14] but none of these is entirely satisfactory.[15] In any event, wilderness

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[11]Described by Hendee, Stankey & Lucas (1990) 188 as 'the minimum tool rule' of wilderness management.

[12]The name of the World Wildlife Fund has since been changed to World Wide Fund for Nature.

[13]Salm & Clark 266.

[14]In 1986, for example, the general public in Colorado was surveyed to determine the bequest (leaving wilderness as an inheritance to later generations), existence (for many people the simple fact that wilderness exists has value, even if they do not visit it) and option (the value of keeping open the option to visit wilderness) values of wilderness, and these were estimated as being in excess of $5 million, about $5 million and a little more than $4 million respectively - Hendee, Stankey & Lucas (1990) 358.

preservation need not be rationalised for economic reasons alone, or at all. In the final analysis, wilderness areas are set aside on the basis of wider social objectives which are very difficult to quantify or assign monetary value. But assuming that it is or will become possible to do so in terms of advanced economic analysis, Salm & Clark point out the following further serious pitfalls that must be taken into account, and these all have particular relevance to South Africa and other developing countries:

- It could offer the opportunity to investors (for example, mining or petroleum companies) to buy out the area for its resource value.
- It does not account for resources that currently have little or no value, but which may develop in the future.
- It is impossible to translate all noncommercial benefits accurately into economic terms.
- It takes no account of unquantifiable ethics, such as our commitment to endangered species, our responsibility to global heritage, and our obligation to pass on the full complement of environmental and resource options to our successors.
- It takes no account of symbolic benefits, such as local and national pride.[16]

Economic evaluation of wilderness benefits is, therefore, not only difficult, but could also be counter-productive. In wider socio-economic terms, their quantification in terms of money is irrelevant. A more meaningful approach will be to identify the 'goods and services' offered by wilderness to human communities. Myers, in writing about the tragedy of the decline of tropical forests, refers to them as 'a source of many goods and services to support our welfare into the indefinite future', and as 'valuable and unique

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[15]Examples are the scientific market value approach (based on prices charged to zoos, researchers, and the like), the deterrent value approach (based on prescribed penalties), the willingness to pay approach (based on historical expenditure on preservation of the resource), and the standing crop approach (based on comparable species or classes with known or determinable market value) - Salm & Clark 267-8.

[16]Salm & Clark 268. See too Grima & Birkes 35-6 where it is suggested that resources cannot be treated as mere factors of production. Wetlands, for example, have a relatively low market value (as potential agricultural land when drained), but serve important ecological functions (water-flow regulation, flood control, the absorption of oxygen-demanding wastes, critical habitat for waterfowl, and generally as areas of high biological productivity) which are not captured by the market process - the market value of wetlands as an economic resource to individual owners grossly underestimates their long-term ecological, regional and national values. If left to market forces, they argue, wetland areas would disappear. The same argument applies to wilderness. For further discussion of the difficulty of economic evaluation of the preservation option in relation to natural environments, see Randall 349-358.

stocks of natural resources.'[17] These are appropriate descriptions of wilderness areas in general. What, then, are the wilderness goods and services that have thus far been recognised and identified?

3.1.2 Wilderness and sustainable development

It is now generally accepted that our use of natural resources must not be profligate, but sustainable.[18] From the perspective of human utility, the primary purpose of natural area protection is living resource conservation.[19] Conservation is the management of the biosphere[20] so that it may yield the greatest benefit to present generations without losing its potential to meet the needs and ambitions of future generations.[21] In other words, conservation is sustainable development. Conservation and development are no longer seen as conflicting goals, but rather as complementary, or two sides of the same coin. Sustainable development cannot be achieved without conservation of living resources, and living resources cannot be conserved without the protection of the natural areas in which they occur from destruction or degradation. The establishment of protected areas is therefore both logical and essential for sustainable development.

Sustainable use does not mean that each square centimetre of land must be subjected to direct or extractive use. Some areas should be afforded stricter protection than others, with little or no extractive use or other modification. Some areas should be retained as far as possible in their natural states, while in others limited uses such as

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[17]Myers (1986) 17. For a discussion of species as 'free goods', see Myers (1979) 86-100, and Myers (1983) generally. For a comprehensive review of the most advanced natural resource economics techniques in the valuation of wildland benefits, see Peterson & Randall generally.

[18]See World Conservation Strategy (1980) and Brundtland Report, generally.

[19]Living resource conservation is specifically concerned with plants, animals and microorganisms, and with those non-living elements of the environment on which they depend - living resources have two important properties the combination of which distinguishes them from non-living resources: they are renewable if conserved; and they are destructible if not - World Conservation Strategy (1980) 10.

[20]The thin covering of the planet that contains and sustains life.

[21]World Conservation Strategy (1980) 10.

fishing, hunting and tourism may be consistent with sustainable use of the entire system. Land use planning should be directed at holistic management of total regions or landscapes incorporating the whole spectrum of use opportunities. The logical purpose of legal protection and management should be to present a predetermined spectrum of human use of our natural heritage so as to ensure continuing benefits. Because of inevitable user conflict - felling indigenous trees as a timber resource, for example, is inconsistent with tourism and the study of natural processes in the forest - multiple use should be spread across a spectrum of management categories so that representative ecosystems are retained. Wilderness resides at the primitive end of the spectrum of use, and requires the least human impact and maximum protection to ensure its sustainable availability as a living resource itself, and as a reservoir of living resources.

3.1.3 Wilderness and agriculture[22]

The productivity of agricultural ecosystems depends not only on maintaining soil quality but also on retaining the habitats of beneficial insects and other animals, such as crop pollinators and the predators and parasites of pests.[23] Recognising that the challenges facing agriculture in the developing countries are daunting, Dover & Talbot argue that sustainability requires new directions for agricultural development, directions based on the principles and practical knowledge of ecology. They emphasise the significance and relevance of species diversity in natural ecosystems to agriculture, and suggest that natural resources must be preserved as capital for future development and as the inheritance that future generations deserve. No matter how economical a project may appear in the short term, its ecological viability will be a major factor in long-term success. We must feed the world today, but we must also feed and care for the earth - its soil, water, plants, and animals - so that we can continue to feed the world tomorrow.[24] For medium and long term human benefit, sustainable agricultural development therefore needs the wildlife and species diversity found in natural

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[22]The effects of agricultural law and policy under apartheid in South Africa are discussed in Chapter 8.

[23]World Conservation Strategy (1980) 14.

[24]Dover & Talbot 7-8.

ecosystems. The most natural ecosystem is, of course, wilderness. Although these arguments are particularly pertinent to developing countries, they also apply to developed countries in which agriculture faces economic and environmental degradation problems as a result of past ignorance of ecological processes and malpractices such as the overuse of chemical pesticides[25] and the failure to allow sufficient periods of fallow for soil regeneration.[26] The time has come for a global assessment of agriculture's sustainability. Agriculture is both the cause and the victim of world-wide environmental degradation. The needs, problems and solutions are clearly different in developed and developing countries, and they also differ from region to region within countries; but the agroecological approach advocated by Dover & Talbot is clearly pertinent in all areas.[27]

The agricultural needs of a country should be dealt with holistically at a regional, multi-farm level rather than on an *ad hoc*, piecemeal basis. System planning and design are required, with medium and long term programmes in agricultural research, development and implementation. These programmes must make provision for the maintenance of adequate wildlife habitats and the conservation of genetic resources in plant and animal species which are or may be useful to agriculture.[28] National plans should make provision for a land use mosaic which includes reservoirs of wildlife and genetic material which are or may be useful to agriculture. It would be prudent, if not essential, to set some land aside as wilderness in such a mosaic.

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[25]Effective pest control is no longer a matter of heavy applications of pesticides, partly because of the rising cost of petroleum-derived products but largely because excessive pesticide use promotes resistance (the number of pesticide-resistant insects and mites has doubled in twelve years), destroys natural enemies, turns formerly innocuous species into pests, harms other non-target species, and contaminates food and feed - World Conservation Strategy (1980) 14, and see also Glavovic (1985 SALJ 174) generally.

[26]Even under natural conditions of vegetation cover, nature takes from 100 to 400 years or more to generate 10 millimetres of top soil - see World Conservation Strategy (1980) 14.

[27]In the tropics, the very existence of the resource base that is the hope of development is threatened by deforestation, land degradation, pesticide problems, and impaired water-holding capacity of the land. UNEP estimates that 12 million hectares of tropical forests are lost annually. Others put the figure as high as 21 million, of which about half is attributable to conversion to shifting agriculture. Even if the conservative figure is correct, almost 1,400 hectares of tropical forest are lost every hour of every day. According to UNEP, nine countries will have destroyed virtually all of their closed-forest cover by the year 2002, and another 13 countries will reach the same end 25 years later. See Dover & Talbot 12 and 63.

[28]Dover & Talbot 19.

The ideal agricultural production system in developing countries would be a self-renewing one.[29] The application of ecological principles to agriculture, together with the utilisation of traditional wisdom, crops and management practices attuned to local ecological and topographical conditions will contribute immeasurably to the achievement of such ideal.[30] Some land should not be farmed at all, but left wild. Natural vegetation promotes soil and water retention. Naturally occurring diversity in wilderness ecosystems represents an irreplaceable resource for future agriculture.[31] The species mix in natural ecosystems may offer biological-control agents, new crops, genetic material for hybridization, biochemicals for enhancing productivity, and genetic material for pest and disease resistance and adaptation to marginal environments. The conditions for sustainable agriculture, therefore, necessarily include the maintenance of adequate habitat for wildlife and the conservation of genetic resources.[32]

The sustainability of agriculture in industrialised nations is also a matter of concern. Apparently immune from the problems facing developing nations, namely severe

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[29]Multiple land use schemes combining agriculture and forestry (agroforestry) are much more productive and more sustainable, particularly in the tropics, than monocultures - Grainger 194-8.

[30]Dover & Talbot 40-2 refer to a 'modified polycultural agroecosystem' in Mexico, 'the Tabascan project', in which each production unit includes a forest shelter belt. In the state of Tabasco, Mexico, traditional subsistence agriculture was largely abandoned in favour of commercial farming and stock-raising in the 1960s and 1970s. Not only was locally grown food less available, but expected productivity increases failed to materialize. The area's agriculture shifted to export crops and cattle, while large areas of once-productive land became deserted as intensive cultivation or overgrazing wore out the thin tropical soils. To help reclaim these areas, researchers designed production units based in part on indigenous polyculture and in part on the application of ecological knowledge. Pest management in these production units requires no commercial chemical pesticides. The forest shelter belts act as reserves for numerous predators and parasites of insect pests, and the high structural and species diversity of the cropping systems also favours these beneficial organisms. Wherever possible, traditional crops, crop mixtures, and management practices are employed. A cornerstone of the overall design of the agroecosystem is diversity - crop diversity in the mixtures, structural diversity in plant architecture, and species diversity in the crop/forest/reservoir system. This diversity offers security in harvestable food and appears to help protect crops from pests. The Tabasco project is especially attuned to local ecological and topographical conditions, and demonstrates that ecological principles and practical knowledge can be successfully combined to create self-renewing agricultural production systems.

[31]Prance (1986) 7 makes the point that many of the plants which we already use have their wild relatives in the forest. It is essential to preserve these species because, with modern genetic engineering, they will become increasingly important when it becomes easier to take desirable characteristics such as disease resistance or higher protein content from wild species and place them into the cultivated ones. On the contribution of wild species to agriculture generally, see Myers (1983) 13-86.

[32]See Dover & Talbot 58-9 and 62-3, and Prescott-Allen 54 and 65-6.

environmental degradation, loss of genetic diversity and soil fertility, farmers in the developed world increasingly face an economic crisis. Previously reliant on capital investment and the financial ability to import fossil-fuel based agricultural inputs, they now have to consider alternative farming practices to reduce costs. Dover & Talbot argue that the ecological constraints facing agriculture must be faced - the environmental effects and resource dependencies of agriculture have to be confronted, and new forms of production must emerge if industrial agriculture is to be sustainable.[33] Prescott-Allen put it this way:

> 'Agriculture originated from wildlife. Today wildlife provides much of the material for its repair and renewal. The future will no doubt bring changes in the ways we use wild genetic resources, but our dependence on them is unlikely to diminish.'[34]

3.1.4 Wilderness as gene bank

In wild, undisturbed areas, the natural genetic diversity of native wildlife is preserved. A strong argument in favour of setting aside wilderness areas is their importance as a reservoir of natural ecological processes and of a diversity of genetic material and constructs that have evolved over long periods of time. The genetic diversity in a system of large and undisturbed tracts of land is an important source of stability in wildlife populations, and our best hope for retaining essential gene pools.[35] Aldo Leopold told his wildlife ecology students at the University of Wisconsin that the first law of successful tinkering is to save all the parts.[36] 'Diversity and variety', Frome writes, 'appear to be the cornerstones of survival.' -

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[33]Dover & Talbot 63.

[34]Prescott-Allen 66. For further discussion of the utilitarian benefits to agriculture of species preservation, see Myers (1979) 57-68, and Myers (1983) 13-86.

[35]Hendee, Stankey & Lucas (1990) 9, 359.

[36]Nash 259, citing Aldo Leopold 'Lecture Notes', Leopold Papers, Box 8.

> 'The more ways there are of consuming, or being consumed, the more favorable the chances to avoid high fluctuations in the birth and death of species. Unlike our "tree farms," which generally specialize in single species, a tropical wilderness rain forest embraces as many as 400 different tree species per square mile, but with only 3 or 4 trees of any one kind. It appears to be very stable, and if one species dies out the web of life is not disrupted.'[37]

Wilderness preservation aids evolutionary processes. As McCloskey puts it,

> 'the complex ecosystems that develop in undisturbed areas support a genetic diversity that maximizes the possibilities of the evolutionary process. Wilderness, in effect, becomes a "gene bank" that evolution can draw upon to offset man's influence in narrowing the number of species on the planet.'[38]

The need to preserve genetic diversity is also emphasised in the *World Conservation Strategy* (1980), and is a recurring theme in modern environmental literature.[39] Genetic diversity is a matter of practical economic self-interest and survival.[40] It is essential to sustain and improve agricultural, forestry and fisheries production, to secure food, fibre and useful drugs,[41] to ensure the unimpaired functioning of ecological processes, to provide the raw material for scientific advances, to serve the recruitment needs of surrounding degraded environments,[42] and to reduce the rate of extinction of species useful or potentially useful to humans. It has been estimated that 25 000 plant species and more than 1 000 vertebrate species and subspecies are threatened with extinction.[43] Sustainable utilisation of species and ecosystems requires preservation of genetic

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[37]Frome 58.

[38]McCloskey 293.

[39]See, for example, Salm & Clark 18 *et seq.*

[40]Salm & Clark 7-8.

[41]It has been estimated that more than 40 percent of drugs prescribed each year in the United States contain substances of natural origin - from higher plants (25 percent), microbes (13 percent), or animals (3 percent) - as the sole or a principal ingredient - Salm & Clark 21.

[42]Valentine 126.

[43]Salm & Clark 8, citing IUCN, 1975.

resources, which cannot be achieved without protection of ecological processes and life support systems.[44] The major threat to species diversity, therefore, is habitat destruction which results either in irreversible species extinction or genetic impoverishment through the extinction of individual populations of species.

Wilderness is the ultimate or prime natural habitat in which, by any definition of wilderness, nature's processes are allowed to proceed with minimum human interference and impact. Reduction of wilderness means extinction of species and reduction of biotic diversity, which cannot be recreated.[45] The inescapable logical conclusion must be that genetic diversity is best advanced by protection of the wilderness resource. Wilderness areas constitute invaluable *in situ* reservoirs of gene pools. Equally obviously, however, because of the limited extent of the areas that may practically be dedicated to wilderness status, other categories of protected natural areas having varying degrees of extractive and nonextractive use can and must also play an important role as living resource banks or storehouses.

The concept of sustainable development has been widely accepted since publication of the *World Conservation Strategy* (1980). It is based on recognition of two essential human needs: the need for economic development and the need for wise management of natural resources - in other words conservation. In 1987 the World Resources Institute 'Global Possible' Conference concluded that the earth's severe environmental and resource challenges could be met, its population stabilised, and world poverty alleviated, if vigorous new worldwide initiatives were pursued without delay. The conference identified five essential processes that were needed: demographic transition to a stable world population, an energy transition to an energy-efficient era, a resource transition to reliance on nature's income and preservation of its capital, an economic transition to

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[44]Salm & Clark 17.

[45]Frome xiii writes: 'What is the worst disaster that could happen in our time? The nuclear holocaust? Yes, that would render many conflicts moot. But there is another threat virtually as menacing. As natural scientists have warned, it is neither energy depletion nor economic collapse but the loss of biotic diversity in the natural habitats that is our gravest concern. Much has been written and spoken about the extinction of species, but this derives directly from the loss of wild places. Biotic diversity, after all, is something you can't recreate in a laboratory or provide for in a multiple-use management plan.'

environmentally sustainable growth, and a political transition to a global bargain grounded in complementary objectives between North and South.[46] It is unlikely that at least two of these objectives will be achieved without maintenance of genetic diversity - preservation of nature's 'capital' and environmentally sustainable growth, both of which would be promoted by protection of wilderness areas. We have already consumed much of nature's capital and should strive to preserve what remains of it for sustainable dividends.[47]

3.1.5 Wilderness as habitat

Ecologically, diversity contributes to stability. Wild environments are biologically diverse. Wilderness, by definition, is the wildest environment. It provides sanctuary for local and migratory birds and animals and, in the case of rainforests, niches for an estimated two to four million species of plants and animals.[48] It affords sanctuary to all its wildlife, even those varieties which at present apparently have no utilitarian value.[49] There are many benefits that medicine and agriculture, in particular, have derived from apparently useless species that have persisted in wilderness without prior human knowledge or care.[50] In human terms, therefore, wilderness preservation serves two utilitarian

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[46]Elkington 5-6.

[47]Biotechnology holds great promise in environmental restoration through, for example, tissue culture for the mass production of plants for restoration of eroded lands, and embryo transfers for use in threatened animal species; but it seems that '(many) hurdles have still to be scaled' and this approach should be used to 'maintain some forms of genetic diversity (only) when all else fails' - Elkington 21. Further on wilderness, ecological diversity and stability, and genetic resources, see Repetto 83-92, and Myers (1979) 48-53, 222 and 253. Grainger 194 neatly sums up the argument in favour of wilderness as gene bank as follow: 'Just think of the potential wealth waiting to be harnessed from plants still growing wild in the forests. Imagine the impact on the local and national economies of five new crops like rubber or sugar-cane; or the effect on medicine of a new cancer cure originating in a rainforest plant. And we would throw this away for a decade of logging or a few years of farming before the cattle get overcome by ticks or the soil fertility is exhausted and crop yields plummet.'

[48]Valentine 126.

[49]Nash 258.

[50]See Myers (1979) Chapter 5.

purposes: it contributes to stability, and is 'the last home ground of countless species that would otherwise be doomed.'[51]

The major cause of species extinction is habitat loss. Habitat loss is the cause, species loss is the symptom. We should treat the cause, not the symptom.[52] Frome writes:

> 'Wildlife cannot continue to contribute to our way of life unless we set aside adequate living space, in wilderness, with the emphasis directed at conserving not game per se but adequate portions of the total life community - the arctic, oceanic, estuarine, prairie, marsh, high desert, low desert, forest, tropical, and the several other land forms in between.'[53]

The argument in favour of wilderness preservation because it serves as wildlife habitat is even more compelling in the South African context. Wildlife not only immeasurably adds to the quality of life of all of our inhabitants, it is an essential component of the subsistence lifestyles of the vast majority of our rural people.[54]

3.1.6 Future options

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[51]Frome 63.

[52]Conway 158-164 gives some interesting examples of symptomatic treatment. He refers to the 'extraordinarily diverse, often bizarre effort to preserve vanishing animals through intensive manipulation of their behaviour, physiology, even their ecology, and by captive propagation.' - 'In Baraboo, Wisconsin, a serious bespectacled young man rises early and goes dancing each morning with a female whooping crane. In Sweden volunteers haul a dead pesticide free pig to the edge of a North Sea beach for white-tailed sea eagles to eat. At the Darwin station in the Galapagos, a scientist feeds hatching giant tortoises. At the Bronx Zoo in New York, zoologists stand by to aid a pregnant Mongolian wild horse should delivery be difficult. In the Bialowieza forest in Poland, a truck driver deposits hay for a herd of hulking European forest bison and, at the Pretoria zoo, a biologist prepares a fruit salad for a small colony of the rare Rodriques Island flying fox. Each of these activities bespeaks a dedication to the continued survival of a wild creature which, because of man, is no longer able to survive without man and each is representative of a growing new concept of responsibility towards wildlife, a new relationship between man and animal.' The purpose of dancing with the crane is 'to strengthen the pair-bond he has established with this abnormal crane and so induce her to lay eggs after being fertilised with semen extracted from a captive male kept nearby - improvement of breeding success.' He concludes: 'Where we cannot provide a sufficiently rich environmental panoply for natural communities to follow their rhythms, we must maintain or create the needed habitats - or modify the lives and behaviour of the animals important to us so as to enable them to survive. One way or the other, it amounts to a different kind of captivity.' How much better it is to provide adequate wild habitats!

[53]Frome 76.

[54]The socio-economic values of wilderness and wildlife are dealt with more fully in the next section of this chapter and in Chapter 5.

It is impossible to predict what species, however apparently useless at present, may with the advance of scientific knowledge in the future prove to be indispensable or at least useful to humankind. Catering to human needs and desires has inevitably resulted in modification of nature, but a balance between conservation and modification should be sought so as to keep options of future needs and desires open. In the final analysis, wilderness keeps options open; it is 'a hedge against the human potential to make mistakes', and 'holds answers to questions man has not yet learned how to ask.'[55] Myers emphasises that the prime threat to wildlife species lies with loss of habitat; loss of habitat occurs mainly through economic expoitation of natural environments; and that 'by eliminating an appreciable portion of earth's stock of species, humanity might be destroying life that just might save its own.'[56] In the web of life everything is interconnected. Each species serves a necessary function in the ecosystem. As Favre points out, the elimination of a species forecloses one possible line of evolution; the preservation of every unique species will promote the strength and complexity of the ecosystem; whenever a species is extinguished, a wide range of options for the future is foreclosed; and since every species, by definition, displays a unique set of adaptations to the environment, species preservation may help future scientists to unlock the secrets of nature.[57]

3.1.7 Personal and social benefits

Personal and social benefits relate to quality of life. Quality of life is a key concept in environmentalism.[58] Personal benefits from wilderness accrue to both direct users (people who visit wilderness) and indirect users (people who derive some advantage from wilderness without a direct wilderness experience). Wilderness has been demonstrated to have a positive influence on personal growth and development, and on the physical,

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[55]Nash 260.

[56]Myers (1979) 7.

[57]Favre (1979) 277.

[58]Pepper 20.

mental and spiritual well-being of individuals. The direct consequent social benefits are a healthier society with enhanced quality of life and improved productivity. The following are some of the more important wilderness benefits which have been identified as accruing directly or indirectly to individuals and to society as a whole.

3.1.7.1 *Heritage and cultural values*

Aldo Leopold described wilderness as something to be loved and cherished, because it gives definition and meaning to life. He pleaded for 'the preservation of some tag-ends of wilderness, as museum pieces, for the edification of those who may one day wish to see, feel, or study the origins of their cultural inheritance.'[59] He argued that the ability to see the cultural value of wilderness is a question of intellectual humility:

> 'The shallow-minded modern who has lost his rootage in the land assumes that he has already discovered what is important; it is such who prate of empires, political or economic, that will last a thousand years. It is only the scholar who appreciates that all history consists of successive excursions from a single starting-point, to which man returns again and again to organize yet another search for a durable scale of values. It is only the scholar who understands why the raw wilderness gives definition and meaning to the human enterprise.'[60]

McCloskey describes wilderness as 'an idealized conception of nature in pure form that becomes generally prized only in advanced cultures', and suggests that two conditions are necessary for a consensus that it is a public good that warrants preservation: a society with highly-educated leaders and economic surpluses, and an increasing scarcity of wilderness.[61] There was little in America's European intellectual heritage which accorded value to nature in its unsullied form, and current attitudes towards wilderness in the United States are the product of a long evolution in American thinking.[62]

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[59]Leopold 188.

[60]Leopold 200-201.

[61]McCloskey 288.

[62]McCloskey 289, 294-5.

Americans spent three centuries taming the wilderness, became accustomed to being close to nature, and now that they have lost so much of it, they regret its passing. The hardships involved in subduing wilderness promoted self-reliance and self-respect. As a result of this history, McCloskey says that wilderness has become a symbol imbedded in American national consciousness - it is regarded as an important part of that nation's cultural heritage.[63] Other commentators have also stressed the heritage value of wilderness.[64] Getches refers to American enterprise in protecting its wilderness as a source of national pride and an example to other nations.[65] Hendee, Stankey & Lucas describe it as 'a factor in forming our national character - part of what makes Americans unique.'[66] Stegner, in commenting on the significance of wilderness as 'an intangible which has altered the American consciousness', wrote: 'Something will have gone out of us as a people if we ever let the remaining wilderness be destroyed ....'[67]

Zahavi suggests that wilderness is the habitat in which human culture evolved, and if we wish to understand the origin of our basic spiritual human qualities, it is the wilderness habitat to which we must return for such a study. He argues that the diversity of human cultures and human sense of beauty could be interpreted according to the different wilderness habitats which demanded different responses - different habitats demanded different sets of information to guide individuals and societies in their everyday lives, and '(u)nless we keep as many and as varied wilderness habitats we may never be able to study the origin of the diversity of human culture.'[68]

Africa is the cradle of humanity. The wilderness of Africa is in the blood of its people. South African cultures are rooted in its wilderness. It forged the character and culture

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[63]McCloskey 292-3.

[64]For example Burford 35.

[65]Getches 5.

[66]Hendee, Stankey & Lucas (1990) 7.

[67]Quoted in Hendee, Stankey & Lucas (1990) 11.

[68]Zahavi 155.

of the Afrikaner nation, and played a significant formative role in the development of all the other races and cultures in the region. The game reserves of KwaZulu, for example, particularly Umfolozi and Hluhluwe, featured prominently in the history of the Zulu people before the area was settled by whites. Zulu leaders in those years were aware of the economic and spiritual values of the game areas long before their proclamation. In Buthelezi's words: 'The wilderness is our natural habitat for it is here where we were forged as a people.'[69] Mabuza gives a Swazi perspective:

> 'How can we, in KaNgwane, when we are so land-hungry, penalise ourselves by establishing a wilderness sanctuary?
> We are, however, optimistic that ...the Swazi people will support this venture which is aimed at restoring part of their lost wilderness heritage. ...
> Expert advice will be needed not only in developing such a project into an economic tourist attraction, but to restore a lost heritage for posterity.'[70]

Our uniquely African wilderness is part of our unique national heritage, and should be a source of national pride. South African enterprise in protecting its wilderness should be an example to other nations on the continent of Africa. But there is also a global dimension to wilderness. It has been described as having 'great value in the global cultural context.'[71] From an international perspective, wilderness is not just a source of national pride and national cultural heritage; it is part of the world's heritage, and this implies international obligation. 'The few remaining wilderness areas in southern Africa', MacDevette writes, 'are a product of millions of years of evolution and represent priceless assets to the human race.'[72] We have an obligation to the international community and to the human race to preserve this global heritage.[73]

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[69]Buthelezi 107.

[70]Mabuza 172. A properly constituted Wilderness Advisory Council would be able to provide such expert advice.

[71]Eidsvik (1987) 55.

[72]MacDevette 22.

[73]The global heritage of wilderness is dealt with more fully in Chapter 7.

3.1.7.2 *Source of inspiration*

Wilderness, by definition, is unsullied nature. Throughout history, nature has consistently inspired landscape painters, writers of fiction, poets and photographers.[74] Without the majesty, wonder and awe of wilderness, there is no doubt that the arts, and therefore the quality of our lives, would be poorer. The poet Gerard Manley Hopkins pleaded:

> 'What would the world be once bereft
> Of wet and wildness? Let them be left,
> O let them be left, wildness and wet;
> Long live the weeds and the wilderness yet.'[75]

3.1.7.3 *Spiritual enrichment*

> 'There is something in the very name of wilderness, which charms the ear, and soothes the spirit of man. There is religion in it.'[76]

Protection of any part of the natural realm raises ethical and philosophical questions. There is a theological perspective, a religious dimension to wilderness. Religious attitudes about wilderness, and religious behaviour and experience in wilderness, have been the subject of increasing academic and ecclesiastical interest in recent years.[77]

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[74]See, for example, Nash 69-83 for reference to the wilderness-related works of American writers and artists. In the United States, photographs are taken by literally millions of visitors to the national parks, and many calendars and coffee table books with wilderness themes are published by environmental groups and others - Manning 33.

[75]Quoted in Trevelyan's essay 'A Spiritual Vision for Nature and Society', in which the point is made that throughout history, nature has been the singularly most consistent inspiration for the arts - Trevelyan 186-7. On wilderness and photography, see Litsios 206-212. On aboriginal art in wilderness, see Woodhouse & Pager 57-62, and Trezise & Roughsey 63-5.

[76]Nash 56, quoting Estwick Evans *A Pedestrious Tour of Four Thousand Miles through the Western States and Territories during the Winter and Spring of 1818* (1819) 102.

[77]There have been many journal articles dealing with the spiritual or religious aspects of the preservation movement since 1980, particularly as published in the journal *Environmental Ethics* (published jointly by The University of Georgia and Environmental Philosophy Inc, Athens, Georgia) in which there has been continuing dialogue and debate about eco-ethics, eco-theology and eco-philosophy.

Wilderness offers compassion to other living forms and settings for spiritual actualisation and transcendence. Religion has come to be identified with wilderness rather than opposed to it. Graber suggests that wilderness 'has become a contemporary form of sacred space, valued as a symbol of geopiety and as a focus for religious feeling.'[78] Wilderness helps us to achieve transcendence - to enter sacred space is to request religious experience.[79] She argues that secular arguments presenting wilderness preservation as a means to an end, rather than as an end in itself, are misleading. Such ends as outdoor recreation, watershed management or wildlife habitat protection do not necessarily need wilderness locations to be successful - outdoor recreation can be enjoyed on a softball diamond, watershed management is compatible with well planned roads and resorts, and wildlife habitat can be provided for many species in farm ponds and woodlots. 'The intense emotion and rigid codes of conduct associated with wilderness areas' she writes, 'suggest a motivation beyond the practical. Whether we realize it or not, an influential portion of the ...public treat wilderness as sacred space.' Graber argues further that it is necessary to go to wilderness for enlightenment because by definition wilderness is the best part of the earth. It represents the earth as it was in the beginning, fresh from the Creator's hands. It provides us with a model of perfection. It implies moral order in nature as well as physical order.[80]

The theological viewpoint is well expressed in the following statements made by clerics in the Congressional Subcommittee Hearings on the Arkansas Wilderness Bill of 1983:

> 'Stewardship ...demands the setting aside of further wilderness areas.'[81]

> 'Just as the children of Israel drew upon the wilderness for the strength they needed to possess the promised land - just as the greatest of teachers, Jesus, nourished his spirit in the wilderness before entering the most dynamic of all ministries - we must look upon our wilderness areas as the source

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[78]Graber ix.

[79]Graber 5, 11.

[80]Graber 12-15.

[81]Dr Jim Argue, Pulaski Heights United Methodist Church - Arkansas Wilderness Act Hearings 344.

of nourishment that feeds the spirit of this great nation. ...we must come to understand that man is a spiritual being, and that our environment in its natural state is a God-given gift, and that it is the substance upon which the spirit of mankind exists.
To the degree that we allow our wilderness areas to be diminished, to that same degree we will be starving the very spirit in man that has made this country, this universe great.'[82]

'Increasingly, ...theologians in the west have seen that an emphasis on instrumental value alone is not sufficient. ...an emphasis on instrumentality alone is an impoverishment of the human spirit. ...
Only when a society moves beyond the impulse to dominate everything is there hope. The setting aside of wilderness lands is one way to move beyond this, and therein take a small step toward spiritual - that is, life affirming - well-being. To let go of certain regions of the land, and thus to let them be can, itself, be a sign that we have, ourselves, let go of that problematic impulse within ourselves to control everything. ...
(The Bill's) enactment can represent a small, but not insignificant, step toward a healing of our own spirits.'[83]

'At a time when so much of our time and energy is consumed in a fast paced, pressure filled society, pressureless quiet time and space is essential to the spiritual, physical, and mental health of Arkansans. It has always been the conviction of the church that the spirit of humanity is renewed in a place set apart. It is also our conviction that human beings were appointed in creation as stewards of nature, not its possessors. Lest we lose sight of this responsibility, it is essential that we maintain sacramental expressions of this truth. Sacramental expressions can be defined as outward and visible signs of inward and spiritual realities. The reality, represented by these few areas of Arkansas lands, is that all of creation is interdependent. Nothing can so bring this reality to conscious recognition and remembrance as well as an area set apart for enjoyment, yet untamed enough for an individual to be acutely aware of his or her own vulnerability and dependence. This experience of vulnerability and dependence has historically been a catalyst for spiritual epiphanies which have been the creative force for much of our great literature, art, and understanding of the God who created us, sustains, and redeems us.'[84]

Also in the American context, McCloskey writes:

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[82]Rev Earl Anderson, Little Rock Unity Church - Arkansas Wilderness Act Hearings 344.

[83]Jay McDaniel, Assistant Professor of Religion, Hendrix College, Conway - Arkansas Wilderness Act Hearings 345.

[84]Bishop Herbert A Donovan, Episcopal Diocese of Arkansas - Arkansas Wilderness Act Hearings 346.

> 'The powerful presence of nature in the wilderness of a new continent also served as an aid to religion and as a setting for religious experience. Puritan preachers such as Jonathan Edwards used the omnipresent plan of nature as evidence of the planning of the God of his revealed religion. Deists, such as Thomas Jefferson, could look to nature's plan as the chief support of the cosmological proof of God's existence. In a type of pantheism, others could commune with God in the "temple of nature." Emerson and the transcendentalists found a source of morality in man's acting responsibility (*sic*)as part of nature's chain of life. A few sought a mystical fusion of their psyches with the forces of nature. And even atheists of misanthropic cast of mind could look to nature as the one relatively good thing they knew.'[85]

In South Africa, a survey undertaken to investigate visitor perceptions of the appropriate future recreational use of the Cederberg Wilderness Area in the Cape Province disclosed that, for 83% of all visitors, the opportunity to experience solitude, and for 94%, the opportunity to enjoy fellowship with God and/or nature, was important or very important.[86]

3.1.7.4 *Recreational value*

Recreation is the most tangible value of wilderness;[87] but it must be stressed that wilderness is not just a type of primitive recreation area. Wilderness areas are established for many purposes, of which recreation is only one.[88] As far as recreation is concerned, however, they are important components of the Recreation Opportunity Spectrum.[89] Wilderness offers a specialised type of recreation opportunity, emphasising naturalness, solitude and freedom. Manning sees its value as being its distinct contribution to a greater system of recreation opportunities.[90] McCloskey describes it

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[85]McCloskey 291.

[86]BC Glavovic (1992) 69, 71.

[87]Manning 27.

[88]Hendee, Stankey & Lucas (1990) 362 - for a detailed discussion of wilderness recreational use in the United States, see 355-398.

[89]Hendee, Stankey & Lucas (1990) 4.

[90]Manning 27.

as the optimum setting for many sport forms of highest quality. These are sports such as mountain climbing, cross-country backpacking and amateur nature study. In a mass society, he suggests, personalized forms of sport of such quality meet a growing need for expression of individual capacity.[91] The recreational motives or preferences which are satisfied in wilderness include enjoyment of nature, physical fitness, reduction of tensions, escape from noise and crowds, independence, introspection, achievement, risk taking, reflection, contemplation, challenge and enhancement of outdoor learning, skills and experience.[92]

In the United States, wilderness currently enjoys widespread popularity, so much so that its preservation is now threatened as much from enthusiastic overuse as from economic development.[93] It is estimated that 6 to 15 per cent of the population has visited a designated wilderness area.[94] As the population became increasingly urbanised, more and more people turned to the nation's diminishing wild and empty places for recreation. Nash estimates that from the late 1960s, visits to wilderness areas grew twelve per cent annually, doubling in a decade.[95] Rising numbers of hikers, campers and other outdoor enthusiasts produced concern that wilderness was in danger of being 'loved to death'[96] because, as Frome points out, a heavily used wilderness is no wilderness at all - the wilderness resource is for everyone, but not everyone at once, or for use in ways that limit the experience of others.[97] Trends in the amount of direct use, however, have changed in subsequent years. The rate of growth, while still high, gradually reduced, levelling off in the 1980s and even declining in many wilderness areas. The reasons for

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[91]McCloskey 294.

[92]Manning 28.

[93]Nash xi.

[94]Manning 27.

[95]Nash 316.

[96]Stankey (1982) 160.

[97]Frome 93-4. For a discussion of what he calls 'the irony of victory' - the very increase in appreciation of wilderness threatening to prove its undoing - see Nash 316-341.

the change include the changing age structure of the population (one of the most fundamental changes in American society is the increasing age of the population), and reducing leisure time (the workweek increased from a median of 43 hours in 1975 to 47 hours in 1984, and median leisure time dropped from 24 to 18 hours per week).[98] Nonetheless, recreational overuse of wilderness remains a matter of concern. The dramatic increase in use since World War II has resulted in regulations requiring planners in the Forest Service to set maximum use levels or carrying capacity for specific wilderness areas. Recreational use must be sufficiently limited and distributed to 'allow natural processes to operate freely and ... not impair the values for which wilderness areas were created.'[99]

The use of wilderness for recreation is also popular in South Africa, so much so that overuse problems are being experienced at certain times of the year in areas such as the Cederberg and the Drakensberg.[100] In Natal, the demand for the Umfolozi and St Lucia wilderness trails conducted by the Natal Parks Board and the Wilderness Leadership School greatly exceeds the supply of trails and rangers.[101] These trails attract people from many parts of the world. According to Player, the founder of the School, they are attracted by 'the unique, magical continent of Africa':

> 'People are coming on trail for reasons that go far beyond wanting to look at big game. It is a journey of self-exploration in some of the remaining bits of old Africa, the home of the human race.'[102]

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[98]Hendee, Stankey & Lucas (1990) 381-7.

[99]Wilkinson & Anderson 359-1, citing Regulations 36 CFR § 219.18(a) (1984) - the Forest Service is authorised to regulate recreation to preserve wilderness character, to which end it can close campgrounds, trails, and areas to horses and humans; issue permits to limit numbers of campers, their location and length of stay; and can limit or prohibit specific activities, such as building campfires or fishing.

[100]MacDevette 24. For a proposed framework for recreation planning in South Africa, with particular reference to recreational use of the Cederberg, see BC Glavovic generally.

[101]In 1979, the Natal Parks Board stated that only one in five applicants succeeded in going on a wilderness trail - Page 241-3.

[102]Ian Player (1982) 199.

Notwithstanding the popularity of wilderness recreation, a relatively small proportion of the population directly enjoys this benefit. Consequently, as Stankey points out, unless wilderness is viewed as only one element within a broad spectrum of land management settings, it is unlikely that a viable wilderness system can be maintained:

> 'If wilderness is provided without a parallel effort to offer a range of amenity and recreational settings for the whole population, it will be difficult to retain the necessary political support for wilderness. Many authors have commented that the future of wilderness lies in the city - a reminder that we need to meet the needs of the majority if we hope to be responsive to the minority. ...By providing settings where the greatest variety of public tastes can be accommodated, we reduce the possibility that recreationists will be forced to select from a narrow range of choices, thus conceivably bringing inappropriate demands and preferences to settings not capable of meeting them. For example, if areas similar to wilderness but managed primarily to satisfy recreational demands are not available, then people will use wilderness all the more.[103]

It is important for the survival of wilderness in South Africa, therefore, that a full range of wilderness and wilderness-type recreational opportunities be provided for all our people. In other words, our national land management plans and strategies must accommodate an appropriate Recreation Opportunity Spectrum.[104]

3.1.7.5 *Indirect recreational value*

Hendee, Stankey & Lucas regard indirect recreational use as a major use of wilderness. Millions of people who never set foot in wilderness derive vicarious satisfaction from the experiences of others. This comes about through the medium of wilderness-related books, films with nature-wilderness themes, and television programmes based on nature and wilderness; listening to the accounts of the experiences of direct users; or by staying at resorts or camps near to wilderness.[105] Nash describes these indirect users as armchair nature enthusiasts, and their eagerness to consume wilderness indirectly, and

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[103]Stankey (1982) 162-3.

[104]See BC Glavovic, generally.

[105]Hendee, Stankey & Lucas (1990) 357-8.

to support nature philanthropy, as an important form of nature importing - wild nature is an actively traded commodity in an international market in which countries who still have it, export wildness to countries in which it has become scarce.[106]

3.1.7.6 *Psychologica valuel*

For Arnett, 'humanity is the very nucleus of nature, as nature is the soul of humanity.' He believes that:

> 'Any separation of the two is a diminution of both. This mutual dependency of people and nature is the living essence of worldwide concern for the preservation and protection of those few spaces remaining on this globe where human technology is not an intrusion upon the psyche.'[107]

Bob Brown writes:

> 'We are less than the hundredth generation of technological humans set apart from nature. Hundreds of thousands of previous generations of our human and pre-human species lived in the total wilderness of Earth and, moreover, were a living part of that wilderness. It is no surprise, therefore, that we are all deeply marked by an affinity, both physical and spiritual, for the wilds. There is no one on the planet who does not lose when wilderness is lost, who does not have a far greater potential for fulfilment in life as long as wilderness persists and is protected on our small, crowded globe. As only those who have been in wilderness can fully attest, it holds unique and positive values for each and everyone of us.'[108]

McCloskey suggests that wilderness is valued more as a setting for human experience than as a resource to be physically used. It is valued more as a mental image than as a physical reality, and it may therefore be difficult for wilderness managers to comprehend that the public may be less interested in the physical reality of wilderness

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[106]Nash 343-4.

[107]Arnett (1982) 11.

[108]Bob Brown 82-3.

than in the psychology of its representation.[109] Its psychological value is, however, not just symbolic. Wilderness experience provides therapeutic benefits for people under urban stress. Exertion in wilderness aids mental and physical recuperation. It offers an 'escape from the tension of full-time image management.'[110] In Australia there has been judicial acknowledgement of the psychological value of wilderness - Holland J in *Attorney-General v Sawtell* remarked that

> 'one of the explanations for the intensified interest of large numbers of the public in wildlife and preserved natural areas offered by the evidence is the pressures on modern human beings of their artificially-created environment and the crowding caused by population growth making more and more attractive, access to wilderness areas, national parks and nature reserves which, by affording relief and distraction from such pressures, promotes our mental health and well-being.'[111]

Frome argues that modern humans have retained the inherent biological characteristics of their ancestors, just as the long-domesticated dog has retained the characteristics of its wild forbear, the wolf. The same set of genes govern our emotional development, drives, and needs as when we were Paleolithic hunters or Neolithic farmers. Although we have proved to be resilient, and capable of adapting to smoky skies, polluted streams, crowded and noisy cities, our adaptive potential is not unlimited. It is little wonder, therefore, 'that we are filling hospitals, mental institutions, clinics, prisons, and cemeteries with the fruits of terrible divorcement from the native environment.' Wilderness, he says, 'furnishes diversity and stimulating experiences of the natural world for society to draw upon now that the material world has been seriously depleted of its resources.'[112]

Nash also emphasises the psychological role of wilderness in modern civilisation. Humans evolved from a primitive to a rural and then to an urban environment. The

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[109]McCloskey 295.

[110]McCloskey 294.

[111]*Attorney-General v Sawtell* 2 NSWLR (1978) 200 at 212 (quoted in Bates 124).

[112]Frome 13.

consequence is the desire in human nature to be simultaneously 'the pioneer, the husbandman, and the townsman.' Effective environmental planning must therefore permit us to indulge all three sides of our inward nature. We need to preserve the opportunity 'to recharge depleted human batteries directly from Mother Earth.'[113] Humans need both wilderness and civilisation for psychological balance. But they must not be seen as adversaries. There should be a blending of nature and technology, spirit and science, wilderness and civilisation. Wilderness is, indeed, an 'important component of the vitality of civilization.'[114]

Wilderness can also make a contribution to mental health, by counteracting the repressive effects of civilisation. The phrase 'wilderness therapy' came to have increasing prominence in mental health literature of the 1970s.[115] Wilderness areas soothe the spirit of man. They provide an antidote to the strains of modern living. We need them periodically to renew our souls. They are important not only as a sanctuary for rare birds and animals but for humans hard-pressed by twentieth-century strains, smells and noises.[116]

Wilderness has also been attributed with the functional capacity of producing other desirable mental states. McCloskey refers to it as 'a guage of capacity to triumph over adversity', 'a setting for self-discovery', and as 'a setting for political reform.' In calls for a return to the simple life of nature, wilderness represents 'a social panacea for the inhabitants of corrupt societies.' Wilderness serves as a refuge or sanctuary for those who are disatisfied with the restraints imposed by society - for them wilderness represents freedom. Others, 'in the eremitical tradition of early Christianity, used the wilderness as the place of their hermitage, close to the purity of nature.'[117]

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[113]Nash 244-5, citing Benton MacKaye, an environmental planner.

[114]Nash 247. For an interesting overview of American thinking about wilderness, and growing appreciation of its psychological values, from the turn of the nineteenth century to the 1970s, see Nash 249-254.

[115]See Nash 265-270.

[116]Nash 213-4.

[117]McCloskey 291-2.

3.1.7.7 *Aesthetic value*

Frome describes wilderness as 'the lush adornments of our little planet'.[118] Preservation of wilderness is preservation of beauty. It is what Hey terms the quickening of spiritual sensitivity evoked by 'the contemplation of the wonder and beauty of nature' that gives wilderness aesthetic value.[119] McCloskey suggests that contact with wilderness is 'primarily valued as an aesthetic experience' - it is 'the setting for an intense and highly personal encounter with natural wonder.'[120] According to Myers, wildlife species 'add to the diversity and texture of life's fabric on earth' - all are complex and interesting, even the smallest micro-organism, and therefore have aesthetic value.[121] Robert Marshall, influential wilderness advocate and co-founder with Aldo Leopold of The Wilderness Society in the United States,[122] also stressed 'the esthetic importance of wilderness'. He felt that wild scenery compared to great works of art. When asked how many wilderness areas America needed, he replied 'How many Brahms symphonies do we need?' No object of art, he thought, could claim as much, nor could it compare to the sheer size and awe of wild landscapes. In brief, 'wilderness furnishes perhaps the best opportunity for ... pure esthetic rapture.'[123]

What of the charge of elitism, the argument that only a privileged class is served by wilderness - the leisured, young, healthy and affluent? Setting aside wilderness, in other

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[118]Frome xiv-xvi writes: 'We *are* responsible to the future and for the present. Our generation is overwhelmed with challenges - of war and peace, overpopulation, energy, food, and the need of each individual to achieve fulfilment in his or her own way. Yet possibly the most critical challenge of our time is to protect the shreds of wilderness that yet remain - not only in this country, but everywhere in the world - the lush adornments of our little planet that charm the rest of the universe as we hurtle through space.'

[119]Hey 177 - 'Colour, scent and sound are inextricably woven into the complex web of life. Man is indeed fortunate to be endowed, not only with a capacity for deriving intellectual satisfaction from observing and deducing the significance of natural phenomena, but also with spiritual sensitivity that is quickened by the contemplation of the wonder and beauty of nature.'

[120]McCloskey 293.

[121]Myers (1979) 45.

[122]Hendee, Stankey & Lucas (1990) 7.

[123]Cited in Nash 203.

words, is undemocratic. According to Whitney, the average American voter is troubled by the paradox that wilderness ceases to be wilderness if any significant percentage of the population enjoys it - 'if anything more than an infinitesimally minute sector of our population sets out to enjoy wilderness it ceases to be wilderness. ...Consequently wilderness preservation has a very small constituency. It is therefore easy to label wilderness preservationists as elitists, and a rather minute elite at that.'[124] Benavides counters with the argument that 'to wantonly destroy wilderness is like demolishing a great cathedral in order to grow potatoes on the site'.[125] Relatively few people enjoy great cathedrals compared with the number of people who enjoy potatoes. In a sense, therefore, the preservation of cathedrals and wilderness areas is elitist.

It is, however, democratic to respect minority rights. The majority is well served with roads, hotels and other 'civilised' facilities. There is very little wild country left anyway. In fact in the United States the total area of wilderness is estimated to be roughly equivalent to the area of paved land.[126] No one, it has been argued, would suggest that art galleries, libraries and universities should be converted to 'bowling alleys, circuses, or hot-dog stands' because more people would then have access to them.[127] Aldo Leopold had this to say about the criticism that wilderness is undemocratic:

> 'There are those who decry wilderness sports as "undemocratic" because the recreational carrying capacity of a wilderness is small, as compared with a golf links or a tourist camp. The basic error in such argument is that it applies the philosophy of mass-production to what is intended to counteract mass-production. The value of recreation is not a matter of ciphers. Recreation is valuable in proportion to the intensity of its experience, and to the degree to which it *differs from* and *contrasts with* workaday life. By these criteria, mechanized outings are at best a milk-and-water affair.

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[124]Whitney 177.

[125]Benavides 189.

[126]Nash 214.

[127]See Nash 205 where he refers to Marshall's views on concepts of comparative values and minority rights. A democratic society, Marshall believed, ought to respect the preferences of those who coveted the wilderness. The majority already had its roads and hotels; wild places, on the contrary, were vanishing rapidly, and 'there is a point where an increase in the joy of the many causes a decrease in the joy of the few out of all proportion to the gain of the former.' Quality, in other words, has a claim as well as quantity, and this principle should be applied to the allocation of land.

> Mechanized recreation already has seized nine-tenths of the woods and mountains; a decent respect for minorities should dedicate the other tenth to wilderness.'[128]

Making wilderness easily available to the masses would involve roads, cable cars, accommodation and other facilities, which would destroy the wildness that is the essence of wilderness. Wilderness must not be confused with scenery or natural beauty without this essence.[129]

3.1.8 Scientific benefits

Wilderness holds important scientific benefits. Because of its relatively undisturbed nature, it is a source of information about unmodified environments, how the world evolved, and how natural systems have been altered by the impacts of development.[130]

3.1.8.1 *Research, education and training*

Wilderness is an important setting for research in the biological sciences. It serves as a scientific laboratory for the study of biological processes, ecosystem dynamics and management control, and as an expanded classroom for social and natural sciences and the humanities. It offers opportunities for expansion of knowledge about natural, often complex ecosystems and wildlife species - previously unknown species and trace elements that prove to have commercial and medical applications continue to be found in wilderness.[131] Hendee, Stankey & Lucas suggest that sometimes the relationship of humans to the world around them can be understood only by analysing biological systems that have escaped human impact, and wilderness offers an important opportunity

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[128]Leopold 193-4.

[129]See Nash 243-4. Wildness has an aesthetic quality. It serves as a counterfoil to what Stegner describes as the 'creeping uglification' of development - Stegner 240.

[130]Hendee, Stankey & Lucas (1990) 9, 358.

[131]McCloskey 293.

to examine ecosystems as they have evolved outside human influence.[132] McCloskey also emphasises the particular value of wilderness today as an opportunity for educational experience, especially for learning about natural history. It provides 'the setting in which to learn the cultural, scientific, and ethical values associated with untrammeled nature.'[133]

Wilderness that provides unmodified habitat for threatened species of wildlife offers the opportunity to study such species with a view to ensuring their survival. It serves as an outdoor laboratory for increasing our knowledge and understanding of the biota around us. It makes possible important baseline research on vegetative communities, fire history, and other natural biological systems which could not have been undertaken without wilderness tracts. Wilderness areas serve as sites for instruction, scientific research stations, field trips, continuing undisturbed study, and the testing of ecological theory by living examples. For some of these uses other lands may be available; but some educational uses based on large-scale, long-term ecological processes are 'wilderness dependent.'[134]

The Wilderness Leadership School in South Africa has taken over 25 000 people on wilderness trails. Its purpose is to educate people, adults and young people from all walks of life, by taking them into the wilderness, about the importance of wild lands and soil conservation, and the value of game and nature reserves.[135]

Wilderness also provides a laboratory for social and psychological research, a setting for scientists concerned with human behaviour, in which to study how individuals relate to

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[132]Hendee, Stankey & Lucas (1990) 9.

[133]McCloskey 294.

[134]Some indication of the extent of educational use of wilderness in the United States are the statistics that each year nearly 8 000 students take wilderness-related courses at colleges and universities, focusing mainly on wilderness appreciation, use, enjoyment and skills; almost 60 per cent of the instructors take their classes to wilderness; and (in 1971) educational institutions accounted for about 5 per cent of total use of several wildernesses in Washington and Oregon - Hendee, Stankey & Lucas (1990) 359.

[135]Ian Player in Junkin 8, 16.

one another, what their reactions are to stress and challenge, and how natural environments affect their behaviour.[136]

3.1.8.2 *Wilderness as benchmark*

Wild places, and especially wilderness areas, are models of unmodified nature which scientists can use as benchmarks or criteria against which to measure the changes wrought by civilization. In research on the effects of land management practices, relatively unsullied natural plots may serve as control units for comparison with plots that have been modified or disturbed by humans.[137] On a global scale, a geographically representative collection of wilderness tracts could be of immeasurable scientific importance.[138] Modern ecologists claim to need wilderness as medical scientists need normal, healthy people. A practical example of this approach is the United Nations Man and Biosphere Program which set as its goal in the 1970s the preservation of representative samples of the world's major ecosystems - this depends, particularly in the populated temperate latitudes, on the preservation of wilderness areas.[139] Frome presents the 'barometer of biological change' argument in favour of wildlife, and therefore by implication in favour of wilderness, in the following passage:

> 'The abundance and variety of wildlife are basic measurements of environmental health, a barometer of biological change (and even an index of man's culture). The survival of the human species is inescapably linked with the survival of all other forms of life. A force that pollutes the habitat of any living thing pollutes the habitat of all living things. As more and more species disappear, man is apt to be affected, for each time one link is broken in the chain of life, every other form is disrupted and

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[136]Hendee, Stankey & Lucas (1990) 10, 358 - sociologist William Burch, cited at 358, has observed that '(q)uestions concerning the structure and function of small groups and their relation to larger wholes seem naturally adapted to wildland situations.'

[137]McCloskey 293.

[138]Hendee, Stankey & Lucas (1990) 9.

[139]Nash 257-8. The Man and Biosphere Program is discussed further in Chapter 7.

> may become endangered as a result. In an increasingly dehumanized world, wildlife is an assurance that nature's life machine still functions.'[140]

Leopold maintained that a science of land health needs 'a base datum of normality, a picture of how healthy land maintains itself as an organism.' For him, the most perfect norm is wilderness:

> 'Palaeontology offers abundant evidence that wilderness maintained itself for immensely long periods; that its component species were rarely lost, neither did they get out of hand; that weather and water built soil as fast or faster than it was carried away. Wilderness, then, assumes unexpected importance as a laboratory for the study of land-health.
>
> One cannot study the physiology of Montana in the Amazon; each biotic province needs its own wilderness for comparative studies of used and unused land.'[141]

In short, 'we literally do not know how good a performance to expect of healthy land unless we have a wild area for comparison with sick ones.'[142] It seems inevitable that agriculture and development will continue increasingly, and in some parts of the world dramatically, to alter and impact on the land and natural environment. Wilderness can stand as a yardstick against which these influences may be measured and assessed.

3.1.9 Survival

Apart from desert and some mountain wilderness, most wilderness areas are heavily treed. Humans depend on trees for their survival. Baker refers to trees as the earth's green mantle and nostrils. He says that for millions of years before humans appeared on earth 'the trees were working, purifying the atmosphere, cleaning up the fetid swamps and breathing life-giving oxygen into the atmosphere.' He points out that of the earth's 12 141 billion hectares already 3 642 billion hectares are desert, and suggests that, in the

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[140]Frome 63.

[141]Leopold 196.

[142]Leopold 197.

same way as if we were to lose one third of our skin we would be doomed, and if a tree were to lose one third of its bark it would have little hope of staying alive, so too if the earth were to lose one third of its green mantle of trees, the spring water table will sink and the earth will die - 'In fact the earth is being skinned alive.' Trees are the lungs of cities; they raise the water table in the ground; they collect minerals from below the ground, bring them to the top of the leaves and when they have served their function of carbon assimilation and wood formation, they fall back to earth and are taken down again by worms to form trace elements. Trees provide us with air, water, food and climate. Our dependence on them is nothing less than total:

> 'Man lives less than five minutes without air, and trees provide the life-giving oxygen from their leaves. ...A man lives less than five days without water, and tree-cover is essential in the water cycle. ...A man lives less than five weeks without food, and upon the trees he is dependent for the quality and quantity of his food.'[143]

Many other commentators highlight the 'web of life' argument in favour of wilderness. Hey, for example, stresses that the soil, water and unpolluted air are basic requirements of all life, that the conservation of the environment is as important for our own survival as it is for that of fauna and flora, and that if we destroy 'the natural systems of planet earth ...we endanger our own survival!'[144]

Nash writes that most contemporary ecologists believe there is more at stake in the preservation of biotic diversity than humankind's present material interests. The whole evolutionary process seems to be involved:

> 'The argument began with the self-evident proposition that the origin and shaping of life on earth had infinitely much more to do with wilderness than with the controlled order man began to impose on nature with the beginnings of herding and agriculture. "Remember", David Brower told dozens of audiences, "that all the essential creative capability of DNA was shaped in the wilderness, not in civilization." Wilderness was the crucible of evolution. Only in the last tiny fraction of a geological

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[143]Baker 102-3, 269.

[144]Hey 312.

> tick of time has man sailed out on the uncertain seas of controlling what once controlled him. End wilderness, Brower explained, and you end a condition responsible for all life, including human life. ... Biologists calculated that of the approximately ten million species that currently share the planet with *Homo sapiens*, as many as one-fifth could be gone within a century. This represents a rate of extinction thousands of times greater than before the rise of technological civilization. For better or worse, natural selection was no longer the driving force behind evolution. Man was, and his responsibilities were awesome.'[145]

The discussion so far in this chapter has revolved around the recognised resource and other primarily utilitarian values of wilderness in general terms. It is now necessary to narrow the socio-economic perspective somewhat in order to determine the relevance of these values in the African context and, in particular, to South African conditions.

3.2 THE AFRICAN CONTEXT

It has been suggested that wilderness values are of limited relevance in third world conditions. In 1977, for example, at the First World Wilderness Congress, Enos Mabuza stated:

> 'One cannot speak on the need for the conservation of wilderness of a black homeland in South Africa without substantiating such a need as opposed to other pressing needs of the black people concerned. It is the bread and butter issues that count in the lives of our people and the very mention of the words wilderness conservation cannot be made without making oneself irrelevant to the issues of the day.'[146]

In 1981, Boardman wrote:

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[145]Nash 258-9.

[146]Mabuza 170. He did, however, go on to say that he was optimistic that 'the Swazi people will support this venture (establishing a wilderness sanctuary) which is aimed at restoring their lost wilderness heritage' - see Mabuza 172.

> 'Conservation of species and their habitats is seen on the one hand as integral to the survival of the human species, and on the other as having a profound irrelevance to human needs in developing countries.'[147]

The following statement was made at the World Commission on Environment and Development Public Hearing held in Nairobi on 23 September 1986:

> 'All of us in Africa are slowly waking up to the fact the African crisis is essentially an environmental problem that has precipitated such adverse symptoms as drought, famine, desertification, overpopulation, environmental refugees, political instability, widespread poverty, etc.
>
> We are awaking to the fact that if Africa is dying, it is because her environment has been plundered, overexploited, and neglected.
>
> Many of us in Africa are also waking up to the realization that no good Samaritans will cross the seas to come to save the African environment. Only we Africans can and should be sufficiently sensitive to the well-being of our environment.'[148]

As illustrated by the above statements, made between 1977 and 1986, Arican perceptions of the value of wildlife and wilderness are changing. Developing countries on average are six times more dependent than industrial countries on natural resources.[149] South Africa is still a developing nation, and wilderness therefore has particular practical utility value for its people. In this section the causes and consequences of human attitudes and conservation needs in developing countries in Africa will be addressed in order to determine from a socio-economic perspective whether the remnants of African wilderness should be protected and, if so, how and to what extent. Traditional rights to the land and wilderness in South Africa are discussed in Chapter 5. Initiatives in wilderness protection in Zimbabwe are discussed in Chapter 7.

3.2.1 The negative ecological effects of colonialism

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[147]Boardman 9.

[148]Mrs Rahab W Mwatha, quoted in Brundtland Report 154.

[149]Gus Speth, President, World Resources Institute, in Foreword, Talbot i.

Mabuza has lamented that 'Africa has changed from the continent of boundless bounty and become the continent of endangered wildlife species.' He says that:

> 'For many centuries the African was a pastoral farmer and a hunter, and while hunting was both a sport and a way of living, a balance between farming and hunting was maintained because of the awareness that survival was dependent upon the wilderness. There were no laws to protect the flora and fauna against injudicious human use of the environment because there was no need for such laws.'[150]

There is no doubt that colonialism and capitalism played a major part in the process of ecological change in Africa. Beinart describes Victorian attitudes to African animals as 'predatory', and says that it is a deep irony of colonial history that some of the most ardent game conservationists came from the same social group of travellers, settlers and officials which a generation earlier had produced some of the most bloodthirsty hunters.[151] Vast quantities of animals were slaughtered for profit, for meat to feed settlers and their bearers, or for sport. By the turn of the 20th century, the increase in scarcity of larger game animals (especially in southern Africa) combined with more general social and economic changes to produce an important shift in attitudes (and the first significant demarcation of game reserves).[152]

Writing about Malawi, McCracken argues that, prior to the late nineteenth century, African communities were able to sustain viable ecological control systems with a considerable degree of success. It was colonial-induced diseases, colonial warfare, labour recruitment and colonial policies of control which 'combined to bring about a breakdown of the "land-controlled ecological system", the spread of previously limited tsetse fly belts,

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[150]Mabuza 42-3.

[151]A later example of hunter/traveller turned ardent and prominent conservationist is Theodore Roosevelt who, then ex-President of the United States, with his son, vacationed in the wilderness of British East Africa from April 1909 to March 1910, and shot, preserved and shipped to Washington, DC, over 3 000 specimens of African wildlife - Nash 342.

[152]See Beinart 16-7.

the eruption of sleeping sickness, the destruction of men and cattle and the permanent impoverishment of large parts of the East Central African hinterland.'[153]

The negative ecological effects of colonialism, and subsequently apartheid, in the South African context, are well illustrated in the following statement by Mabuza:

> 'For the Swazi, the wilderness was the resource on which his very life depended. He regarded nature as having been placed at his disposal for use and not for extermination. With his assegai and hunting dog, it is improbable that he would have exterminated the wildlife in his environment. Then came the white hunter with the gun who hunted with such finesse that our people not only hero-worshipped him, but imitated him. Our best so-called hunters today have unlicensed fire-arms. The mineral prospector came with his explosives and the technologist with his bulldozer. Although these changes, to a certain extent, brought about acculturation of our people to the western way of life, they were not aware of the systematic havoc wrought in terms of destruction of game.
>
> The Swazis have been unfortunate in that twenty out of the twenty-two tribes within the homeland, have had to be moved once or twice from one area to another, to comply with the policy of having to settle in areas set apart for them. In most areas where these resettlements took place, there was a rich variety of flora and fauna. Whether it was out of frustration or as a result of disturbed economic existence, they destroyed this rich animal and plant life. ...
>
> Obviously these technological changes and resettlements have affected the Swazi's traditional attitude towards his wilderness heritage.
>
> It is these changes that made the Swazi look upon wildlife as being there to be killed regardless, because if they did not, the professional hunter would do it much more efficiently. That is why where there are still remnants of wildlife, poaching is the order of the day, in spite of stringent nature conservation laws. Veld fires are caused to facilitate poaching.'[154]

3.2.2 Hunting and class distinction: the legacy of mistrust

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[153]McCracken 63.

[154]Mabuza 171.

The principle of control over access to game as a means of class distinction, which was a feature of early English wildlife law,[155] was transported to the African colonies. An understanding of the consequences of the application of this principle is of vital importance to an appreciation of black attitudes to conservation, the prospects of effectively setting aside wilderness areas, and the importance of local participation in the dedication and management of protected areas.

During the colonial era, hunting for subsistence soon gave way, amongst the growing colonial élite, to 'the Hunt', a socially exclusive pleasure pursuit. The settler landowners wished to retain some wild animals on their farms, and this concern coincided with the growth of scientific and aesthetic interest in game. The landless indigenous people who sought to exercise a traditional or natural right to hunt, increasingly became treated as poachers. It was in the early twentieth century that game reserves were first established on a significant scale, one consequence of which was that many local African people lost their arable plots and seasonal grazing lands, as well as access to the game which had supplemented their diet and income. In more recent years, in theory at least, the game reserves have become open to all. In some cases, attempts have been made to integrate herders and cultivators into protected areas. However, in practice, access to most of these areas remains restricted to those who have the financial means to travel to and within such areas - the main viewers of game are tourists and members of the scientific and media communities.[156]

Mackenzie develops the argument that 'the Hunt' was of central significance in the ideology of late nineteenth-century imperialism. The hunter played an important role in the expansion of the Empire. In Africa the missionaries and explorers were also hunters. He identifies three principal phases of hunting in the empire building in southern and central Africa. The first was commercial hunting for ivory and skins. The second was hunting as a subsidy for the second level of European advance, the period of acquisition, conquest, and settlement. The third was the transformation of hunting

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[155]See Lund 3-17.

[156]Beinart 16-7.

into 'the Hunt', when it came to be surrounded by ideology and ritual. The first two were the periods of massive destruction of African game, and it was only in the third phase that notions of conservation came to the fore. As African access to hunting was progressively reduced, 'the Hunt became not only the symbol of European dominance, but also the determinant of class within that dominance.'[157] Apart from its negative ecological effects, the most important consequence of colonialism with which current conservation programmes must deal is the deep legacy of mistrust inherited by the post-colonial generation.

3.2.3 The economics of conservation in Africa

The costs and benefits of conservation are unevenly distributed. The costs in terms of restricted land and resource use and damage to property, and sometimes life, are in the main borne by individuals and rural populations, particularly those at the interface between settlements and protected areas.[158] The costs of administering conservation programmes are generally borne by national and regional governments, who enjoy the benefits of prestige and most of the revenues derived from the use of wildlife resources. The recreational and aesthetic benefits are enjoyed mainly by tourists, many of whom are foreigners, and the scientific benefits by scientists. The rural interface communities, who carry most of the cost, derive relatively few benefits.[159]

The *World Conservation Strategy* (1980) (the primary objectives of which are the maintenance of essential ecological processes and life-support systems, the preservation of genetic diversity, and the sustainable utilisation of species and ecosystems[160]) is essentially a strategy of limitation of resource use. Bell points out that as such it

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[157]Mackenzie 41-2.

[158]Apart from reduction, in most cases, of traditional rights of access to natural resources in the protected areas, there are many reports of conflicts between rural communities and wild animals, such as lion, crocodile and hippopotamus, which threaten human life, livestock and crops.

[159]Bell 80.

[160]World Conservation Strategy (1980) VI.

inevitably embodies conflict between short-term individual interests and long-term communal interests; that the problems and costs of conservation are proportional to the extent of the conflict between these two sets of interests; and that any programme that emphasises long-term communal benefits at the expense of short-term individual benefits will meet with resistence. For a conservationist programme to develop and survive without external enforcement, the benefits conferred must be real and they must not be long delayed. Conservation must be seen to have a human face. There is, therefore, a trend in current conservation programmes towards reconciling the conflict between the individual and the community by introducing individual rewards into the system.[161] For conservation programmes to be sustainable in Africa, local communities must, as soon as practically possible, be directly involved in the management and administration of protected areas, and in the financial and resource benefits derived from them.

3.2.4 The need for new directions

Africa is in a state of ecological crisis. In 1986, the World Resources Institute observed: 'Africa is a special case. Nowhere else on the planet are resource trends so discouraging, the outlook so dire.'[162] The continent may well be on the brink of ecological collapse. The combination of exponential human population growth and land degradation has reduced grain production per person. Livestock numbers have increased to the point that their numbers in many African countries exceed grassland carrying capacity by half or more. As the grasslands deteriorate, soil erosion accelerates, which further reduces the carrying capacity of the land, 'setting in motion a self-reinforcing cycle of ecological degradation and deepening human poverty.'[163] Grazing lands become wasteland, and as the forage for animals diminishes, pressure shifts to croplands, and the competition between humans and animals for scarce food supplies intensifies. The consequence is that not only are millions of Africans left hungry and weakened,

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[161]Bell 79-80.

[162]World Resources Institute 7.

[163]LR Brown 6.

drained of their vitality and productivity,[164] but the survival of other species is threatened. 'Eventually,' as LR Brown concludes, 'life-supporting systems could begin to unravel.'[165] And it is not only the grasslands and croplands that are affected. It has been estimated that Africa's moist forests lose at least 25 000, and probably as much as 40 000 square kilometres, each year.[166]

Conventional conservation policies have failed in Africa. There is clearly an urgent need for a radical new approach to conservation. The future of wilderness and wildlife is intimately tied to the future of black rural communities. The neo-colonial approach of simply trying to ensure the survival of species and habitats is no longer relevant. Human development in Africa depends on conservation. Conservation and development are complementary and not competitive or mutually exclusive.[167] Human development in Africa also depends on agriculture. In the colonial and post-colonial past there has been an applied dichotomy between agriculture and conservation. There has been little, if any, acknowledgement and reference to indigenous agroecological expertise, and little, if any, communication between farmers and scientists. Dover & Talbot argue forcefully that it is only by recognizing the continuities between agriculture and wild ecosystems can we hope to preserve either effectively.[168]

In the past, industrial agriculture and misplaced traditional agriculture have both brought about environmental deterioration. There is no single or simple remedy for this environmental degradation. There should be less dependency on costly 'technofix' solutions; but, as Dover & Talbot point out, with continuing population increases and rising food demand, industrial agriculture will not and should not disappear altogether.

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[164]The most recent example is the ecological crisis and human tragedy, exarcebated by drought, in Somalia.

[165]LR Brown 7. In 1950, 238 million Africans relied on 272 million livestock. By 1987, the human population had increased to 604 million, and the livestock to 543 million (183 million cattle, 197 million sheep and 163 million goats), supported almost entirely by grazing and browsing - see LR Brown 4-7.

[166]Myers (1979) 137.

[167]See generally Anderson & Grove.

[168]Dover & Talbot 70.

An ecological approach is, however, essential. There must be a marriage of traditional wisdom and science, and maintenance of species diversity and natural habitats. There is also a need for incentives to conserve soil, which means that land tenure systems need to be reconsidered.[169] Wilderness protection is clearly not the only solution to the problem of sustainable and adequate agricultural production, but equally clearly could be a key component in national planning programmes.

3.2.5 Local participation

Drought and famine are not new in Africa. Lonsdale writes that environmental crisis and demographic collapse in Africa are as old as the continent's ascertainable history, and that memories of famine are among the more reliable sources which historians can use for dating the pre-colonial past. He argues that Africa's indigenous productive practices are premised on the inevitability of recurrent drought; that in pre-colonial Africa there was an 'immensely varied relationship between environmental constraint and the human politics of survival.'[170] In discussing the position in Ethiopia, Gamaledinn refers to 'the adaptive complexities of societies which have evolved over a long period in regions of high climatic variability.'[171] Indigenous knowledge gathered over centuries of adaptation have produced an inherited expertise and knowledge of local botany and climatic variation that are frequently overlooked in urban-based ideologies and management practices. It is, however, now widely accepted by those involved in agricultural and conservation programmes that local participation is essential. D Anderson & R Grove, for example, state that while many African governments now consider conservation to be 'a good thing', policies for national parks, game reserves, forest protection and soil conservation programmes are unlikely to be successfully implemented if they fail to involve the participation and co-operation of the rural people

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[169]See Dover & Talbot 71. See Meek generally on land law and custom in the colonies. Citing colonial Nigeria as an example, Meek 297 emphasises the need for a sociological rather than a purely legal approach to problems of tenure in African communities. The issues of land tenure, the accommodation of traditional wisdom and local participation in South Africa are addressed in Chapter 5.

[170]Lonsdale 271.

[171]Gamaledinn 341.

whose lives they will invariably alter.[172] As far as agricultural technology and research are concerned, Dover & Talbot maintain that successful agricultural development requires the active participation of the farmers who are supposed to benefit from technological innovation. Not only have agricultural ecologists learned to respect the inherent wisdom in much traditional practice, involving the ultimate 'clients' of agricultural research in both the design and testing of improved technologies serves two further objectives: first, it allows specialists to capture some of the practical knowledge about local agroecosystems and, secondly, it offers greater assurance that new methods will be more widely adopted once their effectiveness has been demonstrated. Indigenous agroecological expertise, they say, is especially important to improve communication between farmers and scientists and to provide long-term continuity in national research programs.[173]

In his discussion of state policy and famine in the Awash Valley of Ethiopia, Gamaledinn makes the point that it is an over-simplification to blame the increasing incidence of famine among the peoples of the Sahel and northeast Africa on the processes of environmental[174] and climatic deterioration and human population increase. He also suggests that the popular image of Ethiopia's plight - ignorant peasants and incompetent government - overlooks both the ecological and the political complexities of the region. Instead, it is the erosion of indigenous methods of resource conservation, the disintegration of the traditional relationship between pastoralist and the environment, which is the root cause of the famine mortality which has occurred in recent years in Ethiopia. And for this he blames the state, which has imposed preconceptions about resource utilisation based entirely on imported concepts of land use and control. Ecological survival depends on the ability to endure extreme rather than average conditions, and African people have employed methods of conserving resources for sustained yield based on empirical experience and orally transmitted tradition

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[172]D Anderson & R Grove 9.

[173]Dover & Talbot 65-6.

[174]Rainfall has declined in many parts of the Sahel since 1971, and there has been massive deforestation and soil erosion (since World War II Ethiopia has lost up to 70 per cent of its forest cover) - Gamaledinn 327.

accumulated over long periods of time. Gamaledinn questions the compatability of the pre-industrial agrarian economies of Africa with the modern state and the future needs of African rural people. The Ethiopian famine, he says, 'raises the possibility that the survival of the state in Africa (in its present form and with its ambitions for land control), and the survival of anything resembling the subsistence economies which evolved within the constraints of semi-arid Ethiopia, may be mutually exclusive.'[175]

The important lesson to be learnt from the Ethiopian experience is summed up in the following passage from Gamaledinn:

> 'Determining whether government environmental policies are beneficial or harmful depends not so much on the political colour of the government in question as on its responsiveness to the importance of local conditions and needs. ...In Ethiopia, as in much of the rest of Africa, the arguments of engineers and economists, quantifiable in financial terms, have been much more concrete and tangible and therefore more attractive than those of ecologists and social scientists who cannot offer exactitudes and certainty. This fatal and facile attractiveness, particularly to urban governing elites, as demonstrated by the sequence of events over the last score of years in the Awash Valley of Ethiopia, shows no sign of diminishing. It is proving to be destructive to land and wildlife and tragic for the people of Africa.'[176]

In examining the role of local institutions and communities in the management of rangelands and forests in East Africa, Little & Brokensha assert that the transfer of decision-making from local communities to colonial and post-colonial imposed administrations has created considerable ambiguities over who has legal access to range, water and forests. Most communities had mechanisms, either formal or informal, for managing natural resources, although conservation may not have been their primary goal. Generally, they were managed on a common property basis. Changes occurred both in the colonial and independence eras. The general pattern has been for the transfer of decision-making from local communities to state-controlled institutions and organisations; but the usurpation of decision-making by governments has been

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[175]See Gamaledinn 327-340, and generally.

[176]Gamaledinn 342.

incomplete in most African states, and in most cases vestiges of the indigenous management system have survived. This has resulted in lack of confidence in either state or local institutions to regulate resource use.[177]

Little & Brokensha undertook a case study on the Mbeere, who occupy a savanna area east of Mount Kenya, many of whom were excluded from the forest reserves established during the colonial era, despite local protests. This caused much resentment from those who were accustomed to collecting honey, gathering medicinal plants or hunting in the forests. There was little recognition, if any , of 'the impressive ethnobotany of local peoples, which was beginning to be documented in the colonial era'. The local people were regarded as ignorant about forestry and conservation, and as spoilers of the environment. Foresters, on the other hand, were regarded by the local people as police since one of their main functions was to keep people out of reserves, and to prosecute them for infringement of regulations. The authors comment that the treatment of the Mbeere reflects several familiar features:

> 'the emphasis on markets; the neglect of subsistence and domestic products; the contemptuous dismissal of indigenous knowledge; and the policing function of the forestry personnel. ... there was virtually no understanding of the local management system nor any attempt to seek local involvement.'[178]

The main point to emerge from Little & Brokensha's study is the need for local communities to be re-introduced to the responsibilities and benefits of, and identification with, what is, after all, their own resources, in their own interests and in the interests of the greater community.

3.2.6 Direct financial benefits

[177]Little & Brokensha 193-5.

[178]Little & Brokensha 202-3.

That local communities should derive direct financial benefits from wildlife and protected area programmes is also generally accepted in principle; but in practice there have been problems in some parts of Africa. An example is the national park in the Amboseli area of southern Kenya, which was established in the critical grazing lands of the Maasai pastoralists. In 1977, a programme was initiated which involved the Maasai in direct benefits from the park. The expectation was that they would come to perceive the wildlife and its habitats as an integral component of their own exploitable resources, to which they would extend the same care and good husbandry as to their cattle. This approach recognises that people who have traditional rights of tenure in territories that lie within or adjacent to areas set aside for conservation should receive some of the revenue generated by wildlife. It is an approach which should be applied in other parts of Africa. But there are practical lessons to be learned from the Amboseli experience. Howell points out that if this approach were to succeed anywhere it should be in Kenya which has one of the most financially successfull tourist industries in Africa, in spite of which there have been many pitfalls: water supplies specifically provided in pursuance of this policy have often failed, sometimes at critical moments in the annual grazing cycle, for want of sustained financial support and lack of skills to service them; annual contributions have not been consistently maintained, either through local government bodies or group branches; and it is debatable whether the benefits penetrate much beyond the 'opportunistic' minority.[179]

In their own interests and in the interests of the greater community, the benefits accruing to local communities must be direct and they must be tangible. Mabuza has said that most African countries 'may be blessed with wildlife in game sanctuaries, but as long as these are seen only as a white man's luxury they will become the targets of poaching and denudation.'[180] Tinley has come to similar conclusions:

> 'The present and future survival of wildlife and natural areas in Africa depends almost exclusively on the favour of the rural human populations in every day contact with them. All conservation methods

[179]Howell 108, and see Lindsay generally.

[180]Mabuza 44.

> will be fruitless until these populations are made to realise the value of these areas by obtaining immediate tangible benefit from them, and until they are involved in their protection and use as part of the regional economy in the widest sense.'[181]

> 'Only by involving the surrounding human populations in the responsibilty of conserving the natural areas as part of their regional resource will it be possible to ensure survival of such areas beyond legislation and changes in policy of a central government. The monetary income obtained from park or natural area usage should ideally be used solely for the educational, medical or agricultural benefit of surrounding human communities, as well as providing means for maintaining the natural area.'[182]

3.2.7 Reconciling conservation and indigenous rights: the need for human ecology

Pastoralists do not, through overstocking and overgrazing, necessarily cause total and irreversible degradation of their environment. The exclusion of people is not necessarily a prerequisite of successful park management.[183] The exclusion of permanent habitation structures within wilderness is necessary if true wilderness is to be maintained; but controlled access to wilderness and its buffer zones is permissible, if not essential, in order to accommodate traditional indigenous rights.

It is important to recognise that present conservation and agricultural policies in Africa in large measure represent the continued imposition of an essentially European view of how pastoral areas should be managed. Under colonial government, wildlife policy was closely related to the development process. Colonial images of pastoral societies were influenced by European perceptions of how land and wildlife should best be utilised. This preoccupation with 'development' and these images were inherited by the independent states of East Africa in the 1960s.[184]

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[181]Tinley 29.

[182]Tinley 37.

[183]See Howell, Homewood & Rodgers, Collett, Lindsay and Turton for interesting and informative case studies.

[184]Collett 129-130.

In seeking models for the co-existence of humans and wildlife in Africa, it is also important to bear in mind that indigenous pastoralists have often proved to have been better conservationists than the colonial powers who sought to impose conservation measures upon them. Collett argues that, because there is archaeological and historial evidence in Kenya to show that prior to European colonisation pastoralists tended not to exploit wildlife (except during periods of stock loss), there is therefore no evidence to indicate that pastoralism is inimical to wildlife. The Maasai as pastoralists were able to co-exist with wildlife in a way that pastoralists have done in this area for at least 2 500 years. By the 1970s, however, this situation had been transformed to a point where the Maasai were systematically slaughtering rhinoceros in Amboseli as a protest against land alienation for wildlife preservation. The acceptance by the Maasai of wildlife in their grazing areas is central to the maintenance of tourism in Kenya, and in this way they would make an enormous contribution to Kenya and its development.[185] Collett goes so far as to suggest that perhaps the Maasai could confer the ultimate gift on humanity if the parks were abolished: they could provide a model of man co-existing with wildlife.[186]

It seems obvious from the Kenyan experience that for conservation to succeed in Africa, not only must traditional tenure rights be respected, but the active support and involvement of local communities must be obtained. It does not of course follow that the extreme step of abolition of a protected area will be in the best interests of any community, except perhaps in unique circumstances.

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[185]On the richness of the biotic diversity of Kenya's forests, and the alarming reduction of the forest cover in this country, see Myers (1979) 152-5. On the 'frightening rate' of destruction of the wilderness and wildlife of Kenya, see Monks 165-9 - the wildlife has been eliminated in the coastal strip and small areas of the central and western provinces which have adequate rainfall and are amenable to high-yield cultivation; since 1920 the twenty to thirty thousand head of game in the Embu district alone have completely disappeared; overall the population of wildlife in Kenya has fallen by ninety per cent from that of seventy years ago; the black rhinoceros is slipping into extinction - the settlement of the Maasai grievances (and their protest by spearing rhino) probably comes too late to save the Amboseli rhinos which have now passed beyond the point of recovery; in western Kenya some twenty mammal species have been totally eliminated since 1885. Monks' conclusion is that poaching is, and always has been, the greatest single factor which has threatened Kenya's wildlife, and he asks whether Kenya will earn 'the approbation (*sic*) of the world for destroying that to which we have been entrusted - one of the most varied and wonderful collections of wildlife this world has known.'

[186]Collett 144-6. See Lindsay 161-5 for a discussion of the reasons for the failure of the programmes to provide the Maasai community with continuous appreciable benefits in return for compromises in their use of land.

Similar lessons emerge from experiences in Ethiopia. Turton reviews the activities of the Wildlife Conservation Department in the Lower Omo Valley from the late 1960s, when the first steps were taken to develop it as a conservation area,[187] and argues strongly that the *human* ecology of an environment which has been moulded by human activity should not be ignored. He is critical of suggestions that resettlement of the local Mursi people is a fundamental prerequisite of successful national park development in the Valley. The confrontation between European inspired conservation objectives and those of local populations are basically a conflict of cultural values. We make assumptions about the relationship between human society and the world of nature which are not shared by indigenous people.[188] The Mursi do kill wild animals in order to obtain useful products from them and, when necessary, to protect their cattle, but otherwise their disposition is 'to live and let live'. They see themselves as living *in* nature, not over and above it. The Valley has been described as Ethiopia's most unspoiled wilderness, which has 'retained its primeval character from ages past' but, Turton argues, any ecologist should recognise that virtually every square inch of the region bears the imprint of human activity. The open grass plain west of the Omo and the wooded grassland to the east are the product of centuries of burning and of grazing by domestic stock, while the bushland thicket flanking the Omo river has been produced by clearing for cultivation. He suggests that the fact that this country appears to the European eye as a wilderness is a remarkable tribute to the successful conservation policies of its human inhabitants - the Mursi, in other words, are better conservationists than we are.[189]

Recognising indigenous rights to natural resources is therefore not only desirable for ethical or political reasons, but also for reasons of conservation efficacy and pragmatic socio-economics. How, then, are such rights to be determined?

An examination by Anderson of the colonial history of conservation in the Lembus Forest of Kenya suggests that precise definition of such rights and an exact listing of the

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[187]Turton 171-185.

[188]Turton 174.

[189]Turton 179-182.

holders of those rights may not be the answer, and that peer definition is essential.[190] In other words, the people themselves must be involved in the determination of the nature, extent and vesting of such rights. In December 1923 after a census of the forest had been conducted, Govenor Coryndon issued a definition of native rights in Lembus. The Coryndon Definition, as it became known, defined eleven specific rights, including the rights to construct dwellings, to graze animals, to cultivate, and to gather forest produce. The rights were granted to those indigenes who were able to satisfy the Administration that they had exercised them within the forest according to native law and custom. All rights holders were listed, and it was stipulated that the rights would pass down to their descendants. In effect it was 'a charter of undeniable rights to be exercised in perpetuity; an absolute guarantee of their security in the forest.' However, there was considerable discontent amongst the people living on land surrounding Lembus - the Governor had effectively closed the forest to them. Anderson remarks: 'From being a zone of ethnic indeterminance, the forest had become, *de jure*, the rightful home of a clearly defined section of the Tugen. Many other Tugen and Elgeyo who made periodic use of the forest, but were not listed as right-holders, now found themselves excluded from the forest.' The Coryndon Definition remained a bone of contention throughout the colonial period.[191] This is yet another example of colonial conservation measures being, as Anderson expresses it, 'stigmatised in the eyes of Africans, (and) creating a resistance to the enforcement of land husbandry rules that the governments of independent Africa have found it difficult to overcome.' The failures of colonial conservation, he says, 'have sometimes left a powerful and undesirable legacy.'[192]

3.2.8 Conservation as a reform process

Environmental crises, famine, drought, demographic collapse - none of these is new to Africa. Lonsdale cautions us, however, to beware of false premises about 'Merrie Africa in its Golden Age', and about the negative features of colonial and post-colonial rule -

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[190]Anderson 249-268.

[191]Anderson 259.

[192]Anderson 265.

'just as pre-colonial Africa was no Utopia, so also one must resist the fashionably easy judgement that modern Africa and its governance are entirely malign.'[193] Beneficent consequences of colonial rule include the medical and transport revolutions which put an end to pre-colonial epidemic scourges and, to some extent, famine. The following passage from Lonsdale highlights the potential of conservation as part of the political and socio-economic reform process:

> 'Small farmers and pastoralists cannot by themselves solve the problem of diminishing resources. Pauperised households are as destructive of the environment as greedy capitalists. For their own preservation, Africa's statesmen will increasingly have to attend to the natural environment that sustains them both. A greater internal accountability - the sentimental might dare to call it democracy - looks more and more to be the condition of Africa's survival. That does not mean that it will necessarily occur. But the countries which stand some chance of a future history will be those in which political debate revolves, as it did in the chiefdoms of the past, around the organisation of the food supply, the exact conditions of the soil in their divergent regions, and the productive methods necessary for its sustained exploitation.'[194]

In discussing the political realities of conservation in Nigeria, Areola makes the point that conservation in the African context should not be seen merely in terms of nature conservation, but rather as an important part of the reform process in land tenure systems, land-use patterns, and land management practices. The goal of such reforms, he writes, is 'a more controlled or guided use of the land and its resources to achieve sustained economic growth and to promote the well-being of the people.'[195] The achievement of this goal is dependent on the political will on the part of the government to implement conservation measures, and on public awareness of the need to introduce such measures. Areola maintains that neither of these is as yet in evidence in Nigeria and that Nigerian governments therefore continue to give inadequate attention to questions of conservation.[196]

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[193]Lonsdale 272-3.

[194]Lonsdale 274.

[195]Areola 277.

[196]Areola 278.

For much of its recent history, Nigeria has been subjected to political instability, transition and change, and this has militated against a coherent government approach to conservation. Under both military and parliamentary governments, public debates on conservation have been sporadic, and have related to the irregular occurrence of environmental disasters. The lack of coherence is also, in part, a legacy of colonialism. The colonial system of indirect rule which applied in Nigeria resulted in powers being shared between the colonial government and 'Native Authorities', and this extended to the administration of the forest reserves. There was thus no unitary forest policy, and this dual control approach was perpetuated by independent Nigeria's federal system of government, under which regional governments enjoy considerable power over the control and utilisation of land and natural resources. The result has been a series of divergent forest policies, as the different regional governments and the federal government produced their own forest programmes.[197] Conservation problems in Nigeria are exacerbated by the fact that political leadership and political groupings are polarised along ethnic lines. The result is twofold: conservation measures are not perceived as having any immediate political utility, and issues of conservation or land reform are not usually resolved on ecological grounds or with reference to general public opinion.[198]

Two important lessons that may be learnt from developments Nigeria are, first, that upsetting the balance achieved over many years by interaction between indigenous people and their environment must be avoided, if at all possible, and secondly, that the people themselves must be involved in the determination and application of conservation and land use policies and programmes. This is not to say that there should be no centralised control. The Nigerian experience clearly demonstrates the need for avoiding policies based on ethnicity alone and regionally divergent programmes. There should therefore be nationally determined policies, but their formulation and implementation must involve the people themselves. In other words, to be effective and enduring,

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[197]Areola 281-3.

[198]See Areola 280.

conservation and land use policies and programmes must be democratised. Put another way: conservation in Africa is and should be part of the reform process.

3.2.9 Wilderness as part of the solution

3.2.9.1 *Ecodevelopment*

One of the effects of the growth of environmentalism in the developed world in the 1970's has been a growing awareness of the importance of the natural environment in development planning. The welfare of the poorest groups in poor countries is closely related to environmental quality. The *World Conservation Strategy* (1980) stressed the need for living resource conservation to secure sustainable development.[199] In all development programmes, but particularly in 'developing' countries, development must be based on knowledge about the limitations and potentials of the natural environment. In theory at least, there has been a shift away from the production paradigm of development of the industrial era to 'ecodevelopment'. Conservation and development are no longer regarded as alternatives, but are essentially interrelated. In practice, however, as Adams laments in his case study of water resource development in the Sokoto Valley of Nigeria, there has as yet been little or no progress with the infusion of ideas of environmental awareness, conservation, or sustainability into development programmes or policies. Most environmental thinking in the the development field, he says, remains remote and idealistic, and there is a large and serious gulf between development theorists and development practitioners, both in their frameworks of thought and their scale of analysis. Developers are constrained in their approach by political and commercial considerations.[200] One way of bridging this gap between theory and practice, between development theorists and development practitioners, is by enlightened legal prescription. A Wilderness Act, for example, which articulates the policy, purpose and management practices to be applied, will compel practitioners,

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[199]World Conservation Strategy (1980) I.

[200]Adams 308.

whether they be administrators or developers, to adhere to the principles determined by theorists.

3.2.9.2 *Third World needs*

What are third world needs and how, realistically, may they be met? Clearly, the essential need is for sustainable development - ecodevelopment. It must be borne in mind, however, that it simply is not possible for African countries to attain the same levels of development and energy consumption of the first world. The phrase 'developing countries' suggests an expectation that the non-industrialised nations should or will inevitably develop to an equivalent level of consumption as the so-called 'developed' nations; but the urban economic growth ethos of the first world, spawned by the industrial era, is entirely inappropriate in the third world. Having regard to the changing social patterns in developing countries, the ever increasing population pressures on the land, and the escalating trend towards urbanisation, continued adherence to the urban industrial ethos can only be maintained in the short term, and at the ever increasing cost of losing essential natural resources and amenities. A shift from homocentric to biocentric or ecocentric value orientation should be encouraged in third world countries, so that they do not continue to seek to attain the unattainable technological advancement of the first world. The industrial revolution has served its purpose. The time has come for a new social revolution, a paradigm shift of perception of value, based on recognition of essential ecological, biocentric values.

There is no simple or 'quick fix' solution to Africa's problems. Even where there is the political commitment to practise conservation, vulnerability to environmental distress is increased through lack of financial resources, staffing shortages, poor training, inadequate skills and technical resources, and lack of information. Population growth, poverty and environmental degradation continue to increase, and have become matters of grave global concern.[201] For many years the international development assistance

[201]Protection of natural areas is particularly critical in developing countries which, it has been estimated, are on average six times more dependent than industrial countries on natural resources - Gus Speth, President of World Resources Institute, in Talbot Foreword i-ii.

community has attempted to respond to third world training needs and to devise appropriate development assistance strategies; but there remains a serious, almost universal, shortage of trained personnel and skills in environmental and resource assessment, management and planning. In the area of biological diversity there is a critical need for foresters, geneticists, agronomists, conservation administrators, taxonomists, protected areas managers, and other allied specialists. Lack of adequately trained personnel remains a serious constraint to effective development.[202] Unfortunately, much of the international effort has been curative rather than preventative, a 'band aid' treating of symptoms rather than treating the basic sickness itself.[203]

As part of the systematic planning and development programmes required in developing countries, there must be provision for setting aside wilderness and other natural areas because of their utility in providing the natural resources on which most third world people depend - to support this statement, however, it is necessary to consider the utilitarian values of wilderness and wilderness equivalent areas in more detail.

3.2.9.3 *Utilitarian values*

The general trend of thought, illustrated by the *World Conservation Strategy* (1980), is to justify conservation in Africa on a cost-benefit basis: the utilitarian and monetary benefits of preserving genetic diversity, thereby maintaining crop production and the potential of wild organisms as sources of useful products, outweigh the costs of conservation. Bell expresses some doubts about this approach:

> 'This emphasis on the indirect, utilitarian values of conservation is no doubt due to the feeling that the direct, aesthetic values are frivolous and will carry insufficient weight with governments and rural interface populations. Nonetheless, I consider the utilitarian justification of conservation to be opportunistic, unrealistic and potentially counterproductive. It is opportunistic because it is used as a stalking horse for motivations which are in reality aesthetic. It is unrealistic because it cannot

[202]Talbot 36-7.

[203]Talbot 49.

account for the scale of the commitment to conservation in Africa or elsewhere in relation to any critical accounting of its utilitarian returns. It may be counterproductive to the conservationist programme because, if conservation is justified on the grounds of utilitarian benefits, anything else that produces more of those benefits, must take precedence over conservation.

This brings us ... to the question of whether Africa is on the brink of ecological collapse. If the answer is yes, this can be taken as a powerful utilitarian justification of a strong conservationist programme. The benefits, in terms of living standards, will be real and immediate, so that in theory the programme should meet with little resistance. If it does meet with resistance, the argument runs, it may be necessary to impose the programme from above, the end justifying the means. If, on the other hand, Africa is not on the brink of ecological collapse, the benefits may be less immediately evident and a more gradual approach may be indicated.'[204]

Whether or not Africa is on the brink of collapse,[205] there is no doubt that conservation, and wilderness, do have utility value, as well as the non-utilitarian values discussed in Chapter 2. Bell does, however, make the very valid point that a purely utilitarian conservation rationale may be counterproductive: if, for example, mining in a wilderness area is likely to produce more jobs and more taxes in the short term, it may be difficult to persuade those affected to support the no-mining option in favour of wilderness. It is therefore necessary to take into account both the short and the long term advantages of conserving the wild products of nature.

3.2.9.4 *Wild living resources*

It is estimated that almost 70% of the animal species facing extinction do so because of habitat modification or destruction.[206] Not only the survival of species is at risk, but also the health and wellbeing of the human communities that depend on wild living resources. Human beings, more particularly in the third world, are still dependent on wilderness and its constituent plants and animals, although not to the same extent as

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[204]Bell 81.

[205]Parts of Africa appear to be threatened with imminent ecological collapse because of exponential population growth, shortage of fuelwood, land degradation and water crises - see Hanks (1979) 254-8.

[206]Prescott-Allen 78.

before the agricultural revolution when, as hunter-gatherers, their dependency on the wild was absolute.[207] In the context of human needs in Africa, conservation may best be defined as maintenance of the means of development. Once it has been recognised as such, then with forward planning it becomes possible to make development sustainable. To ensure a sustained yield of wild living resources, such as fisheries, subsistence hunting and fuelwood, natural habitats are a prerequisite. Conservation of those habitats therefore represents maintenance of the means of production and development. Natural ecosystems and the wild species that comprise them therefore play an essential role in human economies in developing countries.[208]

Wilderness areas are, by definition, the most natural of ecosystems, and constitute the critical habitats for many wild species. One of the lessons of ecology is the interdepence that exists between life forms. Most, if not all, of the wild plants and animals referred to below as having utilitarian value for humankind, and particularly for indigenous communities, depend for their survival on communities of other wild organisms.[209] Wilderness protection is therefore protection of the means of production and development in developing countries.

3.2.10 Wilderness benefits

Whether or not wilderness has intrinsic value or inherent worth is essentially a philosophical question, which was addressed in Chapter 2. Having regard to third world needs, the socio-economic implications of wilderness protection must be taken into account. From this perspective, wilderness needs to considered as essentially a resource for human utility. It must, however, be noted at the outset that it is a resource which

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[207]See Prescott-Allen 10 and 75-6. Even industrialised societies retain some reliance on wild products, for example in the pharmaceutical industry and in genetic engineering.

[208]See Prescott-Allen 12, and generally.

[209]Critical habitats include the feeding, breeding, nursery and resting areas that are crucial for the survival of a species. The critical habitat for one wild species is often provided by aggregations or communities of other wild species. In this way most, if not all, of the wild plants and animals traditionally harvested by local communities and referred to in the text below depend for their survival on other wild organisms which are found in wilderness - see Prescott-Allen 73.

is limited. As Aldo Leopold put it, it is 'a resource which can shrink but not grow. Invasions can be arrested or modified in a manner to keep an area usable either for recreation, or for science, or for wildlife, but the creation of new wilderness in the full sense of the word is impossible.'[210]

By any definition of wilderness, it requires minimal human interference. In theory, the only 'management' of a wilderness area that should be permitted after it has been set aside is such control of human conduct as is designed to exclude human impact, so that natural evolutionary forces may continue free from the influence of modern man. In practice, some management may be necessary in order to restore the equilibrium that has been disrupted by human interference with natural processes.[211] Wilderness protection is therefore the ideal form of conservation in developing countries, as it is the least demanding in terms of high technology, financial resources and manpower. Although obviously not the complete solution to environmental degradation and human misery in the third world, wilderness is a critical part of the solution, not only because it is a form of conservation which is attainable in developing countries, but because of the manifest benefits it offers to them. The following paragraphs present an overview of the utilitarian benefits of wilderness and wildlife in developing countries.

3.2.10.1 *Local communities*

Wilderness benefits occur at three levels: local, national and global. At local level, two aspects need to be considered: local cost and local gain. When a wilderness area is set aside, there will be national gain (for example, visitation from other regions, income from tourism, and perhaps preservation of cultural heritage), and there may be international gain (for example, if the area has international importance as global heritage). But there will invariably be some local cost in the form of reduced access to natural resources. Where subsistence sources are reduced or displaced, there should be adequate compensation, preferably in the form of direct material benefits or alternative

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[210]Leopold 199-200.

[211]See Hendee, Stankey & Lucas (1990) 16 and generally.

sources of income. It is therefore essential that there be local consultation and cooperation in such setting aside. Customary rights require special recognition and accommodation. Traditional uses, even if reduced, should continue if consistent with the purpose of setting aside the area - if not within the area, then on its peripheries or in buffer zones. Wilderness legislation should make provision for such uses, local participation in determination of boundaries and management, and for a reasonable share of the income from the area. Salm & Clark have suggested planning guidelines for coastal and marine protected areas, the following of which are relevant to wilderness in this context:

- Benefits should be distributed among local as well as national and international interest groups. If support is to be obtained for the protected area, people living in or around the sites must understand their benefits and need to be assured of a fair share of those benefits.
- Traditional rights should be respected in distributing the benefits of protected areas. Those with fishing rights, for example, should be given the first option for jobs and services related to area protection.
- Linking protected area objectives with regional or national goals and objectives will ensure greater success in realising benefits for social and economic development.
- Where possible, quantify the benefits that could be derived from area protection, the actual benefits accruing from existing protected areas both within and outside their boundaries, and the cost of no protection.[212]

Salm & Clark stress that the success of management depends to a large extent on local public support. Such support can be an indication of understanding conservation objectives, and leads to adherence to the protected area rules by the local population. They present the following summary of benefits that can be offered to the local people (in this context, of course, subject to preservation of the wilderness character of the protected area), which may ensure their support:

- Job opportunities can be created for local people, both directly and indirectly, in the protected area and in related facilities and services.

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[212]Salm & Clark 58-9.

- Once a protected area has been established, local communities that have traditionally managed their ... resources for sustained use can be given responsibility for continued resource management under the general supervision of the conservation authority.
- In local communities with traditional resource management practices, the village heads may by definition become law enforcement officers.
- Local communities can be given exclusive rights to certain types of use through appropriate zoning and through issuing permits for these uses only to community residents.
- Educational programmes can be used to foster understanding of the need for conservation among local people. Special programmes directed at school children can be particularly beneficial. Film and video makers and publishers can be encouraged to produce material on the protected areas.
- Local user groups can help carry out monitoring and surveying under the supervision of protected area personnel.
- Local tourist guides can be trained as volunteer park interpreters.
- ... trained social workers can help influence people's attitudes to conservation and (wilderness protection) .... They can work inconspicuously, identifying local opinion leaders and overcoming opposition to conservation management.[213]

3.2.10.2 *Ecological support*

Natural ecosystems generally, and wilderness areas in particular, serve the additional utilitarian function of providing ecological support for essential natural processes. They act as environmental buffers, regulating water regimes by maintaining downstream water supply and quality, and fish populations. Forests are a critical element in the global ecosystem, climate, and oxygen and carbon cycles. They exert an influence on local climates, usually by making them milder. Vegetation acts as a sponge, absorbing moisture and releasing it slowly, thereby containing harmful environmental perturbations such as soil erosion, floods and droughts.[214]

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[213]Salm & Clark 85-6. They also refer to the need to protect aboriginal rights, subject to regulation if techical advances threaten the area's objectives. Subsistence cultures must not, however, be allowed to abuse their special privileges and knowledge. At 159 Salm & Clark refer to reports 'that many Arctic species are no longer being taken by indigenous people for their own use, but instead for money, snowmobiles, radios, and drugs. Modern technologies and an external market economy have modified the demands on the resource base to which the original Arctic inhabitants adapted in small distinct groups and have altered human-ecosystem relationships.' Aboriginal rights are referred to in more detail in Chapters 4 and 5.

[214]Prescott-Allen 67-76, Valentine 126-7.

It has been said that the growth of the South Africa economy will be limited or even halted by the scarcity of water at about the end of the present century, and as yet we have no means of producing water economically other than by good management of our natural catchments. Mountain catchment areas are particularly important in a semi-arid country like South Africa as, properly managed and protected, they serve the function of conserving our precious water resources. They are areas which are very susceptible to wear and trampling by over-use, and even moderate grazing by domestic cattle, or too many visitors, may create excessive erosion. Such areas are, in any event, not ideal for raising cattle, or growing crops or even timber - their optimum value lies in their yield of clear silt-free water. Because they have in the past been managed by the Department of Forestry with the primary objective of conserving water resources, it is in these areas that we can still find relatively untouched, pristine wilderness. As Ackerman suggests, such areas are best conserved and protected by dedicating them as wilderness areas.[215]

3.2.10.3 *Culture*

In addition to economic and material values, wilderness and wildlife have social and cultural value. Traditional life styles are intimately involved with wilderness and wildlife, which have aesthetic and symbolic significance to indigenous people.[216]

3.2.10.4 *Wildlife products*

Wildlife already makes a substantial contribution to the national and local economies of developing nations. Appropriate land use planning and conservation of wild areas is essential to ensure that it continues to do so. Preservation of wilderness areas will ensure that it does so indefinitely. Wilderness ecosystems represent the capital, which if properly invested, will yield dividends in the form of a supply of free goods - free goods which in the past provided the sustenance on which rural communities traditionally depended, and which in the future may serve as a base on which they may

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[215]Ackerman 150.

[216]See Prescott-Allen 77, and Chapters 4 and 5.

be able to construct the means to generate income and rural development. They are free goods in the sense that the ecological support benefits derived from wild areas greatly exceed the opportunity costs of not destroying them.[217]

In addition to the many sound social and ecological reasons for preserving wilderness in developing countries, in the African context it may be necessary to extend the concept of wilderness in selected areas to allow controlled harvesting rights by local indigenous populations either within or on the peripheries of such areas. By so doing, wilderness can provide immediate as well as long term benefits to its neighbours. If harvesting is properly controlled, the wild animal and plant products of wilderness offer great potential for a sustainable yield of food, fuel, building materials and traditional medicine. Wilderness areas serve as gene pools for, as well as a source of, such natural products.[218]

Although the phrase 'wilderness management' is a contradiction in terms because wilderness, by definition, is free from human interference, a completely 'hands-off' approach is impractical. Ungulates (hoofed animals) tend to overpopulate in wildlife refuges or sanctuaries (national parks, wildernesses, or any area in which predation on them by humans is prohibited or restricted), and cropping or culling may be required. Petrides makes the points that the 'paradox that public use is essential to wilderness preservation and yet threatens natural values has long been recognised', and that 'it is essential to appreciate that under certain circumstances nature itself can destroy a wilderness'. He argues that because they have become islands in a sea of lands modified

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[217]See Prescott-Allen 75-6, where it is noted that the ecological support provided by wild ecosystems - nutrient supply and recycling, and ecological services - directly support hundreds of millions of people in developing countries. When removed or reduced by bad planning or misuse their absence is clearly felt as a cost. Wild plant and animal products constitute one of the few means by which many rural communities can earn money. They provide one of the few ways in which many rural communities can hope to build a modest industrial base.

[218]Harvesting directly from a wilderness area should be allowed if it can be done without detriment to the wilderness values of the area. In most cases, buffer zones could, and should, be established for the benefit of neighbouring communities (as a source of firewood, timber, building poles, reeds, thatch, meat, fish, etc). Development of such zones could also be a useful way of providing some compensation to rural communities which may have fofeited harvesting rights in consequence of the setting aside of the wilderness area - see Mackinnon *et al* 106-7.

for other uses, 'hopes that nature will restore itself in damaged wildernesses today are generally unrealistic.' The animals cannot be expected to 'flow out' from crowded habitats, except after serious damage is done to the area. Because wilderness areas are such islands, the resident species are particularly vulnerable to catastrophes and hence to extinction. The problem of over-abundant ungulates in wilderness areas is unlikely to vanish, and wilderness areas therefore require management in order to retain their wilderness character. It cannot simply be left to nature.[219] What this means in terms of human consumption is that wilderness management plans can and should make provision for the appropriate use of the wildlife products becoming available from any such cropping or culling programmes.

(a) Meat

Reliable data on the contribution of game meat to the diets of indigenous people are, for practical reasons, not easily obtained. Accurate game kills are only recorded in countries with strictly enforced hunting regulations. There is also often an incentive to conceal catches, so as to avoid conservation laws. As Prescott-Allen puts it, 'when the hunter sells the meat to a neighbour, or pops it into the family pot he rarely tells a statistician.'[220] Throughout Africa, however, it is believed that wild land animals provide a significant proportion of the animal protein consumed by people. In Botswana, for example, the San reliance on game meat is total. Cattle herding tribes derive about 80% of their meat from wildlife, but people living in or close to villages tend to eat a higher proportion of their meat from cattle, goats and sheep, although their main supply is still from game. In Ghana about 75% of the population is dependent on wildlife for protein, and in southern Nigeria game meat is regularly eaten by about 80% of the population.[221]

(b) Skin, fur and ivory

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[219]Petrides 235-9.

[220]Prescott-Allen 13.

[221]Prescott-Allen 13 and 16.

In the past, trade in crocodile skins, wild fur, rhino horn and elephant ivory has provided some income to the inhabitants of developing countries in Africa; but the supply has diminished as the affected species have become increasingly endangered as a result of over-harvesting and poaching. The crocodile skin trade declined from 5 to 10 million hides a year, in the 1950s and early 1960s, to two million a year in the late 1970s. Many of the cat species, especially spotted cats, elephants and rhinoceroses have fared so badly that they may be on the brink of extinction in many countries. Habitat protection, together with controlled harvesting and appropriate culling programmes, is essential in Africa, not only for prevention of extinction of the threatened species, but also in the interests of sustained yield for the benefit of local populations.[222]

(c) Fish

In addition to their dependency on wild land animals, several third world countries rely on wild aquatic animals for animal protein. The average freshwater catch in Africa is equivalent to that of Europe and the Americas combined. Much of the riverine catch is unrecorded and comes from floodplains and small streams, providing remote rural communities with much-needed nutrition.[223]

(d) Vegetables

Wild plants are a major source of feed, fodder and forage for domesticated animals in developing countries, so that indirectly they provide ecological support for the animal protein needs of the people. Many wild plants are also consumed directly, supplying essential vitamins and trace elements.[224]

(e) Fuelwood and fibres

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[222]Prescott-Allen 17.

[223]Prescott-Allen 21.

[224]Prescott-Allen 29.

It has been estimated that 85% of the energy used in rural communities is derived from fuelwood.[225] Apart from dung and crop residues,[226] trees and shrubs from the wild represent the only free source of fuel. Unfortunately this dependency has resulted in severe deforestation, and there is an urgent need for programmes of resource protection and controlled utilisation, together with the planting of woodlots, to ensure sustained yield. Wild plants such as palms and grasses are put to a variety of uses, for example the construction of dwellings and the manufacture of mats, baskets, musical instruments, cooking utensils, and other household articles.[227] According to 1981 United Nations figures, Africa has the largest per person per annum consumption of firewood in the least developed countries.[228] Wood is the only practical energy source in many parts of Africa, and controlled access to it by local communities in wilderness buffer zones is essential.

(f) Horticultural trade

Some wild plants, such as cycads, orchids, palms, cacti and succulents, provide a source of income to indigenous people.[229] Again, control is desirable to ensure sustainable harvesting, particularly over the taking of rare species, and the natural gene pools for these wild species must be protected.

(g) Herbs and traditional medicine

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[225]According to Myers (1979), a few household surveys suggest that the amount of fuelwood actually cut could be 2½ times as large as is 'officially' estimated. The situation has been substantially aggravated by high oil prices, which put kerosene beyond the means of many households.

[226]People turn to dung and crop residues, both otherwise valuable as fertilisers and for prevention of soil erosion, when wood supplies run out. Globally, an estimated 400 million tons of dung are burned annually where fuelwood is scarce, which is estimated to depress grain harvests by over 14 million tons, an amount greater in 1986 than annual food aid to *all* the developing countries - World Resources Institute 3.

[227]See Prescott-Allen 34-45.

[228]Hughes 211.

[229]Prescott-Allen 44.

Wildlife has long been an important source of traditional medicines. It provides affordable, culturally acceptable, locally available, primary health care to large sections of the populations of many developing countries. Internationally, traditional medicine has a 'new respectability' - it is now recognised as a rich cultural and natural resource. It has been estimated that in Africa 95% of traditional drugs come from plants.[230] Wilderness protection is one way of maintaining the gene banks of this important resource.

(h) Drugs and Western medicine

In 1980 it was estimated that in the United States alone, medicines from wild plants had already produced a $3 billion a year industry.[231] Indigenous drug remedies that have been used for many years in western medicine include atropine (belladonna), morphine (opium), quinine (cinchona) and reserpine (rauvolfia).[232] Frome records that as recently as the 1900s, before the 'Synthetic Era', fully 80% of all medicines came from natural sources; that many of the new miracle drugs, including penicillin, streptomycin, aureomycin, and other biotics are 'the improbable products of lowly fungi'; that an analysis of more than 1,05 billion prescriptions dispensed in the United States during 1967 revealed that the main ingredients in about 50 per cent were derived from nature; that the prescriptions obtained from higher plants alone have a market value in a year of close to $1 billion; and that research in recent years has shown that many insects - butterflies and beetles, in particular - and clams have a great potential for yielding new anticancer compounds. In 1971, researchers reported that armadillos could be ideal test animals for leprosy research. He also points out that some drugs which were previously cultured from plants are now manufactured synthetically, but many of the most valuable have such complex chemical structures that it is unlikely that they will ever be 'duplicated in a test tube.' Another advantage of plant compounds over synthetically produced drugs is that the former are biodegradable. He concludes that a plant or

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[230]Prescott-Allen 46-7.

[231]Valentine 127.

[232]See Prescott-Allen 49-54.

animal which may now seem to be entirely useless as food or for any other human utility may, nonetheless, have 'the power to prevent serious human illness, but there is no way to forecast and no way to isolate the valuable and beneficial from their environments.'[233] Prudence therefore dictates that their wild habitats be adequately protected.

Not only can new drugs from wild plants be a boon to developed countries, they can be a substantial economic benefit to the countries in which they are discovered. Wild animals, and particularly primates, are widely used for biomedical research. As biomedical research advances and as knowledge of the properties of wild animals and plants improves, additional species may also be shown to be useful. Future contributions of wildlife will obviously depend on the extent to which wild animals and plants are protected. Developing countries must take steps to conserve the germplasm and other natural resources which are likely to be needed by the drug industry for many years to come.[234] Wilderness protection is one way of ensuring that the natural processes which produce these resources are maintained.

(i) Genetic resources

The transfer of qualities by genetic engineering from the wild relatives of domesticated animals and plants is an important means of developing pest and disease resistence, adaptation to marginal environments, and other desirable traits. Monoculture, intensive management of crops and domestication all produce a narrowing of the genetic base. New genetic infusions from the wild aid productivity. Prescott-Allen argues that the future will no doubt bring changes in the ways we use wild genetic resources, but our

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[233]Frome 54-6. For further discussion of the many benefits presented by animals and plant species to medicine and public health, see Myers (1979) 68-72, and Myers (1983) 89-141.

[234]It is said that had it not been for the discovery in Mexico of diosgenin, a versatile steroid raw material, it is probable that we would not have had oral contraception in our time, or even in our century. The rosy periwinkle (*Catharanthus roseus*), from which come the compounds vincristine and vinblastine, is used to provide relief in leukemia. Wild drug plants can have a great influence on the course of medicine in the Western world - see Prescott-Allen 49-54, and Hendee, Stankey & Lucas (1990) 9-10.

dependence on them is unlikely to diminish.[235] Genetic resources can, of course, be protected in all conservation areas, but not to the same extent as in wilderness areas in which human impact and modification of evolutionary processes are minimal.

The protection of wild genetic resources is essential in developing countries. To secure that protection, national planning must provide a mosaic of protected areas with varying degrees of access by indigenous people. They should be designed, distributed and managed in such a way as to maintain maximum species diversity. Wilderness areas could and should be a core component of such planning, and the benchmark against which the effectiveness of management of other areas may be measured. In developing countries wilderness is not the antithesis of development. On the contrary, its direct, indirect and potential short, medium and long term contributions to social and economic development are immense. The prosperity of developed countries is also influenced by the protection of wilderness in developing countries, in that they enjoy many of the fruits of wilderness, not the least of which is the benefit of wild and diverse gene pools. They should, therefore, in their own interests and as a matter of responsibility, not just altruism, make some contribution to that protection.[236]

3.2.10.5 *Ecotourism*

'Thousands of Americans and Europeans have the strange urge to see these animals.'[237]

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[235]The term 'genetic resources' is used to mean 'those heritable characteristics of plants and animals that are of actual or potential use to people. The characteristic may be disease resistance, a pharmacological activity, an environmental adaptation, or the capacity of a timber tree to grow tall and straight. As long as it is, or could be, of some economic or cultural value and is transmitted genetically, it qualifies as a genetic resource' - see Prescott-Allen 54 and 65.

[236]See Prescott-Allen 80-3.

[237]Julius Nyerere of Tanganyika, as it then was, is quoted in Nash 342 as having said in about 1961: 'I personally am not very interested in animals. I do not want to spend my holidays watching crocodiles. Nevertheless, I am entirely in favor of their survival. I believe that after diamonds and sisal, wild animals will provide Tanganyika with its greatest source of income. Thousands of Americans and Europeans have the strange urge to see these animals.' This is not a surprising attitude. Africans have lived with wildlife for so long that crocodiles have become unremarkable as objects of curiosity. Nash 344 makes the point that a Masai is as little interested in seeing and photographing a giraffe as a New Yorker would be in seeing and photographing a taxicab, and restrictions on the former's grazing and farming in a nature reserve could be as perplexing to him as a law preventing the latter from living in and using ten square blocks of midtown

The direct economic benefits of tourism are substantial. It was estimated in 1977 that an adult male lion in Amboseli National Park in Kenya would generate $515 000 in tourist revenue over the course of his lifetime, whereas its meat and skin might produce a maximum of $1 150.[238] On the basis of the revenue they generate by attracting tourists, Nash suggests, lions or elephants may be the most valuable animals in the world, race horses included.[239]

South Africa has the tallest, the fastest, and the fiercest animals, and this is what overseas tourists want to see. The Kruger National Park, in particular, attracts a vast number of visitors each year from abroad, as well as locally. Tourism introduces much needed foreign exchange, and promotes regional economy in that tourists require accommodation and transport, and purchase local handicrafts and souvenirs. Tourists also buy the by-products of culled animals such as elephants, buffalo and impala, as well as books and films on wildlife.[240]

An example of an as yet underutilised mecca for tourists is the Greater St Lucia Wetland Park which is situate in north-eastern Zululand in the province of Natal, a remote and undeveloped region largely economically dependent on tourism and agriculture. The Park, the third largest protected area in South Africa, consists of a complex of adjoining reserves totalling approximately 249 000 hectares in extent. The original protected area, Lake St Lucia and limited surrounding terrestrial areas, was first protected in 1895, and was one of the first proclaimed game reserves in Africa. With subsequent accretions, the present Park comprises the entire Lake St Lucia, together with extensive wetland, terrestrial and marine areas. The area consists of a wide variety of habitat types, ranging from coastal dune forests, savannas and grasslands, coastal

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Manhattan would be to the New Yorker.

[238]Philip Tresher 'The Present Value of an Amboseli Lion' (unpublished manuscript, April 1977) 1, cited in Nash 344.

[239]Nash 344.

[240]In regard to the economic benefits of national parks, particularly tourism, culling, local handicrafts and products, books and wildlife films, and also aesthetic, intellectual and cultural values, in particular in relation to the Kruger National Park, see Knobel 230-4.

grasslands, and a diversity of wetlands including swamp forests, reed, sudd, and other swamp types. The rich diversity of habitats stretches from extensive turtle beaches and coral reefs, to big game country and large waterfowl and fish breeding areas. The northern stretches of the Lake and central portion of the Park retain near-pristine wilderness character.[241] It is this diversity and wildness that make the area unique and attractive to tourists, both domestic and international. The Park is listed as one of the five principal ecotourism destinations in South Africa. At present the Natal Parks Board provides accommodation facilities for visitors, but privately funded and managed tourist facilities have been established on the peripheries of the Park. There is great potential for further expansion of the tourism industry in the area.[242]

In 1991, the Natal Parks Board's income from hutted and campsite accommodation in the Park exceeded R8,6 million. Gross income from accommodation, entrance fees, concessions, trails and tours, and the sale of curios and other items, amounted to R12 396 074,00. The Board's expenditure for 1991 (salaries, maintenance, provision of supplies and services, and capital expenditure) amounted to R18,3 million, the major portion of which flowed into the regional economy. In addition to the Board's activities in the area, a wide range of accommodation facilities for tourism (hotels, flats, timeshare developments and rest camps in private game reserves and ranches peripheral to the Park) has been established by private enterprise. The estimated total gross potential income from accommodation provided by the private sector is approximately R48 million.[243]

In addition to the substantial economic contribution that ecotourism makes to the region, a wide variety of natural products of commercial and subsistence value are obtained from the Park. Controlled sport fishing is allowed in the St Lucia lake and sea. The controlled reaping of thatch, reeds, *ncema* and *ikwane* grass is permitted on a sustained yield basis. Prawns are sold as bait. Surplus game is removed either by

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[241]Parris *et al* 1.

[242]See Parris *et al* 2, and generally.

[243]Parris *et al* 2-6.

culling, the meat being sold to local communities, or by sale for restocking in other areas. Part of Mkuzi (a component of the Park) is designated as a Controlled Hunting Area in which the Board provides organised safari and trophy hunting for overseas and local hunters. The gross income from the sale of natural products obtained from the Park in 1991 was R4 474 627,00.[244]

Although neither of these examples, the Kruger National Park and the Greater St Lucia Wetland Park, is wilderness, they both have wilderness or near-wilderness areas or zones within them. Wilderness *per se* does not directly have the commercial values discussed above. Indirectly, however, wilderness makes a substantial contribution to those values. It provides the wildness and naturalness, and serves as a source and bank for the diversity of wildlife and natural products, which make such areas attractive to visitors and significant contributors to regional economies. The importance of ecotourism to the economic development of South Africa, and the importance of its wilderness areas to ecotourism, are acknowledged in the White Paper on Tourism published in 1992.[245] The White Paper is a statement of official policy, the purpose of which is to outline Government's tourism strategy and action plan to promote tourism in South Africa.[246] One of the 'main objectives of the national tourism policy flowing from the strategy's overall mission' is:

> 'to ensure that the country's "unique selling features" in tourism, ie its natural environment, fauna and flora, are protected and developed rapidly to maximise their contribution to the economy, with due care being exercised to protect fragile ecological systems'.[247]

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[244]Parris *et al* 3, 7.

[245]White Paper on Tourism (1992).

[246]Para 1.4.

[247]Para 4.1.

The White Paper notes that the tourism industry in South Africa already employs more than 300 000 persons and earns R2 500 million in foreign exchange (1990 figures),[248] and that international tourism is at present the fastest growing and the biggest single industry worldwide (tourism will employ one in fourteen workers worldwide in 1992[249]). Although the tourism industry in Southern Africa is lagging behind international trends, the White Paper suggests that tourism has the potential of becoming one of the major contributors to economic growth in the region.[250] The following further extracts from the Paper are particularly relevant to the argument in favour of appropriate protection of South Africa's wilderness heritage:

> 'The Government is committed to creating a political environment in South Africa which will be conducive to healthy economic growth. Once an internationally acceptable political dispensation is in place international tourism should play a significant role in the overall economic development of the country.'[251]

> 'More than 90 per cent of foreign tourists (excluding those from Africa) come to South Africa in the first instance to enjoy the country's scenery, fauna and flora. ...'[252]

> 'Factors which favour tourism development in South Africa include (*inter alia*):

> South Africa has some of the world's most beautiful unspoiled scenic attractions and an impressive wildlife heritage, which are unique assets as well as major drawcards for foreign tourists. This is a distinct advantage as many people in developed countries are becoming increasingly interested in destinations which take them out of their congested home environments and into unspoilt natural surroundings in comfort.

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[248]Para 2.2.

[249]Para 2.10.

[250]The tourism industry in South Africa has been able to attract only 0,2 per cent of the international tourism market and the growth rate has been slower than the growth in world tourism over the past decade - Paras 2.1 and 2.4.

[251]Para 2.5.

[252]Para 2.6.

- The number and diversity of plant species in South Africa is, in certain respects, unique.

- Glimpses of untamed Africa.'[253]

(Wilderness *is* 'unspoilt natural surroundings', and provides 'glimpses of untamed Africa'.)

'Government acknowledges that tourism can:

- create new jobs in all sectors of the industry with a multiplier effect on other industries;

- provide vital foreign exchange;

- uplift the labour force through structured training; and

- benefit underdeveloped areas.'[254]

'In its endeavours to stimulate and develop the South African economy Government accepts that the tourism industry can make a vital contribution to sustained long-term economic growth. It also believes that tourism can be a major catalyst to "kick-start" the economy thus providing the much needed economic upswing. Government therefore intends to promote tourism development in all its facets and to commit itself to supporting the industry in such a way that the economy and the community as a whole will benefit.'[255]

(It would be a short step in common sense and logic for government also to accept that the capital of the tourism industry, namely South Africa's wild and natural areas should be properly legally protected.)

'In terms of a future mission tourism will (*inter alia*):

- provide a means of reinforcing community pride;

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[253]Para 2.9.

[254]Para 2.11.

[255]Para 2.12.

- contribute significantly to the preservation of environmental, historical and cultural resources; and

- contribute to the creation of goodwill, peace, understanding and friendship between the people of South and Southern Africa, and others from around the world.'[256]

'The basic preconditions for realising this mission include (*inter alia*):

- the conservation and wise use of the environmental resources that form the basis of the attractions South Africa has to offer.'[257]

'The key supportive values to the mission are (*inter alia*):

- equitable access to information, resources, market opportunities and socio-economic benefits for all potential participants and communities and, in particular, to ensure that benefits flow back to the comunities in which tourists enjoy facilities;

- community involvement, through effective stakeholder participation from local to national levels and reflected in appropriate managerial and institutional structures'.[258]

(Once again, the necessity of involving local communities in active participation in, and the benefits of, conservation programmes is recognised and emphasised.)

'A recent analysis of trends confirms that foreign tourists are seeking more nature interactive experiences. This indicates that the preservation of the country's pristine natural environment, including its rich fauna and flora and the diversity of cultural heritages of Southern Africa, will serve as the major drawcard for tourists.'

(Wilderness is 'the country's pristine natural environment', provides 'nature interactive experiences', and should therefore effectively be 'preserved'.)

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[256]Para 3.2.1.

[257]Para 3.2.2.

[258]Para 3.2.3.

'Carrying capacity is generally considered to be the limit of tourist activity beyond which facilities become saturated, ecosystems threatened, visitor enjoyment and community values diminished, and when costs incurred exceed benefits.'

'There are many international examples where over-development has caused destruction of natural, historical and cultural heritage resources.'

'(M)ass tourism can have many negative results if not properly planned and managed, and might even destroy the ecologically attractive atmosphere of a destination or of a community's traditional way of life, which may have been the prime tourism attraction in the first instance.'

'Government is committed to protecting and developing the USF (unique selling features) on which the international tourism of the country rests, in the most effective manner.'

'Above all, each generation merely holds conservation areas in trust for the next generation and therefore is not empowereed to alienate this unique heritage.'[259]

Reference has been made to the White Paper in some detail mainly for two reasons: first, it is the most recent formal declaration of the South African government's intentions relating to our pristine areas and, secondly, it provides the economic justification for dedication of wilderness areas which is necessary in the context of developing countries because of their development needs and socio-economic conditions.

In discussing the foreign tourist market, the White Paper refers to the 'existing internationally known brand names such as the Kruger National Park, the Greater St Lucia Wetland Park, the Umfolozi/Hluhluwe Game Reserve Complex, Table Mountain and the Drakensberg'.[260] It is significant that most of these have wilderness components. Clearly, the benefits of wilderness ecosystems, which provide much of 'the ecologically attractive atmosphere of a destination' in South Africa, can only be sustained through appropriate controls over visitor use, development and carrying capacity. If the government is indeed committed to protecting the 'unique selling feature' of this

[259]From para 4.2.1.

[260]Para 7.

country's wilderness for present and future generations, even if only for the purpose of promoting international tourism, then it should legislate for its effective protection.

3.3 THE GLOBAL CONTEXT

Wilderness has instrumental values for all of humankind, but especially third world people. National laws, in fulfilling their role of protector of human values, must accommodate and sustain those values. A purely national focus, however, is not enough. In this section the relevance of wilderness to the interests of the global community will be considered.

In the light of predictions of third world suffering because of shortage of fuelwood, the rapid disappearance of the world's forests, hundreds of thousands of species on earth becoming extinct as their habitats vanish, and by the year 2 000 some 40 per cent of the remaining forest cover in the lesser developed countries being lost,[261] which means that southern Africa could become as tree bare as the Middle East within two generations, urgent new initiatives are required. The extinction of the black rhinoceros in the sub-continent of southern Africa will not just be our loss, it will be humankind's loss. The removal of tree cover in one country affects the climate of other countries. There is a oneness and interdependence about the web of life that transcends all issues and differences. It is in the interests of all that the threads of that web be protected wherever threatened. In a very real sense the security of the first world depends upon its stewardship of the world's resources. Some third world countries have neither the means nor the expertise to cope with the legitimate, pressing needs of their burgeoning populations and, at the same time, to ensure conservation of their natural resources, including wilderness. As a matter of self-interest, if not responsibility, developed nations should promote and encourage the formulation of international treaties, laws, policies and programmes to assist developing nations in the setting aside and protection of wilderness areas. By so doing, they will contribute greatly towards achieving the goal of a secure and decent world environment.

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[261]Global 2000 Report 2-3.

3.3.1 Global concern

The loss of a wildlife species in one part of the world diminishes the heritage and patrimony of us all. As Myers has put it: 'Insofar as all species form part of the common patrimony of humankind, the gorilla, the cheetah and the vicuna belong not only to the countries where they have their habitats, but in some senses they "belong" to Americans and British and Japanese.'[262]

There is a direct relationship between the economies of developing countries and their use of natural resources. Because of the 'increasingly intricate economic and security interconnections among all nations', deterioration of their natural resource bases affects not only their own already struggling economies, but the interests of other nations as well. The state of the natural environments of third world countries is therefore a matter of global concern.[263] Recognition by the international community of the need for a global perspective of environmental problems is illustrated by the establishment in late 1982 of the World Resources Institute, a policy research centre based in Washington DC, United States, 'to help governments, international organisations, the private sector, and others address a fundamental question: How can we meet basic human needs and nurture economic growth without undermining the natural resources and environmental integrity on which life, economic vitality, and international security depend?' Its research programs, 'based on global perspective and policy relevance,' are 'aimed at providing accurate information about global resources and population, identifying emerging issues, and developing politically and economically workable proposals.' It is funded by private foundations, United Nations and governmental agencies, and corporations, that share concern for resources, the environment, and sustainable economic development.[264] Recognising that a country's capability for managing its resources and environmental affairs must be its own capability, the President of the Institute has made it clear that the United States and other industrial countries can and should, in their own political

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[262]Myers (1979) 263.

[263]Talbot 1-2.

[264]Talbot 61.

and economic interests, assist lesser developed countries by providing the necessary information, skills and support. When resource and population challenges in developing countries are not met, this leads first to economic and social stresses, and then to political instability, the undermining of free institutions and possibly armed conflict, none of which is in the interests of developed countries.[265]

3.3.2 Global climate

It has been estimated that the burning and decay of the tropical biomass in the rain forests, an event seemingly remote from the temperate zone countries, are 'fixing, perhaps unalterably, the prospects for mankind' because of the injection into the atmosphere of as much carbon dioxide as is produced by the burning of fossil fuels in the industrialised nations. The increasing concentration of this gas is blocking the re-radiation of the sun's heat from the earth, which is resulting in destabilisation of the climate worldwide.[266] Third world deforestation and human want and need, are now considered to be matters of first world responsibility because of 'persisting colonial relationships between the North and South'.[267] Piel accuses 'the fortunate denizens of the Northern Hemisphere' of being accomplices to the destruction of the rain forests in Latin America, and not just innocent bystanders, because of the estimated twenty thousand hectares a year being cleared to provide pasture for the beef cattle required for the marketing of hamburgers by the fast-food chains in the United States. He describes the worldwide deforestation as a calamity, which is now so widespread and severe as to be visible to satellite cameras from outer space. The fragile forest soils, which are sustained by their own plant and animal communities, rapidly become sterile when the trees are cleared, and the forest farmers are compelled to move deeper into the forests for subsistence. 'Human want', he writes, 'now comes to the fore as a

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[265]Talbot i-v.

[266]Piel xvii-xviii.

[267]Piel xviii.

planetary environmental force.'[268] These are not localised problems. Humankind is the loser. If the current rate of deforestation continues, entire ecosystems could be completely destroyed, for short term benefits disproportionate to the drastic long term detrimental impacts on global atmosphere and climate.[269]

3.3.3 Global systemic and genetic loss

In 1979, Myers provided the 'probably optimistic' estimates that we were then losing one species per day, and that within another decade the rate could increase to one every hour.[270] There is no doubt that the main threat to wildlife species is habitat disruption, and this accounts for the destruction not only of individual species but entire communities of animals and plants.[271] The rate and extent of forest depletion globally is alarming. One of the consequences of forest ecosystem destruction is that many species which have not yet even been identified, and which may have economic potential, will be lost to mankind for all time. The present pattern of destruction is so complete as to lead observers to the conclusion that the loss will be permanent and total, with recovery to primary status in some cases perhaps being possible but, if so, likely to take several decades, in some cases centuries.[272]

3.3.4 World population growth

Demographic projections suggest that none of the major tropical forest countries will achieve zero population growth until late next century, and perhaps not until the 22nd

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[268]Piel xviii-xix.

[269]Prance (1986) 104.

[270]Myers (1979) 31.

[271]Myers (1979) 38-9.

[272]Prance (1986) 1, and Myers (1986) 9-13.

century.[273] The loss of genetic material and diversity is not just a local event. It represents loss of as yet underutilised global economic and sustained yield potential for our growing world population.[274]

3.3.5 Drought

One of the likely consequences of the destruction of the Amazon rain forests is drought. The energy balance determining the planetary atmospheric circulation system may be affected. It has been suggested that events in the Amazon, deforestation in the Congo, and the saharization-sahelization of equatorial Africa require urgent cooperative international study and preventative action 'before it is too late.'[275]

3.3.6 International responsibility

Conservation of natural resources means a sustained yield of those resources and therefore aids development in the third world. It is obviously in the best long term interests of third world nations to maintain and protect their natural resource base, but without assistance from developed nations they simply cannot afford to pay for

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[273]Myers (1986) 13-14 suggests that we must 'anticipate a future where the population of the Philippines grows from its 1980 total of 49.1 million to 125 million; for Brazil from 118.7 million to 281 million; and of coastal West Africa (not counting Nigeria, with its 85 million projected to reach 459 million) from 46 million to 263 million. Of the incremental numbers, a solid proportion will, if current land-use trends persist, become forest farmers, to add to existing multitudes. At the same time, however, let us not forget a hopeful aspect; Zaire, Gabon, and Congo, with a total forest area of 1.2 million square km are projected to grow from a 1980 total of around 35 million to an eventual total of no more than (sic) 168 million.'

[274]Piel xviii.

[275]Piel xviii writes that there is 'another consequence of the disappearance of the rain forests that may reach into the world outside. In the upper Amazon the rain forests recycle the rains brought onto the continent from the Atlantic Ocean by the easterly trade winds. For the region as a whole, transpiration and evaporation supply fully half the rainfall; in basins with high forest cover, all but 20% of the local rainfall. The drought attendant upon the disappearance of the Amazon rain forest - 30% of the land area of the 20-degree equatorial belt - can change the energy balance governing the planetary atmospheric circulation system. Associated with the deforestation of the Congo and the saharization-sahelization of equatorial Africa, this prospect urgently invites the cooperative international study necessary to raise the priority for preventative action before it is too late.'

conservation.[276] In their own interests, and in the interests of the international community, it is therefore the responsibility of the wealthier nations to provide the economic resources and incentives required to conserve what remains of the world's biological diversity.[277]

Myers suggests that a whole-hearted decision by the global community to accept the challenge of disappearing species (and the same argument holds good for the reduction of wilderness) could have an important spin-off benefit -

> 'The effort could help to articulate the common interests of nations. After all, conservation of species can be presented as a less likely source of political friction than many other international problems. A strategy to conserve species might even encourage governments to adopt a more collective approach to other collective issues that confront their global community.
> In sum, efforts to conserve species could, by promoting a consciousness of humankind's unity, prove a solid step toward a new world order.'[278]

3.3.7 International action required

An holistic approach requires global monitoring of environmental degradation and a global system of protected areas. Wilderness can and should be a key component in such a system, and work has already commenced on the preparation of a world inventory

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[276]Talbot 53 writes: 'Governments of developing nations have urgent needs for their limited financial resources: they must feed their people and achieve the immediate goals of development, as well as pay off the international debts they have incurred in the development process. The establishment and maintenance of reserves and the conduct of other programs to conserve biological diversity are assigned much lower priority, and many Third World governments simply cannot afford to pay for conservation at this time, regardless of its long-term importance.'

[277]Myers (1979) 239 gives the example of a tropical forest plant with anti-fertility properties, which could help the family-planning campaign way beyond the borders of the country or countries where it is located - all beneficiaries should share the burden of costs of ensuring the plant's survival. See 264-7 where he discusses the unequal benefits and costs of safeguarding species, part of the global heritage. Germ plasm, for example, is traded internationally at nominal charge - the cost 'does not fractionally reflect the benefits derived by large numbers of better-fed people.'

[278]Myers (1979) 284.

of wilderness areas.[279] For some years it has been suggested that crippling third world debt should be discounted, rescheduled or cancelled in return for the setting aside of conservation areas, and such schemes have now begun to be implemented.[280]

3.3.8 African wilderness: a global heritage[281]

Beinart suggests that Africa is perceived as providing wildernesses for the world at large, especially in developed countries where land and natural resources have been exploited more intensively for longer periods of time.[282] Europe has little, if any, true wilderness left, and African wilderness is different from American wilderness and the remnants of wilderness in the Antipodes and on other continents. African wilderness is unique. Julian Huxley believed that the destruction of Africa's wildlife would be comparable to tearing down the Sistine Chapel or burning the Mona Lisa. In 1961, he wrote: 'Africa's wild life belongs not merely to the local inhabitants but to the world, not only to the present but to the whole future of mankind.'[283] An eminent zoologist and director of the Frankfurt Zoo, Bernhard Grzimek, believed that Africa was 'the ultimate and last paradise of all our yearnings,' and that 'Africa really belongs to all who take comfort from the thought that there are still wild animals and virgin lands on earth.'[284] The

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[279]At the fourth World Wilderness Congress held in 1987 in Colorado, a World Wilderness Inventory was presented. It was prepared by the Sierra Club, with participation by UNEP, the World Bank, and the World Resources Institute, and was intended as an initial effort to describe the status of the world's remaining wilderness lands - see Hendee, Stankey & Lucas (1990) 90.

[280]Talbot 52-3 argues that the establishment of a global system of protected areas is essential to conserving the critical components of the world's surviving biological diversity, and that in the United States: 'Congress could discount, reschedule, cancel or give credits against Third World nations' development debts in return for commitments by the nations to carry out specified national conservation actions. For example, the recipient country might agree to devote an equivalent amount of its money to specified conservation activities. Such a program would not require new infusions of hard currency, would contribute to local economies, would improve the debtor's ability to pay off the balance of outstanding loans, and would improve environmental and resource management.' See Myers (1979) 242-252 for a discussion of the 'doctrine of public trust' and collective responsibility in this context.

[281]Wilderness as global heritage is discussed more fully in Chapter 7.

[282]Beinart 17.

[283]Cited in Nash 366-7.

[284]Cited in Nash 365.

effective legal protection of South African wilderness and wildlife would be a priceless and timeless gift to the global community. Conversely, in the light of the manifold values and benefits that wilderness holds for the world as a whole, the loss of our wilderness areas would be an ecological and cultural catastrophe.

Nash argues that the preservation of the world's remaining wilderness will depend on the 'exporting and importing' of this 'increasingly rare commodity.'[285] Africa, he says, has become the new mecca for nature tourists who are wealthy enough to import from abroad what has become scarce at home. Extending the export-import metaphor, national parks and wilderness systems may be considered as the institutional 'containers' that developed nations send to underdeveloped nations for the purpose of 'packaging' a fragile resource.[286] It is a resource which must be protected if it is to remain available for international consumption.

3.3.9 Potential source of new foods, fuel, fibres and drugs

Many potential new foods, fibres, drugs, and sources of fuel will soon become extinct if the present trend of destruction continues. Wilderness is the last unprofaned repositary of biological diversity and stronghold of nature's genetic evolutionary processes. Considerable economic and development potential will be forfeited, not only by the nations directly concerned, but globally, if critical wilderness areas are not legally protected. It is also increasingly being accepted that the support and study of traditional knowledge, and the ethnobotany of the plants used by indigenous people in particular, should be given the highest priority and, wherever possible, legal accommodation in conservation programmes.[287]

3.3.10 Biosphere reserves

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[285]Nash 378.

[286]Nash 343-4.

[287]See, for example, Prance (1986) 6.

Biosphere reserves will be discussed in Chapter 7; but it should be noted, in the context of international concern for the socio-economic implications of wilderness loss, that most biosphere reserves are comprised of a natural or core zone where minimal human impact is present. Such core zones are intended to serve as benchmarks or standards for long-term changes in the biosphere as a whole, and should enjoy adequate long-term legal protection.[288] These are all hallmarks of wilderness areas, which are the ideal core components of such reserves.

3.4 THE SOUTH AFRICAN CONTEXT

South Africa is confronted by the same dilemma that confronts the rest of Africa: the apparent conflict between conservation of natural resources and the short term needs of underprivileged peoples. As in many developing countries there is widespread rural poverty in South Africa. People need land to grow food, and burgeoning population pressure compels subsistence farmers to intrude into fragile ecosystems. It is unreasonable to expect a hungry people not to poach, or not to de-bark or cut down a protected tree for medicine if they are sick, or to gather firewood if they are cold. It is irrelevant to their immediate, pressing needs that they may be affecting the interests of future generations, or even their own medium or long term interests. The result of all these pressures is that large areas are in a state of ecological collapse.[289] The sub-continent of southern Africa has a rich heritage of wilderness and wildlife, but in the light of the urgent short term needs of the majority of its population, is it reasonable to seek to preserve this heritage? The answer must surely lie in sustained yield

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[288]Hendee, Stankey & Lucas (1990) 54.

[289]The region of KwaZulu, for example, presents an archetypal illustration of the third world dilemma of conservation and development. It is a fragmented region of 33 thousand square kilometres, only 23 percent of which is suitable for crop production. With a growth rate of 3,1 percent, one of the highest in Africa, the present population of about four million is expected to increase to over six million by the year 2000. As the population increases, so too do deforestation and soil degradation. The carrying capacity of the land has already been exceeded. At Dlebe some women have to spend over nine hours travelling nineteen kilometres to collect one head load of fuelwood for their family's domestic energy needs for a few days. The people are in an ever-tightening grip of rural poverty. Medium and long term planning, and notions of conservation, sustained yield and wilderness philosophy are irrelevant when confronted with the immediate problem of short term survival. For some the only alternatives are starvation or migration to towns to join the swelling ranks of the underemployed in squatter areas that surround the cities - see Steele 114-5.

programmes. Wildlife offers a potential source of protein, and Africa has the largest spectrum of wild ungulates in the world - 91 species compared with only 20 in South America, for example.[290] By sustained yield policies, wildlife represents an invaluable source of protein for the people in Africa who, paradoxically, are suffering from protein deficiency. The laws relating to hunting and culling programmes should be so designed and implemented as to make up some of this deficiency. The most effective conservation of wildlife is by means of habitat protection, and the surest way of securing important habitats is by legal proclamation and protection of wilderness areas. The area of land set aside for conservation purposes in South Africa is small. Even if this land were made available to feed the hungry of our nation, if this were possible, they would only be fed for a very short time and then they would be hungry again and those natural storehouses will have been lost forever.

In South Africa the twin legacies of mistrust inherited from the colonial and apartheid eras have to be taken into account in land use and conservation planning. The future leaders of post-apartheid South Africa face a daunting task. The living standards of all of its people need to be improved. To achieve this, policies and programmes must be adapted and adopted which will promote economic growth, but at the same time ensure both utilisation of natural resources on a sustained yield basis and retention of environmental stability and quality. Population growth and distribution must be stabilised; food supplies and energy sources must be increased, but without further degradation of our already impoverished soils and scarce water supplies. Our biological resources, forests and fisheries must be utilised to maximum sustainable advantage, which means that they must be afforded appropriate protection. All this must be achieved with relatively limited financial resources. On the positive side, South Africa already has the knowledge, skills and resource base from which to launch such policies and programmes. All that is required is that they be used. But time is of the essence. They must be put to maximum and efficient use now. The need for action is immediate - biological diversity and wilderness once reduced can never fully be recovered. Even

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[290]Tinley 29.

from a purely anthropocentric perspective, the protection of wilderness areas and the natural riches contained in them is a sound investment in South Africa's human future.

The sub-continent of southern Africa comprises the Republic of South Africa and several other states with varying degrees of independence or self-government - Transkei, Ciskei, Venda, Bophuthatswana, Kwa Zulu and others. In this complicated context of political balkanisation, the region presents an admixture of cultures, languages and religions, and a *pot pourri* of ethnicity, which contains both first and third world elements. The region thus displays a cultural, economic and political mosaic which is representative, if not a microcosm, of the world community of nations. Because of this mix it is receptive to first world concepts and value perceptions, but must have regard to a wide variety of cultural attitudes and to third world reality and needs. The measure of acceptance and protection of wilderness achieved in this region may well represent a prediction of what is likely to occur on a global scale.

A reorientation of attitudes is required in South Africa. Conservation too has inherited the colonial and apartheid sins of the past. In the past game sanctuaries have been perceived as being exclusively the playground of white elites.[291] Hunting was part of the traditional way of life for most blacks, and it is understandable that it is with some difficulty that a hunter should now be regarded as a poacher. Witchdoctors depended, and still depend, on wild plants and animals for their herbs and mixtures - medicines are made from leaves, roots, barks, bulbs and animal powders.[292] Traditionally wildlife is there for the taking for the satisfying of food and sporting needs. If it is not taken, the professional hunter will do so anyway. It seems obvious that laws must be devised and conservation practices must be implemented in such a way as to produce a recognisable immediate tangible benefit to the rural population. Ideally, they should be involved in wildlife protection and utilise it as part of their regional economy. To this end, controlled taking of wildlife, flora and fauna, must be permissible for indigenous needs.

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[291]Buthelezi 108.

[292]Mabuza (1979) 170.

There should be financial benefit on a regional basis from the finance generated from tourism and hunting licences.

A sustainable yield of natural resources is essential for economic growth, the subsistence requirements and material well-being of South Africa's people, particularly in the period of reform, adjustment and redistribution of land and wealth that lies ahead after the dismantling of apartheid. The wisest economic use and development of existing unperturbed wild country, which is often, in any event, not suitable for other development, is its protection as wilderness resource. Within the lifetime of the current generation South Africa could have eighty million inhabitants. By the year 2000 it is estimated that there will be eight million people unemployed in our country. If the current birth rate of a baby every 26 seconds continues,[293] our natural resources will not be able to sustain our population, unless urgent, enlightened, positive and coordinated steps are taken to conserve those resources. If such steps are not taken, it is possible that the benefits of the essential resource of wilderness will be lost forever. Because of the pressures of population growth and development, existing conservation policies and practices are no longer adequate to save wilderness on the African continent. An entirely new paradigm of protection is required for its protection.

3.5 CONCLUSION

Legal prescription for the protection of wilderness must take into account the following socio-economic and political principles and realities:

- For economic and other utilitarian reasons, wilderness is deserving of strict and comprehensive legislative protection.

- The conditions for sustainable agriculture include the maintenance of adequate habitat for wildlife and the conservation of genetic resources.

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[293] These statistics were quoted in a front page article of *The Natal Mercury* of 19 July 1989 as having recently been given by the Chairman of the Council for Population Development.

- Wilderness is a living resource itself, and an important reservoir of living resources, a diversity of genetic material, and natural evolutionary and ecological processes.

- Reduction of wilderness means extinction of species and reduction of biotic diversity which cannot be recreated.

- The most effective conservation of the wildlife resource is by means of habitat protection - the protection of wilderness will secure important habitats.

- Sustainable development cannot be achieved without conservation of living resources, and living resources cannot be conserved without protection of the natural areas in which they occur - the establishment of protected areas is therefore essential for sustainable development.

- The wilderness resource provides considerable personal, social and scientific benefits.

- Conservation policies during the colonial and post-colonial eras have produced negative ecological effects.

- Human development in Africa depends on conservation.

- There is an urgent need for a radical new approach to conservation in Africa.

- The unfortunate history of colonial conservation and land use planning efforts has demonstrated that a 'top-down' approach does not work in Africa - for conservation and land use policies and programmes to be sustainable, the people themselves must be involved in their formulation and implementation.

- In Africa conservation must be seen to have a human face - its benefits must made part of the regional economies of rural communities, and must be real, tangible and not long delayed.

- To be effective and enduring, conservation and land use policies and programmes must be democratised - conservation in Africa is and should be part of the reform process.

- Wilderness preservation is an attainable form of conservation in developing countries because it is the least demanding in terms of high technology, financial resources and manpower.

- National planning must provide a mosaic of protected areas with varying degrees of access by indigenous people - wilderness should be the benchmark and core component of such planning.

- Local communities need to be re-introduced to the responsibilities, as well as the benefits of their natural resources.

- Upsetting the balance achieved over many years by interaction between indigenous people and their environment must be avoided, if at all possible.

- Policies based on ethnicity alone and regionally divergent programmes must be avoided.

- There should be centralised control - to avoid divergent conservation programmes, conservation and land use policies and programmes should be formulated at national government level.

- In South Africa the twin legacies of mistrust inherited from the colonial and apartheid eras have to be taken into account in land use and conservation planning.

- Ecotourism is important for economic development in South Africa, and wilderness is important for ecotourism.

- The protection of wilderness areas and the natural riches contained in them is a sound investment in South Africa's human future.

- The effective legal protection of South African wilderness and wildlife would be a priceless and timeless gift to the global community - conversely, its reduction would be a cultural and ecological loss internationally.

PART TWO

WILDERNESS AND ABORIGINAL RIGHTS

There are few, if any, places left on earth which do not bear some imprint of human works. For practical purposes, and so as to achieve as much protection as possible of what little remains of wild country, a working definition of wilderness must refer to areas untrammelled by *modern* humans. Primitive humankind was part of wilderness, not apart from it. What of its successors, aboriginal native tribes, whose survival as discrete cultures may well depend on continued access to wilderness? That is the issue addressed in this Part. It is an issue which must be addressed in post-apartheid South Africa - that is, the extent to which, if at all, the rights of tribal people to the land and natural resources, including the wilderness resource, should be accommodated within our national legal system.

Southern Africa presents a complex and colourful mosaic of cultures and traditions, including many localised clans or groups of people who are the successors of aboriginal tribes. The designers of the future framework for that mosaic must determine whether and, if so, how tribal cultures and traditional harvesting rights should be protected. Some of the more specific questions which will be considered in the two chapters which comprise this Part are the following:

- Is there an international trend toward recognition and accommodation of tribal cultures and their aboriginal rights within national legal systems?

- Are wilderness and wildlife necessary to tribal cultures and, if so, what is the extent of their dependency and need for continued access to those resources?

- Is it necessary or desirable to accord indigenous people special 'group' harvesting rights within the legal and political system? Is there any obligation on government to do so?

- Should indigenous people be involved in the decision making process when natural areas, including wilderness areas, are declared, their boundaries determined, and management plans prepared for them and their buffer zones?

Chapter 4 focuses on developments in other countries, in particular in the United States, and the international trend toward the recognition of aboriginal land tenure and natural resource harvesting rights. Chapter 5 addresses the position in South Africa, and suggests an appropriate response to that trend and the needs of our indigenous tribal communities.

CHAPTER FOUR

THE INTERNATIONAL TREND TOWARD RECOGNITION OF ABORIGINAL RIGHTS

4.1 INTRODUCTION

A major part of the discussion in this chapter will relate to American 'Indian Law' because there is much to be learnt from its well recorded and debated evolution and application in the United States of America. There is increasing concern about aboriginal rights in Alaska and Hawaii, and recognition in other countries, notably Canada, Australia and New Zealand, that the traditional rights of native people can and should be accommodated within non-native institutions and legal systems; reference will therefore be made to those developments.

4.2 AMERICAN INDIAN LAW

American Indian law is a complex body of law, rooted in an historical background of colonisation, conflict, conquest, treaties, removals, relocations, and attempted assimilation. It is a body of law which 'has always been heavily intertwined with federal Indian policy, and over the years the law has shifted back and forth with the flow of popular and governmental attitudes toward Indians.'[1] Indian law is a body of law that not only serves as a barometer of American attitudes toward minority groups, but also plays an important cultural role in that native American tribal identity depends on it for its continued existence. As Getches & Wilkinson put it, '[t]he tomorrows of Indian law will determine whether, and to what extent, Indian cultures can continue as discrete

[1]Canby 1. The word 'nutshell' is used in the title of Canby, but it is over 300 pages in length, which is perhaps some indication of the complexity of the subject. Getches & Wilkinson is over 900 pages long, and the authors describe it (at 1) as no more than 'an introduction to Indians and Indian tribes'! The latter is an excellent source of reference material on this topic, as will appear from the footnotes accompanying the discussion that follows.

units.'[2] Perhaps in the same way, the tomorrows of South African environmental law will determine whether, and to what extent, the special Tonga and other unique South African tribal cultures and way of life will endure.

At the risk of oversimplification, it is intended in this brief discussion to present an overview of the unique legal position in American society of the native Americans known as Indians,[3] with particular reference to their aboriginal rights to the land and the harvesting of natural resources. The focus of the enquiry is therefore relatively narrow, having regard to the complexity and scope of Indian law. Even for this restricted purpose, however, some definition of basic concepts and an historical background are required, and these will be offered presently. But first, a little understanding of the Indian's 'world view' and perceptions of nature is required, without which the discussion of Indian law would be distorted.

4.2.1 Indian 'world view'

Perhaps the essence of the native American attitude toward nature is best extracted from the statements of Indians themselves. The following are representative samples.

Ka Jih Tsi Yoh which, translated from Mohawk, means Princess Pretty Flower, is a direct descendant of Chief Tyendinaga who lived from 1742 to 1809. She describes herself as a 'conservationist by birthright', and writes:

> 'The North American Indian's life has always been a partnership with nature. They have a belief in one all-encompassing, inseparable, indivisible consciousness - oneness of the whole. ....
> There were, at the time of the first European contact, some five hundred different tribes each physically and culturally different from each other, speaking some 2,200 languages, each Indian culture reflecting the environment in which it was shaped. ....

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[2]Getches & Wilkinson xxix.

[3]In recent years the description 'Native Americans' has been preferred to 'Indians' or 'American Indians'. The word 'Indians' is commonly used in the relevant literature and judgements, and will be used here as a matter of convenience and not in any pejorative sense.

> The Indians moved silently on moccasined feet, in garments of fringed skins, as much part of nature as the animals they hunted. In today's language humans were part of the ecosystem; animals were part of our food chain but there was no such concept as hunting. In the original language it meant making meat, not hunting. Everything from that animal was utilised; even today the tribal dress I am wearing was made by the Mohawk elder women from elk skins which they chewed with their teeth until the skins were soft and pliable. Then they were cut and hand sewn, beaded and embroidered with my name. ....
>
> ... our first Americans looked upon nature, including all land and that which it sustained, as being the gift of the Great Spirit. They carried no concept of individual ownership of land. ....
>
> ... our true essence is of the spirit, our true parents are the sun and the earth.'[4]

In a moving appeal made at the Fourth World Wilderness Congress held in Colorado, United States, in 1987, urging the United States government to hear the voices of the Gwich'in Nation - The People of the Lakes - when considering development proposals likely to affect the survival of northern native communities, Norma Kassi, a member of Old Crow, a village community of 300 people in the far northwest of Canada, made the following observations:

> 'We have a language of our own and a strong culture based on the land. It has been documented that we have been a self-determined people for 30,000 years.
>
> Through all these years we have lived and managed the resource in a sustainable manner. We have conserved and protected the caribou and other animals, and we have lived in harmony with the natural world. While you may think of us as living in the wilderness of northern Canada, we think of ourselves as being of the wilderness. We and our activities are part of our natural wilderness system and have been so for tens of thousands of years. ....
>
> The aboriginal people of our countries have the skills of conservation. We follow our traditional laws. When we take, we give back some, we have our traditional ways of doing so because of our spiritual ties to the land. If we take fur, it is in balance with the muskrat that are available to us. We share with everything. We are part of the natural cycle and must live that way to maintain a balance between our needs and the available wildlife resources.
>
> If we destroy the land and resources on which we depend, and with which we live, then we are destroying ourselves. ....

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[4]Brant (1982) 35-41.

> I want to believe that my people can sustain our traditional lives - the environment demands it of us and we have grown to enjoy and believe that we, the Gwich'in Nation, can live forever in harmony with our surroundings.'[5]

The following words are from a statement made by Chief Jo Aqguisho of the Onondaga Nation at the Fourth World Wilderness Congress:

> 'It is not my thoughts nor my wisdom that you read, but the collective thoughts and wisdom of the indigenous peoples who have always been here in these lands from time immemorial. Their knowledge is profound and comes from living in one place for untold generations. It comes from watching the sun rise in the east and set in the west from the same place over great sections of time. We are as familiar with the lands, rivers and great seas that surround us as we are with the faces of our mothers. Indeed we call the earth "Etenoha," our mother from whence all life springs.'[6]

He then spoke of mankind's capacity for destroying life, and pleaded for 'respect for all life, for all life is equal.' On the fate of his own people, he said that they 'were so closely aligned and intertwined with the order of the natural world that (they) suffered the same fate as the trees and the wolves, (their) spiritual relatives.' He referred to the moon as 'our Grandmother ... who raises and lowers the tides of the great salt seas, who gives us light at night and who marks the cycles of the female life and the seasons', and to the sun as 'our mighty Uncle ... who unites with our Mother the Earth to bring forth life in all our seasons; who brings us light each day as we wait in the morning to greet him.' He asked that respect 'be given to those indigenous nations who still carry on their ceremonies, following the ancient laws of nature', and in his concluding remarks, said:

> 'I have heard that economic growth is a necessity and conservation is a consideration of importance. We disagree. Conservation is life and economic growth is a matter of interpretation. ....
> Take heed to the word of our Grandfathers who instructed us to:
> "Take care how you place your moccasins upon the earth, step with care, for the faces of the future generations are looking up from earth waiting their turn for life."'[7]

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[5]Kassi 300-305.

[6]Lyons 282-8.

[7]Ibid.

The following extracts are taken from a letter written in 1855 by an American Indian, Chief Seathl, to the President of the United States:

> 'How can you buy or sell the sky - the warmth of the land? The idea is strange to us. We do not own the freshness of the air or the sparkle of the water. How can you buy them from us? ...A few more hours, a few more winters, and none of the children of the great tribes that once lived on earth, or that roamed in small bands in the woods, will be left to mourn the graves of a people once as powerful and hopeful as yours.... The whites, too, shall pass - perhaps sooner than other tribes. Continue to contaminate your bed, and you will one night suffocate in your own waste. When the buffaloes are all slaughtered, the wild horses all tamed, the secret corners of the forest heavy with the scent of many men and the view of the ripe hills blotted by talking wives, where is the thicket? Gone. Where is the eagle? Gone. And what is it to say goodbye to the swift and the hunt, (it is) the end of living and the beginning of survival.... If we sell you our land, love it as we've loved it. Care for it as we've cared for it. And with all your strength, with all your might, and with all your heart preserve it for your children, and love it as God loves us all.... There is no quiet place in the white man's cities. No place to hear the leaves of spring or the rustle of insects' wings.... And what is there to life if a man cannot hear the lonely cry of a whippoorwill or the arguments of the frogs around a pond at night?... If all the beasts were gone, man would die from great loneliness of spirit, for whatever happens to the beast also happens to the man. All things are connected. Whatever befalls the earth befalls the sons of the earth.'[8]

4.2.2 Definition of terms

Indian harvesting of natural resources implies hunting, fishing and water rights, and these are essentially property rights, the recognition and determination of which turns on jurisdiction. Over the last 150 years the central issue in Indian law has been jurisdiction: who governs the land, the resources, and the people in Indian country?[9] Is it the federal government, the states, or the tribes? What law applies, or should apply? What is Indian law? What constitutes a tribe, who is an Indian, and what is Indian country? The same sort of questions will become important in South Africa in the future if, as is

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[8]Quoted by Brant (1979) 20-22. Chief Seathl is referred to in some works as Chief Seattle. The precise authorship of the statement is now in some doubt (Roderick Nash, personal comment 1989), but it remains a classic and oft-quoted statement of attitude, anguish and regret at the passing of an ancient culture and the impacts of 'civilisation' on the natural world.

[9]See Getches & Wilkinson 338, and generally on the question of jurisdiction 337-547.

likely, cognatic forms of tenure continue to apply and are possibly extended in the rural areas - at least until such time as tribal cultures and all rural land become assimilated within the national political ethos and economy, if this ever happens.

4.2.2.1 *Indian law and tribal law*

Indian law is that body of law which deals with the status of the Indian tribes and their special relationship to the federal government, the states and other American citizens. In this sense, Indian law is a 'private international law' branch of federal law, and should not be confused with Indian *laws*, or '*tribal law*', which is the internal law that each tribe applies to its own affairs and members. In other words, Indian law will determine when tribal law rather than federal or state law applies to a particular situation.[10]

4.2.2.2 *Indian tribes*

The concept of *Indian tribe* is fundamental to Indian law. Indian tribes are independent entities with inherent powers of self-government, yet there is no 'all-purpose' definition of an Indian tribe. It has, for example, been characterised as a 'state within a state', 'foreign nation', 'federal instrumentality', 'private association', and 'unique aggregation', depending on the context of the enquiry.[11] A group of Indians may qualify as a tribe for the purposes of a particular statute or federal programme, but not for others. In general terms, however, a tribe is a group of Indians which has been recognised as a distinct and historically continuous political entity for some governmental purpose.

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[10]Seé Canby 1-3, and Getches & Wilkinson xxiii-xxiv, and xxvii where they comment that '(t)he presence of three sovereigns in Indian country, each with its interests to be protected, creates a jurisdictional collage that has puzzled many a student of Indian law.' At 2-3 Canby gives the following useful illustration. If an Indian commits a traffic offence in Chicago, his case will be governed by the same law and be decided by the same court that would govern and decide a similar case against a non-Indian. The Indian's status is irrelevant, and Indian Law does not apply. But if he were to commit the same offence in the Navajo Reservation in Arizona, his Indian status and the location combine to confer jurisdiction upon a different court and will result in the application of a different law, tribal law, from that which would decide and govern the case if he were a non-Indian.

[11]See Getches & Wilkinson 338. Probably the best description of tribes is 'unique aggregations', a phrase used in *United States v Antelope* 430 US 641 (1977) 645, and referred to by the authors at 229. Favre 40 refers to tribes as 'unique aggregations possessing attributes of sovereignty of both their members and their territory.'

Federal recognition stems from treaty, statute, executive or administrative order, or from a course of dealing with the tribe. Where formal recognition is in doubt, a group may still qualify as a tribe for a particular purpose if it has substantially retained its continuous Indian identity, notwithstanding fluctations of tribal activity from time to time.[12]

Because of their historical background, Indian tribes have a legal, political and social independence which is not derived from Congress or the Constitution of the United States. When Congress deals with tribes, it does so on the basis that it is dealing with separate *political* entities, not a *racial* minority.[13] Although the tribes are not entirely separate from the mainstream of American society, they have as yet not been completely assimilated into it. Because of historical forces and partial integration in fact,[14] total assimilation appears to be inevitable at some time in the future.[15] In the meantime,

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[12]See Canby 1 and 3-5. The federal government, in recognising a tribe, has not always been governed by ethnological realities, there being numerous instances where ethnologically distinct tribes or bands were gathered into one common reservation and thereafter treated as a single tribe. On the other hand, non-recognition by the federal government of a particular group of Indians as a tribe does not deprive that group of vested treaty rights. See too Getches & Wilkinson 250-2, where an indication is given of the kind of evidence required to establish tribal identity, often a complex process involving extensive historical and anthropological enquiry.

[13]For some interesting perspectives on Indian law and an overview of the position of Indians in American society today, see Getches & Wilkinson 1-32. 'Tribalism remains a driving force in both Indian culture and law' notwithstanding that their world is 'wildly heterogeneous'(at 1). Some of the tribes are large, but most are small. At 4, the authors list the 30 largest landholding tribes, and at 6 the 25 most populous. The Navajo reservation (166 000 members) of more than 15 million acres is the largest. The Papago of Arizona are the second largest landholder, and the fourth most populous. The second most populous is the Lumbee tribe which, remarkably, the federal government does not 'recognise' for most purposes, and the third most populous is the Cherokee Tribe, which lost most of its ancestral land in the Southeast when it was 'removed' to Oklahoma in the 1830s. 83% of the 488 federally recognised tribes have fewer than 1 000 members.

[14]According to 1980 census figures, there were approximately 1,4 million Indians in the United States, which represented just under 0,5% of the nation's population. About half of the total Indian population lives outside of reservations. However, most urban Indians maintain their tribal affiliations. An estimated 70 000 live in Los Angeles alone. Indians serve in state legislatures. Although many Indians still suffer under deplorable economic, health (kwashiorkor, for example, is still frequently diagnosed on reservations), and education conditions, there has been much improvement in recent years, and with improvement has come further integration. The numbers of Indian business and professional people have surged. Although there is still a lack of primary and secondary educational facilities, the number of Indians obtaining advanced degrees has been steadily increasing. See Getches & Wilkinson 6-13, and 222.

[15]A view expressed, *inter alia*, by Frederick J Martone 'American Indian Tribal Self-government in the Federal System: Inherent Right or Congressional Licence?' (1976) 51 *Notre Dame LR* 600, 634 - quoted in Getches & Wilkinson 28.

however, the Indians cling to their tribal identity and preservation of the remnants of their ancestral homelands and traditional way of life, notwithstanding increasing use of modern homes, motor cars, and other 'first world' conveniences. Their social and traditional organisation remains essentially 'Indian' although blended to an extent with modern technology and material improvement. At present, public opinion and thus federal policy still seek to maintain and accommodate tribal interests and separate identity within the federal legal system.

4.2.2.3 *Indian and Indian country*

'*Indian*' is another term which is not precisely defined for all purposes, but which generally refers to a person who has some Indian blood and is regarded as an Indian by his or her community.[16] Indians still hold substantial tracts of land,[17] generally referred to as *Indian country*. Although there does not appear to be any simple definition of Indian land or Indian country, in general terms it is a geographic area in which tribal and federal laws do, and state laws do not, normally apply,[18] and over which Indians enjoy tenure rights. However, their rights of tenure are founded in a complicated legal and historical potpourri of original and variously derived titles. The recognised sources of their landholding rights are: rights of occupancy originating from aboriginal possession, treaties, agreements, statutes, executive action, purchase, and the actions of foreign nations, colonies and states. Within a single Indian reservation there

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[16]Canby 6-7, citing F Cohen *Handbook on Federal Indian Law* (1942) 2. To have Indian blood is to have had ancestors living in America before the Europeans arrived, acceptable proof of which is that a parent, grandparent or great-grandparent was clearly identified as an Indian. The necessary quantum of Indian blood to qualify as an Indian varies according to the requirements of particular statutes or tribes. Some tribes require one-fourth tribal blood for enrolment as a member of the tribe. However, tribal recognition is not always sufficient. For some federal jurisdictional purposes, the person must be a member of a *federally* recognised tribe. Because individual status follows tribal status, it follows that one can be an Indian for some purposes but not for others (Canby 6-8).

[17]It is estimated that the land held by Indian tribes and individuals represents about 2,4% of all land in the United States (which amount is almost doubled by the 44 million acres allocated to the Alaskan natives, about 12% of all land in Alaska). Tribes own about 1% of the nation's commercial timber land, 3% of its oil and gas reserves, 7-13% of identified coal resources, and a substantial percentage of other valuable minerals. A growing number of tribes is becoming involved in developing these resources, and their recreation resources (Getches & Wilkinson 13-17).

[18]See Getches & Wilkinson 338-9, and the definition of Indian country in 18 USCA § 1151 there quoted.

may be found a variety of types of land tenure.[19] The mixture is further complicated when the purpose of definition or determination of source of title is to decide whether or not compensation is payable after expropriation. The government does not have to pay compensation for the 'taking' of aboriginal title; but is constitutionally bound to do so in the case of landholdings 'recognized' or 'confirmed' by Congress.[20]

As at 1981, more than fifty million acres of Indian reservation lands were held in trust by the United States for Indian tribes and individuals.[21] These lands are different from other public lands in the United States in that, not only must they be managed for the benefit of the specific beneficiaries concerned, but the tribal government itself is involved when any resource development is contemplated on Indian reservation land.[22]

4.2.3 The significance of Indian law and its relevance to other countries

To what extent are conditions in the United States, which is a highly industrialised country, comparable to conditions in South Africa, which is still a developing country? The populations of both countries include descendants of aboriginal inhabitants and European colonists, and both countries have first world and third world components, albeit in differing degrees and proportions.[23] The major difference, of course, is that

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[19]Op cit 162, and generally on the subject of tribal land tenure and property interests 162-195.

[20]The rationale of this apparent ambivalence is that '(e)xtinguishment of Indian title based on aboriginal possession' raises 'political, not justiciable, issues.' (*United States v Santa Fe Pacific R Co* 314 US 339 (1941) 347, quoted in Getches & Wilkinson 177). In other words, the seizure or taking of the land of a conquered people, in the absence of some sort of legal recognition, is a *political*, not a *legal* act.

[21]Getches & Wilkinson 13 estimate that tribal land and individual allotments together amount to 52,5 million acres. The State with the largest percentage of Indian land is Arizona with 26,99%.

[22]Coggins & Wilkinson 42.

[23]It is tempting to indulge in romantic notions of the American Indian 'noble savage' and his culture. However, because of social disruption, the reality is that the Indians now to some extent represent a third world element in the industrialised United States - '(I)t is important for modern Anglo-Americans to visit Navajo-land soon. Yet go forewarned: You will be entering a foreign country. You will be shocked by the ubiquitous poverty and disease. You will be insulted by shacks lining the highways hawking "authentic" Indian arts and crafts. You will be inconvenienced by the prohibition of alcohol on the reservation, and at the same time, scandalized by drunken Indians in the border towns. This is the Third World, and it lies right in the soul of America' (Backpacker 56).

in South Africa, unlike in the United States, the indigenous inhabitants constitute the substantial majority of the population. In both countries, natural resource laws, to be effective, must accommodate the needs of widely divergent cultures. Indian law therefore has comparative value, but its value extends beyond merely presenting a comparative perspective of the interface between first and third world peoples and the effects of culture clashes on the natural environment.[24] Although this unique body of law is directly concerned with the rights and interests of only one ethnic group, the American Indians, it has far wider implications and influence. The following extracts from the works of writers on federal Indian law give some indication of its relevance, not only to other nations individually, but to the global community, the concept of democracy, and the role of law. Getches & Wilkinson write:

> 'Indian law in the United States also has had an impact in other countries. ...foreign nations often have looked to doctrine developed in this country in resolving their internal disputes over rights of aboriginal peoples. The international ramifications of federal Indian law are sure to be of importance in the international arena in upcoming years as native groups around the world seek to establish rights to natural resources, sovereignty, and cultural diversity. ...The future response of the American legal system to Indian rights will be an important index of society's ability to tolerate diversity. The separation that is inherent in the Indians' desire to remain in self-governing enclaves is not well understood in the dominant society. The inconsistency of having islands of racial groups in a country that fought a civil war and has spent the last one hundred years struggling to accept the goal of racial integration is a rallying point for some who would extinguish or revise Indian rights. Is there a basic value in preserving an indigenous culture, even at some cost to the dominant culture? Should the role

[24]Of course it is not only the effects of culture clashes on the environment that is of concern. Westernisation has had profoundly adverse impacts on traditional societies, and this is arguably another justification for special group treatment. A reported example of the social effects of 'civilisation' on indigenous people is the Papago tribe of Southwestern Arizona who, over hundreds of years, adapted to desert life, in the same way that the bushmen adapted to life in the Kalahari desert in southern Africa. The lifestyle of the Papago has changed, and they now enjoy modern conveniences such as supermarkets and refrigerators, but they are also susceptible to obesity and diabetes, probably as a direct consequence of their relinquishing their desert-bound traditions, and having given up reliance on desert providence. Having evolved over time so that their bodies and their cultures were capable of tolerating desert cycles, they have now relaxed into a more comfortable state, but with adverse social and health consequences. The aborigines of Australia have similar problems. According to the Indian Health Service, more than half of the adult population of Piman Indians, including the Papago, now suffers from diabetes. The levels of gall-bladder disease and hypertension are also high. These diseases were uncommon in traditional Piman life, until after World War II. The Hopi, Navajo and Cocopa tribes show similar susceptibilities (See Quammen 27).

> of the law be to homogenize society? Or should it be flexible enough to preserve difference and diversity?'[25]

The last three questions have particular pertinence in the South African context.

Although written in 1953, the following statement by Felix Cohen, who is described by Getches & Wilkinson as the greatest of all Indian lawyers,[26] is still relevant to the contemporary significance of Indian rights:

> '[T]he Indian plays much the same role in our American society that the Jews played in Germany. Like the miner's canary, the Indian marks the shift from fresh air to poison gas in our political atmosphere; and our treatment of Indians, even more than our treatment of other minorities, reflects the rise and fall in our democratic faith.'[27]

4.2.4 Historical background[28]

In considering the historical background of American Indian law and policy, it is interesting to observe their remarkable resemblance to the events that occurred in southern Africa. We too have had removals of entire communities, establishment of reserves, arable allotments, trust tenure in rural areas, attempted assimilation or westernisation of indigenous people, self-determination in the form of the independent states and homelands, and perhaps now back to attempted assimilation in a reconstituted South Africa.

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[25]Getches & Wilkinson xxviii-xxix. The authors also pose the difficult but pertinent questions whether the greatest of all egalitarian nations should continue to permit 'special' rights and 'societies within the greater society'; whether it is enough to say that 'Indians were here first'; and whether the special rights of the Indians should be terminated in whole or in part once they cease to be a seriously disadvantaged group or a traditional cultural unit.

[26]Getches & Wilkinson xxx.

[27]Cohen (1953) 390.

[28]For an overview of the history of federal policy toward American Indians, see Getches & Wilkinson 33-160, and for further recommended readings, their references at 34-6.

Federal Indian law and policy, and public opinion, have shifted from time to time from the recognition of tribes as substantially autonomous and their territories as deserving of protection, to a belief that the tribes should disappear and their members be assimilated into the mass of American society.[29] However, two basic themes have persisted, and they are that the tribes are independent entities with inherent powers of self-government, subject to the power of Congress to regulate and modify their status and, secondly, that the federal government is responsible for their protection and the protection of their properties.[30] In the words of Chief Justice John Marshall, they are 'domestic dependent nations' and 'in a state of pupillage; their relation to the United States resembling that of a ward to his guardian'.[31]

4.2.4.1 *Treaties*

During the colonial era, Spain, Holland, England and subsequently the British Colonies all entered into formal treaties with Indian tribes as foreign, sovereign nations.[32] As the colonists increased in strength and number, their encroachment upon Indian lands became more and more aggressive and extensive, and the Crown increasingly assumed the position of protector of the tribes. After the Declaration of Independence in 1776, it seemed likely that if Indian affairs were left in the hands of the individual states,

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[29]See Canby 9. Getches & Wilkinson xxvii remark that 'Indian law must be perceived as a dynamic field, responding to changes in national policy and needs. Perhaps the price of being characterized by exceptional doctrines is being exceptionally vulnerable to change.'

[30]See Canby 1-2, generally on the special trust relationship between the federal government and the tribes at 32-56, and on the nature of their autonomy or sovereignty at 66-83. *Vis-á-vis* the states, the tribes were, for all internal purposes, 'sovereign and free from state intrusion on that sovereignty' (Canby 68). Congress, however, retains plenary power to limit tribal sovereignty. This is the legal position. Public policy, and thus political policy, are another matter. 'Political restraints may, of course, keep Congress from greatly diminishing or eliminating tribal sovereignty, but legal restraints do not' (Canby 79). On the origin and nature of tribal sovereignty generally, see Getches & Wilkinson xxiv-xxvii and 269-336. Tribal governments are obviously different from other 'foreign' governments in that, *inter alia*, the continued existence of other governments does not depend on Congress' continuing recognition of their cultural worth and distinction.

[31]In *Cherokee Nation v Georgia* 30 US (5 Pet) 1 (1831). In 1823, 1831 and 1832 Marshall CJ delivered three judgements, which commentators describe as forming the foundation of federal Indian law (Canby 12, Getches & Wilkinson xix, and Coggins & Wilkinson 39).

[32]See Getches & Wilkinson 34-6.

further conflict would ensue because of non-Indian land hunger and Indian retaliation.[33] The constitution of the new nation granted the power of regulating commerce with the tribes to Congress, and the power to make treaties to the President with the consent of the Senate. A series of Trade and Intercourse Acts was passed between 1790 and 1834, based on a policy of separation of the two groups and federal control of interaction between them, which established the boundaries of Indian country. The purpose of these federal laws, and the policy of the government, was to regulate trade and intercourse with the tribes, in order to preserve peace on the frontier whilst achieving its orderly advance.[34] Regulation of the conduct of Indians in their own territories was left to the tribes themselves. The central government continued to deal with the tribes by treaty, as well as by statute.

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[33]In *Johnson v McIntosh* 21 US (8 Wheat) 543 (1823), one of the 'Marshall trilogy', Marshall CJ presents an interesting description of and commentary on the process whereby the Indians were effectively deprived of their ancestral lands and wilderness heritage (quoted in Coggins & Wilkinson 40-1): '... discovery gave an exclusive right to extinguish the Indian title of occupancy, either by purchase or by conquest.... Conquest gives a title which the courts of the conqueror cannot deny, whatever the private and speculative opinions of individuals may be, respecting the original justice of the claim which has been successfully asserted. The British government, which was then our government, and whose rights have passed to the United States, asserted a title to all the lands occupied by Indians, within the chartered limits of the British colonies. It asserted also a limited sovereignty over them, and the exclusive right of extinguishing the titles which occupancy gave to them. ... The title by conquest is acquired and maintained by force. The conqueror prescribes its limits. Humanity, however, acting on public opinion, has established, as a general rule, that the conquered shall not be wantonly oppressed, and that their condition shall remain as eligible as is compatible with the objects of the conquest. ... When the conquest is complete, and the conquered inhabitants can be blended with the conquerors, or safely governed as a distinct people, public opinion, which not even the conqueror can disregard, imposes these restraints upon him; and he cannot neglect them, without injury to his fame, and hazard to his power. ... But the tribes of Indians inhabiting this country were fierce savages, whose occupation was war, and whose subsistence was drawn chiefly from the forest. To leave them in possession of their country, was to leave the country a wilderness; to govern them as a distinct people, was impossible, because they were as brave and as high-spirited as they were fierce, and were ready to repel by arms every attempt on their independence. ... Frequent and bloody wars, in which the whites were not always the aggressors, unavoidably ensued. European policy, numbers and skill prevailed; as the white population advanced, that of the Indians necessarily receded; the country in the immediate neighborhood of agriculturists became unfit for them; the game fled into thicker and more unbroken forests, and the Indians followed. The soil, to which the crown originally claimed title, being no longer occupied by its ancient inhabitants, was parcelled out according to the will of the sovereign power, and taken possession of by persons who claimed immediately from the crown, or mediately, through its grantees or deputies. ... However this ... may be opposed to natural right, and to the usages of civilized nations, yet, if it be indispensible to that system under which the country has been settled, and be adapted to the actual condition of the two people, it may, perhaps, be supported by reason, and certainly cannot be rejected by courts of justice.'

[34]See Canby 11, and Getches & Wilkinson 70-93.

The first treaty was entered into with the Delaware tribe in 1787. By 1871 when treaty-making ended, hundreds of treaties had been entered into with the various tribes and bands. The treaties usually contained provisions relating to the delineation of boundaries, the cession of lands to the federal government, and a guarantee of Indian hunting and fishing rights on the ceded land. The retention by Indians of wildlife harvesting rights is a striking characteristic of their treaties - no such provisions featured in the treaties entered into with the black tribes of southern Africa.[35] At the beginning of this period, the tribes were able to negotiate from a position of some strength, as they retained some of their 'original integrity and power', and the federal government was feeling the effects of the war of independence. However, even at this early stage when they still had some bargaining power, the tribes were disadvantaged by the treaties being in English and by their unfamiliarity with European concepts of tenure and government. The government, moreover, did not always negotiate with individuals who were the traditional leaders, all of which, Canby remarks, 'contributed to overreaching on the part of the federal government.'[36] After the 1812 war, when the British had withdrawn from the continent, the tribes lost some of their bargaining power (no longer having the option of allying with the British), and negotiations with them became increasingly onesided. With white westward expansion, they had two options: either try to keep their

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[35]See, for example, Davenport & Hunt 9-30, and especially Documents 34 to 41.

[36]See Canby 84-5. Generally on the subject of Indian treaties, see Canby 10-12 and 84-96, and Getches & Wilkinson 37-70, 110 and 200-214. Another interesting perspective of treaties is offered in the following extract from the judgement in *Tee-Hit-Ton Indians v United States* 348 US 272 (1955), quoted in Getches & Wilkinson 179: 'Every American schoolboy knows that the savage tribes of this continent were deprived of their ancestral ranges by force and that, even when the Indians ceded millions of acres by treaty in return for blankets, food and trinkets, it was not a sale but the conquerors' will that deprived them of their land.' For a contrary view, see Cohen (1947) 34-43, extracts from which are quoted in Getches & Wilkinson 182-4, who suggests that the lands of the United States were *not* acquired by purchase or treaty from Great Britain, Spain, France, Mexico and Russia. They (the lands) were not theirs to give. Nor was the land taken from the original owners of the continent by force. He distinguishes between a sale of land and the transfer of governmental power, and notes that after paying Napoleon $15m for the cession of political authority over the Louisiana Territory, the United States proceeded to pay the Indian tribes more than twenty times this amount for such lands in their possession as they were willing to sell. In theory at least, the same argument could perhaps be advanced in the South African context - when Shaka granted Port Natal and its hinterland to FG Farewell in 1824 for 'divers goods received' (see Document 34 in Davenport & Hunt 19), for example, did he really intend to sell the land or merely transfer governmental power over it?

ancestral homelands and be overrun by settlers, or agree to move. Breach of concluded treaties by the United States was also common.[37]

Because Indian tribes are regarded as 'domestic dependent nations', treaties with them are somewhat peculiar. However, they are regarded as enjoying essentially the same legal status as treaties with foreign nations. Because of the 'supremacy clause' in the constitution of the United States, they take precedence over conflicting state laws.[38] Indian treaties, like international treaties, have the status of federal statutes. They may be abrogated or amended unilaterally in the same way as federal statutes, notwithstanding that many of the treaties with the tribes declared that they would remain in effect 'as long as the grass shall grow.'[39]

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[37]One treaty lasted for only twelve days. See Wilkinson & Volkman 601 (extracts from 608-19 are quoted in Getches & Wilkinson 61-4).

[38]So held in *Worcester v Georgia* 31 US (6 Pet) 515 (1832). The 'supremacy clause' is US Constitution, Art VI, § 2 (see Canby 86-7). Only the federal government may enter into such treaties. *County of Oneida v Oneida Indian Nation* 470 US 226 (1985) declared a treaty entered into in 1795 between the Oneidas and the State of New York invalid. The respondents, three Oneida tribes, were the direct descendants of members of the Oneida Indian Nation, one of the six nations of the Iroquois, the most powerful Indian Tribe in the Northeast at the time of the American Revolution. In terms of the treaty, 100 000 acres of Indian lands were transferred to the state, and the court held that the tribe still had a viable claim for damages against the State of New York. For discussion of the case, see Canby 260-1, and (with extracts from the judgments) Getches & Wilkinson 75-93. A constitutional right to compensation or claim for damages arises when there is deprivation of 'recognized title' to Indian lands, which is a property right within the meaning of the Fifth Amendment, even if the 'taking' is by the federal government (see Canby 263-4). There have been other 'eastern land claims' cases, which have become an awkward, recurring political issue. Defences based on laches, estoppel, adverse possession, and statutes of limitation have been held to be inconsistent with federal trust responsibility. The judgements in *Oneida Nation* suggest that a political solution is preferable, and perhaps inevitable, in such important public law cases. (To the extent that this amounted to an encouragement to Congress to extinguish ancient Indian claims, it has been criticised as a violation of the spirit of the trust doctrine - see Getches & Wilkinson 266). One of the dissenting judges, Mr Justice Stevens, observed: 'This decision upsets long-settled expectations in the ownership of real property in the Counties of Oneida and Madison, New York, and the disruption it is sure to cause will confirm the common law wisdom that ancient claims are best left in repose. The Court, no doubt, believes that it is undoing a grave historical injustice, but in doing so it has caused another, which only Congress may now rectify' (quoted in Getches & Wilkinson 91). Getches & Wilkinson 92-3 refer to the other eastern land claims and their settlement, and state (at 93) that '(t)here are also thousands of claims by individual Indians who assert that individual trust land has been improperly transferred away.' A lesson to be learnt from all this is that the practical consequences of recognising ancient land tenure claims must be very carefully considered - perhaps they 'are best left in repose.'

[39]See Canby 91. That is the position as far as the internal law of the United States is concerned, and is not necessarily the position in public international law when foreign nations are affected (see also Wilkinson & Volkman 601). Although it is accepted that Congress has the power unilaterally to modify or abrogate treaty rights, the courts require that this be done explicitly and will not infer an intention to do so (see Bean 59 and authorities cited at notes 58 and 59).

4.2.4.2 *Removal*

Between 1820 and 1850, because of continuing friction between the burgeoning white population and the tribes, a policy of Indian 'removal' was applied.[40] Most of the tribes east of the Mississippi were moved to the West, often under conditions of extreme hardship and suffering.[41]

4.2.4.3 *Reservations*

During the following period from 1850 to 1887 a policy of restricting the tribes to specified reservations was applied. Treaties were concluded, 'with varying degrees of persuasion and coercion',[42] with many of the tribes, in terms of which they transferred most of their ancestral homelands to the United States and reserved some lands to themselves. Although treaty-making with the tribes ended in 1871,[43] the United States continued the process of 'clearing' Indian title and establishing reservations through negotiation, and by statute and executive order.

The Indians were placed in reservations that were far smaller than their aboriginal domains. Those who were not willing to move to the reservations were driven there by force. The tribes effectively lost their political autonomy. And so the West was 'won', the 'wilderness' conquered. For the Plains Indians, the process was promoted by the completion of the transcontinental railroad in 1869, with its spurs into previously remote areas, as this not only facilitated control of the Indian bands, but also spelt the demise

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[40]For further references and comment on 'removal', see Getches & Wilkinson 93-101.

[41]See Canby 12-17. In Canby's words: 'All but a few remnants of tribes east of the Mississippi were moved to the West under a program that was voluntary in name and coerced in fact. The journeys were often attended with extreme hardship and some became virtual symbols of imposed suffering, such as the Trail of Tears traveled by the Five Civilized Tribes (Cherokee, Choctaw, Creek, Chickasaw and Seminole) from the Southeast to what is now Oklahoma' (Canby 16-17). For further comment and references to the forced removal of the 'Five Civilized Tribes', and others, see Getches & Wilkinson 97-9.

[42]Canby 17.

[43]With the passage by Congress of a statute, 25 USCA § 71, providing that no tribe should thereafter be recognised as an independent nation with which the United States could make treaties. Existing treaties were not affected (see Canby 17).

of the large buffalo herds on which they depended. The delicate balance with nature which they had achieved by taking only what they needed for food, clothing and shelter, was upset by the now more easily satisfied and increased demands for buffalo meat and hides, and the sport of killing a buffalo before the species became extinct.[44]

4.2.4.4 *Allotments and assimilation*

The reservation policy fell into disfavour and was followed, between 1887 and 1934, by an era of 'allotments and attempted assimilation'. Although some critics view the events of this period as 'an orgy of exploitation, with Indian lands being singled out for sacrifice to the westward expansion',[45] at least some of the motivation for assimilation was benign. At the root of the difference between the two cultures was the difference in the concepts of property. The white man's way was perceived, at least by whites, as better, and therefore it was desirable to destroy tribal life. That the tribal economies were in most cases not successful was certainly true, as many Indians were living in abject poverty - which was not altogether surprising as the economic underpinnings of their old cultures had been destroyed. The tribes were therefore seen as obstacles to Indian cultural and economic development, and it was believed that they would wither away if individual Indians were allocated plots of land to cultivate as farmers, thereby prospering and becoming assimilated into the mainstream of American society. 'Excess' land after allotment was made available, by negotiation with the tribes, for non-Indian settlement. This process resulted in a decline in the total amount of Indian held land from 138 million acres in 1887 to 48 million in 1934, some 20 million of which was desert or semi-desert.[46]

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[44]See Getches & Wilkinson 102-103, quoting from S Lyman Tyler *A History of Indian Policy* (1973) 71-88 and, on the near extinction of the buffalo, see also Frome 67, and Trefethen Chapter 1 entitled 'Blood on the Prairies'.

[45]Getches & Wilkinson 120.

[46]See Canby 19-22. The individual allotments to individual Indians were made on the basis that the land remain in trust for a period, usually 25 years, thereafter becoming freely alienable. Many of such allotments never passed out of trust status (see Canby 270). For a fuller treatment of this period, which 'marked a major turn in Indian law and policy', see Getches & Wilkinson 111-122. At 111, reference is made to the national events occurring at mid-century which made it inconvenient for the Indian reservations to be kept separate under tribal ownership: 'The United States acquired the Pacific Northwest through the Treaty with Great

4.2.4.5 *Reorganisation*

It became accepted that the allotment policy had failed, and this was followed by another major shift in federal policy with the passage of the Indian Reorganization Act of 1934,[47] which in effect acknowledged that many Indians wished to maintain their separate cultural identity, and was designed to protect their remaining land base and rights to self-government. The trust period for allotments still held in trust was extended indefinitely, and the Secretary of Interior was authorised to restore to tribal ownership 'excess' lands not alienated, and to acquire further lands and water rights for the tribes. This policy of 'Indian reorganization and preservation of the tribes' was applied during the years 1934 and 1953.[48]

4.2.4.6 *Termination*

The following period represented yet another major shift in official federal policy. The period between 1953 and 1961 saw renewed attempts at integration by 'termination' of tribes, and 'relocation' of Indians by encouraging them to leave the reservations. In 1953 Congress passed, and the Senate endorsed, Resolution 108, which declared it to be 'the policy of Congress, as rapidly as possible to make the Indians within the territorial limits of the United States subject to the same laws and entitled to the same privileges and responsibilities as are applicable to other citizens of the United States, and to grant them all the rights and prerogatives pertaining to American citizenship;' and further that 'Indians within the territorial limits of the United States should assume their full responsibilities as American citizens' and 'should be freed from Federal supervision and

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Britain of 1846. By the Treaty ... with Mexico of 1848, the United States annexed California, Nevada, Utah, most of Arizona, and large areas of New Mexico and Colorado. Gold was discovered at Sutter's Mill in California in 1848, spurring the largest human migration in history. California (1852), Oregon (1859), and Nevada (1864) achieved early statehood. The transcontinental railroad was completed in 1869. The General Homestead Act of 1862, the Desert Land Act of 1877, and other federal land disposition programs lured settlers west.'

[47]25 USCA § 461.

[48]See Canby 23-25, and Getches & Wilkinson 122-9 for comment on the Act and its impact on tribal culture and religion. The latter authors refer to 'the period of Indian reorganization' as extending from 1928 to 1945, but nothing relevant to this discussion turns on this difference in dating the period.

control and from all disabilities and limitations specially applicable to Indians.' President Eisenhower had taken office in 1953. This resolution was consistent with his concern with 'excessive concentration of power in government' - in a sense, reducing the involvement of the federal government with Indian affairs amounted to setting them free. However, in the result, neither was their freedom promoted, nor was discrimination ended. The resolution was followed by a series of policy implementing acts, which brought about the termination of about 109 tribes and bands, affecting at least 1 362 155 acres and 11 466 individuals.[49]

4.2.4.7 *Self-determination*

By the late 1960s, however, the policy of termination was regarded as a failure. The period 1961 to the present is referred to as the era of tribal 'self-determination'. In 1970, after successive prior administrations since 1958 had taken little or no effective action to terminate tribes, President Nixon issued a 'Message to Congress' which is now regarded as the foundation of current federal Indian policy. The statement represents formal recognition of the permanency of the tribes, and abandonment of the concept of assimilation through termination. In it Nixon declared forced termination to be morally and legally unacceptable, and to have been a failure. He called for its repudiation by Congress, declaring that it was 'long past time that the Indian policies of the Federal government began to recognize and build upon the capacities and insights of the Indian people.' He stressed the continuing importance of the trust relationship between them, and urged a program of legislation to permit the tribes to manage their affairs with a maximum degree of autonomy. The self-determination policy was reaffirmed by subsequent Presidents Ford, Carter and Reagan.[50]

4.2.5 *The present position*

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[49]See Getches & Wilkinson 131 where the extracts from the Resolution are quoted, 134 for statistics, and 135-151 for discussion of the effects of termination (see also Canby 25-28 and 52-56). The proceeds of tribal lands were distributed to tribal members *per capita*. According to Canby 53, such proceeds were then often consumed by routine living expenses. At 55, he describes the social and economic effects of termination as 'almost uniformly disastrous.'

[50]See Canby 28 and 30, and Getches & Wilkinson 151-4.

In Canby's words, the present position is that federal Indian policy is 'based on a model of continuing pluralism; it recognizes that the tribes are here to stay for the indefinite future, and seeks to strengthen them.' He remarks, however, that nothing in its history justifies confidence that no further changes of direction will occur in the future.[51]

Another perspective of present Indian policy is that it 'resembles a great patchwork quilt - the stitching together of bits of new perceptions and scraps of previous policies into a cloth of striking color but very little design. ... a lesson which emerges from this historic patchwork is that Indian programs cannot be based upon congressional whim or public opinion, but must be rooted in historical *legal* obligations .... Public policy, no matter how well-intended, is not sufficient protection for the rights of Indians or non-Indians without the threat of the courts. Effective Indian policy must be rooted in the guarantees of law ....'[52] - which is perhaps stating what should be obvious: policies are changed more easily than laws. However, it does serve to emphasise a lesson we can learn from the history of American Indian policy, which is that it has demonstrated that a social policy without proper legal prescription is not only unpredictable, but often ineffective and potentially unjust.

It is against this background of conflict, conquest, containment, relocations, fluctuating public opinion and official policies, continuing debate on the accommodation of traditional values, and perhaps the sense of inherited guilt for the excesses of the past,[53] that current Indian law and policy should be viewed.

4.2.5.1 *The nature and extent of native american 'group' rights*

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[51]Canby 31.

[52]Strickland 220-1 (quoted in Getches & Wilkinson 20-23).

[53]Getches & Wilkinson 29 quote the following caveat expressed in a 1977 Indian Policy Review Commission report: 'But we must not legislate out of a sense of guilt or excessive zeal to cure all the sins and inequities of the past. Distorting the present and future to atone for the past cannot be the basis of a stable and enduring policy. .... Where tribal aspirations collide with constitutional values, the tribe's interests must yield. Nor can the rights of the non-Indian majority be compromised to support tribal aspirations. Doing justice by Indians does not require doing injustices to non-Indians.'

As individuals, Indians may participate not only in their own tribal governments, but also in the state[54] and federal processes. Although exempt from many state taxes, laws and regulations, they are entitled to the same constitutional and civil rights as any other Americans.[55] Before 1924, citizenship had been extended to some tribes by individual treaties and acts. The omnibus Indian Citizenship Act of 1924[56] granted full citizenship to all Indians.[57]

The current federal policy of self-determination reflects the reemergence of tribal nationalism, and special 'group' treatment of Indians. They have special legal rights which are not enjoyed by any other minority communities, such as the Irish, Blacks and Hispanics. No other American citizens enjoy the same hunting and fishing rights. The tribes are treated as 'governments' exerting sovereignty over both persons and property within their jurisdiction. There are also several special federal programs which are available only to Indians, and it is accepted that these should be funded by the federal government but that the tribes themselves should be involved in planning and administering them.[58]

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[54]For a discussion of Indians as state citizens, see Getches & Wilkinson 579-598.

[55]Indians may be drafted for compulsory military service, notwithstanding that they are regarded, for some purposes, as resident aliens. They enjoy the same rights as other citizens in federal programs and under federal laws relating to social security, crop loans, consumer protection, minorities and veterans. Generally on the individual rights of Indians, see Canby 230-255 and Getches & Wilkinson 548-552.

[56]43 Stat 253, 8 USCA §1401 (a) (2).

[57]See Getches & Wilkinson 122 and 548. At 548-9 reference is made to some of the pre-1924 treaties and statutes which extended citizenship to some Indians.

[58]The two most important programmes are welfare and education, but there are many others relating to health, credit, economic development, housing, legal assistance, agriculture, grazing, minerals, timber, land management, development and leasing (see Getches & Wilkinson 570-9 for reference to special federal programmes for Indians). The Indian Child Welfare Act 25 USCA §§ 1901-1963 (1978) deals comprehensively with Indian child custody cases (see Getches & Wilkinson 457-478 for extracts from and discussion of this Act). The Indian Religious Freedom Act 42 USCA § 1996 (1978) provides for protection and preservation of Indian religious cultural rights and practices. Most Indian religions honour ancestors and draw strength from feelings of kinship with nature (on the special protection of Indian culture and religion, see Getches & Wilkinson 553-570). The ceremonial practice of 'peyotism' amongst Indians, for example, is exempt from narcotic drug laws - peyote grows in small buttons on the top of a cactus, and its principal constituent is mescaline which, when consumed, produces hallucinations. Indian tribes have been put on the same footing as states for the purposes of revenue sharing, environmental statutes, and various other federal programmes, and the 1980s saw several enactments which 'buttress the trend toward tribal economic development' (see Getches & Wilkinson 120, 154 and, for discussion of investment, financing and taxation in Indian country, 639-650).

An obvious question that has arisen is whether the unique position of Indians in American society is tantamount to reverse racial discrimination in the form of special 'group' rights.[59] Jurisdictional issues in Indian country are considered by some as racial power struggles, and many non-Indians believe that not all Americans are equal because Indians enjoy more rights than other citizens. However, challenges that this special treatment of Indians is based on the criterion of race, and is therefore unconstitutional and inconsistent with egalitarian principles, have been rejected by the Supreme Court. In *Morton v Mancari*,[60] for example, the court upheld a statutory 'Indian preference' for hiring by the Bureau of Indian Affairs, relying on the statute's purpose of aiding Indian self-government, rejecting the claim that it amounted to unconstitutional discrimination, and declaring that such preference did not constitute racial discrimination or even racial preference. The court classified the preference as 'an employment criterion reasonably designed to further the cause of Indian self-government',[61] and drew a distinction between racial and political preference, as follows:

> 'The preference is not directed towards a "racial" group consisting of "Indians"; instead, it applies only to members of "federally recognized" tribes. This operates to exclude many individuals who are racially to be classified as "Indians." In this sense, the preference is political rather than racial in nature.'[62]

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[59]Lund offers an interesting perspective: 'An old but largely repudiated theme of wildlife law, class discrimination, has ... reappeared in a novel context: preferential consideration for Indians in their exploitation of wildlife.' In early English wildlife law, because of feudal policy and cultural prejudice, access to wildlife was a class privilege (Lund 88).

[60]417 US 535 (1974).

[61]In the same way that a senator is required to be an inhabitant of the state that he represents, or a city councillor a resident of the ward or city that is his constituency, so too does the Indian employee of the Bureau represent a particular political, not racial, constituency.

[62]*Morton v Mancari* at 553 n 24. The section in question was s12 of the Indian Reorganization Act 25 USCA §§ 461-479 (1934). The preference was challenged on the basis that it was contrary to the anti-discrimination provisions of the Equal Employment Opportunity Act 42 USCA § 2000 (1972) and the 'due process' clause of the Fifth Amendment. See further extracts from this case, and comments thereon and on other relevant cases and statutes at Canby 230-7, and Getches & Wilkinson 223-231 and 337. Herb Williams & Walt Neubrech *Indian Treaties: American Nightmare* (1976) 83-6 argue that:

> 'Basically, the goal should be for all citizens of the United States to have equal rights under the law as stated in the Fourteenth Amendment to the U.S. Constitution. It is difficult to see how, in a country founded on the ideals of equality and freedom, any one group can maintain superior legal rights over another, based on racial ancestry or tribal membership, regardless of what happened in the past. Indians today are losing, despite court cases and laws which seek to make up for past wrongs with special rights today. Those special rights continue to treat Indians as second-class citizens; and

4.2.5.2 *Federal-tribal relationship*[63]

On the one hand, Indian tribes are regarded as wards under the federal government's guardianship, which implies a degree of incompetence. The federal government also has the power and lawful authority to modify and even extinguish tribal rights. On the other hand, tribes are regarded as 'sovereign', and tribal governments exercise independent legislative, judicial and administrative functions.

Because their authority is derived from aboriginal sovereignty as the original inhabitants of the continent, and recognition of that sovereignty by the colonising nations and subsequently the United States,[64] it follows that any rights not ceded by the tribes in

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> Indians will continue to lose until they can enter into the mainstream of American economic life. When this happens, everyone will be better off - Indians, non-Indians, and our nation's rich and varied natural resources' (quoted in Getches & Wilkinson 27-8).

Getches & Wilkinson point out that during most of this century the tribes were poor and disorganised, and exerted few of their governmental powers, with the result that most Americans were unaware of 'the special place that our legal system guarantees to American Indians.' However, with increased funding and legal assistance on the reservations, Indian rights have become increasingly visible since the late 1960s. Major and bitter resource issues have been contested, particularly relating to water rights in the semi-arid West and tribal land claims along the Atlantic seaboard. Although the courts have held that their special station in American society does not constitute reverse discrimination, this charge 'continues to be heard on Capitol Hill today' Getches & Wilkinson 159-160.

[63]On the federal-tribal relationship generally, see Getches & Wilkinson 161-268.

[64]This is in terms of Chief Justice Marshall's ideas on natural law and international law. A different perspective of tribal sovereignty is offered by Mr Justice Johnson, in his concurring judgement in *Cherokee Nation v Georgia* 30 US (5 Pet) 1 (1831), one of the 'Marshall Trilogy' referred to supra (quoted in Getches & Wilkinson 48-9):

> 'Where is the rule to stop? Must every petty kraal of Indians, designating themselves a tribe or nation, and having a few hundred acres of land to hunt on exclusively, be recognized as a state? We should indeed force into the family of nations, a very numerous and very heterogeneous progeny. ...They have in Europe sovereign and demi-sovereign states and states of doubtful sovereignty. But this state [the Cherokee Nation], if it be a state, is still a grade below them all: for not to be able to alienate without permission of the remainder-man or lord, places them in a state of feudal dependence. ...in one view and in one only, if at all, they are or may be deemed a state, though not a sovereign state, at least while they occupy a country within our limits. Their condition is something like that of the Israelites, when inhabiting the deserts. Though without land that they can call theirs in the sense of property, their right of personal self government has never been taken from them; and such a form of government may exist though the land occupied be in fact that of another.'

Getches & Wilkinson at 50 interpret the judgments of the six judges presiding in this case as follows: two (including Marshall CJ) saw tribes as 'domestic dependent nations', two (including Johnson J) viewed them as possessing no sovereignty at all, and two concluded that the Cherokee Nation was a foreign nation possessing sovereignty in the international sense. In the second Cherokee case *Worcester v Georgia* 31 US (6 Pet) 515 (1832), Marshall CJ reaffirmed his views, and these are the views that have prevailed in subsequent Supreme Court cases (see Getches & Wilkinson 60 - extracts from *Worcester* are quoted at 51-60).

treaties or by some other arrangement with Congress, or modified or extinguished by Congress, remain in existence. Although treaties are an important source of Indian rights, most of their rights stem from statutes, agreements, executive orders, and what remains the fountainhead of their rights, even today, the tribes' inherent status as governments.[65] Any deprivation of rights is narrowly construed by the courts. This has given rise to what is called the doctrine of reserved rights,[66] two examples of which, prior right and privilege of access to water and wildlife, are dealt with below.

4.2.5.3 *Tribal-State relationship*

The establishment by the federal government of reservations for the exclusive use and occupation of Indians effectively 'preempts' states' authority. State police power is thus severely limited in tribal territory. State laws dealing with land use and planning and environmental conservation, for example, do not apply to Indian lands. As such lands are extensive, about 53 million acres, plus a further 44 million acres in Alaska, the implications for environmental conservation are substantial.[67] Where a case involves non-Indians only, and does not affect tribal self-government, state courts have jurisdiction. If Indian interests are involved, the states are powerless, save to the extent authorised by Congress. However, there are qualifications, and in recent years there have been inroads into tribal autonomy. In 1977, for example, in what has been described as 'a most unusual case', a state was allowed to regulate Indian fishing within a reservation for conservation purposes.[68]

4.2.5.4 *Water rights*

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[65]See Getches & Wilkinson 70.

[66]'Reservation' therefore has two meanings: areas of land set aside for exclusive Indian occupation, and retention of a 'property right or power' such as a right to water, or hunt and fish.

[67]See Getches & Wilkinson xxvi-xxvii, 13.

[68]*Puyallup Tribe, Inc v Department of Game* 433 US 165 (1977) (see Canby 117 and, generally on the subject of the jurisdiction of states over Indians and their affairs, at 97-241). Getches & Wilkinson deal with tribal sovereignty and states' rights at 269-336, and specifically with what they describe as 'buffering state incursions on tribal government' at 316-336.

The traditional Indian attitude to water is described in the following statement made by a leader of the San Felipe Pueblo Indians:

> 'There has been a lot said about the sacredness of our land which is our body; and the values of our culture which is our soul; but water is the blood of our tribes, and if its life-giving flow is stopped, or it is polluted, all else will die and the many thousands of years of our communal existence will come to an end.'[69]

Because of the reserved rights doctrine, the allocation of water rights is a major natural resource issue. Tribes have a prior right to enough water to fulfill the purposes of their reservations, the rationale being that it could never have been their intention to give up their water rights so as to be left with a useless wasteland.[70] Water law in the West is based on a prior appropriation doctrine, also described as a 'first in time, first in right' basis. A user obtains a vested property right, superior to all later users, by diverting water out of a watercourse and putting it to a beneficial use. Unlike the position which obtains in South Africa,[71] a riparian landowner derives no rights to water simply because of the location of his property. The reserved water rights of the tribes enjoy priority over and displace all other uses, however long-standing, that commenced after the establishment of the reservations, irrespective of when actual Indian use began.[72]

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[69]Quoted in Getches & Wilkinson 20. Water is also referred to as 'the first law of life' (Lyons 283).

[70]The leading case is *Winters v United States* 207 US 564 (1908) (see Getches & Wilkinson 63-4, 106-110 and 656-665 for a discussion of the case and principles involved and, generally on the subject of tribal water rights, 651-715.

[71]In South Africa riparian owners enjoy almost exclusive rights to the water of a public river, subject to an overriding power of control by the Minister of Water Affairs. See *Hough v van der Merwe* 1874 Buch 148, and s 9A, 9B, 59 *et seq* of the Water Act 54 of 1956.

[72]See Getches & Wilkinson 106 and 651. At 109 an extract from a 1973 National Water Commission Report is quoted, which notes that more than fifty years elapsed after the *Winters* decision op cit, before the Supreme Court again discussed significant aspects of Indian water rights, during most of which period the United States was pursuing a policy of encouraging settlement and establishment of farms in the West. Many large irrigation projects were constructed which affected reservations. The policy was pursued with scant regard to the '*Winters* doctrine' - 'In the history of the United States Government's treatment of Indian tribes, its failure to protect [or even define] Indian water rights for use on the Reservations it set aside for them is one of the sorrier chapters' (quote from the Report). However, since the 1970s, the tribes have been successfully asserting their *Winters* rights.

4.2.5.5 *Timber*

In addition to the vast areas of native timber in Alaska, a quarter of all Indian land in the lower states is timbered, about ten percent of which (5,3 million acres) is commercial forestland. Timber contributes between 25 and 80 percent of tribal revenues on 57 reservations, and more than 80 percent on 11 reservations. Indian timber resource management, therefore, has profound implications for wilderness and wildlife. Because of the Indian ethos of kinship with nature, and the acceptance that tribes have perpetual existence, they are particularly well suited to the long term conservation planning and management required for forestry.[73]

4.2.5.6 *Traditional hunting and fishing rights*

The following extract from Senior District Judge Boldt's 'opinion' in *United States v Washington*,[74] provides an interesting introductory commentary on the native Indians' needs, culture and 'world view':

> 'The first-salmon ceremony, which with local differences in detail was general through most of the area, was essentially a religious rite to ensure the continued return of salmon. The symbolic acts, attitudes of respect and reverence, and concern for the salmon reflected a ritualistic conception of the interdependence and relatedness of all living things which was a dominant feature of native Indian world view. Religious attitudes and rites insured (sic) that salmon were never wantonly wasted and that water pollution was not permitted during the salmon season.'[75]

The exploitation of wildlife resources[76] has always held both practical and spiritual

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[73]See Getches & Wilkinson 635 for these statistics, and 635-9 for discussion of Indian timber management.

[74]384 F Supp 312 (1974). Extracts from the judgment are quoted in Getches & Wilkinson 64-7.

[75]Quoted in Getches & Wilkinson 65.

[76]Exploitation was for sustenance, and did not involve killing wildlife for sport. In *State v Tinno* 94 Idaho 759, 497 P 2d 1386 (1972) (extracts from the judgement and comments thereon are given at Getches & Wilkinson 68-9) an Indian was charged with spearing a chinook salmon in violation of state fishing regulations. The relevant treaty provision provided for the right to *hunt*, but made no specific reference to the right to *fish*. Expert evidence was led to the effect that the languages of the signatory Indians did not employ separate verbs

significance for Indians. The harvesting of food was a cultural activity as well as being necessary for subsistence, and personal involvement in fishing and hunting for livelihood and ceremonial purposes remains as much part of Indian culture today as it did for their ancestors. In 1905 it was stated in a Supreme Court case that to Yakima tribal members the right to take fish was 'not much less necessary to the existence of the Indians than the atmosphere they breathed,' a statement which, according to Getches & Wilkinson, is still true for many of the tribes. Big game, such as deer, elk, bear and antelope, continue to figure in the staple diets on most reservations. Fish and wildlife resources are, therefore, vital to the economy, food supply and lifestyle in many reservations. Although traditional harvesting has been expanded by the introduction of such modern enterprises as fish propagation facilities and commercial fish processing operations on some of them, traditional rights of access to wildlife resources remain essential in the great majority of the reservations.[77]

For many years it was accepted that states not only owned, but had the right to control, the wildlife within their borders. However, it became accepted that federal wildlife law took precedence over state law,[78] and it follows that tribal law, which is founded in federal authority, also overrides state law. The preemption of state jurisdiction is an incident of the federal creation of 'Indian country' in the act of setting aside a reservation. Nevertheless, legal contests and state challenges to Indian fishing and

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to distinguish between hunting and fishing, but used a general term meaning 'to obtain wild *food*' (emphasis added). The court accepted that the Indians must have intended in the treaty to have reserved fishing rights. Since the treaty they had continued to take fish in the manner and the places taught and shown to them by their forefathers. Tinno was held to be exempt from the state fishing regulations.

[77]The statement quoted in the text is from *United States v Winans* 198 US 371 (1905), extracts from which are given in Getches & Wilkinson 104-6. In addition to traditional uses, today's Indians also exploit their natural resources in 'modern' ways. Getches & Wilkinson 16 and 716 make reference to modern business enterprises and scientific management in the development of tribal recreation resources, examples being skiing facilities, a luxury resort, the issuing of on-reservation fishing and hunting licences to non-Indians, and the Navajo Tribe having established a tribal park at Monument Valley similar to a national park. The tribes thus enjoy both ancient and modern rights to the exploitation of their natural resources. See Canby 295-318 generally, and for a fuller discussion of Indian fishing and hunting rights, Getches & Wilkinson 716-772.

[78]See Bean 12-47.

hunting rights continue, and have been described as probably 'the most intense controversies in current Indian affairs'.[79]

The existence of hunting and fishing rights, even if these be to off-reservation resources, does not depend on express language in a treaty. In the absence of express abandonment, such rights will continue. If a treaty is silent as to whether or not they have been retained, it will be assumed that the parties intended that they should remain.[80] Even if, a hundred years later, Congress 'terminates' a tribe and the *formal* status of its members as Indians, its tribal hunting and fishing rights will survive unless Congress has expressed otherwise, provided that the tribe has maintained its identity.[81]

Wildlife resources have social and economic value for non-Indians as well. In some states, commercial fishing is of major importance to their economy. Sport fishing and hunting generate millions of dollars in licence fees and equipment. Opponents to special Indian 'property' rights to wildlife maintain that they conflict with the unified wildlife management that is essential for conservation; that they violate constitutional equal protection guarantees; and that state jurisdiction legally is, or should be, absolute. For all these reasons, and because hunting and fishing are activities which require constant

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[79]Canby 295, and see Getches & Wilkinson 717-729 for commentary and reference to further cases and journal articles.

[80]The case of *United States v Winans supra* concerned an action brought by the United States on behalf of the Yakima Nation to enjoin respondents, Winans and other non-Indians, from obstructing off-reservation fishing at 'usual and accustomed' fishing sites on land along the Columbia river owned by the respondents who attempted to exclude tribal members from the fishing sites and refused to permit them to cross over other non-Indian land to reach the fishing sites. The court decided that the effect of the relevant treaty was not a grant of rights to the Indians, but a grant of rights from them, with a reservation of those not granted. The effect of the reserved rights was to impose a servitude on every piece of land which formed part of the original Indian territory. The servitude was a right in the land, of crossing it, and to the river (see extracts from the judgement in Getches & Wilkinson 105 and comments at 106). The judgement obviously has wide implications, particularly in regard to the land titles of the non-Indian settlers and state police power over wildlife.

[81]See cases cited in Canby 55. In the leading case of *Menominee Tribe of Indians v United States* 391 US 404 (1968) (extracts from which are given in Getches & Wilkinson 140-5) the issue was whether treaty rights of hunting and fishing had been abrogated by Congress in the Menominee Termination Act 25 USC §§ 891-902 (1954). The majority opinion of the court, delivered by Mr Justice Douglas, was that they had not - the Termination Act, by its terms, provided for termination of federal *supervision* over the property and members of the tribe, and applied to *statutes* which affected Indians, not *treaties* (emphasis added). The tribe, therefore, is not literally terminated; only the federal-tribal relationship is, and treaty rights remain extant.

and effective regulation and policing, it is not surprising that confrontation and problems of conflicting criminal law jurisdictions have persisted.

The conflict between Indian and non-Indian interests in wildlife occurs not only at the level of individual and state interests, but also at federal level in that, in the absence of specific contrary provision, it is accepted that Indians are excluded from national environmental protection programmes relating to eagles, marine mammals and endangered species, the effect of which will be referred to below. There are in effect three government agencies involved in the formulation and implementation of American wildlife law: tribal, state and federal. Wise resource management depends on holistic and coordinated treatment, which is extremely difficult in such a tripartite patchwork of regulatory approaches. Wild animals pay scant regard to political boundaries. Anadromous fish and migratory game, because they are moving resources, exacerbate the property law, environmental law and criminal law jurisdictional problems of regulation and conservation in the United States to such an extent as to make the complexities 'almost overwhelming'.[82]

A major conflict arose in the Pacific Northwest between Indian fishing rights and competing non-Indian interests over salmon and steelhead trout, anadromous fish which hatch in rivers, then swim out to sea, living most of their lives in salt water, and eventually return to spawn in the rivers in which they were born. The fish are highly sought after by Indians and sport and commercial fishermen. Unrestricted fishing can lead to the extinction of a species in a particular river, and regulation is obviously necessary. However, the allocation of rights to the millions of fish involved in these annual spawning migrations to the various user groups has proved to be remarkably difficult. Notwithstanding the judgement in the *Winans* case,[83] the states have persisted in challenging the exercise, free of state law, of Indian off-reservation treaty fishing rights, which has resulted in over seventy years of litigation. The attempts by Washington and other states to regulate the salmon and steelhead fisheries, including

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[82]Canby 296.

[83]*United States v Winans supra.*

Indian fishing, resulted in several supreme court cases, including a trilogy of cases known as *Puyallup I*, *Puyallup II* and *Puyallup III*.[84]

Puyallup I departed from the previously accepted position that states could not legally exercise control over federal Indian rights. The treaty in question reserved to the Puyallup Indians the 'right of taking fish, at all usual and accustomed grounds and stations, ... in common with all citizens ...' The court decided that the right to fish at such places may not be qualified by the state, but 'the manner of fishing, the size of the take, the restriction of commercial fishing, and the like may be regulated by the State in the interest of conservation, provided the regulation meets appropriate standards and does not discriminate against the Indians.' There is debate as to whether or not there is any sound legal basis for this ruling that there may be limited state regulation of federally secured treaty rights. Nonetheless, the decision has been followed in subsequent supreme court cases.[85]

Five years later, *Puyallup II* came before the federal supreme court as a result of a ruling by the Washington supreme court that a state ban on net fishing for steelhead was 'necessary for conservation' and therefore proper. Virtually all Indian fishing was by net, and the federal court held that '(t)here is discrimination here because all Indian net fishing is barred and only hook-and-line fishing entirely preempted by non-Indians, is allowed', but warned that 'the Treaty does not give the Indians a federal right to pursue the last living steelhead until it enters their nets.'[86] In other words, fishing rights do not include the right to fish to extinction.

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[84]*Puyallup Tribe v Department of Game* 391 US 392 (1968) (Puyallup I), *Department of Game v Puyallup Tribe* 414 US 44 (1973) (Puyallup II), *Puyallup Tribe Inc v Department of Game* 433 US 165 (1977) (Puyallup III). For discussion of these and other cases dealing with Indian treaty rights and environmental protection, see Canby 302-312, Getches & Wilkinson 730-763, and Bean 50-60.

[85]See Getches & Wilkinson 734-7 for extracts from the judgement and references to the debate about its legal soundness.

[86]*Puyallup II* 48-9, quoted by Getches & Wilkinson at 737.

The first two *Puyallup* cases had proceeded on the basis of a district court ruling that the Puyallup reservation had been extinguished. A court of appeals reversed that decision and held that the reservation continued to exist, with the result that many of the 'accustomed grounds and stations' dealt with in *Puyallup I* and *II* were now found to be on-reservation sites, and not off-reservation sites (although the land was no longer Indian-held). In the third appeal, *Puyallup III*, the tribe therefore argued that the state had no right to regulate fishing in the part of the river that was within the reservation. The court rejected this contention, pointing out that if 'treaty fishermen were allowed untrammelled on-reservation fishing rights, they could interdict completely the migrating fish run.... In this manner (they) could totally frustrate ... the rights of the non-Indian citizens ... recognized in the Treaty'. The decision was based on the principle of fair apportionment between Indian and non-Indian. The court also upheld the standards of conservation necessity previously articulated.[87]

The controversy continued. Disputes over fishing rights in the Great Lakes resulted in many years of judicial proceedings.[88] In Michigan, a district court held that a treaty which did not contain the 'in common with all citizens' phrase of the Puyallup treaty, had the effect that the state had no power to limit Indian fishing in any way at all. It enjoined Michigan officials from interfering with Indian gill net fishing and state judges from proceeding any further in related cases. The United States Court of Appeals for the Sixth Circuit stayed the lower court's injunctions on the basis that irreparable damage or destruction could be caused by continued intensive gill net fishing. The Secretary of the Interior then issued comprehensive regulations governing Indian fishing in the area. The court modified its stay of the lower court's injunction to allow treaty fishing under those regulations. The regulations were allowed to lapse. The tribes then adopted them as part of their conservation code. The Sixth Circuit rebuked the Secretary for letting them lapse contrary to the federal government's solemn obligation to protect Indian treaty rights, and declared that, in the absence of federal regulations,

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[87]*Puyallup III* 176-7, relevant extract from which is quoted at Getches & Wilkinson 739, and see comments on the case by Canby 304-7.

[88]See Getches & Wilkinson 739-740.

'only upon a finding of necessity, irreparable harm and the absence of effective Indian tribal self-regulation should the District Court sanction and permit state regulation of gill net fishing.'[89]

What remains uncertain and subject to continuing dispute is what constitutes 'necessary for conservation', 'irreparable harm' or 'absence of effective Indian tribal self-regulation' so as to justify state intervention. However, at least in those cases where the treaties provided for the right of taking fish in common with other citizens, the issue appears to have been resolved by *Washington v Washington State Commercial Passenger Fishing Vessel Association*,[90] which ruled that both sides have the right to a fair share, as this must be what the parties to the treaty intended. As to what constitutes a fair share, it recognised that a ceiling should be placed on the Indians' apportionment so as prevent their needs from exhausting the resource, thereby frustrating the treaty rights of other citizens, and set the ceiling for the Indian fishery at 50% of the harvestable run. It also ruled that the state may set the figure of the harvestable run for each stream, that is to say, the total number of fish that may be caught without endangering the future of the run. It stipulated further that reductions from the 50% maximum may be made for fish not needed by a tribe as and when the number of its members reduced. There were three dissenting judges, the legal rationale of the 50% limit has been questioned,[91] and the decision does not completely resolve the issues of dwindling tribal needs and the degree of necessity the state must show to support conservation regulations - perhaps these are issues which are incapable of final and precise judicial resolution. Canby comments that '(t)he Court's resolution of this entire controversy probably makes up in pragmatism whatever it lacks in theoretical symmetry.'[92]

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[89]*United States v Michigan* 623 F 2d 448 (6th Cir 1980) 449, and 653 F 2d 277 (6th Cir 1981) 279. See Getches & Wilkinson 739-740, and extracts from the cases there quoted.

[90]443 US 658 (1979). Extracts from the judgement are given at Getches & Wilkinson 740-750.

[91]Getches & Wilkinson 750.

[92]Canby 308.

The purpose of this overview of Indian hunting and fishing rights is to illustrate the potential complexities flowing from the recognition and enforcement of special group environmental rights. In extending special treatment to local indigenous clans as will be suggested in Chapter 4, South Africa should have regard to American experience and avoid, if at all possible, these 'intense controversies' and 'almost overwhelming' complexities. The last reported case to which reference will be made in this context is *United States v State of Washington - Phase II*.[93] The case deals with two issues, the first of which perhaps has comparatively little relevance to South African conditions, and that is whether hatchery-bred and artificially-propagated fish are included in the portion of the fish population allocated to native Americans. The second issue has direct relevance to South Africa where local populations depend on a fishery resource, and that is whether the right of taking fish incorporates the right to have the fish (in the United States, 'treaty' fish) protected from environmental degradation. Both questions were answered in the affirmative. Hatchery-reared fish were 'fish' within the meaning of the treaties' fishing clause and, once released into public waters, were subject to allocation.[94] Accepting that '(t)he most fundamental prerequisite to exercising the right to take fish is the existence of fish to be taken,' the court held that 'implicitly

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[93]506 F Supp 187 (1980). Extracts from the judgement, and notes on and further references to the issues raised therein, are given in Getches & Wilkinson 752-763. The case is reported separately, but is in fact the second phase of the 1979 Washington case discussed in the previous paragraph in the text above. The following extract from the second judgement clarifies the position: 'The case has been litigated in two phases. In Phase I, which focused on the allocation issue [ie whether the treaties' fishing clause entitles the Indians to a specific allocation of the salmon and steelhead trout in the "case area"], a series of trial and appellate court decisions culminated in a 1979 Supreme Court opinion which *conclusively established the tribes' treaty-based right to take the lesser of 50 percent of the "harvestable" case area fish or a sufficient quantity of fish to provide them with a moderate standard of living.* ... (T)he court here considers (cross-motions for partial summary judgment on) the hatchery and environmental issues which were raised in Phase I but reserved for decision in Phase II.' (Emphasis added. The emphasised words summarise and clarify the meaning and effect of the previous judgement. However, doubt still remains as to what constitutes 'a moderate standard of living'.)

[94]Hatchery owners have no ownership interest in fish once they are released into public waters. The position is the same in South African property law - because fish are wild by nature they revert to *res nullius* once effective control over them is surrendered, and ownership of them may then be acquired by *occupatio*. See van der Merwe 138-142 and van der Merwe & Rabie 38 *et seq*. As the numbers of wild fish decline in United States waters, hatchery fish represent an ever-increasing proportion of the total fish populations. An estimated 371 million salmon and 8 755 000 steelhead trout were released into the waters of the State of Washington from federal, state, tribal, and all other hatcheries during the 1978-1979 season. See extracts from the judgement quoted in Getches & Wilkinson 753 and 754.

incorporated in the treaties' fishing clause is the right to have the fishery habitat protected from man-made despoilation.'[95]

Bean's comment on the *Phase II* case is that it 'raises the possibility that Indian treaties will impose upon ... units of government new, affirmative duties to protect the underlying fish and wildlife resources. If that is to be their legacy, then Indian treaties may yet be among the most powerful weapons for conservation in the entire legal arsenal.'[96] The full meaning and extent of the implied environmental right confirmed in *Phase II*, however, remains to be determined. Different United States courts have articulated different standards for assessing the adequacy of environmental protection, ranging from a 'moderate living needs' standard to requiring non-Indians to maintain a minimum stream flow 'necessary for the survival of a tribal fishery.' In a 1981 case, tribes successfully challenged the construction of an oil pipeline, on the grounds that it would cause increased sedimentation and destroy important spawning grounds, and leaks that would damage the fishery.[97] In a 1983 case, the court found in favour of the Hoopa Indians that the construction of a paved road and adoption of a forest plan for harvesting timber would adversely impact water quality and fish spawning habitat.[98]

The judgement obviously has wide-ranging implications. If the same approach were applied in South Africa, it would mean, not only that hatchery trout introduced into Drakensberg streams flowing through 'recognised' tribal lands would be allocable to those tribes, as would fish artificially introduced into the Kosi estuary system be available to the Tonga, but also that government would be under an obligation to preserve those fishery resources by refraining from projects which would impair the fish habitats. It would also be obliged not to permit such impairment.

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[95]*United States v State of Washington - Phase II supra* 203. At 205, the court stated that the treaties reserved water 'of sufficient *quality* to sustain the salmon and steelhead trout which [the Indians] have the expressly-reserved right to take' (emphasis in original).

[96]Bean 64.

[97]*No Oilport! v Carter* 520 F Supp 334 (1981).

[98]*Northwest Indian Cemetery Protective Association v Peterson* 565 F Supp 586 (1983). See Getches & Wilkinson 762-3, and further references there cited.

The fishing rights conflicts and spate of litigation referred to above are relatively recent phenomena in the United States, the reasons for which point to the importance of clear and carefully defined provisions for the accommodation of the needs of indigenous people within the legal system, so as to ensure enduring protection of wilderness and wildlife and the sustained yield of natural resources. There are several reasons, but two primary causes of the recent escalating conflict in the United States appear to be the emergence of a more assertive tribal nationalism, and continuing environmental degradation. It is only in recent years that Indians have had the financial and legal resources to assert their treaty rights which have, in effect, lain dormant for a century. Belated judicial recognition and enforcement of their fishing and hunting rights have 'contributed significantly to a "backlash" movement against Indian rights.'[99] Environmental changes brought about by non-Indian settlement and development resulted in many streams being despoiled, with consequent severe reduction of the numbers of available fish. With ever increasing population and therefore increasing demands on a reducing resource, conflicts were inevitable. Previously there appeared to be an inexhaustible supply, now there is relative scarcity, with some of the historic runs having been totally destroyed.[100]

Getches & Wilkinson comment that '(i)n an area so politically charged - involving the role of powerful state and federal agencies, sophisticated conservation programs, and major commercial industries - litigation cannot be a final answer.'[101] In seeking effective control and management of their wildlife resources, both tribes and states have endeavoured to expand their exclusive authority as much as possible. This has inevitably resulted in litigation which 'has often been resolved with a collage of jurisdiction that is sensitive to legal principles but not to the realities of wildlife management', as a result

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[99]See Getches & Wilkinson 732-3.

[100]Dams have blocked access to former habitat. Effluent from agricultural, industrial and sewage disposal has degraded the water quality. Logging and irrigation have reduced water and vegetation, raised the water temperatures, and smothered spawning beds under increased sediment loads. Gravel removal has reduced spawning habitat. Logging, road building, canalisation and industrial pollution have degraded the general aquatic ecosystems and reduced the availability of the food and shelter on which the fish depend (see Getches & Wilkinson 751-2, and extracts from *United States v State of Washington - Phase II* quoted at 757-8).

[101]Getches & Wilkinson 732.

of which several tribes and states have entered into cooperative wildlife management agreements to clarify jurisdiction and achieve 'the interaction of wildlife managers and the coordination of resource management goals.'[102] And herein lies another important lesson for South Africa. It would be foolish indeed if we did not learn from the American experience. Cooperative wilderness and wildlife management agreements, involving all relevant conservation agencies, including tribal authorities, are essential.

4.2.5.7 *Endangered Species Act*

The federal Endangered Species Act[103] seeks to protect wildlife species which are 'endangered', that is 'any species which is in danger of extinction throughout all or a significant portion of its range',[104] or 'threatened', that is 'any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'[105]

When a species is listed as endangered, no person subject to the jurisdiction of the United States may 'take' it anywhere in the United States, its territorial sea, or on the high seas.[106] 'Take' means 'to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.'[107] In respect of threatened species, the Secretary of the Interior must 'issue such regulations as he deems necessary and advisable to provide for (their) conservation'.[108] Authorised penalties

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[102]Getches & Wilkinson 729. At 729-730 examples of, and further references to, such agreements are given.

[103]16 USC §§ 1531-1543 (Supp V 1981).

[104]16 USC § 1532 (6) (Supp V 1981).

[105]16 USC § 1532 (20) (Supp V 1981).

[106]Ibid § (a) (1) (B), (C) (1976).

[107]Ibid § 1532 (19) (Supp V 1981).

[108]Ibid § 1533 (d) (1976).

include a fine of not more than $20 000 or imprisonment for not more than one year, or both.[109]

However, exemptions from these provisions specifically include native Alaskans, who may take listed species 'primarily for subsistence purposes', and may sell the nonedible byproducts thereof in interstate commerce 'when made into authentic native articles of handicrafts and clothing'; provided that, if the Secretary determines that such taking 'materially and negatively affects the threatened or endangered species', he may prescribe regulations to restrict it for such period as is necessary.[110]

This special exemption to accommodate aboriginal subsistence rights is particularly significant in the light of its international implications. The Act is intended to serve as a component in a global endangered species programme pursuant to international conventions dealing with wildlife protection and prohibition of the importation of endangered and threatened species.[111]

4.2.5.8 *Bald Eagle Protection Act*

The Bald Eagle Protection Act[112] was enacted in 1940 for the purpose of protecting the bald eagle from extinction. With certain limited exceptions not relevant here, the Act made it a federal crime to take or possess any bald eagle or any part, egg or nest thereof.[113] The effect of the Act was to abrogate Indian treaty rights to hunt bald eagles.[114] It was amended in 1962 'to enhance the protection of immature bald eagles,

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[109]Ibid § 1540 (b) (1) (Supp V 1981).

[110]Ibid § 1539 (e) (1) and (4) (1976).

[111]See Bean 380-3, and 318-383 generally on the Endangered Species Act.

[112]16 USCA § 668 *et seq* (BEPA).

[113]16 USCA §668a.

[114]So held, for example, in *United States v Dion* 476 US 734 (1986). Congress' power to abrogate treaty hunting rights derives from the federal government's plenary power over Indian affairs.

which are difficult to distinguish from golden eagles, by extending to the latter the same protection that applied to bald eagles.'[115] The 1962 amendment also acknowledged and supported traditional Indian custom by allowing the taking and possession of eagles 'for the religious purposes of Indian tribes.'[116] The exemption is significant because of the value attached to the bald eagle as the nation's symbol.

4.2.5.9 *Migratory Birds Treaty Act*

The Migratory Birds Treaty Act[117] was passed in 1918 in implementation of international conventions entered into by the United States with Japan, Canada, Russia and Mexico. The Act authorises the promulgation by the Secretary,[118] pursuant to the provisions of the conventions, of regulations governing the taking of migratory birds. Although there are variations of detail, all of the treaties, apart from the Mexican Convention,[119] provide for exceptions to the taking controls to allow for the subsistence needs of Indians and Eskimos. Notwithstanding that the Mexican Convention does not authorise special exemption for native peoples from its taking prohibitions, the Secretary of the Interior has nevertheless permitted subsistence taking of nongame birds in Alaska.[120]

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[115]Bean 90.

[116]Nevertheless, there is some control over Indian hunting of eagles. The Act authorises the Secretary of the Interior to permit Indian taking, possession or transportation of eagles for religious purposes, but only upon determination that it is compatible with the preservation of the species (§ 668a). Indians hunt eagles and use their feathers and other parts in religious ceremonies, and the right to do so remains important to many tribes to enable them to continue their ancient rites and customs. There is continuing debate as to whether the Act invades religious freedom, and whether it abrogates or simply modifies treaty rights. Although the courts will generally not infer legislative repeal of treaty rights, where there is conflict between those rights and the express provisions of a federal conservation measure, they are likely to accept that repeal is implied. For further references and discussion of BEPA and its effects on Indian treaty rights, see Getches & Wilkinson 558 and 763-772, and Bean 89-98.

[117]Codified at 16 USC § 703 (1976 & Supp V 1981).

[118]Until 1939 the Secretary of Agriculture, and thereafter the Secretary of the Interior (Bean 75 note 46).

[119]Bean 71 suggests that the reason may be that indigenous peoples comprise such a large portion of the Mexican population.

[120]See Bean 71, where references to the exemption provisions of the different treaties are provided in the footnotes, and generally on the conventions and Act, 68-89.

4.2.5.10 *Marine Mammals Protection Act*

Another example of the recognition of aboriginal rights is the exemption of native Alaskans from the provisions of the Marine Mammals Protection Act,[121] which allows them to harvest marine mammals for subsistence purposes, and for creating and selling authentic native articles of handicrafts and clothing. The use of mass copying devices in the production of such items is prohibited, and the 'taking' must not be done in a wasteful manner. The Act also authorises the Secretary of the Interior to promulgate regulations restricting such taking if he determines a species or population stock of marine mammal to be depleted.[122]

The balancing of the subsistence rights of native peoples and the conservation of natural resources is clearly not without difficulty. For example, in recent years the bowhead whale controversy in North America[123] raised difficult ethical and legal questions. The continued taking of this species by the Alaskan Eskimoes for subsistence purposes could

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[121]The Act is codified at 16 USC § 1371. For a useful discussion of the Act, see Bean 281-317 and Getches & Wilkinson 787-799.

[122]The exemption is contained in § 1371(b), the pertinent parts of which are quoted below because they may serve as a guide to provisions in South African legislation for controlled local population harvesting of natural resources:

> '(T)he provisions of this Act shall not apply with respect to the taking of any marine mammal by any Indian, Aleut, or Eskimo who dwells on the coast of the North Pacific Ocean or the Arctic Ocean if such taking-
> (1) is for subsistence purposes by Alaskan natives who reside in Alaska, or
> (2) is done for purposes of creating and selling authentic native articles of handicrafts and clothing ...; and
> (3) in each case, is not accomplished in a wasteful manner.
> Notwithstanding the preceding provisions of this subsection, when, under this chapter, the Secretary determines any species or stock of marine mammals subject to taking by Indians, Aleuts, or Eskimos to be depleted, he may prescribe regulations upon the taking of such marine mammals by any Indian, Aleut, or Eskimo ... with reference to species or stock, geographical description of the area included, the season for taking, or any other factors ... consistent with the purposes of this chapter. ...'

[123]The bowhead whale (*balaena mysticetus*) is the most endangered whale species today. This is due to accelerated commercial whaling in the 19th century. Commercial harvesting of the bowhead is now illegal in the United States, but Alaskan Eskimoes have continued to take a small number each year for subsistence purposes. The Inupiat tribe, for example, depends upon hunting and fishing of whale, seals, fish, caribou and other wildlife for their subsistence. Although other whales are also threatened with extinction, the bowhead is in particular jeopardy. Harvesting a small number of these whales for food comprises an important part of the Inupiat's subsistence lifestyle. Their distinctive culture revolves around whaling, and hunting for the bowhead in particular. For further discussion of the controversy, see Mason, Scarff, and *North Slope Borough v Andrus* 642 F 2d 589 (1980) extracts from which are provided in Getches & Wilkinson 787-792.

pose the serious threat of its extinction. Can the survival of a human community whose culture has been intimately associated with the harvesting of a species be placed above the biological survival of that species? In these circumstances, should any community be exempted from the provisions of the Marine Mammals Protection Act, notwithstanding ancient traditional rights? How should the law balance those traditional rights with the fact that the extinction of the bowhead whale would adversely affect the lifestyle of the Inupiat Eskimo? Ideally the relevant laws should be so constructed as to permit of sustained harvest in these and similar circumstances, but at the same time achieve a balance between the apparently conflicting rights of indigenous communities and the conservation of natural resources.

Because the statutes and treaties dealing with the protection of animals and birds, such as the Marine Mammals Protection Act and Endangered Species Act, have specific exemption for native Alaskans who hunt the species for subsistence purposes, they have been construed as imposing a trust responsibility on the federal government to protect their rights of subsistence hunting.[124]

There are therefore two major competing policy considerations involved: the need for protecting marine mammals from depletion, and the federal government's responsibility to protect the way of life and traditional subsistence hunting rights of the Alaskan Natives. The purpose of the exemptions seems to be to achieve the same sort of balance that existed naturally before the modern-day hunters and gatherers were introduced to such products of high technology as motorboats, snowmobiles and complex firearms. The use by them of sophisticated weaponry and transportation has resulted in bitter conflicts with conservationists, who claim that they are over-harvesting wildlife resources and abusing their rights.[125] They, on the other hand, claim that living off the land is

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[124]For example, *People of Togiak v United States* 470 F Supp 423 (1979), extracts from which are given at Getches & Wilkinson 794-6.

[125]The following extract from Lien & Graham 109, although dealing with the issue in a Canadian context, is relevant to Alaska as well, and gives some indication of the nature and extent of the conflict:

> 'There are a number of issues with respect to the use and management of renewable resources in the North. Perhaps the focal one is - are the Native people good conservationists? Some of the Native people contend that they are conservationists by nature and cannot over-harvest the resource, a point of view that might have some validity if it were not for modern weapons and transportation. Indeed

essential to them. 'The land is our supermarket' - curtail hunting and gathering and 'you lose your livelihood ... you lose your identity. You go on a long slide, take to firewater.'[126] It has been suggested that these conflicts will not be satisfactorily resolved until there is a blending in management strategies of traditional wisdom and scientific knowledge, of customary law on the use and allocation of resources and state authority.[127] Although policing may be difficult, another obvious practical option is to control harvesting methods by insisting on the use of traditional weapons and methods of harvesting. An example of this approach is Article IV of the 1911 Treaty for the Preservation and Protection of Fur Seals, concluded between Russia, Japan, Great

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there have been all too many incidents in recent years where a minority of Native hunters have abused their rights and needlessly slaughtered wildlife, or who have taken walrus and narwhal for the ivory and wasted the meat. These facts lead other Canadians to question the conservation ethics of Native people, and to look on native hunting and fishing as the unmanageable component of renewable resource management in the North. Kenneth Brynaert of the Canadian Wildlife Federation recently asserted that native people are a threat to wildlife, and vowed to go to court if future land claim agreements grant native people exclusive hunting or fishing rights or give them authority for wildlife management.'

[126]An Alaskan native's evidence before a congressional enquiry, quoted by Nash 305.

[127]Lien & Graham 110-111:

'... the Inuit frequently do not believe what the scientists tell them and fail to see the sense in management strategies. The scientists and the Inuit each have different kinds of knowledge which go mutually unappreciated. ...Peter Usher ...says that the solution lies in a melding of Inuit customary law with the exercise of state authority ['Fair Game?' *Nature Canada* Vol 11 No 1 42-3]. He says that native groups have developed an extensive body of customary law on the use and allocation of resources, with the fundamental feature that each group had a distinct and recognized geographical territory. Barriers to hunting or fishing by outsiders helped reduce overharvesting, and the people who were directly dependent on the resources were effective resource managers. Usher believes not only that this body of customary law retains relevance today, but that it is a necessary component of any legitimate system of resource management and enforcement in the eyes of the native people. If conservationists and wildlife managers supported the customary law process, there could be the following benefits:

a) The process could provide a forum for native people to consider, without the pressures and polarization generated by some crisis, the very real ways in which the demands they currently place on wildlife resources are not the same as those of their forefathers.

... c) An effective system of customary law and enforcement would both simplify the tasks of "official" wildlife managers and enforcement officers, and make those occupations more attractive to native people, since they would be implementing their own system, or something reasonably congruent with it, instead of an alien one. A management system which hunters can understand, support and even demand will require a minimum of enforcement and achieve a maximum of results.

d) It could provide a forum in which scientists and hunters could overcome at least some of their misunderstandings with respect to the facts, if not what to do with them.

e) It could provide the means for native people to regulate among themselves the geographical distribution of their hunting effort, chiefly by allocating group or individual rights to specific territories. This would not eliminate the rights of urban natives, but it could provide a means of regulating their access consistent with native traditions.'

Britain and the United States, which exempts from the ban on pelagic sealing 'Indians, Ainos, Aleuts, or other aborigines ... in canoes ... propelled entirely by oars, paddles, or sails ... in the way hitherto practiced and without the use of firearms.'[128]

The instruction that emerges from this review is twofold: it would be foolish not to draw on the accumulated traditional wisdom of customary practices in prescribing, implementing and managing programmes for conservation of natural resources and, secondly, traditional harvesting rights must be clearly identified, defined and circumscribed.

4.2.6 Alaska

Unlike the rights of the native Americans on the rest of the North American continent, the rights of the indigenous inhabitants of Alaska have no foundation in treaties. The United States acquired Alaska, not by conquest or colonial inheritance, but by purchase. There were no wars between the tribes and the United States, followed by negotiated or prescribed settlements in the form of treaties, forced removals, or establishment of reservations. There was, therefore, no formal recognition at any stage of their aboriginal tenure rights. However, there has been an acknowledgement by the federal government and the supreme court of the continuing existence of their rights to their historic lands, and it is this backdrop of acknowledgement, notwithstanding the lack of prior formal recognition of indigenous land rights, which makes a brief comparative overview of the Alaskan story particularly instructive and relevant to the South African scene.

The native inhabitants of Alaska are divided into three groups, Eskimos, Aleuts and Indians, and are believed to have settled there more than 11 000 years ago, remaining in unbroken possession until the Russians arrived in the middle of the eighteenth

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[128]The treaty (7 July 1911, 37 Stat 1542 TS No 564), which has since been superceded by another international convention on conservation of North Pacific fur seals, was aimed at protection of the northern fur seal, a migratory marine mammal prized for its fur, which was heavily exploited by commercial sealers during the latter part of the nineteenth century (see Bean 255-260).

century.[129] Their villages are small and isolated, and many of them cannot be reached for most of the year except by air, sled or snowmobile. They depend on hunting and fishing for subsistence.[130] The United States purchased Alaska from Russia in 1867, but the native people continued their traditional ways of life relatively undisturbed for nearly a century, and the territory remained virtually uninhabited and untouched by other persons until it became a state in 1958 and substantial oil reserves were discovered shortly thereafter.[131]

With statehood came the right to select land from the federal domain. As it began to do so, however, the state was confronted by the claims of native groups to extensive tracts of traditional lands. A 'land freeze' was imposed in 1966 pending resolution of native claims. The discovery of vast deposits of oil made resolution more urgent, as the land freeze did not prevent the sale of oil and gas leases on state-selected lands and holders of exploration rights required rights of way over the federal land, 'clouded' by Indian claims, for a 900 mile pipeline route from the Prudhoe Bay oilfield to the ice-free port of Valdez in the south. The land claims conflict was resolved in 1971 with the passage of the Alaska Native Claims Settlement Act[132] (ANCSA), an Act which has produced what has been described as 'an intricate structure of business organizations that only the lawmakers of a twentieth century corporate society could mold.'[133]

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[129]Ethnologically, Eskimos and Aleuts are not considered Indians, but they are regarded as such for the purposes of federal Indian policy. Notwithstanding the implications of the Alaska Native Claims Settlement Act, dealt with above, Congress has specifically included Alaska Natives, villages and corporations among those Indian entities eligible for programs, and federal services continue to be provided to them in much the same way as to Indians in the lower 48 states (see Getches & Wilkinson 778-9).

[130]Only 20 million of the total of 376 million acres in Alaska are considered fit for agriculture and grazing. Half of the state is treeless, and those trees that do grow, do so very slowly. Temperatures of minus 40 degrees for months at a time are common. Beneath the few centimetres of permanently frozen ground (permafrost) there can be a kilometre of ice (Nash 274-5).

[131]See Getches & Wilkinson 774-5, and 774-820 generally on the subject of Alaska natives. According to 1980 census figures, the Indian population of Alaska then was 64 047, representing 15,94% of the total population of Alaska (Getches & Wilkinson 7).

[132]43 USCA §§ 1601-1628.

[133]See Getches & Wilkinson 155, where the authors make the point that the Act represents an attempt by Congress 'to avoid the errors of the paternalistic and ephemeral settlements with other Native Americans.' The Trans-Alaska Pipeline was completed in 1977 - Nash 275.

ANCSA provided a comprehensive legislative settlement of all native land titles and claims. It did so by extinguishing all aboriginal title to lands and all aboriginal hunting and fishing rights (the Act makes no provision for continued use of the land for subsistence activities),[134] in return for which the approximately 65 000 Alaska Natives were in effect given 44 million acres of federal land, and money totalling $962,5 million, an act that has been described as representing 'a degree of generosity unprecedented in American history'.[135] According to Nash, what added to the pressure for favourable settlement of native land claims was the widespread liberal support of minority interests in the 1960s - 'In the context of the burgeoning black civil rights movement, it was impossible to follow the only-good-Indian-is-a-dead-Indian formula that had cleared the western frontier of natives and native claims.'[136] The Act provided for the establishment of a 'complex of corporations'[137] in the form of village and regional corporations under state law, in which enrolled natives would receive stock, and an Alaska Native Fund. Over one hundred million acres of 'public lands' were withdrawn from 'all forms of appropriation under the public land laws, including the mining and mineral leasing laws, and from selection under the Alaska Statehood Act', from which the village corporations had the collective right to select 22 million acres. The unselected balance was allocated among eleven regional corporations for reallocation to

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[134]Special hunting and fishing rights have been created for the Alaskan Natives, 'not by a reservation system but by an amalgam of state and federal statutes' (Getches & Wilkinson 779, who note that, at the same time as extinguishing aboriginal hunting and fishing rights (in § 1603b), the 'Act opened the state for resource development, especially encouraging Native corporations themselves to participate', and comment that the 'potential for activities affecting fish and game habitats is obvious' (at 159)). However, §§ 1616(d)(2) of the Act did authorise the Secretary of the Interior to withdraw 80 million acres of land that might merit inclusion in the 'national interest' systems (national parks, wilderness areas, wildlife refuges, national forests, and wild and scenic rivers) - which was increased to 110 million acres in 1980 when the boundaries of the national interest lands were settled and the Alaska National Interest Lands Conservation Act, 16 USCA §§ 3101-33 (known as ANILCA) was passed (see Getches & Wilkinson 776). For a discussion of ANILCA and its immense implications for wilderness preservation, see Nash 272-315, who writes: 'On December 2, 1980, President Jimmy Carter consummated the greatest single act of wilderness preservation in world history. In signing (ANILCA), Carter protected 104 million acres of federal land, or 28 percent of the state, an area larger than California. Of this total the National Wilderness Preservation System received 56 million acres which more than tripled its size' (at 272).

[135]Nash 277.

[136]Ibid.

[137]Getches & Wilkinson's descriptive phrase at 155, where the figures in the text are quoted - the 65 000 natives constitute about 15% of the state's population.

the villages 'on an equitable basis after considering historic use, subsistence needs, and population.'[138]

Restraints were imposed on the alienation of corporate stock (no alienation until 18 December, 1991), but not on corporate alienation of land. Alaska native landholding is therefore quite different from that of other native Americans, notwithstanding that the theoretical foundation of all aboriginal property rights is aboriginal tenure. Because of the statutory abrogation and substitution of their rights, there is doubt about the nature and extent of the trust relationship between the Alaska natives and the federal government, and it is not certain whether or to what extent it may be comparable with that of other Indians.[139] In the absence of further legislative intervention, there does not appear to be anything to prevent non-natives, for example oil interests, from effectively taking over native corporations by purchasing stock once it becomes alienable after 1991, thereby finally terminating aboriginal tenure. This has prompted Getches & Wilkinson[140] to ask whether ANCSA is not termination in disguise. They suggest that the status of Alaska Natives has been thrown into question by the Act and, as that date approaches, many Natives are seriously rethinking its wisdom and showing interest in revitalising tribal entities, because '(m)any vestigial protections associated with Indian law that are still shared by (them) are scheduled to be withdrawn in 1991.'[141]

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[138]Pursuant to section 11 (a) of the Act (see Getches & Wilkinson 157). For brief commentary on the 'enormous' complexities of the selection processes provided for in the Act, and on the future of the wild lands of Alaska, see Thomas 95-101.

[139]See Canby 273-4, and Getches & Wilkinson 159. The latter point out that § 1601(b) of ANCSA provides that it is not intended to establish any 'permanent racially defined institutions' or 'lengthy wardship or trusteeship' (at 778), which phrases are not elucidated, thus leaving ambiguity about the nature of the relationship between the federal government and the Alaska Natives.

[140]159.

[141]Getches & Wilkinson 774, and see 817-820 for discussion of the adverse effects of ANCSA and the mounting anxiety of Alaska Natives over its future implications. For example, profitable corporations may become subjected to takeover bids from non-native investors, and unprofitable ones may have to liquidate. The Act encourages a profit orientation which is inimical to a subsistence ethos, thus eroding the traditional sense of community and cultural integrity of native groups. This will be exacerbated as the increasing encouraged development reduces the wildlife habitats on which traditional subsistence depends. There is no provision for 'afterborns' to become shareholders in native corporations except by purchase or inheritance ('Afterborns' are those born after 18 December 1971, the date on which ANCSA was passed, each Alaska native alive on that date being entitled to 100 shares in a regional corporation and, depending on his or her residence, to become a shareholder in a village corporation as well). The land title granted pursuant to the

Implementation of the complicated settlement provisions of ANCSA also produced practical administrative and financial problems.[142] A lesson to be learnt from all of this is that it would appear that a complex society, prompted by powerful development lobbies and a fossil fuel shortage, attempted too sophisticated a solution, and perhaps a simpler but nonetheless sound legal prescription could have been conceived - one that allowed for development and conservation, the setting aside of land for traditional and 'national interest' uses, and at the same time for the controlled continuation of subsistence harvesting of natural resources.

4.2.7 Hawaii

The Hawaiian Islands were free from European impact for centuries until the arrival of Captain James Cook in 1778.[143] Since then, the distinctive Hawaiian culture, originally based on communal tenure and the need, which continues, for access to traditional holy places and the beaches, has been strained but has survived.[144] Hawaii became a state of the United States in 1959, and the Hawaii Constitution provides that:

> 'The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious practices and possessed by *ahupua'a* tenants who are descendants of native

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Act was not granted to Indian tribes with governmental powers, but to corporations chartered under state law. Tribal sovereignty and government, and 'Indian country' in Alaska will effectively disappear, save perhaps to the extent that native governments that predated ANCSA may continue in existence. And what of 'Indian' cultural identity? Price 99 (quoted in Getches & Wilkinson at 777) writes: 'By legislative stroke, the Congress converted all Alaska Natives into members of the corporate world, receivers of annual reports, proxy statements, solicitations and balance sheets. The Native received a shotgun initiation into the American mainstream.'

[142]Large Native business ventures after the creation of the new corporate power structures proved unsuccessful. See Getches & Wilkinson 158, who comment that 'the most conspicuous beneficiaries of ANCSA have been lawyers, accountants and consultants who serve the regional and village corporations.' They describe the Act as, but also with broader implications than, 'a complex legal enactment designed to settle Native claims to land by endowing a network of instantly created corporations with land titles and money' (at 774).

[143]Getches & Wilkinson 820.

[144]Getches & Wilkinson 824.

Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.'[145]

Native Hawaiians have not, however, been accorded the special rights of other Native Americans. Like the majority of Native Alaskans, they are not 'Indians' in the ethnic sense of the term. They are not considered a 'tribe', and have not as yet been 'recognised' by the federal government; but they are pressing for congressional acknowledgement of their rights as Native Americans. They receive no services from the Bureau of Indian Affairs; but Congress has begun to include them as beneficiaries under recent statutes providing services to other Native Americans.[146] If achieved, their special treatment as a separate 'political' group will flow from such recognition, and not from treaty rights.[147] These recent developments in Hawaii are consistent with the trend towards recognition of the historic claims of indigenous people, and that they should be accorded special treatment in modern legal and political systems.

4.3 AUSTRALIA

In many important respects the Australian aboriginals' attitude toward their natural environment is very similar to that of the native Americans, and indeed of indigenous people throughout the world. Their concept of genesis is animistic.[148] They believe that all people were once animals - unlike the San of Africa who believe that all animals were once people, the artistic expression of which is their rock paintings of people with

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[145]Hawaii Constitution, Article 12, § 7 (a 1978 amendment). An *ahupua'a* is a parcel of land which usually includes farmland, water, and access to the sea (see Getches & Wilkinson 820, 823 and 841, and generally at 820-847 for a discussion of the position of Hawaiian Natives, under their heading 'Hawaii: Islands of Neglect').

[146]Getches & Wilkinson 847.

[147]No treaties were entered into with the native Hawaiians. See Getches & Wilkinson 820-847.

[148]Roughsey 156-7 explains: 'The old people were animists believing that every tree and rock, every stick and stone, had a spirit, so everything in their environment was meaningful and was entitled to its proper place and proper respect. Our concept of Creation is that in the beginning all things, all animals and plants, were men. These supernatural beings, and progenitors of man, turned themselves into animals and plants and eventually sank ino the earth to become natural features of the landscape and the spirit-homes of the ancestral beings. From these totemic centres the spirit-force of all human, animal and plant life was constantly being revitalised.'

animal heads and hooves, or elephant heads, trunks and feet.[149] It is a belief which inculcates respect for all living beings. Two of their laws made them natural conservationists: 'the law that clan land is all that you and your children's children will ever have, and the law that you take what you need from your land, but need what you take.'[150] To them wilderness was not something that existed as a separate and independent concept or entity. Over many hundreds of generations, they 'evolved a pattern of customary behaviour and an extremely rich ritual and psychic life to create a relatively harmonious coexistence with the Australian ecosystems.'[151] Identification with their environment is so complete for them, that they 'see themselves as part of the landscape, not apart from it.'[152] Studies of their land use in Arnhem Land indicate that they used fire, a powerful tool for modifying wilderness, sensitively, carefully and selectively, 'maximising diversity and protecting certain natural systems.'[153] 'At Kakadu National Park, where the Park Service and the traditional Aboriginal owners are working together to conserve the area whilst permitting other uses in certain parts, the wisdom of traditional management is being increasingly recognised. It seems that in some respects the accumulated knowledge of local people may well exceed the outcome of millions of dollars of extensive research for years to come. ...they have sustained their civilisation for so long, living as members of the natural systems.'[154] Once again, and on another continent, the desirability of including traditional wisdom in management programs is being emphasised. Traditional rights of access to the land and natural resources, however, are another matter.

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[149]See Woodhouse & Pager 59.

[150]Trezise & Roughsey 65.

[151]Ovington & Fox 27.

[152]Ovington & Fox 28.

[153]Ovington & Fox 29.

[154]Ovington & Fox 34. Land rights over substantial areas of Kakadu National Park were granted to an aboriginal land trust, and leased back to the Australian National Parks and Wildlife Service on condition that the indigenous people be involved in the management, development and planning of the park. In 1985, the title to Uluru (or Ayers Rock, as it is more commonly known), which holds deep traditional cultural and religious significance for the aborigines, was given to the Katatjuta Aboriginal Land Trust, and then leased back to the Service for management as a national park (see Galvin 172).

In the case of *Milirrpum v Nabalco Pty Ltd*,[155] the Supreme Court of the Northern Territory of Australia undertook a detailed comparative analysis of 'the doctrine of communal native title', and concluded that the communal occupation of land by the aboriginal inhabitants of a territory acquired by the Crown is not recognised in common law as a legally enforceable right. In arriving at this conclusion, the court accepted the following propositions as 'philosophical justification for the colonization of the territory of the less civilized peoples':

> '(T)he whole earth was open to the industry and enterprise of the human race, which had the duty and the right to develop the earth's resources; the more advanced peoples were therefore justified in dispossessing, if necessary, the less advanced ....
> (D)iscovery was a root of title in international law; ...the sovereign whose subjects discovered new territory acquired title to such territory by the fact of such discovery.
> (Where, in a settled colony,) 'successive executive and legislative acts ... all indicate an intention that all the land, which is under the sovereignty of the Crown, shall be open to purchase or grant ... (this operates) to extinguish communal native title, if that ever existed. The express creation of native reserves strengthens this manifestation of intention; it does not detract from it; for it implies, not that the sovereign recognizes rights in the natives, but that it has power to dispose for their benefit of any lands, irrespective of what the natives claim. ...Such is the doctrine of extinction of communal native title in a settled colony....'[156]

The judgement offers a useful commentary on and insight into the nature and extent of aboriginal title, the continuing debate in other countries about native land tenure rights, and the growing tendency to elevate the status of native land occupancy.[157] The nature and extent of those rights have direct bearing on the use and management of the natural resources with which this work is concerned. Recognition that indigenous people should

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[155]17 FLR 141 (1971).

[156]The extracts from the case are quoted in Getches & Wilkinson at 848-857. The court drew a distinction between two classes of acquisition of territory by the Crown: settled or occupied territory and conquered or ceded territory. In a settled colony such as Australia, communal native title is extinguished; but in the case of conquest or cession, there are different considerations, such as the extent to which it is recognised that the law previously applicable may continue to apply pursuant to the terms of the relevant cessions or peace treaties.

[157]For further commentary on the *Milirrpum* case, see McNeil 290-7.

be accorded special rights highlights their dependency on wilderness and the wild fruits of the earth, and the need for protection of those resources.

A short while after the *Milirrpum* decision, the government declared a moratorium on mineral exploration licences in Northern Territory aboriginal reserves, and appointed Mr Justice Woodward to draft recommendations for the transfer of Northern Territory tribal lands to aboriginal ownership. The 1974 'Woodward Report' recommended, *inter alia*, that reserve lands should be owned by aboriginal groups in fee simple, title being vested in aboriginal corporations, with restriction on alienation except to another such corporation; subject, however, to minerals thereon remaining Crown property, but with the aborigines retaining the power to prevent mining activities unless the government overrode their veto in the national interest.[158] The reforms which followed the report included legislation allowing the transfer of a substantial tract of land to the Gurendji Tribe,[159] and the passing of the Aboriginal Land Rights (Northern Territory) Act, 1976 which recognised traditional claims to land in the Northern Territory based on 'spiritual' ties,[160] and provided for acquisiton in fee simple through a system of land trusts.[161]

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[158]See Getches & Wilkinson 857-8. At 858 further reading references to aboriginal land rights are provided. Australia also recognises indigenous hunting rights, and also faces the dilemmas that they present. Special provision is made in the Northern Territory, New South Wales and Western Australia for the right of aborigines to continue the taking and killing of otherwise protected wildlife in accordance with their traditional hunting and gathering practices. In New South Wales, they may enter upon private land to hunt, fish or gather traditional foods for domestic purposes. See Bates 207-8. Lien & Graham 241-7 refer to the plight of the dugong (*Dugong dugon*), the only strictly herbivorous marine mammal, one of only four existing members of the order *Sirenea* (sea cow), all of which are listed in the IUCN *Red Data Book* as species which are vulnerable to, or in danger of extinction, and a major proportion of the world's remaining population of which occurs in northern Australia. Dugongs are protected by legislation in Queensland except for subsistence hunting by indigenous people on reserves. Now they are under pressure from indigenous hunting which is made more efficient by modern technology. At 247 they write: 'Prior to the introduction of modern technology, the adaption of the cultural system, and a larger external human population affecting the resource, these traditional management measures appeared to work. The acceptability of traditional conservation measures and their applicability in the present day, needs to be explored further. The study of traditional harvest regimes falls within the disciplines of both wildlife science and cultural anthropology.'

[159]Getches & Wilkinson 858.

[160]Section 69 makes it an offence to enter a sacred site as defined in s4 unless in accordance with aboriginal tradition. In addition to Commonwealth legislation, there is also legislation in each of the Australian States for the protection and preservation of aboriginal relics and places of cultural and historic significance. See Bates 177-183.

[161]Sections 4 and 5. See Bates 144, and Fisher 25-6 for further commentary.

The Act also provided that aborigines may continue their traditional uses of land or water in parks, reserves and conservation areas, subject only to regulations made for conserving wildlife in the area.[162] In 1981 a Land Acquisition Act was passed, in terms of which the Commonwealth may compel the sale of land to meet native claims. Fisher concludes that the 'legislation thus provides for the vesting of title to traditional Aboriginal land in a way consistent with the concepts of English law and gives to the Aboriginal community a form of delegated management of those lands. To some extent an Aboriginal legal system has been recognized and created within the overall structure of the Australian legal system.'[163]

4.4 CANADA

After reviewing the post-Revolution American cases which dealt with the question whether communal Indian occupancy of lands conferred a proprietary right, and concluding that if the doctrine of communal native title ever existed in the United States, it no longer did, the court in *Milirrpum* turned to Canadian decisions. The first case reviewed was an 1888 appeal to the Privy Council.[164] The facts of the case are not material to this discussion. What is material is that the court in the *Milirrpum* case decided that it stands as authority for the proposition that communal native occupancy is not a proprietary right, but a personal or usufructuary right, which can co-exist with ultimate title in the Crown and is dependent upon the goodwill of the sovereign.

The second Canadian case, decided in 1969,[165] although held not binding on the court in the *Milirrpum* case, was referred to in Blackburn, J's judgement as 'significant' and as

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[162]Section 70. Section 73 empowers the Parks and Wildlife Commission to enter into agreements with aborigines, after consultation with those of them who, in the opinion of the Administrator in Council, have traditional rights in relation to the land, relating to the protection and conservation of the wildlife and natural features on the land which vests in them, is held in trust for them, or is otherwise occupied by them. See Bates 145, 149-150.

[163]Fisher 26.

[164]*St Catherine's Milling and Lumber Co v The Queen* [1888] 14 App Cas 46.

[165]*Calder v Attorney-General of British Columbia* [1969] 8 DLR (3d) 59. Reference to the facts of this case and *Milirrpum* is given in the extracts provided in Getches & Wilkinson 852-3.

providing 'weighty authority' for the following propositions (which are a neat summary of the position in settled, as opposed to conquered, territory, and which have relevance in the South African situation as much of our country was occupied by white settlers without the need to conquer the indigenous inhabitants[166]):

> '1. In a settled colony there is no principle of communal native title except such as can be shown by prerogative or legislative act, or a course of dealing.
>
> 2. In a settled colony a legislative and executive policy of treating the land of the colony as open to grant by the Crown, together with the establishment of native reserves, operates as an extinguishment of aboriginal title, if that ever existed.'[167]

In 1984 the Supreme Court of Canada, in the case of *Guerin v The Queen*,[168] addressed the questions of the nature of Indian title and the Crown's fiduciary obligation in respect of 'surrendered' Indian land. The issue before the court revolved around the surrender to Her Majesty the Queen of 'the most potentially valuable 400 acres in Vancouver today' situated within an Indian reserve. The purpose of the surrender was that the land be held 'forever in trust to lease the same to such person or persons, and upon such terms as the Government of Canada may deem most conducive to our Welfare and that of our people' (ie the Indians). The monies received from leasing was to accrue to the Indian band concerned. The government entered into a lease with a golf club, the band challenged its terms, and the court held that, '(i)n obtaining without consultation a much less valuable lease than that promised, the Crown breached the fiduciary obligation it owed the band. It must make good the loss suffered in consequence.' The following extracts from the judgement of Dickson, J are relevant to the two points with which this

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[166]The implications of the manner in which South Africa was occupied by white settlers and the extent to which indigenous tribes were 'conquered' is discussed in the next chapter.

[167]The court also considered African cases, but distinguished them on the basis that they generally related to conquered or ceded territories, and to litigation between African subjects based on statutory authority for the application of native law by the colonial courts - 'because *ex hypothesi* the rights are recognized by statute; the question whether they exist does not arise.' See extract from the judgement at Getches & Wilkinson 853-4.

[168][1984] 2 SCR 335. The extracts which follow in the text were taken from the passages in the judgement of Dickson, J quoted in Getches & Wilkinson 859-866.

discussion is primarily concerned, namely the recognition of aboriginal rights, and the nature of those rights:

> 'The plaintiffs based their case on breach of trust. They asserted that the federal Crown was a trustee of the surrendered lands. The trial judge agreed.
> The Crown attempted to argue that if there was a trust it was, at best, a "political trust", enforceable only in Parliament and not a "true trust", enforceable in the courts. ....
> In my view, the nature of Indian title and the framework of the statutory scheme established for disposing of Indian land places upon the Crown an equitable obligation, enforceable by the courts, to deal with the land for the benefit of the Indians. This obligation does not amount to a trust in the private law sense. It is rather a fiduciary duty. If, however, the Crown breaches this fiduciary duty it will be liable to the Indians in the same way and to the same extent as if such a trust were in effect. The fiduciary relationship between the Crown and the Indians has its roots in the concept of aboriginal, native or Indian title. The fact that Indian bands have a certain interest in lands does not, however, in itself give rise to a fiduciary relationship between the Indians and the Crown. The conclusion that the Crown is a fiduciary depends upon the further proposition that the Indian interest in the land is inalienable except upon surrender to the Crown.
> ... The surrender requirement, and the responsibility it entails, are the source of a distinct fiduciary obligation owed by the Crown to the Indians. ....
> In *Johnson v McIntosh*, Marshall CJ, although he acknowledged the Proclamation of 1763 as one basis for recognition of Indian title, was nonetheless of opinion that the rights of Indians in the lands they traditionally occupied prior to European colonization both predated and survived the claims to sovereignty made by various European nations in the territories of the North American continent. The principle of discovery which justified these claims gave the ultimate title in the land in a particular area to the nation which had discovered and claimed it. In that respect at least the Indians' rights in the land were obviously diminished; but their rights of occupancy and possession remained unaffected.
> ....
> The principle that a change in sovereignty over a particular territory does not in general affect the presumptive title of the inhabitants was approved by the Privy Council in *Amodu Tifani v Secretary of State, Nigeria*, [1921] 2 AC 399. That principle supports the assumption implicit in *Calder*[169] that Indian title is an independent legal right which, although recognized by the Royal Proclamation of 1763, nontheless predates it. ....
> It appears to me that there is no real conflict between the cases which characterize Indian title as a beneficial interest of some sort, and those which characterize it a personal, usufructuary right. Any apparent inconsistency derives from the fact that in describing what constitutes *a unique interest in land*

[169] *Calder v Attorney General of British Columbia* [1973] SCR 313.

the courts have almost inevitably found themselves applying a somewhat inappropriate terminology drawn from general property law (emphasis added).'

A 1973 Canadian government policy, calling for negotiation of land claims settlements with native groups, many of whom did not enjoy treaty rights, required that settlements should include such benefits as land, hunting and trapping rights, resource management and native participation in government. One such claim settlement, approved by parliament in 1984, granted the Inuvialuit Indians 35 thousand square miles of land in fee simple with reservation of mineral rights to government. The land may be leased, but can only be conveyed to the government, and the settlement makes extensive provision for fish and game management. The Indians essentially play an advisory role in these matters, as ultimate authority remains vested in government. However, in recent years, Canadian Indians have been pressing for more self-governing powers.[170]

4.5 NEW ZEALAND

In his review of native land law in the *Milirrpum* case, Blackburn, J described New Zealand as 'one of those parts of the British Commonwealth which has a well-established and fairly elaborate system of recognition of communal occupancy of native land, set up by a series of statutes.' He referred to an 1837 House of Commons Select Committee report 'which revealed the appalling effects of contact with the white race on aboriginal races in various parts of the Empire' which produced a current of feeling which 'ran strongly in opposition to any further colonization by Great Britain.' Official policy was to regard the natives of New Zealand as the inhabitants of a sovereign and independent state; but in 1838 the New Zealand Company, without government approval, despatched a large number of emigrants from the United Kingdom and began treating with the Maoris for cessions of land. This resulted in the Queen's representative being sent to New Zealand and entering into the Treaty of Waitangi in 1840 with the Maori chiefs of the North Island, in terms of which they ceded to the Queen all rights and powers of sovereignty, in return for which '(t)o them was confirmed and guaranteed "the full

[170]See Getches & Wilkinson 866-8, where further commentary is offered on developments in recent years in Canadian Indian law and policy.

exclusive and undisturbed possession of their lands and estates forests fisheries and other properties".'[171]

After referring to the Land Claims Ordinance of 1841 as 'the first of many legislative provisions in New Zealand which expressly recognized Maori occupancy of tribal lands', and touching on the series of Maori Wars which took place between 1856 and 1870, Blackburn, J remarked that 'one of the reasons for the fact that a system of native land law exists in New Zealand and does not exist in Australia is that in New Zealand the Government had several times to wage armed conflict with organized bands of natives, which never occurred in Australia.' In 1865 the Native Rights Act and the Native Lands Act were passed, making 'express provision for the recognition of Maori occupancy of tribal land as a right and for the making such right consistent with the ordinary law of real property.' Section 4 of the former Act 'provided that every title to and interest in land over which the native title should not have been extinguished should be determined according to the ancient custom or usage of the Maori people so far as the same could be ascertained.' The latter Act 'was directed to the purpose of ascertaining the persons who according to Maori custom were the owners of tribal lands, and to converting Maori modes of ownership to titles derived from the Crown. It set up a Native Land Court for the investigation of the titles of persons to native lands....' Blackburn, J concluded that '(t)hese provisions place the whole question of native land title in the Dominion of New Zealand on a footing quite different from that which exists in Australia, the United States, or Canada.' The common thread, of course, is the increasing international recognition of the value of cultural diversity, and the right of indigenous people to their traditional territories and resources.

4.6 CONCLUSION: LESSONS FOR SOUTH AFRICA

To what extent are the developments in other countries considered in this chapter relevant to South African conditions? Is there an international trend toward the recognition of aboriginal rights? What specific instruction may be gleaned from those

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[171]See Getches & Wilkinson 854-6 where the extracts from the judgment quoted in the text above and below may be found. For further commentary on the judgment, see Fisher 24-6.

developments with a view to meeting the varied subsistence and other needs of access to wilderness and wildlife in our polyglot and multi-cultural post-apartheid society?

American Indian law and policy have been described as 'moving towards increased native political autonomy, rights in land and natural resources and affirmation of indigenous culture within a general policy of integration and social pluralism.'[172] However, before attempting to arrive at any conclusions about the relevance of the American experience in seeking to accommodate the subsistence and cultural needs of indigenous people within a first world legal and political system, it is necessary to consider whether the current special treatment of native Americans is not a symptom of national guilt, a compulsion for atonement of the sins of forebears, because of decades of Indian maltreatment.[173] Has this perhaps led to an over-reaction in the protection of traditional rights? There may be some merit in this suggestion but, if so, it is only partially true. Felix S Cohen offers another perspective:

> 'The purchase of more than two million square miles of land from the Indian tribes represents what is probably the largest real estate transaction in the history of the world. It would be miraculous if, across a period of 150 years, negotiations for the purchase and sale of these lands could be carried on without misunderstandings and inequities. We have been human, not angelic, in our real-estate transactions. We have driven hard Yankee bargains when we could; we have often forgotten to make the payments that we promised, to respect the boundaries of lands that the Indians reserved for themselves, or to respect the privileges of tax exemption, or hunting and fishing, that were accorded to Indian tribes in exchange for the lands they granted us. But when Congress has been fairly apprised of any deviation from the plighted word of the United States, it has generally been willing to submit to court decision the claims of any injured Indian tribe. And it has been willing to make whatever restitution the facts supported for wrongs committed by blundering or unfaithful public servants. There is no nation on the face of the earth which has set for itself so high a standard of dealing with

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[172]Keon-Cohen 250 (extracts from which are furnished at Getches & Wilkinson 868-872).

[173]Nash 276 describes the process of displacement of native Americans by the white settlers as follows: 'Over the course of three centuries the Indians ... lost their land, their political rights, their cultural existence, and often their lives. The forced removal of natives from the land that became the United States amounted to one of the greatest quantitative displacements of one people by another in world history.'

> a native aboriginal people as the United States and no nation on earth that has been more self-critical in seeking to rectify its deviations from those high standards.'[174]

Not everyone will agree with these reflections, having regard to the historical background of bitter warfare, hatred, humiliating defeats, tragedy, deception, barbarity (on both sides), and insensitivity. However, they represent a respected opinion, on the basis of which it may fairly be assumed that not all, if any, of the present native American policy is founded on remorse and compensation for the sins of past generations. Whatever else may be said about American Indian law, it is undoubtedly true, as Getches & Wilkinson have observed, that its doctrines 'have been a foil against forces of acculturation' and have aided the 'Indian struggle to preserve the dignity of tribal cultures.' They justifiably claim that '(t)he United States is unusual among nations in its painstaking concern for rationalizing the rights of indigenous people with constitutional and other legal principles.'[175]

In speculating on the international influence and possible extension of federal Indian law principles to other nations, Getches & Wilkinson write:

> 'The open questions in Indian law are many, but some of the most exciting issues have to do with whether Indian law as it has developed in the United States will, or should, spread in its acceptance and application both in the United States and abroad. Awareness of Indian law has never been greater among the world's indigenous people. Will it be adopted in other nations - and by the United States for Native Hawaiians? Will it be used to restore the full federal-tribal relationship with Alaska Natives? Decisions should turn on careful study and analysis of what federal Indian law has meant

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[174]See Cohen (1947) 34-43 (extracts from which are quoted in Getches & Wilkinson 182-4). In addressing the question of the white man's over-reaching, and referring in particular to the sale of Manhattan Island for $24, Cohen wrote that, in addition to money payments,

> '(w)hat they secured in the way of knives, axes, kettles and woven cloth, not to mention rum and firearms, represented produce of a superior technology with a use value that had no relation to value in a competitive market three thousand miles across the ocean. And what is probably more important, the Indians secured, in these first land transactions, something of greater value than even the unimagined products of European technology, namely, a recognition of the just principle that free purchase and sale was to be the basis of dealings between the native inhabitants of the land and the white immigrants. ....This is not to say that our Indian record is without its dark pages. We have fallen at times from the high national standards we set ourselves.'

[175]See Getches & Wilkinson 773-4.

> to American Indians, how it works within our political and legal system, and whether aspects of it will satisfactorily address the needs expressed by native people themselves.'[176]

In a comparative analysis of native justice in Australia, Canada and the United States, Keon-Cohen suggests that because of the 'unique and secure sovereign platform' of the American Indians, they remain 'at the "cutting edge" of international policy and legal developments.' He also suggests that:

> 'there is an evident internationalization of indigenous problems, expressions of concern, and government response.... The new and significant factor in this international element is not on the government side, but rather that indigenous minorities in developed countries (the Fourth World), are now in touch, becoming organized on an international level, increasingly debating grievances in international forums and increasingly drawing on international experience and support in a search for domestic improvements.'[177]

The following propositions, which will be amplified in the next chapter in a South African context, are suggested as legitimate lessons to be learnt from the evolution and current application of American Indian law and policy and the developments in the other countries referred to above:

- Because of their historical background and the traditional values that reside within them, tribal cultures are deserving of protection and accommodation within national legal and political systems.

- Effective protection of the wilderness resource, on which tribal cultures depend for their continued existence, is essential.

- Local communities within or adjacent to wilderness must be permitted such controlled access to formally declared wilderness areas as is consistent with their traditional 'rights', the protection of the area, and the reasonable rights of others.

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[176]Ibid.

[177]Keon-Cohen op cit.

They should also be allowed to participate in the determination of the boundaries of, the preparation and implementation of the management plans for, and any income that may be derived from, 'their' wilderness.

- The impact of 'civilisation' and modern technology has upset the balance with nature that was achieved by traditional cultures, and uncontrolled tribal communal ownership is unlikely to produce a sustainable yield of natural resources in modern conditions.

- The use of modern technology and weaponry in the exercise of traditional harvesting rights should be prohibited.

- Either constitutionally or legislatively, but preferably the latter so as to permit easier accommodation of eventual acculturation, and pursuant to the recognition of aboriginal rights pre-dating settlement or conquest, it should be accepted that indigenous groups have a 'unique interest in land'[178] and in the harvesting of natural resources. In the interests of other inhabitants and of environmental conservation, and so as to avoid the potential for dispute and uncertainty, these rights should be clearly defined.[179]

- Notwithstanding the general conclusion of the courts, in the various jurisdictions referred to above, that the nature and extent of aboriginal title are not such as to warrant legally recognised *proprietary* status in the absence of formal

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[178]The phrase used by Dickson, J in *Guerin v The Queen* quoted in the text above.

[179]In South Africa it may be difficult to sustain an argument that the extension of special status and rights to indigenous people is 'political' rather than 'racial.' In any event, political and human rights rhetoric or rationalising does not appear to be particularly helpful in this context. There seems to be little doubt that there is merit in allowing clans or local populations, not entire tribes or nations like the Swazis or Zulus, special rights to harvest the natural resources on which they have traditionally depended, at least until they may be 'assimilated'. For practical purposes, such rights could be classified, if classification is necessary, as 'local', 'traditional' or 'cultural' rather than 'political' or 'racial'.

acknowledgment by the government of the relevant country, there is a growing international tendency to elevate the status of native land occupancy.[180]

- Care should be taken to avoid a paternalistic approach, or the creation of special rights in reparation for past wrongs.

- The practical and political consequences of recognising ancient land tenure claims, or of according tribes the status of 'foreign independent nations', must be carefully considered - there is little, if any, environmental advantage in doing either.

- Policy without proper legal prescription can be unpredictable, ineffective and unjust. However, the legal prescription of tribal and state jurisdictions must aim for a proper balance of competing development, conservation and community interests, without being so complex as to be 'almost overwhelming'.

- There should be national rather than regional control, but regional and local participation.

In sum, there are sound socio-economic, political, humane, democratic, and environmental reasons for accommodating the remnants of tribal cultures by according them 'special' but clearly defined and fairly controlled access and harvesting rights to natural resources for subsistence, shelter, medical and other traditional uses, notwithstanding any restrictions on the utilisation of those resources which may be imposed on other persons. There should also be provision for the involvement of local clans or communities in the setting aside of nature reserves and other natural areas, the determination of the boundaries of such areas, and the formulation and administration

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[180]Traditional rights should be legislatively recognised in South Africa, as in Alaska and increasingly in Hawaii, even though they lack treaty foundation, not only because it is 'right' to do so, and not because 'they were here first', but for socio-economic reasons, because there is value in preserving indigenous cultures, and because it is in the interests of the greater South African society and of the environment to do so.

of their management programmes. In Nixon's words, it is time that we began to *recognize and build upon the capacities and insights of [our indigenous] people.*[181]

The subject of traditional rights to the land and wilderness in South Africa will be discussed in the next chapter.

[181]In his 1970 'Message to Congress' (quoted in Getches & Wilkinson 151).

CHAPTER FIVE

TRADITIONAL RIGHTS TO THE LAND AND WILDERNESS IN SOUTH AFRICA

5.1 INTRODUCTION

In the previous chapter the legal recognition of the rights of indigenous people in other countries was discussed. The primary purpose of considering developments and perceptions in the other jurisdictions was to provide a comparative perspective, a deeper understanding of the complexities inherent in the current recognition and extension of those rights, and an anticipation of what may or should occur in South Africa. This chapter focuses on developments in South Africa with a view to determining whether aboriginal rights to the land and natural resources, and in particular the wilderness resource, should be accommodated within our legal system, and, if so, how.

The position in South Africa is fundamentally different from that in the United States in that, although the rights of indigenous people to the land are accommodated by the setting aside of areas for their exclusive use and occupation, in the same way that Indian tribes have 'Indian country', there is no separate and discrete recognition of their rights to harvest the fruits of the land. Although traditional land tenure rights are recognised in South African law, the customary law of property has been drastically modified by statute. Traditional rights to water, wildlife and wilderness exist only to the extent that they are implicit in land tenure rights. An examination of traditional natural resource harvesting rights therefore necessarily involves a discussion of the land tenure rights of indigenous people. Notwithstanding this fundamental difference between South Africa and the United States, namely our lack of specific recognition of aboriginal rights, there are remarkable similarities in the events which have occurred, and the policies that have

emerged, in the different countries. There are also marked geographical, historical, political, constitutional, socio-economic and other differences between South Africa and the United States, but the parallels are enlightening. As in the United States, for example, South Africa has experienced processes of reservations,[1] removals, allotments, assimilation, reorganisation, termination and self-determination, albeit with substantially different political and economic objectives, methods and consequences. It is not intended to embark on a detailed analysis of the adverse political, socio-economic and environmental consequences[2] of the imposition of the artificial political demarcations and the land allocations which were involved in the process of establishing the apartheid system. It is beyond the scope of this work to do so. However, reference must be made to the historical, and therefore the political, background of South Africa's land tenure laws so as to determine the framework within which a proper accommodation of aboriginal 'rights' may be provided in a post-apartheid land and resource dispensation.

5.2 HISTORICAL BACKGROUND

Land tenure concerns the relationship between man and the land. Not only does man depend on the land for his well-being, and indeed his survival, land is also a principal source of wealth and power in modern society. A society's land tenure laws at any time in its development accordingly relate to its particular needs, politics and social system at that time. What may be appropriate for the United States or Eastern European countries, for example, at a given time in their history, will not necessarily be appropriate

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[1]In South Africa the term *reserve* meant an area set aside for black residence, and sometimes other race groups, and the term *location* had a similar meaning but usually applied to urban settlements. However, *location* also applied to rural settlements in Natal and the Cape. Although the 4 000 1820 Settlers brought to the Cape by the British Government were sent to *locations*, the term normally referred to black residential areas. See Davenport & Hunt v and 1, and Document 13 at 7 (Document 13 being extracts from a dispatch by Henry Goulburn, Under-secretary for War and the Colonies, dated 14 Aug 1819, and referring to the grants of 100 acres each on the basis of quitrent). Among white South Africans, urban areas came to be regarded as a kind of white reserve. The so-called 'Stallard doctrine', which was in effect applied by succeeding governments between 1936 and 1939, and since 1948, had its origin in a 1922 Transvaal Local Government Commission enunciation that the towns had been built by and for white people, and '(t)he native should only be allowed to enter urban areas, which are essentially the white man's creation, when he is willing to enter and to minister to the needs of the white man, and should depart therefrom when he ceases so to minister ....' See Davenport & Hunt 62 and Document 109 (extracts from the 1922 Stallard Commission report) at 71.

[2]For a brief discussion of the environmental consequences of apartheid, see Glavovic (1987) 41-51.

at the same time in South Africa. The way in which a legislature deals with land is therefore largely a matter of current social ethics and political philosophy. Some understanding of the evolution of land tenure concepts in South Africa is thus essential before attempting any future legal prescriptions relating to spatial planning, concepts of a land ethic, or the utilisation of natural resources.

5.2.1 Traditional African land tenure

Land tenure systems reflect the needs of a society (or, in some cases, of its ruling class). The needs of an agricultural people are different from those of a nomadic pastoral people. At some stage after their entry into the Cape, the Bantu[3] tribes changed from a predominantly pastoral to an agricultural people, and their land holding requirements also changed.[4]

In the earlier nomadic period the countryside was sparsely populated; there was no shortage of land; and dry climatic conditions and the poor quality of the land favoured frequent movement. The chief exercised absolute power over the land occupied by the tribe. He would order a tribal move and then allocate land to his headmen, from whom kraalheads would obtain permission to occupy a site. Because of their nomadic existence, the demarcation or identification of residential and agricultural land was

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[3]In terms of s 17(2) of the Second Black Laws Amendment Act 102 of 1978 the word 'Black' or 'Blacks' has been 'substituted for the word "Bantu" wherever it occurs in any law as a reference to a person or persons'. The word 'black' or 'blacks' will be used accordingly in the remainder of this chapter.

[4]In his foreword to Kerr (1953) at v, the then President of the Native Appeal Court, Southern Division, J W Sleigh, described the transition as follows:

> 'No one can say with any degree of certainty when the Nguni invaders crossed the Natal border into the Cape. No doubt they were already settled in Pondoland at the beginning of the sixteenth century; but we do know that they were largely a pastoral people owning large herds of cattle. Consequently, pastoral land for their herds was of the utmost importance: any encroachment by neighbouring tribes was hotly disputed. On the other hand, agricultural land was of little consequence in the life of the people. The wooden hoe was the only agricultural implement known to them and was exclusively used by women and children who performed the agricultural work.
>
> The southward movement of the Nguni was arrested by contact with the European colonists. The tribes settled in fairly well-defined areas, and with the increase of the population both agricultural and pastoral lands became insufficient for the needs of the people. With the introduction of the plough necessitating the use of oxen, men were forced to take a hand in agricultural work. Gradually the importance of agricultural land for support of the family became paramount, with the result that today an arable allotment is among a man's most prized possessions.'

relatively unimportant. Until the latter part of the nineteenth century, the staple foods were meat and milk, and most of the land used by a tribe was grazing land; but in the latter part of the century the people depended more on agriculture for subsistence. With the transition to agricultural dependency, the needs of the tribe changed, and three distinct forms of landholding emerged: tenure of commonage for grazing, tenure of residential plots, and arable allotments. Tenure was communal in regard to grazing lands and individual in regard to arable and residential land.

The grant of an allotment to an individual included the right to use the commonage for grazing. Although the individual's holding of his arable and residential land became more or less inviolable, it could be forfeited, or expropriated in the public interest. The land was not treated as a source of capital or of income. He did not pay for his allotment, and similarly could not sell or let it. He could alienate it gratuitously to relatives or friends who were already members of the community, but strangers had to receive allotment from the chief. Residential lots were inheritable. The essential feature of traditional land holding is its communal nature. Tribal interests prevailed over individual interests. The following statement, attributed to the chief of a tribal group, gives an indication of traditional attitudes toward the land:

> 'I conceive that land belongs to a vast family of which many are dead; few are living and countless members are still unborn.'[5]

In a sense the chief, as ruler, 'owned' the land as 'trustee' for and with the tribe.[6] He

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[5]See Fisher R C 442.

[6]For the purposes of this brief overview it is not necessary to achieve a fine degree of terminological exactitude; but it should be noted that Roman-Dutch and English law terms such as 'ownership' and 'trusteeship' are not suitable to describe the chief's position relative to the land. In these terms it would be inaccurate to describe him as trustee, because the individual tribesman's rights do not approximate those of a beneficiary under a trust. The distinction between trusteeship in the law of sovereignty and trusteeship in the law of property should also be borne in mind - the chief as sovereign had the right of allocation and withdrawal of tenure, and is therefore best described, if necessary to do so, as a trustee in the law of sovereignty. Similarly, care must be exercised in employing terms such as 'tenancy at will', 'precarious' and 'usufructuary' in describing individual rights. For more insight into the legal position of the chief, headman and tribesman in African common or customary law, see Kerr (1953) 1-33, Kerr (1976) 25-80, and Document 55 in Davenport & Hunt 34-5 which is an extract of the evidence of Sir Theophilus Shepstone given before the Cape Native Laws Commission (the Barry Commission) in 1883. Kerr (1953) 10 remarks on the value of the

controlled the distribution of unappropriated land, and exercised powers of expropriation.

There are many tribes in South Africa, and a question which arises is whether 'a multiplicity of tribes necessarily involves a multiplicity of laws.' It is accepted that there is an African 'common' law of immovable property, which exhibits some, but few, tribal variations, and that there is 'an identity rather than a diversity of land tenure'.[7] Legislation has, however, substantially affected this common law - various powers of the chiefs, for example, passed to the national government - but before touching on those statutory provisions which are relevant to aboriginal rights to the land and its resources, it is necessary to consider briefly what tenure systems were imported into the sub-continent by the white colonists.

5.2.2 Introduction of European tenures[8]

In 1652 Jan van Riebeeck arrived in the Cape and the Dutch East India Company asserted sovereignty over the area.[9] The Company did not initially intend to establish a colony, but became committed to a policy of colonisation when, in 1657, van Riebeeck announced the first freehold grants of farms at the Rondebosch, below the eastern slopes of Table Mountain, to nine free burghers, company employees whose contracts of service with the Company had expired. The grants were rent free for three years, and then

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pre-1910 Commission Reports as an authoritative source of customary law 'because the evidence is published as well as the report proper.' On the question of terminology, see Bennett 173-187, and Kerr (1976) 7-12.

[7]See Kerr (1953) 3.

[8]It is beyond the scope of this work to present any more than an outline of the European tenures introduced into South Africa by the white settlers. For further information see Davenport & Hunt 1-8, where extracts from historical documents are quoted, with commentary, some of which will however be referred to in the following footnotes, and Davenport (1985) 53-76. For a brief history of land tenure and deeds registration in South Africa see Jones 1-13.

[9]It may seem strange that a trading organisation could assert colonising power and sovereignty over the area. The Company received its Charter in 1602, in terms of which it was invested by the Netherlands with public powers of acquisition and administration of colonies. It was in effect granted sovereign authority from the Cape of Good Hope eastwards, together with the right to govern, administer justice, trade and make treaties. See Harris 155, and Davenport (1987) 28.

whatever land had been cultivated as stipulated in the grants, became their property.[10] In 1679 Simon van der Stel became governor. A further twenty settlers were granted land in what is now the district of Stellenbosch.[11] However, the Company disapproved of the freehold grants and they were discontinued. Loan tenure was introduced and, after 1714, payment of a tithe on produce or a *recognitie*, a recognition payment or rental acknowledging the dominion of the governing Company, was required.[12] The needs of the company at this stage were simply to supply produce for its garrison and passing ships, and colonisation as such was still not one of its aims. The Dutch government was reluctant to grant permanent concessions, and the early freehold grants which were being made to discharged servants and immigrants from Holland, France and Germany were discontinued. Loan tenure became the common method of acquiring land rights.

Loan farm tenure was originally a grazing permit system free of payment, but developed into a practical form of tenure for agricultural purposes as well. When the tithe was introduced, the tenure acquired some of the characteristics of a lease. The company retained the right to withdraw grants and the grantee could not alienate the property. He could sell or bequeath the *opstal* or buildings on the farm. His successor then became subject to all the restrictions and obligations attaching to the tenure, which included the government's rights of resumption, and prohibition of subdivision. Compensation for improvements was usually, but not always, paid to grantees when loan places were revoked. Although renewal was never refused, and the loan places were freely bequeathed, transferred and even subdivided, and although there was inefficient enforcement of payment of *recognitie*,[13] loan tenure was clearly an insecure form of

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[10]See Document 1, an extract from H B Thom (ed) *Journal of Jan van Riebeeck* ii, 90-1, in Davenport & Hunt 2.

[11]See Davenport (1987) 22-3.

[12]See Document 2, being a translated extract from the *Kaapse Plakkaatboek ii* 31 referring to the resolution to levy *recognitie* in Davenport & Hunt 2.

[13]See Document 9, being a translated extract from a 1793 order recorded in the *Kaapse Plakkaatboek*, vi 280-2, which refers to farmers being several years in arrear with their recognition fees of 24 riksdollars a year, in Davenport & Hunt 6.

tenure. Trekboers were moving rapidly inland[14] and away from official jurisdiction and taxation. To put loan grants on a more secure footing, a new form of tenure, quitrent or *erfpacht* tenure, was introduced in 1732. This provided for occupation for a fifteen year term, renewable, and subject to payment of an annual rental. Compensation was payable for improvements.[15]

Another attempt was made in 1743 to overcome the insecurity of revocable loan tenure. Governor General Baron von Imhoff recommended the conversion of loan tenure to loan freehold tenure.[16] The lands granted in freehold were measured from the land occupied on loan, and was limited to 60 morgen in extent. Government reserved a *recognitie* of 24 rixdollars, which could be increased or decreased according to the land's worth. Conversion involved a survey, and the issue of a title deed with diagram. Authority was given for conversion of all loan places, about 400 of them, on request; but only 64 were in fact converted, notwithstanding the greater security offered by conversion. At this stage, therefore, there were three forms of tenure in the Cape, freehold, quitrent and loan tenure.

The transfer of the Cape Colony from the Dutch East India Company to the British took place in stages, but was completed by invasion in 1806.[17] Lord Caledon was installed as governor, and was succeeded in 1811 by Sir John Francis Cradock. Cradock felt that the loan tenure system was objectionable, in the main because the insecurity of possession hindered agricultural progress. Much of the land remained uncultivated, it did not increase in value, and the property market stagnated. He also felt that it did not improve the relationship between government and citizen. In 1813, he introduced

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[14]See Document 10, being an extract from an account of a German traveller, OF Mentzel, relating to the spread of the settlement during 1785 and 1787, in Davenport & Hunt 6. It suggests that, when a farmer had several sons, the inheritance went to the eldest, and the others were obliged to move on 'to seek their fortunes elsewhere.'

[15]See Document 4, being a translated extract from the *Kaapse Plakkaatboek ii* 151-2, in Davenport & Hunt 3.

[16]See Document 5, being extract from *Reports of De Chavonnes...and of Van Imhoff* 138-9, in Davenport & Hunt 3.

[17]See Davenport (1987) 40-42.

perpetual quitrent tenure by proclamation.[18] The intention was that this form of tenure would apply to new grants and also take the place of loan tenure on application. Perpetual quitrent gave the grantee all the incidents of ownership or freehold tenure, but subject to payment of an annual quitrent and reservation to the state of rights to precious stones and minerals. The grants to the 1820 British Settlers were of perpetual quitrent title.[19] The administrative system for granting applications for perpetual quitrent was inefficient, and lengthy delays ensued. As a result, during the 1820s 'request' tenure sprang up, which was in effect a form of squatting, authorised by the local *landdrost* without any legal basis for doing so.[20]

Two points emerge from this brief overview of the early tenure systems introduced by the colonial powers which are relevant to our enquiry. There can be little doubt that insecurity of landholding was a contributory factor to the movement of the white settlers into the interior, which culminated in the Great Trek between 1836 and 1838.[21] It also encouraged attraction to a legal regime which favoured strong attachment to the land. The form of tenure introduced by the voortrekkers into Republican Natal was freehold, but subject to payment of 12 rixdollars a year on farms of 1 000 morgen or over, for protection. When the British occupied Natal in 1843, the Cape land tenure principles were extended to Natal. The Transvaal Republic and Orange Free State adopted the same sort of approach as Republican Natal. In both 'occupational laws' were enacted governing the taking over of lands from defeated tribes and imposing conditions appropriate to military settlements. As in Natal, the Transvaal Republic's constitution provided for a tax on farms for protection.[22] The constitution of the Orange Free State

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[18]See Document 11, being extract from Theal *Records* ix 203-8 of Cradock's Proclamation of 6 August 1813, in Davenport & Hunt 7.

[19]See Document 13 in Davenport & Hunt 7, and note 1 above.

[20]See Document 12 in Davenport & Hunt 6-7 for an early reference to request tenure.

[21]See Davenport & Hunt 9, and Davenport (1987) 52.

[22]On the informality in determining the size and locality of farms in the Boer Republic under frontier conditions, see Document 16 in Davenport & Hunt 7-8, being an extract taken from a report by a British officer commissioned to determine the western border of the Transvaal shortly before the outbreak of the war of independence in December 1880.

guaranteed the right of property, *eigendomsregt*, apparently intending perpetual quitrent, although there was little, if any, practical difference between conditional freehold and perpetual quitrent.[23]

5.2.3 Dispossession of the Khoisan

The first indigenous people encountered by the Dutch settlers in the Cape in the seventeenth century were the Khoisan (a collective term for the Khoikhoi and the San, also referred to by the pejorative terms of 'Hottentots' and 'Bushmen' respectively). It is believed that the pastoral Khoikhoi moved southward into the Cape about two thousand years ago, whilst the San were hunter-gatherers and direct descendants of the South African Late Stone Age people. The San lived in widely dispersed small groups. They neither tilled the soil, nor kept stock, but were entirely dependent on game and other natural products such as roots, ostrich eggs, seeds and honey. The Khoikhoi were more elaborately socially structured in tribes numbering sometimes more than 2 500 members. They possessed sheep and cattle, and traded with the blacks and subsequently the Dutch East India Company. Estimates vary, but there were probably at most 100 000 Khoikhoi in the Cape at the time of the Dutch arrival. Their customary land tenure was communal. Stangers required permission for hunting or grazing on their land, which was used equally by all the clan members, could not be alienated to individuals, and was not regarded as belonging to the chief.[24]

With the expansion of the white settlement, frontier friction was inevitable. Thefts of livestock and property resulted in punitive expeditions against the Khoikhoi, and the Company began to exercise jurisdiction over individual Khoikhoi in its courts. They were decimated by a series of smallpox epidemics, and gradually but inexorably they became a subject people. In their land dealings the Khoikhoi suffered from the same disadvantages as the American Indians when negotiating treaties with the white settlers - difficulties of language and understanding of European concepts of tenure. Davenport

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[23]See Davenport & Hunt 1-2.

[24]See Davenport (1987) 3-6, and Davenport & Hunt 9.

& Hunt[25] suggest that the Khoikhoi 'may well have thought that by "selling" land they were merely granting a right to use it, without depriving themselves of the same right, and that the purchase price which they received was no more than a form of tribute.' In the result, the Khoikhoi gave up their lands, 'induced by trifling gifts to withdraw and travel further inland.'[26] Ultimately they lost not only their pastoral lands, but also their separate identity. Through intermarriage or illicit unions with slaves and others they came to form the nucleus of the group of people now formally identified as 'Cape Coloureds'.[27]

The early eighteenth century *trekboer* was the Cape's first white frontiersman.[28] The loan farm system which applied at the time, encouraged movement into the interior. The *trekboer* could lay claim to a large farm and retain it indefinitely, as long as he paid his annual *recognitie* (in practice, even if he failed to do so, he was unlikely to be evicted). Davenport records that the requirements of transhumance (the seasonal trek with livestock to different regions for summer and winter grazing), the ease of acquiring informal title, 'and the ease with which the indigenous inhabitants could be persuaded to retreat or to enter service with their stock, ensured that the spread of the settlement was extremely rapid.'[29] The San hunters presented a temporary obstruction to the advancing Boer frontiersmen. In their resentment of the alien poachers settling on their hunting preserves and shooting out their game, the San retaliated by raiding their homesteads and attacking their flocks. The San were hunted in turn, sometimes like vermin. Some became absorbed in the Colony by intermarriage with the Khoikhoi and others, thus losing their ethnicity and unique cultural identity. A few became farm labourers, and the rest were exterminated or driven out of the Cape, retreating north in pursuit of the game on which they depended. In 1863, the recommendation of a

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[25]9.

[26]See Document 20, and also Documents 18, 19 and 21 in Davenport & Hunt 11.

[27]See Davenport (1987) 6, 24-5 and 33-5.

[28]So described by Davenport (1987) 30. A *trekboer* was a stockfarmer, as opposed to an *akkerboer*, who was a crop farmer.

[29]Davenport (1987) 31.

Bushman Reserve was made by the special magistrate in Bushmanland '(t)o locate the Bush-people on certain places to be set apart for that purpose in the lands which their tribes have for many generations occupied.'[30] However, no such reserve was ever established. 'By the end of the nineteenth century', Davenport writes, 'few San were to be found south of the Orange river. In the mid-twentieth there may have been fifty thousand north of it. By the 1980s those in Namibia were being torn from their traditional way of life through cooptation in the Angolan war.'[31]

5.2.4 The Blacks: confrontation and conflict

Historians differ in their opinions about the times and the routes of the southward migrations of the blacks from their original home, probably north-west of the equatorial forests; but there appears to be little doubt that these took place at a very early date, and certainly well before the Europeans settled in Table Bay. They were the first farmers in South Africa.[32]

The late eighteenth century witnessed inevitable confrontation and frontier conflicts between the white settlers and the black tribes. Inevitably, too, the same pattern of land appropriation occurred as in the case of the Khoisan, although the blacks offered more resistence than the Khoi and San groups and were not completely dispossessed. The three historically most significant episodes which produced the expansion of the white frontier were the *Mfecane*,[33] the Great Trek and the wars with the Xhosa, Tswana, Pedi, Zulu, Sotho, Ndebele and other tribes. The consequence of white settlement, conquest

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[30]See Document 25 in Davenport & Hunt 12-13, and their comments at 9.

[31]Davenport (1987) 125-6, and see also 32-4.

[32]On early history and settlement, see Kerr (1976) 3-6, and Davenport (1987) 7-12. The care with which they practised farming is indicated in the following paragraph in Davenport 17: 'Work published by Daniel and Guy on the location of the royal kraal sites of the Mthethwa, Ndwandwe and Ngwane chiefdoms in the period 1800-20 has revealed something of the care with which these were selected with an eye to good rainfall, good alluvial soils, and good pastures at all times of the year. This meant, in practice, the use of Zululand thornveld between 1500 and 3000 feet abvove sea level in the summer months, when nagana and malaria were lowland health hazards, and the lowveld grasslands during the safer winter months. Transhumance was normal; and choice land was scarce, worth conserving, and worth fighting to obtain.'

[33]*Mfecane* in Zulu, *Difaqane* in Sotho.

of the black tribes, and the 'acquisition' of territory from them by treaty or concession, was that the whites secured effective ownership and sovereignty over most of southern Africa.[34]

5.2.5 The *Mfecane*

The *Mfecane* was the era of Shaka's conquests, a time of great unrest among the blacks. Soon after their first contacts with the vanguard of the white frontiersmen, the black communities 'began to tear each other apart in what is generally assumed to have been one of the bloodiest conflicts ever to have affected Africa in historical times.'[35] Hundreds of thousands of Blacks were killed, and entire tribes were destroyed or scattered by the internecine wars of this period, most of which took place on the plateau west of the Drakensberg. One effect of the *Mfecane* may have been that the Voortrekkers moved onto virtually vacant land; but historians disagree on the extent to which the Highveld was depopulated at the time of their arrival. If they moved into empty land, in effect *terra nullius* or territory belonging to no one, then indigenous people were not dispossessed of their land and traditional rights to natural resources. If, on the other hand, native people were displaced, there is perhaps greater theoretical justification for the restoration of their traditional rights.[36] However, the issue is mainly of historical interest, because the central thesis of the submissions in this Part is that tribal cultures have value and their traditional environmental 'rights' and practices should be accommodated within our legal system, howsoever founded and whether or not

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[34]Although conquest is no longer a good basis for title, until the early years of this century it was a recognised and important method of acquisition of territory by states. See Harris 170-1.

[35]Davenport (1987) 14.

[36]Colonisation of *terrae nullius* by occupation would result in unilateral acquisition of original title to the territory. If the territory were occupied by tribes, derivative acquisition would have to be by means of cession or treaty, or they would have to be conquered. However, in any event, it is probably more correct to say that the Voortrekkers were acting as individuals and not as a sovereign state or nation, so that customary international law principles of occupation, discovery and conquest would not have applied. See generally Harris 151-179.

originally superseded. In any event, it seems that the answer to the question 'How empty was the Highveld?' will have to await further archaeological research.[37]

5.2.6 The Great Trek

Several thousand whites left the Cape Colony permanently for the interior between 1834 and 1840.[38] These were the *voortrekkers*, as opposed to the *trekboere* who, since the 1820s had been crossing the Orange River periodically in search of seasonal grazing, but always with the intention of returning. In their emigration from the Cape, the voortrekkers created new frontiers and increased black-white confrontation and the struggle for possession of the land. The *Mfecane* and the Great Trek hastened the penetration of white settlement into the highveld and Natal.

5.2.7 The Wars

The eastern frontier of the Cape Colony was the interface between the white colonists and the Xhosa, which produced nine wars in the period 1778 to 1878. At least some of the motivation for official frontier policy was benign, although ill-conceived. Sir George Grey (1854-61), for example, attempted socio-economic integration of black and white by promoting white settlement among the blacks with a view to teaching them Christianity and European agriculture, law and concepts of individual title; but, as Davenport puts it, his efforts 'to penetrate tribal territory with white-owned farms and military roads was as widely resented as his plan to substitute European for traditional cultural values.'[39] Further frontier conflicts and wars followed with the Pedi (or northern Sotho), Ndebele, Venda, Zulu and others, and by the end of the nineteenth

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[37]See Davenport & Hunt 9-10, and Davenport (1987) 12-21.

[38]The estimates vary between 6 000 and 15 000. See Davenport (1987) 50, and for a brief discussion of some of the reasons for the Great Trek 49-53.

[39]The resentment produced the 1857 cattle-killing episode, when Nongqawuse, a young girl, prophesied that if the Xhosa killed their cattle and destroyed their crops, their ancestral spirits would drive out the white man. The population of the affected chiefdoms was substantially reduced as a result of the many deaths from starvation and exodus into the Colony by survivors desperate for food and work. See Davenport (1987) 134-5.

century, the tribes had ceased to be a military threat and most of South Africa had effectively passed into white hands.[40]

5.2.8 The Treaties

Cession of territory, which may be made with or without compensation, transfers sovereignty from the cedent to the cessionary, and usually takes the form of an agreement, following peaceful negotiations or war, which is embodied in a treaty.[41] Treaties were not used as extensively in South Africa as in the USA for the acquisition of land from the indigenous people.[42] When they were used, the same sort of questions arose as in the USA, questions of interpretation, legality, and the morality of the process. Even if the process is viewed as power based and the imposition of the conqueror's will, natural law principles and ethical considerations cannot be entirely ignored in weighing the merits of recognising or reintroducing traditional aboriginal rights.

Unlike the native American treaties, no rights were explicitly 'reserved' by South African tribes in their concessions, so that the difficulties attendant upon determination of reserved rights do not arise - save perhaps to the extent that an argument may be advanced that there were implied reservations. However, as in the USA, an important question, in relation to 'rights' widely defined, is what precisely did the tribes surrender - was it ownership of the land, its tenure, or merely sovereignty over it? Other questions relate to the authority of the contracting parties, whether they were truly *ad idem*, and whether the tribal representatives understood the terms of the contracts. What did

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[40]See Davenport (1987) 123-183.

[41]See Harris 177.

[42]A formal system of treaties with the chiefs was applied in the Cape Colony for a few years from 1833, but this was after there had already been some definition of boundaries. The treaties clarified the boundaries, laid down that customary law would be applied in the tribal territories, and provided for the appointment of diplomatic agents. The system, which was aimed at maintaining good relationships with the chiefs, proved to be unsuccessful in the long run. See Davenport (1987) 129-132.

Shaka and then Dingane intend when, between the two of them, they ceded the same part of Natal to whites no less than four times between 1824 and 1838?[43]

5.2.9 Establishment of reserves

The general policy of successive governments in the Cape was to leave tribes in possession of their lands, and this policy developed into one of setting aside, as had occurred in the USA with native Americans, reservations ('reserves' or 'locations') for the blacks (but without any rights to off-reservation natural resources). They were seen as 'necessary for the safety of this (the white) community',[44] places of protection,[45] rehabilitation or refuge, and as labour pools. The purpose of rehabilitation for dislocated tribes is suggested by the distinction drawn by Sir Theophilus Shepstone, in his map of Natal locations submitted to the Cape Native Laws Commission in 1884, between 'aboriginal tribes', 'collections of remnants of aboriginal tribes', 'tribes which entered the territory between 1812 and 1843', and 'tribes which entered Natal during the first five years after its establishment as a British Colony'.[46]

5.3 THE TRUST RELATIONSHIP BETWEEN GOVERNMENT AND THE TRIBES

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[43]In 1824 'Chaka, King of the Zulus and of the Country of Natal, as well as the whole of the land from Natal to Delagoa Bay ... in consideration of divers goods received, - (did) grant, make over and sell unto F.G. Farewell and Company, the entire and full possesion in perpetuity ....' - the grant then proceeds to describe Port Natal and its hinterland, the major part of Natal. The purchase price is not stated, no rights are reserved, and the grant is of 'possession', not ownership or sovereignty. In 1828, Shaka granted 'free and full possession' of the same area to his 'friend J.S. King, in consideration of the confidence I repose in him, of various services he has already rendered me, presents he has made,' etc. In 1836 Dingane ceded the same area to Captain Allen Gardiner, and in 1838 to Piet Retief as 'Gouvernor of the Dutch emigrant South Afrikans' for having retaken and returned his cattle 'which Sinkonyella had stolen ... for their everlasting property.' Quite obviously the Zulu chiefs had a different understanding of the transactions from that of the white people. See Davenport (1987) 109, and Documents 34 to 37 in Davenport & Hunt 19-20.

[44]See Document 27 in Davenport & Hunt 13-4.

[45]See Document 28 in Davenport & Hunt 14, part of para 24 of which reads: '...the natives appear generally to understand that their present occupations are on sufferance, and that the lands on which they may permanently reside have still to be pointed out to them. Almost all the chiefs of tribes within the district have waited upon the Lieutenant-Governor, and have unanimously expressed their desire to proceed to any lands that may be assigned to them, and their thankfulness for permission to reside under the protection of the British Government....'

[46]See Documents and Maps in Davenport & Hunt 14-5, 26-7 and 29.

The concept of trust tenure gained official recognition partly because of a perception that tribesmen were unable to understand the complexities of European tenure or to benefit from it, and partly because it was considered likely to provide more efficient land use control in the tribal areas which were becoming increasingly degraded through overpopulation, overgrazing, and the consequent removal of vegetation and soil erosion. By the 1930s the land was not providing enough food for the people. Trust tenure, with a modified traditional one-man-one-lot and communal grazing approach, resulted in farmers in the reserves (later to be known as 'homelands') not being able to subsist without off-reserve earnings. This dependence on outside income served the need for migrant labour in the white towns. Davenport & Hunt contend that '(t)he limitation of land imposed by the segregation policy had destroyed the efficiency of peasant farming by depriving it of the broad acres which it needed and might otherwise have acquired....' The trust tenure system that was finally adopted, they comment, 'involved a reversal of the trend towards individualization; it was a variant of the communal system, a form of tenancy-at-will, with control removed now from the hands of the chief and placed in those of departmental officials.'[47]

The first government controlled 'Native Trust' for land in tribal locations was created by the Colonial Office by Letters Patent in Natal in 1864. The Governor and Executive Council were its trustees, with power to 'grant, sell, lease, or otherwise dispose of the same Lands in such wise as they shall deem fit, for the support, advantage or well being of the said Natives ....'[48]

In the Transvaal the trust concept for tribal lands was adopted, pursuant to the Pretoria Convention, by Proclamation in 1881 in the following terms:

> 'To all Paramount Chiefs, Chiefs and Natives of the Transvaal. You will be permitted to buy land or acquire it in any manner, but the transfer will be registered on your behalf in the name of those gentlemen who will comprise a Native Location Commission. The Commission will delimit Native

[47]See Davenport & Hunt 32-3.

[48]See Document 63 in Davenport & Hunt 39-40.

> Locations which the great Native tribes will be able to occupy in peace. In the delimitation of these locations, existing rights will be strictly preserved, and the Transvaal Government on the one hand, and the Native tribes on the other, shall respect on all occasions the boundaries so determined. In the same way the various tribes shall respect each other's locations; and where this is not done, the injured tribe shall be able to lay its complaints before the Government of the country.'[49]

In the Cape, the Barry Commission in 1883, whilst recommending individual title for Blacks in the long term, proposed as an interim measure that 'the lands in the Territories now occupied by the tribes ...shall, by formal title deeds ...be ...vested in Boards of Trustees nominated by Government, one of such trustees in each case being a chief ....'[50]

There was no recognition of black tenure in the Orange Free State outside of the Rolong and Sotho districts of Thaba'Nchu and Qwaqwa.[51]

In the context of this discussion of the trust relationship between central government and the tribes, there are three highly significant 'modern' racially based statutes, and these will be referred to briefly in chronological order. They are the Black Land Act 27 of 1913, the Black Administration Act 38 of 1927, and the Development Trust and Land Act 18 of 1936. The Abolition of Racially Based Land Measures Act 108 of 1991 has repealed a number of racially based statutes, including the 1913 Act,[52] certain

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[49]The hostilities which ensued after annexation of the Transvaal by Sir Theophilius Shepstone in 1877 ended by the signing of the Pretoria Convention in 1881. This was superceded by the London Convention in 1884, but it was a term of both conventions that Blacks would be allowed to acquire land only on the basis that such land would be registered in the name of the Commissioner for 'Kaffir' Locations. The London Convention envisaged that land could be acquired by tribes, but would have to be held in trust for them, as individuals were prevented from holding property because of the terms of an early Volksraad Besluiten of 1855. (That VRB was repealed by Proclamation 34 of 1901, and it was decided in *Tsewu vs Registrar of Deeds* 1905 TS 130 that there was as a result no law in the Transvaal which prohibited natives from owning fixed property.) Such trust land became treated as Crown land when the Commissioner for Native Affairs took over the functions of the Native Location Commission after the demise of the South African Republic in 1900. See Davenport & Hunt 31 and 40, the quoted extract in the text which follows being Document 64 at 40.

[50]From the Report of the Cape Native Laws Commission, 1883, presided over by Sir JD Barry, Judge President of the Griqualand West Court. See Document 59 in Davenport & Hunt 37.

[51]See Davenport & Hunt 31, and Davenport (1987) 447.

[52]Section 1 of Act 108 of 1991.

provisions of the 1927 Act,[53] and the 1936 Act.[54] To some extent, therefore, this trilogy of statutes is only of historical interest; but their influence on the relationship of state to tribal communities and on tribal tenure systems was so great, that they must be taken into account in considering traditional rights to the land and wilderness in South Africa.

Soon after Union in 1910, the general policy of segregation became effective law in terms of the Black Land Act 27 of 1913, which provided for 'scheduled areas', in essence the existing reserves, for exclusive black occupation. In 1927, the Black Administration Act 38 of 1927 was passed, section 1 of which constituted the State President the Supreme Chief of all blacks in South Africa. In 1936, the Natal model of a central government trust, which differed from the Cape approach of localised trusts in which chiefs had a role to play as trustees,[55] was applied throughout the Union of South Africa by the Black Trust and Land Act 18 of 1936.[56] The 1936 Act was an extension of the 1913 Act in the sense that it provided for 'released' areas (areas released for Black occupation) to be added to the 'scheduled' Black areas created in the earlier statute. The State President was authorised to declare such areas by proclamation, or to add to or subtract from them, or to declare any area to cease to be a released area. The further lands 'released' for black occupation resulted in an increase in the size of the black areas from about seven to thirteen percent of the surface area of South Africa.[57]

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[53]Section 5 of Act 108 of 1991.

[54]Section 11 of Act 108 of 1991. Section 12 (1), however, makes provision for the repeal of various sections of the 1936 Act only to come into effect on dates to be fixed by the State President by proclamation in the *Gazette*. Section 12 (2) grants certain powers, relating to such matters as the transfer of the assets of the South African Development Trust and the assignment of the performance of the services performed by it, to the State President to enable him to bring about a 'phasing out' of the Trust.

[55]See Davenport & Hunt 39.

[56]Subsequently entitled the Development Trust and Land Act.

[57]These percentages are those accepted by most commentators. See, for example, Buthelezi 106 and Robertson 123. Ackerman 263, however, makes a point in relation to the disproportion of 80% of the population occupying 13% of the land which should perhaps be noted, but only in passing as the fact remains that the 13% reserved for blacks became grossly overpopulated. He points out that South Africa has a large semi-arid to arid interior with a small area along the eastern southern coast which is well watered, and that

The 1936 Act also established the South African Bantu Trust (now the South African Development Trust), a corporate body, the sole trustee of which is the State President (with power to delegate his functions to the relevant minister). The trust is stated as being established 'for the settlement, support, benefit, and material and moral welfare of the Bantu of the Republic'.[58] All State owned land earmarked for occupation by blacks, including scheduled and released areas, vests in the Trust.[59] Where land is withdrawn by the State President from a released area, the State must give land of an equivalent pastoral or agricultural value in exchange. The Trust can also acquire land and has powers of expropriation.[60] The trustee may in accordance with prescribed regulations grant, sell, lease or otherwise dispose of property of the Trust to blacks.[61]

The powers relating to land allotment and utilisation that formerly vested in the chiefs are now exercised by central government. The State President is not only the Supreme Chief of all tribesmen, he is also the trustee of the trust fund, the *corpus* of which is all the land and assets vesting in the South African Development Trust. The beneficiaries of the trust are the tribes in the reserves (or homelands or Bantustans). This trust relationship, with all the fiduciary responsibilities implied in such a relationship, was deliberately created and assumed by the state as sovereign, and is in many respects similar to the trust relationship between the federal government of the United States and native American tribes, which has been described as that of guardian to ward, discussed in the previous chapter.[62]

'if you look at the map of South Africa showing rainfall and you were to superimpose a map showing the black homelands, you will find that with the single exception of Bophuthatswana, these are located in the higher rainfall parts of the country.'

[58]Section 4.

[59]Section 6.

[60]See s 13.

[61]Section 18(2).

[62]There is a distinction between a trust in the law of property and a trust in the law of sovereignty, but in the final analysis nothing of any great significance turns on this distinction for the purposes of this discussion, save to record that a sovereign is not legally bound (although it may accept ethical responsibility, and pragmatically must respond to public opinion) by the strictures imposed on a trustee in the law of property. The concept of trusts in the law of property comes to us from English law, in which there is trust ownership

5.4 INDIVIDUAL TENURES BEFORE AND AFTER THE 1969 REGULATIONS

Before 1969 communal, freehold, quitrent and trust tenures were all to be found in the reserves,[63] a potpourri almost equal in its complexity to the admixture of introduced European tenures referred to above. In 1955, the Report of the Tomlinson Commission contained the following relevant findings and recommendations:

> 'A revision of the systems of land tenure is regarded as one of the prerequisites to the stabilisation of the land in the Bantu Areas and the full economic development of their potential. ....
>
> The principle of 'one-man-one-lot' ...reduces every Bantu to a low level of uniformity with no prospects of expanding his activities nor of exercising his initiative. It is essential to make opportunities for the creation of a class of contented full-time Bantu farmers with holdings of sufficient size to enable them to farm profitably and to exercise their initiative and to develop according to their individual ability and resources. The abolition of the 'one-man-one-lot' policy is accordingly recommended, but care should be exercised to avoid the centralisation of all the land in the hands of a few individuals i.e. to avoid the creation of a class of land barons ....'[64]

The Union Government's reaction to these recommendations was that it was 'not prepared to do away with tribal tenure of rural land and to substitute individual tenure

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(bare *dominium* or conduit function) and beneficial ownership. Kerr (1953) 36 quotes an English decision (*The Civilian War Claimants Association Ltd v The King* 1932 AC 14) in support of the proposition that trusteeship in the law of property does not apply to a sovereign unless the sovereign deliberately chooses to act as a trustee. The State President as trustee is responsible to parliament and not directly to the public or individual beneficiaries, and does not have to account to them. Kerr concludes that the Trust is a trust in the law of sovereignty and not in the law of property. An important consequence of this conclusion is that ownership of land by the Trust does not exclude an African acquiring rights under African law over the land. Traditional African law and custom co-exist with African statutory law. Kerr argues at 38 that one must therefore start from the principle that the allotment of land to tribesmen is the grant of ownership in African law to the allottee. However, it must be borne in mind that this book, Kerr (1953), was written before the 1969 Regulations which are referred to in the text below and which deem all grants to individuals to be grants of quitrent title. See also Kerr (1976) 74-80, where the argument is maintained, on the basis of certain South African cases, that 'ownership' is the correct term to apply to the individual's right to both residential and arable land *in customary law*.

[63]See Document 84 'A field investigation into the effects of different kinds of land tenure on African village life, 1949' in Davenport & Hunt 52.

[64]The full title of the Tomlinson Commission was 'Commission for the Socio-Economic Development of the Bantu Areas within the Union of South Africa'. See Document 85 in Davenport & Hunt 53, being extracts from the Summary of the Report of the Commission, from which the quotation in the text is taken.

based on purchase, nor (was it prepared) to give preference to individual acquisition of land above Tribal and Trust purchase in the released areas.'[65]

Although perhaps partially or wholly inspired by political or economic motives, the following two ministerial statements extracted from parliamentary debates are consistent with what is being mooted in this chapter, namely the accommodation within our legal system of tribal cultures and traditional rights for so long as the tribal people themselves desire their retention.

The Southern Rhodesian Minister of Lands in 1969, after referring to the 40 million acres, out of the total area of Rhodesia (now Zimbabwe) of 96½ million, reserved for use by tribesmen on a communal basis:

> 'I think that we can fairly claim ...that we in Rhodesia have done rather more and better than the founders of America or the pioneers of Canada, to set aside reservations where the indigenous people could continue to enjoy their traditional style of living until such time as they were ready to play their full part in a modern economy.'[66]

The South African Minister of Bantu Administration and Development[67] in 1971:

> '...land ownership outside the towns is communal.... They are tribal communal tenants. ...to abolish the system of communal tenants would drastically affect the Bantu tribal traditions and systems of government. ...their tribal system of government is based on the concept of land tenure. It is a very important matter....'[68]

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[65]See Document 86 in Davenport & Hunt 53.

[66]See Document 89, being extracts from 1969 *Southern Rhodesia Legislative Assembly Debates*, in Davenport & Hunt at 55.

[67]Subsequently the Minister of Plural Relations and Development in terms of s 17(1)(b) of the Second Black Laws Amendment Act 102 of 1978.

[68]See Document 87, being extracts from 1971 *House of Assembly Debates*, in Davenport & Hunt at 54.

In 1969 the Bantu Areas Land Regulations were published.[69] All trust land was placed under the control of the Bantu Affairs Commissioner.[70] His permission was required for occupation of any portion of land. Chapter 3 provides for common use of commonages, subject to reservation of mineral rights to the Trust. The Commissioner may issue permits for temporary residence thereon. All trading, arable, residential and farming lots are declared, in effect, to have been granted under quitrent title.[71] Provision is made for the survey of new arable and residential lots, the extent of which, however, is not to exceed four morgen and half a morgen respectively without 'special approval'.[72]

The essential thrust of the 1969 Regulations is the transfer of traditional tribal authority and control to state officials, although there is some provision for consultation with the tribe. For example, the Commissioner may grant permission for residence on arable lots, after consultation with the tribal or community authority, or the headmen and residents of the area.[73] The sections dealing with enquiries into the distribution of arable and residential allotments also make provision for consultation with the chiefs or headmen concerned.[74] When an allottee dies, his allotment, arable or residential, devolves on his heirs, failing whom, on some other person determined by the Commissioner giving formal notice to the chief or headman to call a public meeting for the purpose of re-allotment[75] (testate succession is prohibited[76]). Residence in excess of three months by black visitors not domiciled in the area is prohibited, and permanent residence

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[69]Proc R188 of 1969, GG 2486.

[70]Chapter 2, s 5.

[71]Chapter 4, s 13.

[72]Section 14.

[73]Section 19.

[74]Sections 48 and 49.

[75]In terms of s 53.

[76]Succession to quitrent land in terms of s 35 is as per Annexure 24 to the Regulations.

requires the Commissioners's permission - it is the duty of the chief or headman to report contraventions.[77] Within their areas of jurisdiction, tribal and community authorities, or chiefs if such authorities have not been established, are given power to investigate and settle, administratively, disputes relating to occupation, grazing or commonage rights, subject to a right of appeal to the Commissioner.[78]

The annual quitrent stipulated is nominal,[79] and the Commissioner may, paternalistically, waive payment in certain cases of need (for example mental illness, leprosy, and tuberculosis). On application a holder may redeem the quitrent by paying twenty times its annual amount, which raises the question whether redeemed quitrent amounts to individual ownership. The extent of official control is indicated by various other provisions which determine, *inter alia*, that the consent of the Commissioner is required for any transfer, mortgage, lease or other disposal of quitrent land to a black, and the consent of the Minister if to a non-black.[80] The Minister's consent is also required for subdivision, or for more than one person holding the land. There are many other provisions in similar vein, too numerous to discuss. The overall effect of the regulations has been total state assumption of authority and therefore, it is submitted, trust responsibility for the welfare and culture of tribal communities.[81]

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[77]Section 64.

[78]Section 67.

[79]Originally ranging from 25 cents to R1.50, increased in 1979 by Proc R48 to range from R1 to R3. See s 17 and Annexure 8.

[80]Section 20.

[81]Other examples of all-embracing official control are the following. Section 25 provides for appropriation of quitrent land or termination of rights, subject to payment of compensation. The compensation under s 30 is an alternative site if available, or money. Improvements may be removed under s 34 provided that this is done without damage to the land. Section 41 provides for land titles registries in the offices of the Commissioners. Section 62 provides for advances to blacks from Trust funds for the purchase of freehold and quitrent title. This reference to freehold appears to be to ch 2 which deals with grants of land for church, school or mission purposes. The conditions of title to land are set out in the annexures and provide, even in the case of the grant of church lots, for reversion to the Trust for failure to comply with the conditions. Chapter 5 of the Regulations provides for allocation of unsurveyed lots to individuals under 'permission to occupy'. See Kerr (1976) 88-101 for discussion of this form of tenure.

It is beyond the scope of this work to discuss the precise nature of the individual tenures created by the statutes and regulations referred to above. They do have some resemblance to the *emphyteusis* of Roman Law in their treatment of occupiers substantially as proprietors or owners.[82] There is also some similarity to Cradock's perpetual quitrent referred to above. The emphasis on occupation rather than ownership is more consistent with the approach of customary law. It represents a shift away from Roman Law toward feudal concepts, or at least the notion that people do not own the land but enjoy an estate or time in it subject to conditions imposed in the interests of society, or a section of it. The system also bears some similarity to land law in the Soviet Union.[83] However, it is not important for the purposes of this discussion to find the correct legal label for tribal land holdings. What is important to note is the extent of state intervention, first by redistribution of the land on racial lines and, secondly, by substitution of the tenures referred to above for tribal systems and land law. The social and environmental consequences of such intervention have been disastrous. There may have been some justification in the past for imposition of near-total state control over peasant farming methods, and there is no doubt that the system did serve to provide the migrant labour required in the white towns. There is now an urgent need for an entirely new paradigm. The state must discharge the trust responsibility that it assumed by donning the mantles of guardian and 'supreme chief' of the tribes. Within that paradigm must be accommodated the recognition and protection of tribal cultures and their traditional laws in rural areas, for so long as the tribal communities themselves desire that recognition and protection, and until such time as they may become assimilated into the greater South African society. This cannot be achieved without effective protection of the environment on which they depend, including the wilderness resource.

5.5 MAPUTALAND: AN ILLUSTRATION

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[82]See Kerr (1953) 38-9, and Kerr (1976) 92-3.

[83]In both systems land is essentially *res extra commercium*, incapable of commercial alienation. See Osakwe 147.

5.5.1 Introduction

KwaZulu is that part of South Africa which has been set aside under apartheid laws for occupation by the Zulu nation. The distribution of land, which took place mainly during the nineteenth century, produced 48 larger blocks and 157 smaller areas being incorporated into KwaZulu. In terms of the 1975 consolidation proposals, these various fragments were combined into ten areas, four relatively large and six small, the northernmost large area being Maputaland.[84] Although KwaZulu is legislatively substantially independent of the Republic of South Africa as far as laws relating to the conservation of natural resources are concerned,[85] in the current volatile political situation in South Africa it is more than likely that its status as an independent homeland will change. In that event, the provisions of a South African national Wilderness Act, if promulgated, will be applicable to the region. If not, because of the close liaison which exists between the official conservation agencies concerned, the likelihood is that similar legislation will be enacted in KwaZulu. In either event, this discussion of the situation in Maputaland is directly relevant to the topic of statutory wilderness in South Africa.

Maputaland has also been chosen for illustration of the principles and arguments presented in this work because it clearly reflects the dilemmas posed by conservation and development in the third world. It has been described as 'a microcosm of Africa's problems - rapidly increasing human populations, lack of firewood, emigration of able-bodied workers, rural poverty, a decrease in grassland quality and dwindling biotic diversity.'[86] No two wilderness areas are the same, and any such areas set aside in Maputaland will require different treatment from wilderness areas set aside, for example, in the Drakensberg mountains or in the Cape Province, insofar as such matters as visitor

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[84]See Bruton (2) 498.

[85]KwaZulu is a self-governing territory - Proc R 69 of 1973. In terms of s 30(1)(a) of the South African National States Constitution Act 21 of 1971, the legislative assembly of a self-governing territory is empowered to legislate in respect of matters enumerated in Schedule 1 of the Act. Items 8 and 31U of that schedule are 'Nature conservation' and 'Conservation of the environment' respectively.

[86]Bruton (1) xvii.

access and buffer zones are concerned. However, the basic principles and propositions discussed below will be relevant to all South African wilderness areas.

At the request of the KwaZulu Government, the area which was previously known as 'Tongaland' is now referred to as 'Maputaland'. It is located in northeastern Zululand, and is bounded in the north by the Mozambique border, which is immediately to the north of the Kosi chain of lakes, in the east by the Indian Ocean, in the south by St Lucia estuary, and in the west by the western scarp of the Lebombo mountains.[87]

Maputaland is an isolated, underpopulated (210 000 people), poor, rural area. It is administered both by the KwaZulu government and the South African Department of Development Aid (the latter having jurisdiction over state land in the Ubombo district, Ubombo and Ingwavuma towns, and the 'Admiralty reserve' between Sodwana Bay and the border with Mozambique), and this divided administration has contributed to the lack of services and infrastructure in the area. The people of Maputaland were never conquered by the whites, and no lasting treaties were entered into.[88] They were simply dispossessed of the land by declaration that it was Crown land. The population depends largely on subsistence agriculture and access to the regions's wealth of natural resources (a species diversity of over 3 000 plants and animals, which exceeds that of the Kruger National Park which is three times its size). Only 28% of the adults are functionally literate. The tourist potential of the area is exceptional. It has been described as a natural wonderland, having both national and international significance,[89] and the plants and animals of the region as forming 'one of the most interesting, valuable and diverse biotas in southern Africa.'[90] The area also has substantial agricultural potential,

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[87]Bruton (4) 536, and see Landsat photograph in Bruton & Cooper xvi.

[88]The Thonga Queen Zambili had granted a concession to the Kosi Lakes to G Bruheim, a German trader, and in 1887 sent him to negotiate a treaty with the British. A treaty was provisionally signed in 1887, but the following year she withdrew her request. See Bruton, Smith & Taylor 443, 453 and Bruton & Cooper 534.

[89]See CORD 5-8.

[90]Bruton (2) 497.

although it is considerably degraded at present.[91] Overpopulation and poor veld management have resulted in the 'sweetveld' pasturage of the Makatini Flats, for example, being reduced by overgrazing, the effect of which has been widespread soil erosion and the spread of mixed sourgrass and dense scrub. This has been compounded by reduction of vegetation cover through removal of trees for fuelwood and building, and the burning of dung and crop residues which would otherwise have regenerated the soil.[92]

The purpose of this discussion is to demonstrate that it is essential that the people dependent on these resources, natural and agricultural, be directly involved in their development, management and controlled utilisation. The goal should be an holistic and integrated environmental and agricultural management policy.[93] A contribution towards

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[91]According to the KwaZulu Bureau of Natural Resources, 80% of the tribal forest reserves in KwaZulu have been destroyed completely, or damaged so severely that they will never recover, or will only recover with vast injections of money and ecological expertise. However, the major forest areas such as Ngoye, Ngome, Qudeni and Nkandhla are still preserved intact and will provide living laboratory facilities and a source of genetic material for any future plans to revive despoiled indigenous forest areas. See Greig 137.

[92]See CORD, and Bruton (2) 500-3 who writes:

> 'Despite the fact that most of Maputaland lies on low nutrient, saline marine sediments, large areas are considered to have high agricultural potential due to the favourable bioclimatic conditions. ... High standards of farming and soil conservation are, however, imperative. Although these coastal soils need correct and judicious fertilising, some of the most important soil-related problems are physical in nature (low moisture capacity, shallow depth, poor drainage, high erosion risk etc; ...). On the whole grazing is of poor quality and the veld is much despoiled by heavy stocking. Nguni stock cattle are considered to be better adapted to this bioclimatic zone than exotic breeds. ... As a result, a bioclimatic region which has great potential for cattle and game ranching and for field and horticultural crops under irrigation is nearly ruined. Future development plans will first have to concentrate on the reclamation of denuded areas, the protection and re-establishment of pasture species on lands withdrawn from cultivation and the development under guidance of a correct system of land use.'

On a global scale, it has been estimated that fuelwood scarcities in 57 developing countries affect more than one billion people; that this scarcity compels farmers to burn about 400 million tons of animal dung a year; and that if this dung were used to improve soil fertility instead, grain production could be about 20 million tons a year more. See Repetto 73 and World Resources Institute 68.

[93]Bruton (2) 504 suggests that

> 'Many of the problems related to agriculture in Maputaland could be overcome by integrating agricultural and environmental management. Furthermore, bold steps may have to be taken, such as the restructuring of the social community, the restriction of human population growth, the reservation of certain areas for winter grazing only, the withdrawal of some lands from cultivation, the establishment of woodlots, strict control of the cutting of indigenous trees, and an extensive education and interpretation service. Short term schemes to supply immediate needs for fuel, food and shelter will have to be implemented in the meantime.'

See Bruton (2) 504-7 for reference to forestry and fishery potential.

that goal would be formal recognition of the aboriginal tenure and special harvesting rights of the inhabitants of the area, notwithstanding any legal constraints on access to those resources which may be imposed on other persons,[94] by accommodation of those rights within the national legal system. The Wilderness Act proposed in this work must be designed so as to be consistent with this approach.

5.5.2 Historical background

The southward migration of the blacks into the general Tongaland area (roughly the northernmost portion of Natal KwaZulu and southernmost portion of Mozambique) took place at an early date, variously estimated, on the basis of archaeological evidence, as being between the second and fifth centuries AD.[95] Although there is some doubt about the precise dates and migration patterns of the southward movement of black people from equatorial Africa, there is little doubt that Maputaland experienced very early human habitation. Excavations from the Border Cave archaeological and palaeontological site in the Lebombo mountains have revealed implements from the Middle and early Late Stone Age, and human remains from the Middle Stone Age. By the year 290 AD, Iron Age people were living in Maputaland, and charcoal from an iron-smelting furnace found in Ndumu game reserve has been dated about 630 AD.[96]

When the sea retreated from the lowlands, it left coastal plains which provided an important route for the migrant blacks, and wet, warm conditions more conducive to settlement than the drier west coast. Modern pastoral and agricultural man with knowledge of iron and pottery working, for example, reached Mkuze game reserve by about 1450. The indigenous people of Maputaland are a mixture of the Nguni and Thonga branches of the southern Bantu. The Tembe clan is one of the largest Thonga clans, having settled in the vicinity of Delagoa Bay in Mozambique by 1554, before

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[94]This suggestion has been made by the writer before. See Glavovic (1986) 117-121, and Glavovic (1988) 60-1.

[95]See Davenport 7-12.

[96]See Bruton, Smith & Taylor 432-4, 513 and the further references given there.

moving southward. Today they are to be found on both sides of the border.[97] Over time a number of sub-clans formed. Other Thonga clans in Maputaland are the Mabaso, Manukuza, Mashabane, Mnqobokazi, Myeni, Nibele, Siqakati and Zikali, some of whom migrated from the Pongola area south of Swaziland during Dingaan's reign in the early nineteenth century, and others from the hinterland of Delagoa Bay. Because of fever and the infertility of the lowlands, the expansionist militarism of Shaka and Dingaan (1816-1840) did not affect these areas to the same extent as the rest of Zululand, although they were conquered by the Zulu invaders, and they enjoyed relative calm, as a result of which other Zulu and Swazi groups also settled there. The amaThonga still adhere to many of their social and cultural traditions, but their way of life has been affected by contact with these groups and, of course, by white influence.[98]

The name 'Thonga' was given to the people of the region by the Zulus, and one explanation of the word is that it means a conquered or subject people, because of which derogatory sense many Thonga men prefer to call themselves Zulus.[99] It is also said to derive from 'Ronga' meaning the east, which in turn comes from 'buronga' meaning the dawn.[100]

In 1871, a schooner, which was registered in Britain, anchored in the Maputo River to pick up an early pioneer trader, D Leslie, and the ivory, hides and other goods which he had traded from the Thonga King Noziyingili. It was seized by a party of Portuguese sailors. The result of this incident was a dispute between Britain and Portugal about the right of passage on the Maputo River and the control of Mozambique south of Delagoa

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[97]There are Thongas in Natal in Maputaland, in the Transvaal in the Lydenburg, Zoutpansberg and Waterberg districts, in Zimbabwe on the border of Mozambique, and in Mozambique in the Maputo, Inhambane, Manica and Sofala districts or provinces. The amaThonga are also sometimes referred to as the Tembe-Thongas or Rongas. See Torres 460-1.

[98]See Bruton, Smith & Taylor 434-7.

[99]The derogatory implication is part of the reason for the name 'Tongaland' falling into disfavour amongst the local inhabitants and not being recommended by the KwaZulu government. It would also be an inaccurate description of the area because the Thonga tribe is distributed from Lake St Lucia northwards across the Mozambique border to the Sabi River (see Bruton & Cooper 534).

[100]Torres 460, citing H A Junod *The Life of a South African Tribe* (1962).

Bay. The dispute was resolved in 1875 by arbitration. The arbitrator was Marshall McMahon, President of France, who awarded all the disputed lands to Portugal. The effect of the McMahon Award was to cut the southern clans of the Thonga tribe in half. The Maputaland area south of the present border was proclaimed a formal protectorate by the British Crown in 1895, and was annexed to Zululand in 1897. In December 1897 the whole of Zululand, including Maputaland, was incorporated into Natal. For some time the two Maputaland areas were known as Portuguese Maputaland and British Maputaland respectively, but the former name is no longer used, and 'British' has been dropped from the latter.[101]

5.5.3 Tribal culture, structure and disruption

The amaThonga have had contact with Europeans over a period of four hundred years. Early Portuguese chronicles disclose that Delagoa Bay was discovered by the crew of a ship which lost its way en route to India. They found a large settlement of 'negroes' with whom they traded. In 1545 the bay was explored by a merchant whose name was given to the town that developed there, Lourenço Marques (now Maputo), and since then the native people have had contact and trade with various nationalities, but for most of that time without any marked changes to their traditional cultures and way of life. Today, because of a variety of influences, such as intermarriage and the official languages in schools having been English and Zulu for many years, the amaThonga refer to themselves as Zulus and are in danger of losing their separate cultural identity. Their language is still being kept alive, but mainly by the women and pre-school children. In spite of all these influences, they still preserve their traditions and customs 'to a remarkable extent.'[102]

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[101]See Bruton, Smith & Taylor 441-3, 453 and Bruton & Cooper 533. At the beginning of the twentieth century there was virtually no white settlement in Zululand apart from 89 storekeepers, 72 mission stations, and a few squatters, but after the Anglo-Boer War (1899-1902) the Zululand Lands Delimitation Commission of 1902-4 set aside reserves for Blacks and opened up other areas, including land 'coveted by white entrepreneurs, largely for the purpose of growing sugar', for European occupation (Davenport & Hunt 29).

[102]The extent to which those traditions and customs have been determined by their environment is well illustrated in the following extract from Torres 460-2:

> 'The amaThonga ... are divided into a number of independent chieftainships, like the Zulus were before Shaka united them under a paramount chief. Unlike the Zulus, the clan structure has persisted

The amaThonga chief is the head of his clan or tribe, but exercises less direct control over his clansmen or tribesmen than his Zulu counterpart. He appoints headmen, *izinDuna*, who are more directly involved in administration, usually a member of his family to head a district, or someone from one of the original families in the area to be in charge of a sub-district. Permission to settle in a district is required from both the relevant sub-district and district *izinDuna*. Although not officially constituted or recognised, the district *inDuna*'s court is the effective judicial forum of the amaThonga. The Chief's Court, which consists of the chief and his councillors, is the court of appeal. The *inDuna* also exercises considerable local legislative power, but is answerable to the Chief's Court, or Tribal Authority. Many *izinDuna* are *sangomas* (diviners) as well as political, legislative and judicial functionaries. They also control fishing rights and access to other natural resources. The Tribal Authorities are answerable to the Regional Authority, which is represented on the KwaZulu Legislative Assembly. For any conservation or development proposal to succed, it needs popular support, which means that there should be consultation with and participation by *recognised* representatives of the people (*ie* recognised by the people themselves) at every level of this hierarchy of traditional authority.[103]

5.5.4 Harvesting of natural resources

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as a functional feature of their social structure up to the present day. Although these clans from the beginning of the nineteenth century were overrun by groups of Nguni-speaking peoples of Zulu and Swazi origins, they were neither exterminated nor completely assimilated into the traditional social and political systems of their conquerors. The amaThonga retired farther into the bush and floodplains where ecological conditions were such as to compel those who settled there to adopt a particular way of life, i.e. to plant their crops close to the ox-bow lakes formed along the course of the Pongolo River, and near the small lakes or pans which resulted from the periodic flooding of the area. The people resorted to fishing to obtain one of the main sources of protein. They practised a form of shifting horticulture on the banks of pans, or during droughts even on the beds of alluvial soil exposed when lack of flooding or rain caused part of the pans to dry up. Crops were often swept away by flash floods. In the Mosi swamp zone which stretches down the length of central Maputaland, the amaThonga retired into places that were difficult of access and unattractive to their Zulu invaders.'

[103]See Torres 462-3, and Bruton (3) 531.

The amaThonga depend on and make good use of their natural resources. Athough they make use of domestic stock and crops, they still rely on indigenous food sources.[104] The three main ecological zones of Maputaland are the Makatini Flats, the Mosi swamp and coastal zone, and the Pongolo floodplain.[105] The pans provide food in the form of fish and water plants, as well as drinking water and building materials (reeds and sedges). The amaThonga practise subsistence agriculture, trap game and graze their stock on the floodplain. Their major source of protein is fish, around which several of their cultural traditions revolve. Two examples of their subsistence fishery practices are *fonya* (thrust-basket fishing) and *utshwayelo* (fish kraals). Headmen, in consultation with the *sangomas*, organise *fonya* drives in which hundreds of people participate.[106] At Kosi Bay there is a network of *utshwayelo*, fences made from local materials with valved traps, which depend on the tides and seasonal movements of fish in the system, and which provide fish throughout the year.[107] The traditional capture methods of the local people ensure a sustained yield of the fishery resource, but population pressure, social

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[104]The traditional dietary habits of the amaThonga are such that fish remains an important source of protein for them. They consume livestock meat primarily on ceremonial occasions. Although not strictly observed, the consumption of eggs, milk and red meat by women and children is a traditional taboo, and lack of animal protein in their diets may be a contributory factor in the incidence of 'Mseleni joint disease', an unusual form of arthritis which occurs in the Mseleni area near Lake Sibaya. See Bruton (3) 525, and Fellingham & Lockitch 480-7.

[105]Apart from its natural beauty, scientific interest as the southern distribution limit of several tropical aquatic organisms, and importance as a winter feeding ground for a large number of waterfowl, the Pongolo floodplain is regarded as being 'of immense importance in the subsistence economy of the local inhabitants.' See Heeg, Breen & Rogers 379 and Torres 464-6.

[106]See Wood 249-252, and Merron 116.

[107]The fish kraals or traps of the Kosi system are a good example of the way in which the inhabitants of a natural area as a group may receive preferential treatment by being exempted from the conservation laws applicable to all other persons. The estuary is an important nursery area for a large number and variety of marine fish species. They enter the system to spawn, seeking food and relative safety from predators. The fish kraals are designed in such a way that the fish are not obstructed in their entry into the system. However, on their way back the bigger fish are trapped in the kraals, which are made from local natural materials and are designed in such a way that the smaller fish may pass through the traps. A kraal is usually handed down from father to son, and the building of new kraals is strictly controlled - permission must be obtained from the family in whose area the proposed site lies, and also from the kraal owners on either side. The local induna or headman must also be consulted. Although the kraals constitute an obstruction to the free passage of fish, they are the traditional fishing method and it has been demonstrated that they represent a form of controlled exploitation which does not have any serious long term effects on the fish populations. As such, they are and should be exempt from any nature conservation laws which would otherwise prohibit such obstruction. They provide an essential source of protein for the local people in an area which lacks arable soils and employment opportunities. See Kyle 186-7.

disruption, environmental degradation, and outside influences are producing changes which are threatening the old balance, and fishing practices will have to be monitored in the future.[108]

There is still game outside of proclaimed reserves, which is trapped with snares or hunted with spears and dogs. Species utilised include nyala, common reed buck, bushbuck, duiker, bushpig, cane rat, scrub hare, porcupine, and vervet and samango monkeys. The meat is used for food and the hides for clothing and for making drums and other musical instruments. The *nanga* is a flute made from the tibia of a goat or other animal, and the *timbalambala* trumpets are made from antelope horns. Music and dancing play an important role in the lives of the amaThonga. Most birds are eaten, and various traditional trapping methods are employed, but air-guns are now also being used. Tortoises, sea turtles, and occasionally monitor lizards are also eaten. Crocodiles and snakes are used for medicinal purposes. Insects are also utilised. Flying ants, locusts, various large caterpillars and borer larvae are all eaten, as are honey and bee larvae. Termitaria are used for walls and floors in the construction of huts, and thatch grasses for roofing and mats. The Kosi Bay raffia palm is used in the construction of huts and rafts, and for making baskets, mats and ropes. The ilala palm is also used for baskets, mats, and binding material, and is tapped to provide a nutritious alcoholic beverage, *ubuSulu* wine. These are some of the age-old customary uses to which the indigenous people put the natural resources of Maputaland.[109] It is abundantly clear that they and their culture are dependent on wilderness and direct access to natural resources.

Because proclaimed nature and game reserves require boundaries, and usually fences, game becomes artificially concentrated and this results in the culling of some species. To the extent that culling is necessary, it should be properly provided for in a management plan for the area; but should also relate to the needs of local populations.

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[108]In addition to traditional methods of fishing, multifilament gillnets and rods are becoming increasingly used. See Torres 464-5, Bruton (2) 505-6, and Pooley 469.

[109]For further discussion of the traditional practices of harvesting natural products and the extensive use of indigenous fruits and vegetables, see Rogers 74, Bruton (2) 507, 522-3 and Torres 464-473, and 473-8 for a list of the uses of various plant species by the people of Maputaland.

A good example of sensitivity to local needs is the institution by the Natal Parks Board some years ago of a system of regular hippopotamus culling at Lake Sibaya to maintain population stability and reduce damage to nearby crops - the meat was given to the local *inDuna* for distribution amongst his clansmen.[110]

5.5.5 The need for local participation

It has been said of the Zulu people that they 'have a tradition of understanding nature. Their conservation awareness goes back to the foundations of their society. Because they lived close to nature, they lived in harmony with it and a balance was maintained beween man and his environment.'[111] A Zulu elder has expressed it as follows:

> 'KwaZulu was once a land full of wild animals like the elephant, rhino, kudu and crocodiles. We lived with and knew these animals. ...I know the white rhino very well as I was born amongst them. This animal is highly respected by our people. ...We did not kill the animals without permission from our traditional king, King Dinizulu. He did not allow people to kill the animals and any person caught was severely punished. ...I think it is a very good thing that we should stick to the old traditional ways of living so as to protect the future for our children, so that our children will understand what a wild animal is. ...I understand the plants and the animals, birds and insects. I can tell when rain is coming. All this knowledge is in my blood. ...We once had a way of living in the world and knowing what was happening on the land. We were in tune with all that lived and sang.'[112]

Conservation programmes should draw on traditional wisdom. It would be foolish not to do so. Local participation in natural resource management and development should occur at three levels: determination of the boundaries of protected natural areas (including wilderness), preparation and implementation of management plans, and sharing in the income generated from tourism and related activities. The notion that local communities should participate directly in the long term planning of natural areas

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[110]See Pooley 468. Hippopotamus meat provides much needed animal protein to the local people.

[111]Steele 115.

[112]See Ntombela (87 years old and 'a living repository of the ancient oral tradition of his people' - editor's note) 288-291.

is not novel.[113] What is being proposed in this work is that their participation rights be legally entrenched and not left to administrative policy, as policies can and do change with changes of administrations, and even within administrations.

In a careful review of conservation and development in Maputaland, Bruton draws the following important conclusions, which are directly relevant to these submissions:

- 'It is ... clear that economic growth cannot be sustained by Zulu or Thonga society in its traditional pure form. The people will have to lose some of their traditional norms and values in the interest of economic growth. It is important, however, that this process of change is not too rapid, and that traditional social groupings, such as the family and the clan, remain intact and play a role in the decision-making and development process.'

- '... it is clear that the proper management and development of the living resources of the area has a crucial role to play in the economic betterment of the people. This conclusion is supported by the strong indications that wilderness-orientated tourism, in association with specially protected areas, will provide a vital economic input into the area. Any conservation or touristic initiatives will however, have to take into account the needs and aspirations of the local people, and every effort would have to made to ensure that the economic benefits reach grass-roots level.'[114]

5.5.6 Policy and the need for effective legal regulation

The KwaZulu Nature Conservation Act 8 of 1975 provides that 'twenty-five percent of all fees or charges collected in respect of any authorization issued in terms of this Act shall accrue to the Tribal Authority in respect of whose area such authorization was issued.'[115] Authorisation is required, for example, for the hunting of 'any exotic or

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[113]In 1978, for example, the following statement was made by B Huntley 'Ecosystem Conservation in Southern Africa' in M J A Werger (ed) *Biogeography and Ecology of Southern Africa* (1978), quoted by Bruton (2) 516:

> 'Perhaps the most important recent advance in conservation thinking in the African context has been the realization that the active and economic participation by local human populations is essential to the long term planning of any national park.'

[114]Bruton (2) 510-1.

[115]Section 2(2).

other wild animal'.[116] There is thus some legal prescription for local participation in conservation; but because it is limited, it is necessary to consider the nature and effectiveness of official conservation policy, as opposed to law, in KwaZulu.

In 1971 Chief Buthelezi stated at an international wildlife conference in Texas in the United States: 'I visualise the establishment of national parks, in which people also live with respect for the biotic community.'[117] The KwaZulu Bureau of Natural Resources was established in 1981, and reports directly to Chief Minister Buthelezi. In 1987, the Director of the Bureau delivered a paper at the Fourth World Wilderness Conference held in Colorado, United States, which was important for two reasons: first, because it was a formal and responsible declaration by a senior government administrator to the international community of official conservation policy, and secondly, because of the sound principles contained in the statement.[118] The statement will be referred to in some detail hereunder, not only because of the soundness of the principles stated as having been adopted in KwaZulu, but because there is some controversy about the application of those principles and declared conservation policy. The very fact that there is controversy, whatever its merits, supports the suggestion that policy in such vital matters should, as far as is practically possible, be converted into appropriate legislation. The Director stated:

> 'The necessity of establishing the bureau arose out of a growing awareness that the classical approaches to conservation in nations with Third World characteristics are incapable of achieving their aims. Establishing inviolate wildlife sanctuaries or game reserves in order to preserve animals which had almost become extinct ...has little relevance to poverty stricken people preoccupied with survival. Indeed, these island sanctuaries contain a conspicuous but inaccessible wealth of natural resources and they are resented or are even a source of hostility among the people who live in poverty along their borders. Therefore, in order to make conservation relevant to people who have to live at the fragile interface between survival and starvation, the Bureau ...is pursuing a conservation philosophy that is centered around three basic principles which Dr. Buthelezi has termed the ABCs of conservation....'

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[116]Section 5(1)(b).

[117]Quoted in Pringle 261.

[118]Steele 113-8.

The statement then elaborates the 'ABCs of conservation'. The 'A' stands for alternatives, for example the establishment of woodlots and medicinal plant nurseries to protect forest habitats and endangered plants, since 'rural people usually have no real alternative but to degrade their environment in an attempt to survive'. They must have access to natural resources within or at the edges of protected areas, or be provided with alternative sources, or both.

The 'B' is for bottom line -

> 'for people to value conservation they must receive some tangible benefit from it. There must be a bottom-line profit for the local community. ...the needs of the local people have been considered in determining the objectives of the (Tembe Elephant Park, which was established in 1983). The local people have ...not been shut out of the reserve, but instead were guaranteed controlled access to those natural resources that they traditionally obtained from the reserve area. For example, the people are allowed to collect reeds in the reserve for building their houses, provided they obtain a permit and harvesting is done at the appropriate time of the year. A percentage of all revenue earned by the reserve, including that from tourism, will be paid directly into tribal coffers. Income generated in this way will be used to build schools, clinics and other community projects. ...As new reserves are proclaimed, so the bureau will concentrate on integrating them into the local economy so that people will see that there is a bottom-line profit in it for them.'

'C' stands for the 'principle of communication', which is based on the belief that 'the success or failure of conservation in a developing region ultimately depends on the degree of support for, and active participation by, the people of the region' and that it is vital that there be communication between 'those who plan and administer conservation programs and those who have to live with the consequences of that planning and administration.' The Director declared that

> 'In KwaZulu the philosophy of "conservation by consensus" is actively pursued through close liaison with the local communities and the tribal authorities. Many tribal authorities have appointed conservation liaison officers who act as a link between the Bureau ...and the community they represent. These liaison officers attend all management meetings for game and nature reserves within their wards, where they represent the interests of the local people. In this way, no action that may affect the local community can be implemented without their being aware of it and having an opportunity

to influence the decisions taken. In addition, through this communication procedure, the community is able to request assistance and advice on conservation-related matters.'[119]

In his concluding remarks, the Director said that the 'battle for survival makes conservation in a Third World environment seem a luxury. But ... there is a realization that sound conservation is an essential weapon in the fight for survival.' He stressed the need for understanding the relationship between conservation and survival, and stated that '(d)espite the omnipresent depressing realities facing KwaZulu, ...(a)dopting a pragmatic approach, coupled with a genuine desire to help people attain their legitimate needs and aspirations, has minimized conflict between environmentalists and local communities. The resulting cooperative effort augurs well for long-term ecological stability in the region.'

In 1984, the Director of the Bureau announced the transfer of management of the Kosi Bay Nature Reserve from Natal Parks Board to the Bureau, stating that 'the people living on the land surrounding the Nature Reserve will benefit by a 25% share of all revenue earned. This will ensure a better standard of living for the local people, which can only result in a greater appreciation of the Reserve and the need for conserving the natural resources of the area.'[120]

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[119]The Director gave as another example of 'conservation by consensus' 'the recent move by some tribal authorities to establish tribal game reserves', to be 'run by a management committee, with representatives from the community, the tribal authorities and the Bureau'. See Steele 117-8.

[120]Bureau of Natural Resources 3. On the use by people living around proclaimed reserves in KwaZulu of the natural resources within them, the Bureau in October 1990 offered the following information and statistics: many people rely heavily on the food, building materials, fuels and medicinal plants which they gather in the reserves; in the past year over 220 000 fish were caught by local people living around the Kosi Bay estuarine system, and the money generated from the resale of these fish was estimated at R251 000; reeds which grow around the pans and lakes in the reserves are an important source of material for building huts and making sleeping mats, as well as income from the resale of the reeds; Kosi Bay and Tembe Elephant Park are the two major sources of reeds - the figures from these two reserves for the past year showed that about 24 000 bundles of reeds were collected by the local people, and the resale of the reeds would have meant an income of R120 000 to the local inhabitants; over half a million crabs were taken for food from the Kosi Reserve alone over the past year; and thousands of kilograms of firewood and medicinal plants were gathered from the various other nature reserves in KwaZulu - KwaZulu Bureau of Natural Resources 'Natural Resource Utilisation' Vol 31 No 10 *Natal Wildlife* (1990) 10.

Notwithstanding the above formal policy statements and statutory provision for revenue sharing by local communities, a 1990 research report presents an entirely different perspective of the Bureau's conservation efforts. Those efforts are described as 'dispossess(ing) local people of their natural heritage and its (Maputaland's) development potential'. Lake Sibaya 'which is the largest freshwater lake within the system (Maputaland's coastal lake system) and which has a capacity to provide pure water to 400 000 people, is now being conserved in pristine condition for small groups of tourists with little regard of the ecological contribution that the indigenous population have made.' The report accuses the Bureau of consulting with local tribal authorities in its conservation programmes and paying 'scant attention to indigenous knowledge in the maintenance of a unique ecosystem.'[121]

It is difficult to reconcile these criticisms with the remarks of the Director of the Bureau of Natural Resources, which are indicative of well conceived and articulated conservation and agricultural policies. As far as agriculture is concerned, there have in the past been misguided, or at least unsuccessful, attempts at intensive crop cultivation. At one stage an attempt was made to grow coconuts commercially in the Kosi catchment, and also cassava, cashew nuts and coffee in the coastal lowland areas, all of which failed, although some measure of success has been achieved with various types of silviculture.[122] In

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[121]See CORD 4-5, the full statement being as follows:

'Their ongoing conservation efforts within Maputaland dispossesses local people of their natural heritage and its development potential under the guise of "consultation with and conservation for sustained yield development for" the indigenous population. This is well evidenced in the Bureau's development/conservation strategy in Maputaland's coastal lake system. Thus for example, Lake Sibaya which is the largest freshwater lake within the system and which has a capacity to provide pure water to 400 000 people, is now being conserved in pristine condition for small groups of tourists with little regard of the ecological contribution that the indigenous population have made. Consultation by the Bureau's conservation programmes is with local tribal authorities and pays scant attention to indigenous knowledge in the maintenance of a unique ecosystem. The extent of current and ongoing dispossession in this region can be gauged by the fact that almost 80% of the Bureau of Natural Resources' annual budget is spent on conserving and controlling an environment which is only unique because it has not been mismanaged and abused by the indigenous population.'

A tribal authority, in terms of the Black Authorities Act 68 of 1951, should act 'with due regard to native law and custom and in consultation with every tribe and community concerned.' The implication of the CORD report is that tribal authorities do not always represent the interests or reflect the attitudes and opinions of the people in their areas of jurisdiction. Generally on the question of the lack of consultation with the people themselves and the inadequate protection of their interests, see AFRA generally, and Ramphele 73-8.

[122]See Begg 361 and Bruton (2) 518.

order to avoid such criticisms and ad hoc, experimental projects, clearly what is required is a well designed legal framework for conservation and agricultural policy, a framework which effectively recognises and protects the interests of tribal cultures.

5.5.7 Tourism[123]

Access to the land and wildlife is so vital to the indigenous people of Maputaland that it is difficult, on superficial examination, to justify the setting aside of natural areas, such as wilderness areas and game reserves, for strict protection. Tourism is one such justification because of the finance and job opportunities that it generates. The region has immense tourism potential. This represents a form of capital which it would be foolish in the extreme to squander because it is irreplaceable. Its judicious investment is entirely compatible with, and will promote the interests and culture of, the tribal communities, whilst at the same time serving the interests of conservation and the greater community. Tourism, viewed as a form of land use, will certainly have far less impact on tribal cultures than other forms of land use such as commercial agriculture, mining, and industry.[124]

One of the unique tourist attraction areas would be the Kosi Bay area, which is one of the few remaining pristine estuarine systems in southern Africa. It is not in fact a bay, but four interconnected lakes, each of which possesses different ecological characteristics.

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[123]On ecotourism generally in South Africa, see Chapter 2 para 3.2.10.5.

[124]Bruton suggests that 'an intensification of indigenous practices, such as mixed agriculture, bee-keeping, fishing, basket- and mat-making, pottery, and the development of a tourist and recreation industry would make the best long term use of the natural attributes of the area.' He describes the diversity of tourist attractions available in Maputaland as 'unrivalled by any other area of similar size in South Africa', including '(w)ilderness-orientated activities such as hiking, horse-riding, boating and underwater trails', and refers to several reports which have 'emphasized that Maputaland is one of the last wilderness areas along the southern African coast, and (which have) noted that economic common sense and prudence demand the protection of the delicate ecosystems which support the diverse life on which a prosperous tourist industry could be based'. There is no doubt that the region is eminently suited to tourism and outdoor recreation. What is most important, however, is the fact that these activities are compatible with the interests and lifestyle of the tribal communities, which is a point also made by Bruton, in the following terms: 'The *suitability* of Maputaland for outdoor recreation and the *compatibility* of this form of land use with the indigenous way of life are obvious. The diversity of natural resources in the area provides for a multitude of recreational activities. Furthermore, the development of wilderness-orientated recreation would have far less impact on the lives of resident people compared with other possible forms of land use, such as intensive agriculture, mining or industrial development, and would also be less disruptive than the present migrant labour system.' See Bruton (2) 507-8, 516 and 518.

The Kosi system has no counterpart anywhere in southern Africa. One of its attractions is the stand of raffia palms at Lake Amanzimnyana, which means dark water, and so called because of its peat-stained colour. The palms are spectacular, having leaves of up to ten metres long. The Kosi area can accommodate several wilderness trails, which are becoming more and more popular in South Africa, as in other countries. In fact, the demand for wilderness trails generally cannot be met. In the Kruger National Park, for example, 8 trails are conducted every week for 11½ months of the year - the trails are fully booked a year in advance and the percentage of occupancy is just below 100%, which is far higher than the busiest, most popular hotel or holiday resort in South Africa. The Wilderness Leadership School and the Natal Parks Board present statistics of a similar nature.[125]

5.5.8 The proposed Maputaland National Park

A comprehensive and holistic approach towards the conservation and development of this unique region, with its rich cultural heritage and exceptional diversity of wildlife, would be promoted by inclusion of all its marine, coastal, lake and terrestrial ecosystems in one all-embracing environmental or biosphere reserve.[126] A large nature reserve or Maputaland National Park has been mooted for many years.[127] The Minister of Environment Affairs has announced plans to acquire privately owned farms between St Lucia and the Mkuzi Game Reserve with a view to consolidating the whole of this area with the Eastern Shores and the Sodwana State Forest into what will become the third largest conservation area in South Africa (270 000 hectares).[128] According to one

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[125]Chapman 2.

[126]There is no other region in South Africa that presents the range of ecosystems that is found in Maputaland. See Bruton (2) 517, and Bruton & Cooper generally. The concept of biosphere reserve is discussed in Chapter 7.

[127]In 1947, 1948 and 1949 a series of expeditions, led by Dr GG Campbell, were conducted to Maputaland, which investigated the possibility of establishing a national park, but did not recommend it because of the high resident native populations. In 1964 Ian C Player pleaded for establishment of a large nature reserve in Maputaland in *Men, Rivers and Canoes* (1964) - referred to in Bruton (2) 516. See Pringle 191-204, Bruton, Smith & Taylor 447-452, and Bruton (2) 511. The Wildlife Society of Southern Africa proposed its establishment in 1971 - see Wildlife Society 121.

[128]The announcement was made early in 1990 - see Wildlife Society 121.

model, it would consist of a complex of strict and ordinary environmental reserves and resource areas stretching in the west from the Usutu gorge eastwards to Kosi and southwards to St Lucia estuary, and would include Ndumu Game Reserve and Kosi Bay National Park. The exact boundaries would have to be decided by the KwaZulu people. In the strict environmental reserves there would be stringent control over public access and there would be no removal of flora and fauna. The second category would permit of small human populations, restricted public access and controlled removal of flora and fauna. The third, resource areas, would be '(i)mportant resource areas with moderate to high human populations, less restricted public access and an extensive living natural resource-based economy.' The park would incorporate features of historic and biotic value. Conservation areas would need to be set aside outside of the proposed national park as well. For example, Border Cave and Dingane's grave would be strict historical reserves, and Mkuze and St Lucia game reserves would be strict environmental reserves.[129]

The proposed national park is consistent with traditional land tenure and natural resource harvesting rights, and with holistic 'natural resource-based development (which) may provide the most economical return on long term investments as there are *few economically viable alternate land uses* in eastern and northern Maputaland'. Not only will the park 'bring *international prestige to KwaZulu*', it will '*increase the local people's awareness of and pride in the cultural and natural history of their country* (emphases in original).' Maputaland 'has the potential of becoming one of the world's great national parks and natural resource areas, comparable to the Everglades, Okavango swamps, Serengeti, Kinabalu in Borneo, the Great Barrier Reef, Gran Paradiso in Italy or the Henri Pittier National Park in Venezuela. The preservation of its natural heritage is as important to the world as the preservation of the cultural heritage of developed countries.'[130]

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[129]See Bruton (2) 513 and, generally on the proposed conservation areas and the greater national park, 513-526.

[130]Bruton (2) 518, 519 and 526.

5.5.9 The amaThonga and the wilderness ethic[131]

The natural resources on which the amaThonga have traditionally depended have been severely adversely affected by widespread environmental degradation, brought about in the main by increased human population pressure. The following extracts present an excellent summary of the position in Maputaland:

> 'The amaThonga settled some centuries ago in an area which was, on the whole, low-lying, inclement and unhealthy, and not well-suited to stock-farming or extensive agriculture. As a result, they explored other ways of making a living. They hunted and snared wild game, made extensive use of indigenous fruits and vegetables, and fished extensively in the coastal lagoons, lakes and rivers, which is unusual among the southern Bantu. The fabric of their society is therefore closely interwoven with the seasonal and diel (sic) availability of natural resources, and they have developed a remarkable knowledge and understanding of natural principles and processes.'[132]

> '(W)resting a living from Maputaland has not been easy, and ... this situation is likely to continue into the future, even with major technological advances. The construction of dams, the introduction of better communications and capital investment in intensive agriculture and forestry can never overcome the fact that the lowlands of Maputaland are relatively unhealthy and infertile, and subject to very changeable climatic conditions. It is absurd to anticipate development in this area on the same level as in the fertile, well-watered and relatively mild coastal regions of Natal. Development in Maputaland needs to be determined by the limitations and potential of the climate and natural resources of the Mozambique Plain environment, and herein lies the second lesson which this brief history has taught us - ever since man entered the scene he has been destroying forests, degrading habitats, reducing biotic diversity and generally decreasing the capacity of Maputaland to support people and other forms of life. The longer we allow this process to continue the more opportunities will be lost for the people of Maputaland to reach their full potential.'[133]

The application of the wilderness ethic to resource management, whilst at the same time respecting traditional cultural values and harvesting rights by legal prescription, will

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[131]The notion of a wilderness ethic is discussed in Chapter 2.

[132]Bruton (2) 508.

[133]Bruton, Smith & Taylor 456.

contribute immeasurably to the goal of conservation and appropriate human development in Maputaland.

5.6 CONCLUSION

It is beyond the scope of this study to attempt to project or prescribe how, when, or indeed whether, tribal cultures should be assimilated into the mainstream of South African society; or to suggest what that mainstream is. What is certain is that the present dispensation of 'one man one lot' with insufficient and degraded pastoral or agricultural land cannot be allowed to continue.[134] Western influences and prescriptions have disrupted traditional cultures and values.[135] The time has come for a new dispensation. Present indications suggest that the new South Africa will come about through negotiation,[136] in which event it is to be hoped that the politicians and other negotiating parties will recognise the international trend discussed in the previous chapter, and seek to arrive at a settlement which will permit of retention of tribal cultures and traditional wisdom for so long as the people affected wish to retain their tribal status. The legal provision for access to the wilderness resource which is suggested in this work is posited on the assumption that, for all practical purposes, there will at least be some passage of time before South African tribal cultures disappear and, in the meantime, their needs and the values that they contain and represent should be accommodated.

The major conclusions of this chapter therefore are that:

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[134]Fisher RC 442-3 refers to the 'symbiotic equilibrium that a cognatic system holds with its ecological environment (which) is thrown out of balance when the amount of land available is no longer sufficient to sustain the community.' He predicts that by the year 2000 cognatic tenure will have ceased to exist in South Africa.

[135]The National Party's policy of apartheid 'envisaged the strengthening and restoration of the tribal system and the re-establishment of the authority of the chiefs' - Devenish 28. However, the way in which the land is held and distributed as a result of apartheid has instead caused major disruption of traditional cultures.

[136]There are regular reports in the South African news media that all relevant political organisations favour a negotiated settlement of the political impasse in South Africa.

- because of their historical background and the traditional values that reside in them, tribal cultures are deserving of protection and accommodation within our national legal and political system;

- such cultures are in transition, but must be protected in their transitional phase;

- they depend on the wilderness and wildlife resources, which must therefore be appropriately protected, with due regard to such dependence;

- they must be directly involved in the determination of the boundaries of conservation areas and in their protection and management;

- they must be allowed controlled access to natural resources within or on the peripheries of those areas consistent with their traditional harvesting practices; and

- they must be allowed direct participation in the economic benefits derived from wilderness-orientated tourism.

Above all, whilst acknowledging that the aforegoing propositions may not be novel or untried, it is strongly submitted that it is vital that they be elevated from the status of mere policy to law by inclusion in the relevant legislation dealing with natural and agricultural resources, so as to ensure effective, enduring and consistent application. The legislation providing for the statutory dedication of wilderness and the establishment of a national wilderness preservation system should be drafted accordingly. In drawing these conclusions, two points of principle emerge which require some elaboration and further brief comment. First, does the concept of wilderness exclude any notion of human habitation or extractive utilisation? Secondly, does the extension of special treatment to local groups not amount to the creation of racial 'group' rights?

5.6.1 Inhabited wilderness: an oxymoron?

Eidsvik has suggested that it is not possible to write about wilderness in the developing world using the definition of the 1964 United States Wilderness Act, in terms of which it is an area 'where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain.'[137] People are a part of wilderness in the Arctic and in the Tropics, and passive or subsistence utilisation of the land is a reality. They are not visitors. Wilderness is their home, they remain in the wilderness, and survive only because, and for so long as, they respect it. Eidsvik therefore proposes the following modified definition of wilderness for the developing world, the adoption of which would mean that aboriginal people living in harmony with their wildlands would not be an impediment to the establishment of wilderness areas:

> 'Wilderness is an area where natural processes dominate and people may co-exist as long as their technology and their impacts do not endure.'[138]

People's perceptions of wilderness depend upon their cultural, geographical and historical circumstances. The perceptions of wilderness in the third world are understandably different from those of people in developed countries such as the United States. Humans have a hierarchy of needs, and whilst they are involved in satisfying their lower needs, their awareness of higher levels is inhibited. Because they do not enjoy the affluence and leisure permitting time for relaxed and informed contemplation, third world people may not yet appreciate the less tangible benefits of wilderness. Even in the third world, however, indeed more so than in the first world because of greater dependence on natural resources, wilderness areas require protection for the preservation of species and the maintenance of gene pools for biotic diversity, so as to provide the nucleus for a sustainable yield of plants and compounds for food, medicine, fuel and building materials, as well as for education, tourism, and job opportunities. And it is precisely because of this dependency, this greater emphasis on the instrumental values of wilderness, that different definitions and degrees of protection than those applied in other countries may be necessary in South Africa. South African wilderness

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[137]Section 2(c) of the Wilderness Act 16 USC §§ 1131-1136 (1964).

[138]Eidsvik (1989) 58.

is not the same as wilderness on other continents. We should learn from the experience of other countries, but the models of protection which work in America and Australia, for example, will not necessarily work for African wilderness.[139] The South African wilderness heritage is unique. We are part of Africa. African problems require African solutions. What is appropriate for the first world is not necessarily appropriate for the third world. What is appropriate for the third world is not necessarily appropriate for South Africa, which is a mix of first and third world elements. South Africa needs to look to its own roots in formulating concepts, laws and policies for the protection of its few remaining wild places.

There are sound social and ecological reasons for extending the concept of wilderness to include inhabited wilderness, notwithstanding the inherent contradiction in the notion of inhabited wilderness. Conceptual purity must at times bow to practical politics. If wilderness is narrowly defined, then much if not all of Kosi Bay, for example, is not wilderness because it is inhabited. The notion of inhabited wilderness is consistent with such category designations as biosphere reserve, anthropological reserve or natural biotic area, which are all basically areas in which the native technologies, knowledge and resource utilisation have little adverse impact on natural processes. It may be argued that inhabited wilderness should be given some other such designation, thus not detracting from the concept of 'true' wilderness. The support of indigenous people for the pure wilderness ethic is, however, more likely to be given and maintained if wilderness is more widely defined so as to permit of varying gradations of accessibility and use. If local communities are allowed to derive tangible benefits from areas designated as wilderness, albeit inhabited, they will more readily accord value and respect to all wilderness. In any event no two wilderness areas are the same, and none is entirely free from the impact of humans. Where such impact is minimal or substantially unnoticeable, as in the case of the Indians and Eskimos of North America,

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[139]Each continent has a unique wilderness hetitage. Lewis 186-7 argues that Australia, for example, should not have North American concepts of wilderness imposed on it. Such phrases as 'where man himself is a visitor who does not remain' are not applicable because the aboriginal people of Australia shaped and managed the wilderness that was their home and their natural environment for 30 000 years before white people came to the continent. Therefore, Lewis suggests, 'it seems rather rather arrogant to talk of people being only visitors in these areas.' It is clearly more appropriate to define wilderness in Australia and South Africa as being land substantially unaffected by *modern* man.

and the San of South Africa,[140] why should traditional utilisation not continue? Historically and demonstrably, they practised their subsistence harvesting with respect for their wilderness environment, and in harmony with it, and their shelters blended into their natural surroundings. Why should the San not continue their nomadic, wild existence for so long as they wish to do so, even in a declared desert wilderness? They are in effect a component of the wilderness, a part of the natural balance. As hunter gatherers, with no stock or pastoral or agricultural activities in their traditional culture and lifestyle, their continued presence is compatible with the wilderness ethic. Wilderness areas would then be areas bearing no signs of having been tramelled by *modern* humans. Laws for the protection of wilderness must be devised and implemented in such a way as to produce recognisable, immediate and tangible benefits to local populations, whilst at the same time, where this is necessary, inculcating in them an awareness that their continued survival and quality of life are dependent on conservation of their natural resources. The involvement of local communities in wilderness protection should be part of their regional economy and lifestyle. To this end, controlled taking of flora and fauna must be permissible and, to a limited and clearly defined extent, human habitation should also be permitted.

A reorientation of attitude and of our conservation laws is therefore required. In some way the traditions, culture and needs of indigenous people must be accommodated in those laws. The cultural heritage of the blacks in Africa is founded in a unique wilderness ethos. Unless something of this heritage is captured in our thinking in respect to wilderness; unless we eschew all semblance of paternalism or transplanted philosophy, there is the danger that wilderness may be perceived as a neo-colonial white man's luxury. An unfortunate hangover from colonialism and apartheid is an understandable suspicion and distrust of government by indigenous people,[141] and a perception that

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[140]The Central Kalahari Game Reserve in Botswana, home to approximately two to three thousand nomadic San people, is a vast desert area (in extent 5 180 000 ha), covered by Kalahari sands, with no permanent watercourses and no permanent roads - Eidsvik (1989) 67. It is an example of *de facto* wilderness, or what Eidsvik describes as a 'wilderness equivalent', which clearly should qualify for wilderness designation notwithstanding the presence of the San.

[141]South Africa is not alone in this respect, as will appear from the following extracts from a review of 'native justice' in three other jurisdictions (Australia, Canada and the United States): 'Unfortunately, but understandably, major elements of indigenous peoples in all three countries harbour a deeply entrenched

laws relating to hunting and the protection of wildlife reflect economic privilege or class interest, and that wilderness and game sanctuaries are the playground of an elite group. Wilderness will not survive in Africa unless in some way there is woven into its fabric some of the tradition, culture and spirit of the African.[142] Our legal dispensation for its protection therefore requires a degree of flexibility that may be regarded as intolerable in other countries, or inconsistent with pure notions of wilderness.

5.6.2 The concept of environmental 'group' rights in the South African context

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distrust, dislike, and active antagonism towards governments of whatever political or policy inclination, and their agencies and officials. All three countries look back to a tragic and manifestly unjust history of extermination, exploitation, deceit, dispossession, and cultural destruction. Current indigenous generations are mindful of that past, and view current governments as essentially no better than their forbears. ...(T)he potential for achieving justice is maximized if an ethnocentric stance is avoided, especially when dealing with radically different cultures. Only by attempting to "see things as native peoples see them" can results be achieved which are meaningful to the parties involved. This approach requires considerable flexibility in the majority justice system, and understanding by those administering it. ..."Anglo-based" legal systems, imposed upon native communities and often controlled by non-native bureaucracies, have by and large failed to achieve native justice. ...Cultural factors are important to the application of the majority legal system to native peoples. As cultural divergences increase, so too does the potential for native injustice. ...For such groups, native justice is more likely to be achieved through maximizing the use of existing customary law ways, and encouraging their development. This form of legal pluralism accords with philosophies underlying plural democratic societies, and should have the desirable effect of supporting the survival and development of native cultures in the future. ...As one moves across the cultural spectrum towards semi-acculturated native populations, so the focus shifts towards sensitizing and requiring flexibility of the majority legal system. Finally, with fully assimilated native communities, the rationale and needs for special justice mechanisms on a cultural basis disappear - though rationales and special needs for affirmative action may still exist, these exist in common with many disadvantaged poverty-stricken or minority groups in the community.' - Keon-Cohen 250, extracts from which are furnished in Getches & Wilkinson 868-872)

[142]A point made by Mabuza 42-4 in the following terms: 'The traditions and culture of the African peoples were, in bygone days, interwoven with the wilderness...for many centuries the African was a pastoral farmer and a hunter, and while hunting was both a sport and a way of living, a balance between farming and hunting was maintained because of the awareness that survival was dependent upon the wilderness. There were no laws to protect the fauna and flora against injudicious human use of the environment because there was no need for such laws...It is said that it was the white explorers who illuminated the dark continent with the intellectual and spiritual legacy of Europe. Little is said about the calm and balance that existed between the "primitive" African peoples and the wilderness of this dark continent during the pre-exploration and colonial periods.... The wilderness, with its hunting grounds and teeming game, became a dream of the past. The war that had been declared on the wilderness forced the Swazi to become more dependent upon the western way of life. Our young people, who normally received part of their education in the wilderness while looking after the goats, the calves, the cattle and the corn-fields, had to give up this form of education in favour of a new education system completely divorced from the environment. Although they could now become successful teachers, clerics, or lawyers, they had lost touch with the spirit of the wilderness which had inspired their forebears,...the days of fables and fairy kingdom when people and wild beasts could talk to and understand one another much better than today....What I am trying to emphasise is that the wilderness of Africa cannot be conserved without capturing and blending into it the spirit of the African. Most African countries may be blessed with wildlife in game sanctuaries, but as long as these are seen only as a white man's luxury they will become targets of poaching and denudation.'

Wilderness and its constituent animal and plant wildlife have instrumental value to all humankind, but particularly to indigenous people, communities with subsistence economies, or what has been referred to as the third world. For this reason, and because of their special relationship with wilderness, those communities are deserving of special rights or treatment relative to wilderness. But any notion of community or group rights which savours of racial differentiation is anathema in South Africa to many who are concerned with the lack of basic human rights amongst large sections of our community. However, there are sound social and ecological reasons for entertaining this notion in clearly defined and restricted circumstances - as has been done in the United States with respect to native Americans, as discussed in the previous chapter. By virtue of their close contact with and dependence on their natural environment, indigenous people have over a long period of time developed a unique and rich traditional conservation knowledge and understanding of natural processes. They surely have the right to be involved in the control and planning of the use of those resources.[143] This is not a racial or political right. Affording local communities environmental privileges, or more correctly expressed, continuance of their customary practices, is simply sound environmental and socio-economic planning, simply harmonising local needs with conservation and the interests of the greater society.

We should learn from the many years of experience in the other countries, especially the United States, as discussed in the previous chapter, in seeking a resolution of the conflicts and dilemmas presented at the first and third world interface in their communities. The extension of group rights is not only possible and desirable, at least in the context of utilisation of natural resources, but also achievable even if not founded in treaties. Tribal cultures are deserving of this special treatment notwithstanding the

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[143]The following statement from New Zealand Newsletter 7 neatly summarises the point made in the text: 'The sponsors of the World Conservation Strategy should, in the future development of their thinking, reflect the unique environmental ethics of indigenous peoples, and the accrued riches of traditional conservation knowledge. They should also recognise the need for cultural diversity as much as biological diversity in conservation. Indigenous peoples have the right to self-determination, including the right to control the use of their traditional territories and resources. Where resources are shared with other peoples, rights to those resources should be respected on a reciprocal basis.' See Johannes generally for samples of traditional ecological wisdom which demonstrate how much the environmental scientist can learn from traditional knowledge systems - in his foreword to Johannes, Frédéric Briand writes: 'A partnership with indigenous populations, taking into account their perspectives and future well-being in the formulation of development policies, is a moral, as well as environmental, imperative.'

commercial and other values to the rest of society of the timber, water and wildlife that they will preferentially consume. Recognition of aboriginal rights would not be 'granting too much to too few'[144] - indeed, it may well be a case of granting too little too late.

In drawing on the experience of other countries we should endeavour to avoid some of the mistakes they have made. The use of modern technologies for the exercise of traditional harvesting needs and rights must be carefully monitored and controlled. Only traditional and not modern or commercial or wasteful methods of harvesting should be permitted, and this should be subject to legal regulation. In accommodating those needs and rights a proper balance with the interests of others and of the environment must be sought. So as to avoid a 'a collage of jurisdiction that is sensitive to legal principles but not to the realities of wildlife management', local groups and public sector authorities should enter into cooperative wildlife management agreements to clarify jurisdiction and achieve 'interaction of wildlife managers and the coordination of resource management goals.'[145] Resolution of the problem of protecting and preserving wilderness in South Africa along these lines may well provide guidelines, if not a model, for many other developing countries throughout the world.

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[144]A question which has been asked about the preferential treatment of native Americans - Getches & Wilkinson xxviii.

[145]The quotations in the text are words used by Getches & Wilkinson 729 in discussing traditional hunting and fishing rights in North America, in regard to which see Chapter 3 above.

PART 3

WILDERNESS IN COMPARATIVE AND INTERNATIONAL PERSPECTIVE

Part 3 is concerned with lessons from abroad, instruction that may be derived from comparative and international perspectives.

The two chapters constituting this Part present an overview of initiatives in other countries, and internationally, in the development of the concept of wilderness and the evolution of its legal protection.

The focus of Chapter 6 is on the United States, as events in that country have particular relevance to a developing South Africa, both regions having societies to a large extent moulded in a pioneering, colonial ethos, but having the need to accommodate and respect the traditional needs, values and rights of indigenous people; and both having vast expanses of still largely undeveloped, if not entirely pristine and unspoilt, tracts of land. The United States Wilderness Act of 1964 represents the genesis of the concept and institution of statutory wilderness. The evolution of wilderness protection in that country can and should serve as a guide for future developments in South Africa.

The growth of international recognition and protection of wilderness as global heritage is discussed in Chapter 7, in which the legal protective mechanisms adopted in other countries are also considered.

CHAPTER SIX

WILDERNESS LORE AND LAW IN THE UNITED STATES

6.1 INTRODUCTION

> 'There are no words that can tell of the hidden spirit of the wilderness, that can reveal its mystery, its melancholy, and its charm.'[1]

A great many words have in fact been written about the nature, qualities and mystique of wilderness, and they reveal a wide spectrum of varying attitudes towards the concept of wilderness by North Americans, ranging from fear and dread to admiration, appreciation, awe and reverence.[2]

When the European colonists landed on the eastern seaboard of the North American continent, they were presented with a cornucopia of wilderness and wildlife bounty. The vast wilderness that confronted them also presented a challenge. The continent spread across to the west for about five thousand kilometres, the eastern third of it blanketed by vast forests, and the grasslands containing huge herds of bison, antelope, elk, and mule deer, as well as other animals, and supporting one of the largest biomasses of any region in the world[3]. As the settlers pushed back the frontiers and spread across the land, the wild landscape became transformed. Its face and substance became permanently and irreversibly altered by axe, gun and plough in a pioneering ethos which made mandatory the conquering, subduing and 'civilising' of wilderness, and its transformation into patterned, pastoral landscapes reminiscent of Europe. This mandate was carried out ruthlessly and efficiently, and in the process many plant communities and

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[1]Theodore Roosevelt in a preface to a collection of hunting stories, cited in Nash 150. Roosevelt became President of the United States in 1901, and was one of its early wilderness advocates.

[2]See Nash and Frome, generally.

[3]Trefethen 20-1.

creatures vanished or became threatened with extinction. Not only was the pace of extinction of species accelerated, but opportunities for adaptation and evolution of new life forms were reduced through the elimination of wildlife and modification of its wilderness habitat.[4]

Although founded in English law doctrines based on class privilege and restrictions on the free taking of wildlife,[5] early American wildlife law repudiated the English legacy and replaced it with a more appropriate colonial and democratic regimen designed to facilitate the harvesting of the apparently limitless wildlife resources.[6] In time, however, it became apparent that these resources were not inexhaustible. As wild country became increasingly modified and converted to pastoral countryside, attitudes began to change, and there was a transition from unrestrained economic exploitation to recognition of the sport and recreation values of wilderness and wildlife. These developing perceptions of value were reflected in the late nineteenth century in State and Federal laws designed for protection and sustained yield rather than uncontrolled harvesting.[7] But the transformation of the landscape continued, and wilderness and its constituent life forms began to assume greater scarcity value. The preservation movement began. Initiated by a small group of individuals, it gathered support and momentum, developed into an effective, sophisticated and articulate national movement, and eventually became a strong political lobby.

The origins of legislative protection of wilderness in the United States, albeit indirect protection, lie in the establishment of its national parks system. The first national parks to be reserved were Yosemite National Park (in 1864) and Yellowstone National Park (in 1872). Wilderness protection was incidental because wilderness zones were not planned as such and were, in effect, partitions occurring simply as pockets of land left

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[4]Even the desert ecosystem is now an endangered species because of human impact - Frome 66-7.

[5]See Lund Ch 2 entitled 'English Wildlife Law Before the American Revolution'.

[6]See Lund Ch 3 entitled 'Early American Wildlife Law'.

[7]See Lund Ch 5 entitled 'State Wildlife Law' and Ch 6 entitled 'Federal Wildlife Law'.

over in the formal planning of the parks. It took many more years for the notion to emerge that wilderness values were deserving of direct protection.

It was in the national forests that the first deliberate planning was undertaken to protect wilderness directly, and not just coincidentally. In 1919 forestry officials in Colorado decided not to build a proposed road into Trappers Lake in the White River National Forest because they believed that the 'mood' of the area would be better served if visitors had to walk in. National forests were administered by the Forest Service, which had the power to issue regulations for their protection. What has been called 'institutional' wilderness began with the setting aside in 1924 of the Gila Wilderness in New Mexico. In 1929 general regulations were issued by the Forest Service for the designation and administration of wilderness units known as primitive areas, in which low standard roads, simple shelters and limited wood cutting were permitted. Many such primitive areas were established in the western states, and they became so popular that it was decided that they should receive stronger protection. In 1939 revised regulations were issued which prohibited roads, motorised vehicles and commercial timber cutting in these areas.

The belief grew that administrative management policies, however well articulated and implemented, were inadequate. Fears were expressed about the Forest Service's lack of statutory authority to bar mining and the construction of dams in wilderness areas, and it was suggested that formal legislative status should be accorded to the administrative wilderness system which had been established by the Service. Statutory protection came to be regarded as being essential for the proper protection of the American wilderness heritage. The movement culminated in the introduction of the first Wilderness Bill in 1956. It took another nine years of deliberation before enactment, during which time 65 bills were introduced and 18 hearings were held. These bills were strenuously opposed by commercial interests in the lumber, mining, power and irrigation fields. At first the Forest Service also opposed the proposed wilderness legislation because it was contrary to their policy of multiple use, but they subsequently withdrew their objection in principle and opposed only certain provisions which were eventually modified to their

satisfaction.[8] The notion that wilderness areas should not be subject to multiple use is most significant. It is this essentially non-utilitarian approach which sets wilderness clearly apart from other types of protected area. It became accepted that wilderness was worthy of preservation because of its wilderness character and values and needed no other justification or purpose.[9]

The transition from *de facto* protection to *de jure* protection was completed by the passage of the Wilderness Act in 1964.[10] The Act in its preamble states that it is the policy of Congress 'to secure for the American people of present and future generations the benefits of an enduring resource of wilderness'. It establishes the concept of wilderness as a matter of law, and a network of wilderness areas as a matter of fact. The National Wilderness Preservation System founded by the Act represents an entirely new paradigm of protection for wilderness, a conscious and deliberate transition from administrative to legislative wilderness. One of the lessons to be learnt from the American experience, gained over decades of debate and conflict between resource managers and lumber, mining, power, irrigation and other interests, is that *wilderness cannot adequately be protected other than by specific and comprehensive legislative enactment.*

6.2 WILDERNESS IN RETREAT

6.2.1 Early history of public land law: an overview

The history of public land law in the United States has been divided into five eras.[11] The first era was the 'acquisition' period during which the federal government acquired the lands of the United States. It began during the pre-1787 colonial period when the

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[8]McCloskey 298-9.

[9]For a summary of the events described in the text above, see McCloskey 295-9.

[10]Public Law 88-577 (codified at 16 USCS §§ 1131-1136).

[11]Laitos 239 *et seq.*

original states ceded their claims to western lands to the new government, thereby creating the first 'public domain', and ended with the purchase of Alaska in 1867 from Russia for $7,2 million.[12] However, the original inhabitants and 'owners' of much of the land were the native American Indian tribes. Although they hunted animals for food and skins, they lived in harmony with nature, and had little impact on the ecosystems of which they were part.[13] The federal government acquired the tribal lands by conquest and treaty. The remainder of North America was owned or claimed by England, France, Spain and Mexico, from whom, through treaty or war, the federal government acquired the rest of the land that now comprises the United States.[14]

The second era ran from the latter part of the 18th century to the early part of the 20th century, during which time the federal government disposed of the public lands it had acquired to states, homesteaders, railroaders, miners and timber interests. This 'disposal era' overlapped with a 'reservation era' between 1872 and the mid-20th century, when federal law set aside certain lands and resources which were otherwise subject to disposition laws. The fourth era, described as the 'planning and management era', began in the early 20th century and continued into the 1980s, during which period Congress and federal public lands agencies developed and applied a comprehensive policy of planning and land management for the public lands retained. The fifth era, overlapping the fourth, is a mixed policy period of both reservation and disposal, beginning with the 1964 Wilderness Act and continuing until today. Whilst reclassifying certain public lands in order to protect wilderness values, the federal government has recently, during the 1980s, attempted to engage in large public land sales, and the release of large tracts of federally owned land in Alaska to settle state and native claims.[15]

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[12]Laitos 239-242.

[13]For a sensitive and interesting account of the minimal negative impact of the American aborigines on wildlife resources, see Trefethen 5-26.

[14]Laitos 241, and see Chapter 4.

[15]Laitos 240.

It was the disposal era which accounted for the major inroads into and reduction of wilderness. Disposal produced revenue for a nation which was not then well endowed with monetary wealth, but which possessed apparently limitless wealth in natural resources. The West was particularly rich, and utilisation of its resources required promotion of settlement by farmers, miners and loggers, and development of a rail network to link it with the population centres in the East. Congressional disposal laws were designed to implement the national policy of quick and early settlement of western public lands, and this was accomplished by grants to the farmers, homesteaders, ranchers and transportation companies who formed the vanguard in the battle to push back the wild frontiers. Various methods of disposal were implemented. Squatters were granted preemption rights, land was sold into private ownership on credit and for cash by public auction (the latter favouring speculators from the East), and land warrants were issued to military veterans.[16]

The Farmers Homestead Act of 1862 entitled citizens to claim 160 acres provided that they both resided on and cultivated the land for five years. This Act was largely responsible for settlement of over 160 million acres of public land.[17] As the frontier retreated, the grants became more liberal so as to encourage utilisation of more arid and semi-arid lands.[18] The Timber Culture Act of 1873 allowed settlers additional land if they planted 40 acres with trees. The Desert Land Act of 1877 provided for the issue of title to 640 acres upon proof of irrigation. The Enlarged Homestead Act of 1909 allowed 'entry' on 320 acres of land designated as nonmineral and unsuitable for irrigation. The Stock-Raising Homestead Act of 1916 authorised entry on 640 acres of land designated valuable for grazing.[19] Trefethen comments that the objectives of the Homestead Laws, under which nearly all of the remaining strongholds of America's big

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[16]Laitos 250.

[17]Laitos 250-1.

[18]160 acres of land in the semi-arid West proved in most cases to be inadequate to provide the necessities of life for a farmer and his family. The limitation in extent had been determined by legislators in the East which was ecologically entirely different. Congress attempted to correct the deficiency by amending the law so as to permit a homesteader to 'preempt' a second 160 acres - Trefethen 92.

[19]Laitos 251.

game were thrown open to settlement, were commendable; but their administration and results were deplorable. Speculation and abuses were commonplace, and '(s)ome of the finest stands of virgin timber, among the best wildlife range in the West, and a number of potential national parks went into private ownership through this publicly sponsored grab bag'.[20]

Enormous railroad grants totalling millions of acres were also made during this period.[21] The discovery of gold in California in 1849 produced the 'gold rush' and, with it, rapid increase in settlement of the West. Millions of acres of prime timberland were acquired under the disposition laws, notwithstanding that they were not offered for sale as such, by persons who fraudulenlty claimed that they were settling on the land for agricultural purposes. Their claims were subsequently made legitimate by legislation, and further statutes were enacted authorising disposal of public timberland and the cutting of timber on 'unentered' mining lands.[22]

6.2.2 Human impacts on wilderness and wildlife

The inevitable consequence of European settlement, and the voracious economic exploitation of the natural resources resident in the lands perceived as public domain, was reduction and modification of wilderness and destruction of wildlife on a scale and magnitude so vast that it would be incredible if it were not so well recorded.[23] In their advance across the continent, the cowmen, sheepmen, buffalo hunters, bounty hunters, traders in skins, and other forerunners of society slaughtered literally millions of wild

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[20]Trefethen 91-2.

[21]See Laitos 251-3. Trefethen 12 writes that, apart from the vast acreage thrown open to settlement by the Homestead Acts, 94 million acres were granted to railway corporations as a direct stimulus to the transportation system. In 1850, the average price asked for these lands was fifty cents an acre, much of which land contained superb stands of virgin timber, priceless mineral rights, and some of the richest grazing and agricultural potential in the world.

[22]Laitos 254, 259.

[23]See, for example, Trefethen, Nash, Frome and Lund, generally.

animals.[24] However, the major impacts on wildlife and the decimation of many species were occasioned by reduction of their wilderness habitat.

As the cattle empires swept across the land, the buffalo were slaughtered because they competed for the valuable grasses on the Plains.[25] At the same time vast flocks of tens of thousands of sheep were displacing indigenous animals from their habitats, and producing irreversible modifications of fragile ecosystems as they foraged higher and higher into the melting snows to find edible weeds on steep cliffsides.[26] Frome records that by the mid-1880s the bison had been swept from the Plains, and the grizzly bear and bighorn sheep were nearly gone south of Canada. The elk were pushed back into a few pockets in the western mountains, and the California wapiti, or dwarf elk, that had roamed the central and coastal valleys of California in herds of thousands, was virtually wiped out.[27]

Between 1900 and 1920 the population of the United States grew from 76 million to 106 million. It was an era of material prosperity, with increased leisure and mobility, and more and more Americans turned to outdoor recreation. In the early 1920s there were an estimated six million licenced sport hunters, which was double the number in 1910.[28] By 1960 the population had increased to nearly 180 million, and by 1970 to over 203 million. Farming became more monoculture and technologically orientated. Fewer

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[24]Frome 67. See also Trefethen Ch 1 entitled 'Blood on the Prairies'. At 80-1 Trefethen refers to the role that the railroads played in facilitating the slaughter. They brought the settlers who took up the carnage where the market hunter left off. The black bear, grizzly, and wolf were killed on sight as threats to livestock. Grazing animals were slaughtered for food and because they competed with sheep and cattle for forage. The railroads also brought transient sportsmen who, in the absence of any effective legal checks, ran up large bags of trophies in their often mindless butchery.

[25]Frome 67-8.

[26]Frome 68. Frome writes that not only did their innumerable hooves break and trample seedlings into the ground; they grazed the ancient established ranges of wild sheep, depriving the original animals of their food sources and inflicting decimating diseases on them. The fires built at night to keep away predatory animals were seldom extinguished, and this added yet another source of devastation to the habitat.

[27]Frome 69.

[28]Trefethen 174-5. It was in this period that Henry Ford's assembly lines produced hundreds of thousands of Model T automobiles, increasing not only mobility but also accessibility to roadless wilderness because of their high ground clearance.

hands were needed on the farms, and more people moved to the cities. Between 1930 and 1969, the rural population decreased from 30,5 million to a little over ten million, and the average farm size increased from 137 to more than 388 acres.[29] The obvious and inevitable effect of the nation's exponential population, industrial, agricultural, and economic growth on the few remaining wilderness areas was increased human intrusion and disruption.

6.2.2.1 *Forests*

The early settlers exploited the forests for building materials and fuel, and also for the export of timber to Europe. They also needed land for agriculture and animal husbandry. The forests, moreover, provided a haven for the native Americans and timber wolves, both of which were regarded by the colonial livestock owner as scourges. These factors, combined with an innate fear of the wilderness, soon resulted in the early towns becoming virtually devoid of trees. The demand for lumber increased, and by 1890 the virgin pine forests of New England had been stripped, huge swaths had been slashed through the forests of the Lake States, and the timber crews were hacking their way through those of the Northwest. Huge Douglas firs, ponderosa pines and redwoods, some more than 300 feet high and with trunk diameters of fifteen feet, fell to their axes. Fire, flood and soil erosion followed in the wake of the loggers, adding to the devastation of forest and wildlife. Millions of acres of mountainous country were so badly damaged during this period that it was nearly a century before they would support anything more than stunted brush.[30]

6.2.2.2 *Bison*

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[29]Trefethen 269.

[30]See Trefethen 33-4, and 94-5. The Americans of the time were more interested in extracting as much profit as possible from the forests than in saving them for posterity. Although fire occurred naturally in the forests, being set by lightning or Indians, they occurred with sufficient frequency to prevent the buildup of an inflammable understory, and burnt relatively gently until checked by rain or a river. Logging set the stage for forest fires of a magnitude the continent had never seen before.

The bison,[31] described by Trefethen as having been the dominant form of life on the western plains ever since the retreat of the great glaciers, and which probably numbered between sixty and one hundred million, were reduced to the brink of extinction. Each herd, numbering in the millions,[32] migrated in a roughly circular route covering sixteen hundred or more kilometres, the pattern and timing of their movements being such as to ensure regeneration of the grazing lands over which they passed.[33] By 1888 there were no more than 500.[34] And so, writes Trefethen, the buffalo passed into history.[35] Never again will humans witness their great migrating herds blanketing the prairies like a 'living robe'. He describes their destruction as the most brutal and wasteful chapter in the history of America's wildlife,[36] but also makes the point that even if there had been effective laws to prolong their existence, they were doomed as soon as the railroads and the generous homestead laws allowed easy access by the settlers to the public domain that was their range. Agriculture and bison are incompatible, and it has been estimated that to save even one of the herds in anything resembling its pristine glory would involve setting aside a wilderness area as large as the state of Montana.[37]

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[31]The terms 'bison' and 'buffalo' are used interchangeably in the text in reference to the North American buffalo (*Bos* or *Bison bison*).

[32]One herd encountered in Colorado in 1871, when the slaughter of the buffalo was just beginning, was estimated as containing no fewer than four million head, occupying a front of 50 miles (80 km) and 20 miles (32 km) or more in depth - Trefethen 13.

[33]Trefethen 4-5.

[34]According to Frome 69, a government expedition could hardly find enough to make the mounted group which is on exhibition in the Smithsonian Institute in Washington, DC. Trefethen 16-17 records that the scientific expedition sent to collect specimens for the National Museum of Natural History managed to collect only twenty-eight.

[35]Trefethen 19.

[36]Trefethen 17.

[37]Trefethen 16. At 138-142 he describes the relatively successful bison-restoration programme undertaken in the early 1900s. By 1902, according to official count, there were only twenty-three head in Yellowstone, and these were the only wild, free-roaming members of the species in the entire United States. However, the conservation movement was rapidly gathering strength and momentum during this period, and the bison became a symbol of America's vanishing wildlife, in much the same way as the rhinoceros seems to be becoming a symbol of South Africa's vanishing wildlife. Scattered across the nation were small groups of captive bison. An American Bison Society was formed, 'buffalo ranches' were established, and artificial feeding, culling and selective castration were practised. By 1905, a national census indicated that there were 970 animals in wild herds, private collections and zoological parks. By 1933 there were nearly 22 000, and the

6.2.2.3 *Other animals*

Wildlife played an important role in the early days of the eastern seaboard colonies, both as a ready source of fresh meat (especially turkey and deer) and as trade commodities - furs, deer hides, down and plumes all fetched high prices on European markets. With the onslought of civilisation, the pronghorn antelope, which may have been as abundant as the buffalo, was also driven almost to extinction, and other animals, such as the bighorn sheep and elk, were displaced from their natural habitats. Many others, including kit fox, red fox, skunk, hawk, eagle, and magpie perished by the tens of thousands.[38]

6.2.2.4 *Beaver and wolf - fur trade*

The fur trade accounted for the near annihilation of the beaver.[39] When they were so reduced in number that it was no longer profitable to continue trapping them, the trappers turned to the wolfskin trade.[40] Wolves were also hunted because of their inconvenience to the livestock industry. Legislators encouraged their decimation by putting a bounty on their heads.[41]

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national population is now stabilised at about 25 000. Theoretically, Trefethen opines, there would be enough bison today to restore the species to the vast numbers that existed before, but this would require removal of the domestic livestock and other works of humans from such large areas in the West as to make the notion entirely impractical.

[38]Frome 69. See also Trefethen 5 and 29. At 168 Trefethen refers to the reduction to scattered bands of the bighorn sheep, moose and woodland caribou. At 204-5 he refers to the Californian wapiti or elk, also a migratory species, which was effectively eliminated from its range and 'squeezed into a relatively few islands in a sea of civilization.'

[39]The collapse of the beaver fur trade in about 1833 almost certainly saved this species from total extinction. Except for a few scattered colonies, the beaver had been stripped from all the rivers east of the Rockies, as well as from most of the streams in the west - see Trefethen 54, and generally Ch 4 entitled 'The American Fur Trade' 41-54.

[40]Frome 69.

[41]Frome 67 describes the bounty hunters as an ingenious breed, who would repeatedly sell the same scalps, substitute dogs'scalps for those of wolves and, whenever possible avoid killing female wolves so as to ensure future trade in their progeny. See also Lund 32-3, who writes that New York City developed a thriving market in wolves' ears 'that was no part of the garment trade', and that bounty hunters recycled their wares by repeated tenders of the same corpse. See Trefethen 35-37 for a brief description of the legal 'war on the wolf' which lasted for almost three centuries. At 163-7 he presents an overview of the bounty system and its abuses,

6.2.2.5 *Passenger pigeons*

Passenger pigeons, extinct since 1914,[42] were once so numerous that flights were observed so dense that 'the light of the noonday sun was obscured as by an eclipse', and trees collapsed under their perching weight.[43] Although market hunters were responsible for their mass slaughter,[44] the major determining factor in their final demise was the destruction for agriculture and timber harvesting of the virgin deciduous forests upon which they depended for food, roosting and nesting sites.[45]

6.2.2.6 *Grizzly bears*

The giant grizzly bears, once numbering about 1,5 million, were reduced within 75 years to an estimated 800 to 1 000 in the United States south of Alaska, and to this day remain on the brink of extinction.[46]

6.2.2.7 *Waterfowl*

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and which he describes not only as inefficient as a form of predator control, but also as being an open invitation to racketeers. He cites several examples of racketeering, one of which was the case of a man who purchased 2 000 weasel skins rejected by furriers in New York and imported them into Pennsylvania for bounty. Bounties were paid in nearly all the states for virtually every species of wildlife suspected of killing 'good' animals such as livestock, game and nongame species perceived as beneficial to man. At 279-281 Trefethen discusses the war waged on predators by trappers, bounty hunters and, from 1915, the federal government, and also the effective use of strychnine. The livestock on which the settlers depended for survival was vulnerable to wolves, coyotes, bears and other predators, which turned to stock killing because of the reduction of their wilderness habitat and natural prey. The conflict and unequal contest was an inevitable consequence of settlement.

[42]The last known survivor of the species died in the Cincinnati Zoological Garden on 1 September 1914 - Trefethen 65.

[43]From an account by naturalist-painter John James Audubon, commenting on a flight he observed while on a trip on the Ohio River in the Autumn of 1813 cited in Trefethen 63.

[44]In 1878, 2 500 netters descended on the last great nesting colony and, within the space of a few weeks, they marketed 1 107 800 066 pigeons! - Trefethen 63-4.

[45]Frome 69.

[46]See Frome 70, where he writes that 'within seventy-five years of their first encounter with the covered-wagon pioneers, the great carnivores of the American West, monarchs since the Ice Age, were virtually wiped off the map.'

Initially waterfowl suffered less from human impact than other wildlife species, and this was partly because the nesting grounds of ducks, swans and geese were generally sited in wilderness terrain which remained relatively unaffected by early white settlement. Many of them nested in the tundra and taiga belts, and the glaciated grasslands in the north, the nature of which did not lend itself to easy pastoral modification. Even after the railroads opened up the continent to improved access by settlers, pioneer farmers were restricted in their domination of the land by their equipment and, with their horse-drawn ploughs, tended to work around the wetland areas on their properties. In spite of the initial natural protection afforded by the wilderness nodes which provided habitat bases for nesting, however, the decline in waterfowl populations became noticeable by the late 1880s. Several factors contributed to the decline, not the least of which was habitat invasion and destruction. Waterfowl required not only the northern breeding grounds, but also wintering areas in the south, and resting places in between along their flyways. The felling of the eastern forests and the elimination of the beaver accounted for reduction of wood duck, which depended on beaver for the shallow ponds and nesting cavities in the dead trees produced by beaver dams. The nesting grounds of the northern seabirds were raided by New England and Canadian bird-down hunters to provide material for featherbeds. Industrial and urban pollution and marshland 'reclamation' accounted for effective destruction of many wetlands, particularly along the east coast. Improved weaponry, particularly after the Civil War, resulted in vastly increasing numbers of migratory species being brought down by market hunters and sportsmen. The Labrador duck had already become extinct by 1872, and two or three other species of waterfowl appeared to be doomed to oblivion. Eventually, after years of wrangling and opposition, and based on the legal premise that wild migratory birds were a federal and not a state resource, the federal government entered into an international treaty for the protection of migratory birds in Canada and the United States in 1916. This was followed in 1918 by the Migratory Birds Treaty Act, under which regulations were promulgated which imposed stringent restrictions on the taking of relevant species, and which effectively checked their decline.[47]

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[47]See Chapter 4 for further reference to the Act, which is codified at 16 USC § 703 (1976 & Supp V 1981). See also Trefethen 143-156. The constitutionality of the Act was challenged in the Supreme Court in the case of *Missouri v. Holland* 252 US 416 (1920), but the court upheld the statute and the treaty. At 218-224

6.3 WILDERNESS AS RESOURCE

American history and culture are steeped in wilderness. When the colonists first landed on the continent which became the United States, they were awed by the depth and density of the vast wilderness that confronted them. They came with preconceived European ideas about civilisation. The wilderness represented both a physical and a moral challenge. It was a wasteland, and demanded to be conquered and 'civilised.' As the wilderness retreated, human attitudes toward it changed. The first attitudinal shift was from the perception of wilderness as a challenge to recognition of its value as a resource. Reduction of wilderness preceded, and was a pre-condition for, its appreciation. Their efforts to conquer, then use and ultimately, as the resource continued to dwindle, revere and protect it, have been recurring and constant themes in American art, cinema and literature.[48]

The frontier era came to an end in the last decade of the 19th century,[49] and its demise produced a marked change in American life and thinking. The wilderness no longer dominated, but together with the Indian, had been subdued. When viewed not from wilderness conditions, but from comfortable houses and towns, entirely new perspectives of their worth began to emerge. As the focus of human life shifted from country to city, some of the 'repugnant connotations of wilderness' began to transfer to the urban environment.[50] People began to think in terms of city wilderness and concrete jungle. The scarcity theory of value began to work in favour of true wilderness. However, for most Americans the dominant perspective of wilderness remained, namely that it was a source of natural resources for extraction and utilisation. Wilderness represented

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Trefethen describes the subsequent efforts, laws and regulations made to protect the waterfowl flights.

[48]Examples are the innumerable books, films and songs about the Wild West, cowboys, and legendary characters like David Bowie and Davey Crocket.

[49]Nash xii - the American frontier officially ended in 1890.

[50]Nash 143. At 57 Nash makes the point that 'from the vantage point of comfortable farms and city streets wilderness assumed a different character than from a pioneer's clearing'.

opportunity for timber, mining and grazing industry. Its purpose was economic, not aesthetic.[51] Some Americans, however, had begun to see other virtues in it. In 1899, Theodore Roosevelt declared: 'As our civilization grows older and more complex, we need a greater and not a less development of the fundamental frontier virtues'.[52] A more appreciative attitude toward wilderness emerged. The residual instinctive fear and hostility which it had produced gradually gave way to awe and respect under the influence of romanticism. This appreciation of wilderness and the 'aesthetics of the wild'[53] produced sadness and regret at its passing and a desire to protect whatever remained of it. At first only a few Americans went beyond philosophical debate to become involved in the practical issue of lobbying for preservation by land allocation and protection. Nash suggests that from the middle of the nineteenth century the issue of preservation was the major focus of national discussion of wilderness, but a great deal of attitudinal change was required before acceptance of what he describes as 'the apparent absurdity of halting the process of civilisation' in favour of preserving wilderness.[54]

6.4 WILDERNESS AS RETREAT

'In wildness is the preservation of the world'[55]

Once it became apparent that the early European settlers could live and prosper in the wild continent of America, the trickle of immigration became a flood of people looking for a new way of life. Included amongst them were political dissidents and religious refugees. In effect many of them were seeking refuge or retreat in the wilderness. By

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[51]Nash 137 remarks that in 1897 the Forest Management Act's primary purpose was the continuous supply of timber. It also served to promote the opening of forests to mining and grazing. Forests were objects of economics, not beauty or pleasure.

[52]Cited in Nash 149-150.

[53]Nash 66.

[54]Nash 96.

[55]The motto of the American Wilderness Society.

the second decade of the nineteenth century Americans had experienced sufficient misgivings about the effects of civilisation to encourage a more favourable attitude toward wilderness. Wilderness as the antithesis of civilisation and the industrial revolution represented a potential psychological retreat. Discontent and dissatisfaction with the negative aspects of 'civilisation' and the 'effluents of affluence'[56] produced a wilderness cult and an increasing interest in primitivism.[57]

6.4.1 As recreation

The use of wilderness for outdoor recreation increased rapidly. Reading tastes as well as the recreational tastes of the early 20th century were increasingly inclined toward the wild and savage, as evidenced by the popularity of novels such as Jack London's *The Call of the Wild* (1903) and Edgar Rice Burroughs' *Tarzan of the Apes* (1913).[58] The renewal of interest in primitive environments, however, was founded in psychological reasons more complicated than simply seeking an amenable form of physical and aesthetic recreation in pleasant surroundings away from city environs. Wilderness was perceived as a refuge from too much sophistication, a re-affirmation of personal identity and national character having their rootstocks in the American wilderness, and a vehicle for re-creation of the soul removed from human conflict and neuroses. It was felt that too much refinement leads to degeneration.[59] The use of wilderness has grown at a faster rate than any other form of outdoor recreation in the United States, to such an extent that overcrowding has become a serious problem in many wilderness areas, despite their spaciousness. It is estimated that there are now no fewer than 10 million, and possibly as many as 20 million backpackers in America.[60]

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[56]A phrase used by Sive 614.

[57]Nash 157, 160. At 157 he writes: 'As the antipode of civilization, of cities, and of machines, wilderness could be associated with the virtues these entities lacked.'

[58]Nash 155-6.

[59]Nash 153.

[60]Frome 77, 80.

6.4.2 As therapy

Whereas wilderness was at first approached with fear, trepidation and aggression, it is now increasingly being perceived as benevolent sanctuary. This shift in attitude, although revolutionary, was gradual. Nash suggests that 'today's appreciation of wilderness represents one of the most remarkable intellectual revolutions in the history of human thought about land.' -

> 'Consider the reversal in ideas about cities. Once regarded as islands of security and order in a chaotic sea of wilderness, cities have recently acquired some of the old terror once reserved for the wild. And wilderness has evolved from an earthly hell to a peaceful sanctuary where happy visitors can join John Muir and John Denver in drawing near to divinity. Such a perspective would have been absolutely incomprehensible to, for example, a Puritan in New England in the 1650s.'[61]

Wilderness has a tranquilizing effect. Frome writes: 'Even the sight, sound, or smell of a miniwilderness furnishes a tranquilizing and enriching interval, a subconscious reminder of man's rootstocks in nature.'[62] Nash suggests that the rapid growth of the preservation movement, which reached a climax after 1910 in the Hetch Hetchy controversy,[63] indicated that Americans had become conscious of a 'national malaise' for which there was a 'wilderness cure'.[64] Nonetheless, wilderness modification continued, and Frome sees this continuing destruction as a symptom of society's basic incompatibility with earth's environment. He suggests that in the threatening conditions of our overindustrialised world, Americans may be motivated by a subconscious death wish. A people desiring self-destruction, he says, can hardly muster the steadfast purpose to restore and conserve natural resources, let alone their own spiritual values. However, on a more optimistic note, he declares that the very ability to establish a National Wilderness Preservation System represents 'an antidote to pessimism, a

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[61]Nash xii.

[62]Frome 12.

[63]See para 6.7.5 below.

[64]Nash 151.

stimulus for hope'.[65] Wilderness, he believes, 'brings stability, a sense of permanence, to a shaky, unstable world.'[66]

6.4.3 As sacred space

Nash suggests that if, as many suspected, wilderness was the medium through which God spoke most clearly, then America had a distinct moral advantage over Europe, where centuries of civilization had deposited a layer of artificiality over His works.[67] How different were early American Christian attitudes! Survival depended on overcoming the wild and hostile environment; but it was not just physical discomfort that frustrated the pioneers. Wilderness 'acquired significance as a dark and sinister symbol.' The pioneers 'shared the long Western tradition of imagining wild country as a moral vacuum, a cursed and chaotic wasteland.' Civilising the New World meant 'enlightening darkness, ordering chaos, and changing evil into good.' For the pioneers, wilderness was 'the antipode of paradise.'[68] The Calvinistic conception of Christianity and work ethic were inconsistent with notions of religion in nature - '(o)nly slackers or sinners approached nature without axe or plough.'[69] The New England Puritan colonists saw themselves as Christ's Army or Soldiers of Christ in the war against wildness.[70] It was their children and grandchildren who, Nash observes, removed from the threats and discomforts of wilderness, began to perceive its ethical and aesthetic values; but centuries of prejudice against wilderness continued to influence American opinion long after the end of pioneer conditions.[71]

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[65]Frome 24.

[66]Frome 16.

[67]Nash 69.

[68]Nash 24-5.

[69]Nash 123.

[70]Nash 37, and see Nash 23-43 for an account of early Christian attitudes toward wilderness.

[71]Nash 43.

It was largely as a result of the writings and efforts of the mid-19th century romantic transcedentalists, notably Muir, Thoreau and Emerson, and the love of wilderness that they expressed, that earlier negative attitudes toward it were transformed.[72] Wild nature became perceived as benign and good, not malignent and evil. Wilderness became a place to find God. Excursions into the wilderness became acts of worship. The logic of the concept of wilderness as a church or temple - as sacred space - was that 'if nature embodies moral law and spiritual truth, then wild nature provides the most direct link to the deity.'[73]

6.5 WILDERNESS AS SOURCE

American writers on wilderness regard it as the source and essence of their culture and nationhood. The Americans carved a nation and a civilisation out of the wilderness. Both are rooted in and founded on wilderness, which has become symbolical of American identity, character and culture. Nash's book *Wilderness and the American Mind* is a classic statement and interpretation of changing American attitudes and concepts of wilderness. He refers to wilderness as the basic ingredient of American civilization - 'From the raw materials of the physical wilderness Americans built a civilization; with the idea or symbol of wilderness they sought to give that civilization identity and meaning.'[74]

6.5.1 As culture

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[72]See Pepper 76-90, and Nash 84-95, 122-140.

[73]See Nash 268-9, where it is noted, however, that modern philosophers tend to regard wilderness as neither moral nor immoral, but amoral. It may be sacred in the sense of inspiring reverence and providing meaning, but the association of God and wilderness is as much a myth and anthropomorphic fallacy as the earlier linking of it to evil. See too, Graber, generally - the title of Graber's monograph is *Wilderness as Sacred Space*.

[74]Nash xi.

Frome devotes a whole chapter of his book, *Battle for the Wilderness*, to 'the cultural heritage in wilderness',[75] and refers to wilderness as 'a fundamental constituent of the national culture, an indigenous part of Americanism, bearing qualities that set it apart as a contribution to civilization.'[76] In similar vein, Nash writes:

> 'Creation of a distinctive culture was thought to be the mark of true nationhood. Americans sought something uniquely "American", yet valuable enough to transform embarrassed provincials into proud and confident citizens. ...The nation's short history, weak traditions, and minor literary and artistic achievements seemed negligible compared to those of Europe. But at least in one respect Americans sensed that their country was different: wilderness had no counterpart in the Old World. ...nationalists argued that far from being a liability, wilderness was actually an American asset. Of course, pride continued to stem from the *conquest* of wild country ...but by the middle decades of the nineteenth century wilderness was recognised as a cultural and moral resource and a basis for national self-esteem.'[77]

It was in the early nineteenth century that American nationalists began to realise that there was something special about a wild continent - 'it was in the *wildness* of its nature that their country was unmatched.'[78] Wilderness came to be perceived as representative of the distinctive emerging American culture, a symbol of nationhood and self-esteem. Although 'wildness' has connotations of artlessness, disorderliness, violence and lack of cultivation, their perceptions of wilderness had become more complicated and refined. Nash describes wilderness as 'a function of gentility'[79] - the ability to appreciate the aesthetic and inspirational qualities of wilderness reflects the extent to which taste has been cultivated.

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[75]The title of Chapter 3 of Frome.

[76]Frome 49.

[77]Nash 67. Hendee, Stankey & Lucas (1990) write that this idea - the idea of wilderness as a uniquely American asset, the one attribute of the new nation that made it superior to the tired, settled lands of the Old World - gradually became a great force among the leaders of American thought and culture.

[78]Nash 69.

[79]Nash 60.

The attitudinal shift represented by these views has been described as an intellectual revolution, which was led by Henry David Thoreau, one of the early and most influential wilderness advocates, in the 1850s.[80] Thoreau argued that wilderness was a necessary component of civilisation and that, if it were not recognised as such, humankind would destroy itself in the process of destroying nature - the reduction of all nature to use for profit would ultimately end in dehumanisation.[81]

6.5.2 As history

Frome describes wilderness as 'a living document of land and people, as valid and as vital as the Constitution.'[82] Nash argues that America's heritage and nationhood are founded in wilderness. He refers to wilderness as 'a historical document'. Americans, he writes, 'claimed an especially intimate relationship to the wild. ...philosophers of wilderness have contended that American culture bore the imprint of close and prolonged association with wilderness.' In reviewing the writings of Thomas Wolfe in 1935 and Gertrude Stein in 1936, he says that they 'were one in thinking that if there exists a national character, the wilderness explained America's. It also constituted the best place to learn about - and perhaps sustain - what was distinctively American.' For Wolfe the real history of America was 'a history of solitude, of the wilderness, and of the eternal earth.'[83]

Novelist and historian Wallace Stegner, in discussing the role of wilderness in American history, argued that to lose contact with wilderness was to risk losing what was characteristically American. 'Something will have gone out of us as a people if we ever let the remaining wilderness be destroyed', he wrote. Wilderness was the essence of the American dream, 'the thing that helped to make an American different from, and, until

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[80]Nash 95.

[81]Frome 43.

[82]Frome xiii.

[83]Thomas Wolfe *Of Time and the River* (1935) and Gertrude Stein *The Geographical History of America* (1936) 17-8, cited in Nash 260-1.

we forget it in the roar of our industrial cities, more fortunate than other men.' He urged that the remaining wilderness be kept as 'a sort of wilderness bank' in which the collective American experience could be safeguarded. Historically, therefore, wilderness was an essential formative influence in the development of America.[84]

6.5.3 As democracy

Wilderness has also become a symbol of human freedom. Stegner described wild country as 'a part of the geography of hope'.[85] Nash suggests that the Puritans understood this when they found a sanctuary in which to worship as they pleased in the wild New World, and '(w)hen Roger Williams dissented from the Puritan oligarchy, he too headed for the wilderness.... In the 1840s the Mormons also found freedom in wilderness, and so did some countercultural communities in the 1960s.'[86]

Frome sees wilderness not merely as a tract of land, 'but a resource that is essential to the feelings that derive from it - the sense of freedom, pride and purpose.'[87] He refers to it as 'one of the incomparable freedoms, like freedom from want, war, and racial prejudice and freedom to cultivate one's own thoughts in one's own way.'[88] He points out that, unlike European forests which for centuries were held by nobility as a source of game for sport and food, in America wilderness is protected as a common birthright.[89] Wilderness recreation is open to everyone. It attracts both young and old. The wilderness experience is inexpensive, thus available to all - when 'civilization is

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[84]W Stegner *The Sound of Mountain Water* (1969) 146-148, cited in Nash 261.

[85]Stegner *op cit* 153, cited in Nash 262.

[86]Nash 262.

[87]Frome x.

[88]Frome 16.

[89]Frome 18.

brought no closer than the fringe of wilderness areas, even invalids can enter the sacred precincts to experience wonder and beauty.'[90] Wilderness is democratic, not exclusive.

Sagoff presents an even stronger argument in favour of the preservation and enjoyment of wilderness as a legal and political, indeed democratic and constitutional right. He proposes a nonutilitarian rationale for preserving the national environment. Wilderness is deserving of protection because of its importance as a central symbol of American nationality. He asks whether citizens can claim an interest in the monuments of their nation's culture and history, and answers:

> 'Everyone allows that citizens have the right to vote, based on the Constitution; surely they have a right to participate in the *culture* of the nation as well. A political community does not develop independently of a cultural one, and unless people have a way of protecting their cultural as well as their political and legal institutions, eventually they may lose all of them.'[91]

For Sagoff, citizenship involves not only legal and political but also cultural rights and responsibilities. People not only have the right to go to the National Gallery without having competing and distracting music piped at them, they have the right to go to places like the Sequoia National Park 'without having to do the usual battle with automobiles.' They have the right to demand 'that the mountains be left as a symbol of the sublime, a quality which is extremely important in our cultural history'. The symbols of cultural tradition need to be respected as well as, and on the same grounds as, legal and political rights are respected. The rights of citizens to their history, to the signs and symbols of their culture, and therefore to the protection and use of them in a way consistent with their values, are as important as the right to vote, and these are rights which should not be denied on economic grounds. In sum:

> 'The right to cherish traditional national symbols, the right to preserve in the environment the qualities we associate with our character as a people, belongs to us as Americans. The concept of nationhood implies this right; and for this reason, it is constitutionally based. ...

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[90]Frome 77.

[91]Sagoff 265.

> (If we) forsake our national paradigms, we will not only lose once cherished objects; we will sacrifice the values these objects express. These are the values by which we describe our national character and purpose; they are the qualities which we associate with our nation, our environment, and with the Constitution itself.'[92]

In short, take away wilderness and you take away the opportunity to be American.[93]

6.6 AD HOC PRESERVATION (PRE-1905)

6.6.1 Colonial, confederation and early federal periods

During the period from European settlement to the beginning of the twentieth century there was no general policy or public opinion in favour of committing any part of the new nation's land to preservation. There were occasional *ad hoc* efforts to protect a few areas containing outstanding features, such as the Arkansas Hot Springs which was set aside as a national reservation in 1832,[94] but usually for pragmatic reasons such as the protection of a water supply or the promotion of tourism. Although various actions of the Crown and of colonial governments have been cited as indicating the existence of preservation or resource conservation policies, wildland preservation was not an economic or political issue during this period, and federal policy was directed primarily towards promotion of settlement of the unsettled territories.[95] Trefethen suggests that the first beginnings of forest conservation in the United States was the marking by agents of the Royal Navy of selected pine trees along the east coast for official naval use.[96] In the 1820s, concern for the continuing supply of ship-building timber resulted in Congress establishing reserves of timber in the southeastern states. These reserves were

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[92]Sagoff 266-7.

[93]Nash's comment on the meaning of Sagoff's argument - Nash 262.

[94]Nash 105.

[95]Irland 19-21.

[96]Trefethen 33. Some of the stately pines rose sixty feet to the first limb, and were ideal for masts and spars.

created to ensure military supplies and had nothing to do with resource management or conservation policy.[97]

6.6.2 Yosemite

The first major federal initiative in wildland preservation was taken in 1864, when President Abraham Lincoln signed the Yosemite Grant, in terms of which Yosemite Valley, an area of unique and spectacular scenery, was withdrawn from the public domain and granted to the State of California as a state park 'for public use, resort and recreation'. The public domain was open for private acquisition and settlement, and settlers were swarming into unreserved areas. Yosemite was in the heart of 'big-tree country', and one of the major purposes and effects of protecting it was to safeguard its big trees from commercial timber exploitation. Nonetheless, Nash regards Yosemite as the 'nation's first preserve consciously designed to protect wilderness.'[98] The reserved area, which was then only about sixteen square kilometres, was ceded back to the federal government in 1906, and then formed the nucleus of the Yosemite National Park which had been proclaimed by Congress in 1890 and which is now some two million acres in extent.[99]

6.6.3 Yellowstone

The fur trade produced a colourful breed of Americans who came to be known as the mountain men. They travelled alone or in small groups, enjoying almost total freedom, exploring every nook and cranny of the West in their search for beaver.[100] Strange tales of a ghostly landscape of thermal wonders deep in the Rocky Mountains began to filter back from them to the East. A formal expedition to the area was mounted in

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[97]Irland 20.

[98]Nash 132.

[99]See Irland 20, Frome 19, Nash 106 and Trefethen 90. Two other Californian national parks came into being in the same year: Sequoia and Kings Canyon.

[100]See Trefethen 51 *et seq*.

August, 1870, and the discoveries of the mountain men were confirmed. The Washburn-Langford-Doane Expedition, as it became known, could have staked personal claims to the natural wonders of Yellowstone, but a distinguished jurist in the party, Judge Cornelius Hedges, argued that the natural wonders which surrounded them were too magnificent to be appropriated for personal profit and rightly belonged to the nation. The group agreed, reported accordingly to the governor of Montana, and Yellowstone became the world's first national park by Act of Congress on 1 March, 1872.[101]

Although the Act authorised the Secretary of the Interior to make regulations to protect the newly created national park, it made no provision for their enforcement. Trefethen describes how the railroad brought the first wave of tourists from the East, and with them vandals, poachers and market hunters who slaughtered the elk and buffalo in the park, and defaced the mineral deposits around the geysers and pools.[102] The impotence of the civilian superintendents was exacerbated by the refusal of Congress to provide funds for the protection of the park. In 1883 the Secretary of War was authorised to dispatch troops to the park, and thence began a military supervision which was more effective, but still inadequate for want of criminal sanctions, until the passage in 1894 of the Lacey Bill (the Yellowstone Park Protection Act) which provided for substantial penalties, including jail sentences of up to two years and fines of up to $1 000 for killing wildlife, removing mineral deposits, or destroying timber, and mandatory confiscation of equipment and vehicles used in the commission of the offences.[103]

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[101]Trefethen 77. Hedges wrote in his diary: 'God made this region for all the people and all the world to see and enjoy forever. It is impossible that any individual should think he can own any of this country for his own in fee. This great wilderness does not belong to us. It belongs to the nation. Let us make a public park of it and set it aside ...never to be changed, but to be kept sacred always' - cited in Albright 133.

[102]Trefethen 78.

[103]See Trefethen 77-89 for an account of these developments. He tells the story of one poacher who was apprehended but in effect remained unpunished because of the then lack of criminal sanction, notwithstanding that he admitted having killed eighty buffalo in the park, which then possibly represented one fourth of all the wild buffalo left in the world. After 1885 the only wild herd of any significance had found refuge in the park.

Yellowstone thus became the nation's first national park.[104] Frome describes the park as the nation's 'first great wilderness'.[105] Nash refers to it as the world's 'first large wilderness preservation in the public interest', albeit 'unintentional wilderness preservation'.[106] Although wildlife values had been incidental in its establishment, the primary purpose of its protection being to preserve natural treasures and a valuable tourist resource,[107] it was also the nation's first effective wildlife refuge. The concept of inviolate refuge areas for wildlife was still a relatively new one at this time. Nonetheless, it became an important refuge for wildlife - the last significant herd of bison in the United States found refuge in the park, and it held the largest elk herds in the country and many beaver in its streams and brooks, at a time when these species had been nearly exterminated elsewhere.[108] Its establishment is described by Frome as 'epochal'. He writes:

> 'Within five years after the end of the Civil War vast areas of the Middle West and Pacific West had been colonized. Pioneers were exploring unknown country, bringing with them the morals, values, and institutions of an older society, and thus devouring land for both settlement and exploitation. Yet on the raw, fast-developing frontier the concept of a national park was born. ...It was a revolutionary idea, the beginning of a systematic effort to preserve natural treasures.'[109]

The debate had been 'whether public or private ownership should govern a spectacular scenic resource.'[110] The setting aside of Yellowstone represented an early victory in favour of conservation over development, and was the dawn of the idea of national

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[104]Yellowsone, established in 1872, was the world's first national park, and is the largest in the United States, covering more than two million acres. Yosemite had been established as a state park in 1864, but only became a national park in 1890. The other national parks of the nineteenth century were Sequoia and General Grant (later enlarged and renamed Kings Canyon), 1890, and Mount Rainier, 1899 - Albright 5, 94.

[105]Frome 70.

[106]Nash 108-121.

[107]See Irland 20-1 and Frome 70.

[108]Frome 70-1.

[109]Frome 19.

[110]Frome 70.

heritage. It represented official recognition of the values and philosophies espoused by Thoreau and other wilderness advocates, and set a precedent for the federal government to allocate lands for non-exploitive purposes.[111] Although an unintentional preservation of wild country, it also demonstrated the value of habitat protection to conservationists and sportsmen at a time when the public was beginning to become uncomfortable about the continuing slaughter of wildlife.[112] Perhaps most importantly, it also highlighted the need for governmental intervention in order to ensure protection. Public opinion alone was not enough. As Nash puts it: 'Along with sentiment for saving wilderness, the idea of governmental responsibility was necessary to set the stage for actual preservation.'[113]

6.6.4 Adirondacks: New York

Another nineteenth century initiative in the protection of a natural area was taken in 1885, when the New York legislature created the Adirondack Park. Again, wildland preservation was not the sole or primary purpose of its creation. The lobbies for its setting aside were a conglomerate of commercial interests seeking protection of the water supply for the Erie Canal and for New York's growing cities, tourism groups, conservation groups, and local landowners interested in preserving the area's scenery.[114] The establishment of the park is illustrative of a growing movement, part

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[111]Hendee, Stankey & Lucas (1990) 7.

[112]For an account of the early years of Yellowstone Park, see Albright 94-5. For many years there was no formal management plan for the park, and it enjoyed little protection. In 1886 the army was sent in to provide protection from the sportsmen and commercial hunters who continued to shoot the bison in the park, the ranchers who let their cattle graze within its boundaries, and visitors who 'threw objects of all kinds into geysers and fumaroles to see what would happen - some even poured in soap flakes, hoping to trigger eruptions. On one occasion tourists travelling to the park by stagecoach were attacked by Nez Perce Indians fleeing the army.' The army presence protected the park from poaching and vandalism, but the military superintendents had no real understanding of wildlife management, and mountain lions, wolves, and coyotes were killed in large numbers. Exotic fish such as rainbow, brown, brook, and lake trout, perch and bass were introduced without considering their impact on native trout.

[113]Nash 105.

[114]Irland 21. Article XIV of the New York State Constitution contains an interesting 'forever wild' provision: 'The lands of the state, now owned or hereafter acquired, constituting the forest preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed.' In

of what Frome describes as 'the beginning of a systematic effort to preserve natural treasures.'[115]

6.6.5 Forest reserves: genesis of wilderness concept?

The dramatic success of Yellowstone as a wildlife refuge, which probably saved the bison from extinction, encouraged Theodore Roosevelt and the other early conservationists to expand their attentions to include other natural areas. The demonstrated value of Yellowstone led to the establishment of forest reserves, which were later renamed national forests. They were set aside initially to protect wildlife and watershed and timber resources. 'The preservation of forest and game go hand in hand' wrote Roosevelt in 1893. When he became President he set aside 132 million acres of the public domain as forest reserves by executive order.[116] Roosevelt is described by Trefethen as conservation's 'most vocal, most colorful, and most influential leader, at a time when it needed leadership most.'[117] In 1887 he had founded the Boone and Crockett Club, the main aim of which was the preservation of the big game of North America; but he also had a keen interest in problems relating to soil, water, forestry and wildlife generally.[118] Apart from the national parks these reserves were the only lands then dedicated to public ownership and future use.[119]

6.6.6 Pelican Island National Wildlife Refuge in Florida

Association for the Protection of the Adirondacks v MacDonald 253 NY 234, 170 NE 902 (1930), the court declared a law which authorised the construction of a toboggan slide (which required the cutting of some 2 500 trees) in the forest preserve of the Adirondack Park to be unconstitutional. See Grad 1294-8 for extracts from the above constitution and judgment.

[115]Frome 19.

[116]Frome 71.

[117]Trefethen 80.

[118]See Trefethen 79-81.

[119]After a fifteen year movement to create a system of federal forests, the Sundry Civil Service Act, which was passed by Congress in 1891, contained the authority for the President to establish forest reserves by executive order. The first reserve set aside under this Act, by President Benjamin Harrison, was the Yellowstone National Park Timberland Reserve of 1,25 million acres - Trefethen 91-6.

Another significant *ad hoc* act of conservation was the setting aside of Pelican Island in Florida as a federal bird reservation by executive order by Roosevelt on 14 March, 1903. It was the first unit in what was to become a 40 million acre National Wildlife Refuge System. The order directed that Pelican Island be 'hereby reserved and set apart for the use of the Department of Agriculture as a preserve and breeding-grounds for native birds', thus providing a sanctuary for the pelicans, egrets, herons, roseate spoonbills, and other sea birds threatened by plume hunters and poachers exploiting the millinery feather trade.[120] It was the first of its kind in America. The various Audubon Societies immediately set about identifying other federal land with bird sanctuary potential. By the end of his first term of office in 1904, Roosevelt had created 51 wildlife refuges in seventeen states and three territories by executive decree.[121]

6.7 THE BIRTH AND GROWTH OF WILDERNESS AS ARTICULATED MANAGEMENT CONCEPT (1905-1939)

6.7.1 The turning point

The nineteenth century conservation efforts and orientation were mainly directed toward protection of spectacular scenery or threatened wildlife species. In the result such efforts served to emphasise the need for setting aside clearly demarcated areas, thereby withdrawing what are essentially public goods from private appropriation, and ensuring habitat integrity for wildlife. By the end of the century the seeds had been sown for

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[120]Many coastal rookeries and nesting colonies had been obliterated, and several marine and wading bird species had been reduced to the point of extinction. Trefethen 129 refers to the Lacey Act of 1900 as laying the foundation for active federal involvement in wildlife conservation. Its purpose was to curb the illicit interstate traffic in wildlife products, including the plumes and feathers used in the millinery trade. Congressman John F Lacey had introduced his first bill unsuccessfully in 1897, but by 1900 a great deal of public support for bird protection had been stimulated by the American Ornithologists Union, the newly formed Audubon Society (1886), other concerned conservationists, and reaction to the then near extinction of the passenger pigeon and decimation of the bison, plume birds and songbirds. The market hunter had lost his social acceptability - Trefethen 129-133.

[121]See Trefethen 122-4, and Frome 71 where the point is made that a review of the history of the network of wildlife refuges indicates that many of them came into being to protect wilderness species from extinction by the onrush of civilization. The point emphasises the importance of wilderness for protection of its wildlife values.

recognition of the importance of wilderness, not only as refuge for wildlife, but also because of the growing awareness of the other non-extractive values of wilderness.

The turn of the century also represented a turning point for nature conservation. Federal government involvement in protection of the nation's natural resources expanded rapidly from this point. Apart from playing an important role in protecting the bison and other wildlife species in national parks, throughout the nineteenth century Congress had not created any laws or federal agencies to protect wildlife, and the national parks, although nominally administered by the Department of the Interior, were in fact supervised by the United States Army. Although there was a growing realisation that America's natural wealth was not inexhaustible, and that there was need for containment of its depletion in a rapidly expanding economy and population, conservation efforts were fragmented and localised. Very little had been done at federal level to protect the country's wilderness, wildlife, soil, water and minerals. Forest reserves had been set aside, but they lacked effective management plans.[122] The turning point came with what Trefethen describes as 'Breakthrough: the Roosevelt-Pinchot Years'.[123]

In 1898, Gifford Pinchot took over leadership of the Division of Forestry in the Agriculture Department. With him as Division Chief and Theodore Roosevelt as President, the executive branch began an aggressive forest management policy.[124] Roosevelt had hunted buffalo and antelope, and had a two year spell as a frontier rancher, during which he observed the impact of development and unwise land use on wild country. He was a witness to the decimation of wildlife first by the market hunters and then by the settlers brought west by the railroads. He saw gully erosion and floods following unrestrained timber logging and overgrazing. He was a hunter, but he was also a sensitive naturalist, and his thinking and subsequent conservation actions were

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[122]Trefethen 113, 117.

[123]The title of Chapter 10 of Trefethen. See Williams M 412-424 for further discussion of Pinchot and his influence on forest policy in the United States, and generally for a comprehensive study of Americans and their changing relationship with the forest from the perspective of an historical geographer.

[124]Wilkinson & Anderson 53.

profoundly influenced by these observations.[125] When he was elected President in 1901, he enjoyed widespread popular support, as well as the support of powerful political groups in both Houses of Congress, and was therefore very well equiped for the conservation struggles that lay ahead - even more so after the landslide victory of his re-election in 1904.[126] His principal advisor on natural resource matters was Pinchot, but he was also influenced in his thinking by John Muir. Pinchot was the architect of sustained-yield forestry. Before him, there appeared to be no possibility of compromise between the protagonists of complete protection and those apparently bent on total destruction through exploitation. Pinchot was a pragmatist and utilitarian. Muir, on the other hand, was the aesthete and more concerned with the non-consumptive values of nature. Roosevelt stood somewhere between the two - he was a politician and therefore a pragmatist; but he had camped out with Muir in 1903 in Yosemite and was very impressed with the experience. In his early years he had favoured a protectionist approach towards forests and their wildlife. He had supported the establishment of the Adirondack Forest Reserve and the enactment of the Yellowstone Park Protection Act. These varied influences contributed to a federal policy under his leadership which was well balanced between economic development and protection of non-utilitarian values. According to Trefethen, they also produced, in seven years, more advancement in natural resource management, protection and restoration than had been achieved in a century.[127]

In 1905, administration of the forests was transferred from the Department of the Interior to the Department of Agriculture.[128] Irland describes this 'movement' of the

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[125]Trefethen 80-1.

[126]Trefethen 124.

[127]Trefethen 118-9.

[128]The Transfer Act of 1905, 33 Stat 628, amended by 16 USC §472 (1982), gave the Department of Agriculture executive power over the forest reserves, save that the administration of the mining laws remained with the Department of the Interior. The Transfer Act resulted from Pinchot's persistent efforts to assume control of the reserves from Division R of the General Land Office of the Interior Department - Wilkinson & Anderson 53 footnote 268.

forest reserves as another 'significant turning point.'[129] During Roosevelt's administration the area of the National Forest System increased from an initial portfolio of 46,4 million acres in 1901, to 194,5 million acres by 1909.[130] By executive order Roosevelt was also establishing bird sanctuaries and protecting almost treeless scenery pursuant to a law designed by Congress to save forests. In 1906, Congress confirmed his hitherto doubtful authority[131] to set aside public lands other than forest lands as national monument areas for their historical, archaeological or outstanding scenic interest, by passing the Antiquities Act of 8 June 1906. On 28 June 1906 another law made it illegal to disturb birds on any federal lands set aside as breeding-grounds for birds by proclamation or executive order, thereby endorsing his earlier actions in creating Pelican Island and other bird reservations. So mandated, Roosevelt issued several proclamations protecting scenic vistas, wildlife ranges and wildlife reserves.[132]

The United States Forest Service has an excellent record and tradition of public land management, and it instituted the world's first administrative wilderness programme. But it was essentially timber-orientated. It adhered to a multiple-use policy, but its primary objective was extractive rather than non-extractive use - the harvesting of timber. Another form of exploitation emerged in 1916 when the National Park Service was established. Its purpose was to establish, protect and manage natural areas for their scenic, aesthetic and recreational values, but in such a way as to 'leave them unimpaired for the enjoyment of future generations.'[133] This purpose is closely related to the rationale for the setting aside of wilderness areas. For this reason, and because the first governmenatl efforts to protect wilderness have been identified as originating in the

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[129]In 1905, the forest reserves, which had been established under the authority of the 1891 General Land Law Revision Act, came under the control of the new Forest Service - Irland (1979) 21.

[130]Wilkinson & Anderson 53 footnote 265.

[131]Roosevelt's aggressive approach to conservation is evidenced by the fact that he proceeded with the establishment of wildlife sanctuaries in the forest reserves undaunted by an opinion, which he had sought from the Attorney General, that he did not have executive authority to do so - Wilkinson & Anderson 53.

[132]Trefethen 124-6.

[133]In terms of the 1916 Organic Act of the National Park Service (39 Stat 535 (1916), 16 USC 1 (1958)) - McClokey 295 footnote 30.

natinal park system,[134] it will be instructive briefly to consider the birth and growth of the concept of national parks before proceeding with the discussion of the evolution of policy towards wilderness preservation within the Forest Service.

6.7.2 National Park Service: wilderness with roads?

The geological phenomena and scenic wonders of Yellowstone kindled the idea of national parks - the idea that there is some wild country that belongs to the nation, should never be owned by individuals, and should be set aside for all the world to see forever. Stephen Mather and Horace Albright, were the first two directors of the National Park Service, and are considered to have been its main architects. Albright was superintendent at Yellowstone for ten years from 1919 to 1929. His book on the birth of the Park Service and the first twenty years of its development presents an interesting and instructive account of the struggle to protect the 'scenic crown jewels' of the United States from commercial exploitation.[135]

The National Park Service was established in 1916, notwithstanding strong opposition from ranching, mining and timber interests, and from the Forest Service, whose officials viewed national parks as a threat to the national forest domain.[136] Even after its establishment there was continuing conflict with commercial interests and development proposals for irrigation and power projects, exacerbated by the nation's war effort needs after declaration of war against Germany in 1917 - the Secretary of the Interior even suggested to Albright that Yosemite and other parks be opened to livestock pasturage as a means of helping produce meat for the armed forces.[137] Albright and his colleagues had to 'tread a delicate line, trying to keep the parks from being violated while not appearing to be inconsiderate of the war effort.' One of their battles was to

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[134]McCloskey 295.

[135]See Albright generally.

[136]Albright 34, 44.

[137]Albright 57-9.

'fight off proposals from food processors to slaughter buffalo and elk herds in Yellowstone' - the meat, they maintained, was needed for the war effort.[138]

Legislation to transfer Grand Canyon National Monument from the Forest Service to the National Park Service had been passed by both houses of Congress in 1918; but final passage of the transfer was delayed by mining interests who were opposed to the legislation, and the Forest Service which contested the delineation of boundaries. The legislation creating Grand Canyon National Park was eventually signed by President Wilson on 26 February 1919.[139]

Tourism, recreation and heritage - these were the values perceived as being worthy of protection; but another rationale for national parks emerged. In 1933, Albright established a wildlife division in the Park Service. He argued:

> 'The emphasis on wildlife research was especially necessary if the Park Service was to carry out one of its main objectives, preservation of the parks in their natural state and as near as possible to the condition they were in when white men first saw them. The status of animal life was changing with such alarming speed that in many of the parks it would soon be too late ever to determine what the original conditions might have been. In some parks many of the birds and mammals had already vanished. It was apparent that with the increasing encroachment of civilization, the national parks might be the only hope for a number of threatened species.'[140]

Wilderness *per se* was not, and is not, deliberately protected in national parks, save to the extent that natural phenomena were required to be managed so as to leave them unimpaired for future generations. Roads were therefore considered to be necessary for public enjoyment of the parks, but extending only so far as to be compatible with protection of their natural features. Master plans were eventually prepared for the parks, within which the limits of development were prescribed. As McCloskey points

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[138]Albright 60, 73.

[139]Albright 83-4.

[140]Albright 271-2.

out, within the limits of this planning, wilderness was viewed mainly as the land left over in planning - 'wilderness became the residuum in master planning.'[141]

6.7.3 National Forest Service: first deliberate roadless planning

It was in the national forests that the first positive planning was done to protect wilderness *per se*.[142] Wilkinson & Anderson state that the United States Forest Service 'can rightfully claim credit for pioneering the concepts and methods of wilderness planning' - it began to establish wilderness areas some 36 years before reference to wilderness appeared in any federal statute; the management standards of the 1964 Wilderness Act are almost identical to its regulations written 25 years earlier; and the agency now has considerably more than half a century of experience in preparing wilderness inventories, studies and management plans. It administers 32,1 million acres of national forest wilderness (including 5,5 million acres in Alaska), as well as about sixty million acres of *de facto* wilderness in 'roadless areas'.[143]

6.7.4 Multiple use policy - Pinchot: 1905-1910

Trefethen suggests that use of forests in nineteenth-century terminology meant its eventual destruction, first by logging, then by fire, and finally by sheep and cattle. He refers to Pinchot as the Moses who led American forestry out of the wilderness of confusion. As chief of the Department of Agriculture's Forestry Division (from 1898), Pinchot was largely responsible for the adoption of a multiple-use policy of forest management and conservation. He demonstrated that use of forests did not necessarily mean their devastation, and that 'locking up' or non-use preservation was not necessarily required for their conservation; but that, in fact, proper forest management could improve wildlife habitat, protect watersheds, and at the same time produce sustainable

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[141]Mc Closkey 295-6.

[142]McCloskey 296. On the evolution of wilderness policy in the United States forest Service generally, see Hendee, Stankey & Lucas (1990) 34-7 and Wilkinson & Anderson 335-352.

[143]Wilkinson & Anderson 334-5.

crops of commercial timber indefinitely. By doing so he neutralised much of the public opposition that existed, particularly in the West, towards the idea of forest reserves.[144] Under Pinchot's leadership, foresters set about inventorying the resources of the national forests and identifying areas for special management, including refuge areas with special value for wildlife.

The debate between the preservationists and those who favoured sustainable use of the forests, however, continued.[145] In 1892 the Sierra Club had been formed. John Muir was its first president, an office which he held for 22 years until his death. Muir was dedicated to wilderness and preservation, while Pinchot, who had received graduate training in Europe where timberland was managed as a crop for maximum sustained yield, was the leading spokesman for the wise use school. Other outdoor clubs, such as the Appalachian Mountain Club, which had been formed in 1876, joined the Sierra Club in the campaign for wilderness preservation.[146] One of the most significant developments at this point in the evolution of American thought on wilderness was the unsuccessful battle fought by the preservationists to save the spectacular, high-walled Hetch Hetchy Valley.

6.7.5 Hetch Hetchy: 1913

In 1882, San Francisco city engineers identified the lower end of the Hetch Hetchy Valley as appropriate for damming so as to provide a reservoir to alleviate the chronic fresh-water shortage being experienced by the city and to provide it with hydroelectric power. The Valley, which had been formed by the erosive action of glaciers and the Tuolumne River, was about 240 kilometres from the city. Notwithstanding that the 1890 Yosemite National Park Act had designated Hetch Hetchy and its environs as a wilderness preserve, the city continued to apply for the reservoir site. Trefethen notes

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[144]Some of the pioneer conservationists of the time were strong proponents of non-use backed by military force; on the other hand there was also a strong political lobby for restoration to the public domain of the forest reserves that had been established - see Trefethen 98-100.

[145]See Nash 122-140.

[146]Nash 132-5, 154.

that an added attraction that the proposal offered to the city was that the park was public property, and the site acquisition cost to the taxpayers of San Francisco would be nil. Bills authorizing the construction of the dam were introduced in seven consecutive Congresses.[147] Initially the application was unsuccessful. In 1906, an earthquake and fire devastated San Fransisco. The city reapplied, this time on the basis of urgency and with public sympathy. In 1908 the Secretary approved the application, but his approval required Congress endorsement. Muir and other organised wilderness enthusiasts launched a national protest campaign. Nash writes:

> 'Before Congress and President Woodrow Wilson made a final decision in 1913, the valley became a *cause celebre*. The principle of preserving wilderness was put to the test. For the first time in the American experience the competing claims of wilderness and civilization to a specific area received a thorough hearing before a national audience.'[148]

Pinchot was strongly in favour of the reservoir. He believed that nonutilisation of natural resources was 'sentimental nonsense.'[149] During the Congress House Committee hearings he argued that 'the fundamental principle of the whole conservation policy is that of use, to take every part of the land and its resources and put it to that use in which it will serve the most people.' In arguing for a different form of use, H M Towner submitted that 'dishwashing is not the only use for water, nor lumber for trees, nor pasture for grass.'[150] The battle to save Hetch Hetchy from being dammed (damned?) had been lost. For nearly thirteen years, Muir and his fellow wilderness advocates had succeeded in staving off defeat; but when the 1913 Hetch Hetchy Act was passed, the sanctity of a national park had been violated and the 'lovely Tuolumne Yosemite was gone forever.'[151] Yet it was another turning point in the wider struggle for protection of wilderness. Nash comments:

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[147]Trefethen 262.

[148]Nash 161-2.

[149]Trefethen 262.

[150]Cited at Nash 171.

[151]Trefethen 262.

'The preservationists had lost the fight for the valley, but they had gained much ground in the larger war for the existence of wilderness. A deeply disappointed John Muir took some consolation from the fact that "the conscience of the whole country has been aroused from sleep." Scattered sentiments for wilderness preservation had ...become a national movement in the course of the Hetch Hetchy controversy. ...the defenders of wilderness discovered their political muscles and how to flex them by arousing an expression of public opinion, and in Hetch Hetchy they had a symbol which ...would not easily be forgotten. In fact, immediately after the Hetch Hetchy defeat the fortunes of wilderness preservation took an abrupt turn for the better. ...(T)he most significant thing about the controversy over the valley was that it occurred at all. One hundred or even fifty years earlier a similar proposal to dam a wilderness river would not have occasioned the slightest ripple of public protest. Traditional American assumptions about the use of undeveloped country did not include reserving it in national parks for its recreational, aesthetic, and inspirational values. The emphasis was all the other way - on civilizing it in the name of progress and prosperity. ...What had formerly been the subject of national celebration was made to appear a national tragedy.'[152]

The pendulum thus began to swing back to preservation as the only solution to sustainable protection of wilderness values - away from the foresters' multiple use philosophy propounded by Pinchot towards the wilderness ethic espoused by Muir, Leopold and Thoreau.

6.7.6 Trappers Lake: 1919

Pinchot left the Forest Service in 1910. Between 1907 and 1927, the national forest road system increased from about 5 000 miles to 35 000 miles. Botanists and zoologists were troubled by this penetration into the wilderness of the national forests, and argued for the permanent setting aside of land. Interest in the preservation of public lands increased significantly, and it was in the 1920s that wilderness preservation first became a part of the Forest Service's management policy and planning. The first deliberate decision to protect wilderness, however, could be said to have been taken in 1919 in Colorado, when forest officials decided against a proposed road into, and development of, the basin around Trappers Lake in the White River National Forest. They decided

[152]Nash 180-1.

that 'the mood of the lake basin would be better protected if visitors had to walk in.'[153] A forester and landscape architect, Arthur H Carhart, had been assigned to survey the area for road access and the construction of hundreds of vacation homes. In the process of surveying the area, he became convinced that it should be preserved in its pristine condition. He recommended that the area not be developed at all, even for recreational purposes. The Denver Office of the Forest Service approved his recommendation, and the spectacular Trappers Lake remained without roads and summer houses.[154]

6.7.7 Gila: 1924

Leopold joined the Forest Service in 1909. He wrote *A Sand County Almanac*, which became a classic statement of humankind's responsibility toward all life on earth. He propounded an 'ecological conscience'[155] and a 'land ethic'[156] which emphasised the need for human respect for all forms of life and highlighted the interrelationship of all organisms and their environment. He believed that protecting wild country was a matter of scientific necessity as well as sentiment, which Nash describes as a 'synthesis of the logic of a scientist with the ethical and aesthetic sensitivity of a Romantic.'[157] Less than a decade after the Hetch Hetchy battle, Leopold campaigned successfully for a policy of wilderness preservation in the national forest system.

The idea of protecting segments of America in their unspoiled natural state originated with Thoreau in the mid-nineteenth century, and was advocated by Muir before the turn of the century; but the idea of formal protection of wilderness first became a reality in 1924 when the Department of Agriculture, directly as a result of the efforts of Aldo Leopold, designated 574 000 acres of the Gila National Forest in New Mexico as the

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[153]McCloskey 296.

[154]Hendee, Stankey & Lucas (1990) 8, 34.

[155]Leopold 207-210.

[156]Leopold 224-5.

[157]Nash 182.

Gila Wilderness Area. This was the first formally protected wilderness area in the United States and, indeed, as far as can be ascertained, in the world. By the end of 1925, five more wilderness areas had been established in other national forests.[158] The dedication of Gila as wilderness marked the birth of 'institutional wilderness'.[159]

6.7.8 Campaign for national policy

A concerted groundswell campaign for wilderness preservation followed. Nash writes:

> 'Following the Hetch Hetchy setback in December 1913 and the death of John Muir a year later, wilderness preservation rallied strongly. New leaders such as Aldo Leopold, Robert Marshall ...along with new organisations, notably the Wilderness Society, took up the crusade. ...Public appreciation of wilderness increased steadily as the nation's pioneer past receded, and the promise of the wilderness cult and the Hetch Hetchy protest was fulfilled in a series of successful defences of wild regions. The most important blocked construction of Echo Park Dam in Dinosaur National Monument and, in effect, reversed the Hetch Hetchy verdict. The Echo Park victory also gave preservationists the momentum necessary to launch a campaign for a national policy of wilderness preservation.'[160]

Building on the precedent and foundation established by Gila, successive Secretaries of Agriculture dedicated extensive areas of national forests as primitive or wild areas.[161]

6.7.9 Regulation L-20: 1929

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[158]See Trefethen 273, Nash 187 and 191, Hendee, Stankey & Lucas (1990) 34, and Wilkinson & Anderson 336-7.

[159]The term 'institutional wilderness' was coined by Jay N Hughes *An Analysis of Wilderness Land Allocation in a Multiple Use Management Framework in the Pacific Northwest* (1897) (unpublished PhD dissertation, Michigan State University), cited by McCloskey 296 footnote 34.

[160]Nash 200. The Wilderness Society was formed in 1935, a non-government organisation dedicated to the establishment of a national system of lands from which human impacts and influences would be excluded. Leopold and Robert Marshall were among its founders. Marshall was chief of the Division of Recreation and Lands of the Forest Service, and did much to advance its wilderness programmes - see Trefethen 273.

[161]Trefethen 273.

In 1926, the Forest Service began an appraisal of the extent of wilderness remaining in the national forests. A national inventory was prepared which, in 1929, 'became the basis of the first systematic program of wilderness preservation - administrative regulation L-20'.[162] In 1927, the chief of the Forest Service announced plans to prohibit road building and other development which might impair the character of areas that possessed wilderness quality. The L-20 Regulation provided a set of general regulations and formal guidelines for establishing and administering wilderness units known as 'primitive areas'. Local managers were to provide the management details in individual area plans. As the name suggests, the intention was that these areas should be kept primitive; but low standard roads, simple shelters and limited wood cutting were allowed. Primitive area status, however, did not represent a long-term commitment of resources. They were not intended to be permanent wilderness preserves, but were regarded only as 'temporary withdrawals from haphazard development.'[163] Between 1931 and 1939, 73 primitive areas totalling about 13 million acres were designated in the west.[164] In practice, the area plans rarely imposed limitations on logging and other commercial uses, and Regulation L-20, essentially an interim protective measure for certain key lands in the form of a listing of permitted and prohibited uses, did not in fact offer sufficient protective of the wilderness resource. The popularity of the areas prompted the belief that they should be better protected, and led to revision of the regulations in 1939.[165]

6.7.10 U Regulations: 1939

In 1939, the L-20 Regulation was replaced with Regulations U-1, U-2 and U-3(a), the purpose of which was to provide more effective protection of unroaded lands in the

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[162]Hendee, Stankey & Lucas (1990) 100.

[163]Wilkinson & Anderson 338.

[164]McCloskey 296 gives the extent as 'about thirteen million acres', Wilkinson & Anderson 340 as 'more than fourteen million acres' - the precise extent is not important.

[165]See McCloskey 296, Wilkinson & Anderson 338-9, and Hendee, Stankey & Lucas (1990) 100.

national forests.[166] The U Regulations made provision for the reclassification of all primitive areas under three land use designations: 'wilderness areas' (Regulation U-1), 'wild areas' (Regulation U-2) and 'roadless areas' (Regulation U-3(a)). On the recommendation of the Chief of the Forest Service, the Secretary of Agriculture could designate tracts of land of not less than 100 000 acres as wilderness areas, and only the Secretary was empowered to authorise any modification or elimination of such an area. Tracts of land between 5 000 and 100 000 acres could be established as wild areas by the Chief of the Forest Service, and he could also modify or eliminate them. Wilderness areas and wild areas were managed identically. Roadless areas were managed primarily for recreational use 'substantially in their natural condition.' Roadless areas more than 100 000 acres in extent could be established or modified only by the Secretary, and smaller roadless areas by the Chief. Timber cutting, roads and other modifications were permissible in roadless areas if provided for in area management plans; but logging, roads and mechanised access (except where well established or in emergencies) were prohibited in both wilderness and wild areas. Grazing and water resource were allowed, and mining was allowed to continue subject to existing mining and leasing laws; but the Forest Service could insist on minimal impact on wilderness conditions.[167]

The U Regulations broadened the purpose of wilderness as previously defined in the L-20 Regulation. The Forest Service Manual described wilderness as having 'an important place historically, educationally, and for recreation', and as 'an important part of National Forest land use planning.'[168] They also provided far more protection for wilderness, and were intended to be permanent, not just an interim measure. Twenty-five years later they became the basis of the 1964 Wilderness Act.[169]

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[166]The U Regulations were the culmination of the efforts of Robert Marshall, then chief of the Division of Recreation and Lands in the Forest Service. Marshall and Leopold were instrumental in forming The Wilderness Society in 1935. Marshall joined the Forest Service in 1937, and pushed strongly for expansion of wilderness reserves in the national forests - see Hendee, Stankey & Lucas (1990) 101. Wilkinson & Anderson 339 describe Marshall as 'one of the most influential figures in United States preservation policy.'

[167]See Hendee, Stankey & Lucas (1990) 101-2, Wilkinson & Anderson 339-341, McCloskey 296-7.

[168]Cited in Hendee, Stankey & Lucas (1990) 101.

[169]Wilkinson & Anderson 340-1, Hendee, Stankey & Lucas (1990) 101.

Because many of the 76 primitive areas which had been set aside had roads within their boundaries, and had been established without adequate surveys, they were to be reviewed and reclassified under the new guidelines. The review process commenced, but little progress was made before the outbreak of World War II. No reclassifications took place during the war. The Forest Service's wilderness programme entered a dormant phase following Marshall's death in 1939 and the demands of the war and the post-war housing boom. By the late 1940s, only two million acres had been set aside as wilderness. Increasing demands for commercial use of areas resulted in reclassifications from protected status during the 1940s and early 1950s - the Service would delete commercially valuable portions (for example, timbered lower elevation areas) from existing primitive areas and substitute other areas of low economic value (for example, high elevation areas devoid of vegetation). Conservationist became concerned. Interest returned to questions of wilderness management, and pressure began to build up for a new method of wilderness designation.[170]

6.8 THE LEGAL RESPONSE: THE TRANSITION FROM ADMINISTRATIVE WILDERNESS TO STATUTORY WILDERNESS (1940-1963)

Before 1964 wilderness areas were protected as a matter of administrative policy. The very nature of national parks and national monuments was such that roads and tourist facilities were required in them, so that wild country within these areas was at best tenuously protected as administratively determined wilderness zones. In the national forests under the jurisdiction of the Forest Service, protection of wilderness was more effective after the introduction of the L-20 Regulation and subsequently the U Regulations; but these were also administrative prescriptions, and the responsible officials were, in effect, free to protect wilderness within their limits, or not to do so, as they chose.[171] Wilderness proponents questioned whether it was possible to control the overuse and over-development of wild areas in national parks, and whether it was even possible to maintain a wilderness preservation policy in the national forests under the

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[170]See Hendee, Stankey & Lucas (1990) 101-2, Wilkinson & Anderson 341-2, McCloskey 297.

[171]Hendee, Stankey & Lucas (1990) 102.

Forest Service's essentially inconsistent multiple-use approach to resource management. Administrative decisions are subject to change. Policies change from time to time, and the Service's prime function was, in any event, the harvesting of timber, albeit on a sustained yield basis, and therefore inconsistent with dedicated preservation. In both parks and forests, undeveloped areas were vulnerable to a variety of uses and development pressures. The Forest Service, for example, lacked legislative authority to bar mining and the construction of dams and other water projects in the wilderness areas under its jurisdiction.[172] 'The answer to all these concerns', Hendee, Stankey & Lucas write, 'seemed to lie in a legal, rather than an administrative, approach to wilderness protection in which the requirements and procedures for safeguarding wilderness values were prescribed by statute rather than left to the discretion of agency administrators.'[173]

At first the preservationist movement was represented by a few individuals. The idea of a nationwide system of wilderness belts along mountain ridges was expressed as early as 1921, and in the 1930s Marshall had advocated the permanent protection of wild country pursuant to a federal land management policy. Others argued for congressional definition and standards for wilderness preservation.[174] The shift of emphasis from policy protection to *de jure* protection began in earnest in 1940, when the first bill for a wilderness system was introduced in Congress. The intention of the Bill was to make any alteration of wilderness conditions within the system illegal; but, according to Nash, 'in the mood of growing concern over World War II it died quietly.'[175]

A 1949 report recorded that there was widespread support for wilderness protection as secure as that accorded to national parks. The Wilderness Society's executive director, Howard Zahniser, one of the strongest advocates of a national wilderness system, had

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[172]McCloskey 297.

[173]Hendee, Stankey & Lucas (1990) 102.

[174]See Hendee, Stankey & Lucas (1990) 102.

[175]Nash 220-2.

revived the campaign for legal protection late in the 1940s. In the 1950s the Society began what Trefethen describes as 'a concerted drive to obtain congressional recognition of the wilderness system.'[176] At the Sierra Club's First Biennal Wilderness Conference in 1949, and again at its Wilderness Conferences in 1951 and 1955, Zahniser led discussion of the concept. At the 1951 conference he said:

> 'Let's try to be done with a wilderness preservation program made up of a sequence of overlapping emergencies, threats, and defense campaigns. Let's make a concerted effort for a positive program that will establish an enduring system of areas where we can be at peace and not forever feel that the wilderness is a battleground.'[177]

The Sierra Club took up the campaign. In 1955 it resolved in favour of federal legislation for wilderness protection. Other organisations joined the campaign. The Izaac Walton League of America, for example, at this time also called for 'formal status under law' to be given to the administrative wilderness system of the Forest Service.[178] Zahniser, in cooperation with the Sierra Club, the National Parks Association, the National Wildlife Federation, and the Wildlife Management Institute, prepared a draft wilderness bill.[179] In 1956 the bill was introduced in Congress stating that it was the intent of Congress 'to secure for the American people of present and future generations the benefits of an enduring reservoir of wilderness.' It listed over 160 areas in the National Forests, National Parks and Monuments, National Wildlife Refuges and Ranges, and Indian reservations, that would comprise the National Wilderness Preservation System. A National Wilderness Preservation Council was also proposed, one of its functions being to gather information about wilderness and to make recommendations for the maintenance and possible expansion of the system.[180]

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[176]Trefethen 274.

[177]Cited in Hendee, Stankey & Lucas (1990) 103.

[178]McCloskey 297.

[179]McCloskey 298.

[180]Nash 220-1.

Espousal of the concept of a national wilderness system represented an important shift of approach and emphasis on the part of the preservation movement in its contest with the proponents of utilisation of the wilderness resource, in two significant respects. First, wilderness advocates adopted a more proactive stance. They were no longer content with reactionary, defensive protection of particular threatened areas, but now promoted protection of wilderness in general. In Nash's words, they now began to 'press for a still more positive affirmation of wilderness in American civilization.'[181] Attention focused on wilderness values in general rather than parochial, localised debate on the merits of preservation and economic development. Secondly, whereas hitherto protection was a matter of policy and administrative decision, their purpose was to preserve the integrity of wilderness throughout the system by legal prescription. 'The concept of a (legal) wilderness system marked an innovation in the history of the American preservation movement.'[182]

The first of a succession of wilderness bills was introduced in 1956; but it took nine years before the Wilderness Act emerged from Congress in its final form.[183]

6.9 THE GENESIS OF STATUTORY WILDERNESS (1964)

The signature of President Lyndon B Johnson to the Wilderness Act[184] on 3 September 1964 represents the genesis of the concept of statutory wilderness. It was not an easy birth. During its nine year gestation period, no less than 65 different wilderness bills were introduced, eighteen public hearings conducted by congressional committees were

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[181]Nash 220.

[182]Nash 222.

[183]The bills were consistently blocked, largely because of the strong opposition from western commercial interests such as the mining companies, timber corporations and livestock associations. Senate, on the other hand, supported the concept, and in 1961 the vote on the Senate floor in favour of the bill was 78 to 8, and in 1963, 73 to 12 - Trefethen 274.

[184]Public Law No 88-577.

held, and voluminous evidence was recorded.[185] The passage of the Act marks a major turning point in American attitudes towards nature. It represents the culmination of the evolution of ideas concerning wilderness, in Hendee, Stankey & Lucas' words: 'wilderness became a major item on the nation's political agenda', and 'has evolved from a general, ill-defined concept pervasively entwined in our history to a highly formal conception founded upon law.'[186] 'On that day', Frome writes, 'the United States became the first country in the long record of civilization to proclaim through law a recognition of wilderness in its way of life, as part of its culture and its legacy to the future.'[187]

Senator Hubert H Humphrey and eight other senators introduced the first wilderness bill on 7 June 1956, the management provisions of which were substantially the same as Regulation U-1.[188] The bill proposed inclusion in the wilderness system of lands from the National Forest System, National Park System, National Wildlife Refuges and Game Range System, and Bureau of Indian Affairs; all areas classified as wilderness, wild, or roadless under the U Regulations were to be included, without further review or classification, within the system; and provision was made for establishment of a National Wilderness Preservation Council.[189]

The National Park Service initially opposed the wilderness bill on the grounds that 'it was not necessary and that it might endanger national park wilderness areas by lumping

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[185]From June 1957 to May 1964 there were nine separate hearings on the proposal, collecting over six thousand pages of testimony - see Nash 222.

[186]Hendee, Stankey & Lucas (1990) 99.

[187]Frome 17.

[188]Zahniser and leaders from the Sierra Club, National Parks Association, National Wildlife Federation, and the Wildlife Management Institute had prepared a draft bill in 1955 at the urging of Senator Hubert Humphrey - Hendee, Stankey & Lucas (1990) 104, and see 104-6 for a brief legislative history of the Wilderness Act.

[189]The Council proposed was composed of the heads of the Forest Service, Park Service, Fish and Wildlife Service, Bureau of Indian Affairs, Smithsonian Institution and six 'citizen preservationists'. Its functions would have been to receive and review all wilderness reports and recommendations, to transmit them to Congress, and to advise Congress and the president thereon. This was seen as a means of checking the broad executive discretion possessed by the administrative agencies - Hendee, Stankey & Lucas (1990) 104.

them with those of other agencies.'[190] The Forest Service also opposed the bill at first because, according to its then Chief, Richard E McArdle, it was 'excessively restrictive' and 'would strike at the heart of the multiple-use policy of national-forest administration.' He argued that wilderness legislation would discriminate against other uses:

> 'It would give a degree of congressional protection to wilderness use of the national forests not now enjoyed by any other use. It would tend to hamper free and effective application of administrative judgment which now determines, and should continue to determine, the use, or combination of uses, to which a particular national-forest area should be devoted. If this special congressional protection is given to wilderness use, it is reasonable to expect that other user groups will subsequently seek congressional protection for their special interests.'[191]

The Forest Service proposed a substitute bill to establish multiple use and sustained yield as the primary objectives in its administration of national forests, and such a bill was enacted in 1960.[192] By 1958, the Forest Service had withdrawn its opposition in principle to the wilderness bill, opposing only certain provisions which were subsequently amended to its satisfaction.[193] According to Wilkinson & Anderson, three factors account for its change in position: first, the 1961 bill dropped a provision contained in the original bill establishing a National Wilderness Preservation Council to oversee the wilderness system; secondly, Congress had passed the Multiple-Use Sustained Yield Act in 1960, thereby affirming the agency's multiple-use authority; and thirdly, incoming President John F Kennedy supported wilderness legislation.[194]

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[190]Hendee, Stankey & Lucas (1990) 104.

[191]Statement of Richard E McArdle in *Wilderness Hearings (1957)* 90, 93-4, cited in Wilkinson & Anderson 344 footnote 1848, and see also McCloskey 299.

[192]Multiple-Use Sustained-Yield Act, 74 Stat 215 (1960), codified at 16 USC §§ 528-531 - see McCloskey 299 and Wilkinson & Anderson 344.

[193]McCloskey 299.

[194]Wilkinson & Anderson 344 footnote 1852. McCloskey 298-9 suggests two further reasons: the allowing of mining and reservoirs on a presidential finding that they were in the public interest, and allowing the Secretary of Agriculture administratively to declassify nonqualifying primitive areas at the end of the period for reviewing such areas to determine which qualified to be kept as wilderness.

6.9.1 Passage of the Wilderness Act

The considerable delay in final enactment of the Wilderness Act was largely due to vigorous opposition to the very notion of permanently setting wilderness aside from multiple use. The timber industry, oil, grazing and mining interests 'bitterly resisted' wilderness legislation.[195] The professional foresters and government agencies involved in recreation and management of outdoor areas were jealous of their administrative prerogatives of technical and policy decision making in areas under their jurisdiction. In general, opponents argued that resources within the public domain should be utilised, not just admired, and the effect of the proposed bill was to lock up millions of acres in the interests of the few to the detriment of the majority of Americans. Proponents of the bill responded that true multiple use applied to the public domain as a whole, not to every acre, and implied a spectrum of uses in the public interest, not just economic use. In any event, they argued, the areas proposed to be set aside represented a negligible percentage of the nation,[196] and 'the wilderness we now have is all ...men will ever have.'[197]

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[195]McCloskey 298.

[196]In regard to the extent of the wilderness system, see McCloskey 288-9 (written in 1966): 'Only about two and one-half per cent of the land area of the United States is still "untrammeled by man," and much of this is in Alaska. The remainder consists mainly in lands by-passed by settlement - lands too rocky, too cold, too dry, too wet, or too inaccessible to be desirable. Only a fraction of this fragment of wilderness is usable for commercial purposes, but ambitions to use this fraction did evoke opposition to passage of the act. Some mining, logging, grazing, and dam-building interests argued that the nation (or they themselves) could not spare exploitation of this fraction. But much of this fraction was already closed to use by these interests at the time of the act's passage. The lands already closed to logging, 9.1 million acres of national forest land then denominated as wilderness areas and wild areas in some fifty-four separate units, were placed in the National Wilderness Preservation System at the outset by the act, and they were closed to future dam building and, after 1983, to mining. Another 5.5 million acres of national forest land, in some thirty-four units known as primitive areas, will be reviewed in the ten years following the act's passage to determine which units should be permanently protected as wilderness and which need boundary adjustments. In addition, nearly forty million acres in some seventy units of the National Park System and National Wildlife Refuge and Range system will be reviewed during the same period to identify zones within them that should be reserved as wilderness. By succeeding acts of Congress, the primitive areas and the park and refuge zones that the studies show should be protected as wilderness can be added to the National Wilderness Preservation System. Ultimately, the system might protect more than forty-eight million acres, about two per cent of the nation's land surface. But now, in its initial stages, the system includes less than one half of one per cent of that surface.'

[197]See Nash 222-4, and Frome 17.

A significant feature of the fight for statutory wilderness was the extent of public support and interest stimulated by the contest.[198] Notwithstanding the strenuous opposition from powerful interests, the Act was passed by a majority of 373 to one in Congress, and 73 to 12 in Senate.[199] Its eventual successful passage did, however, require compromises and exclusions.[200] Reference to Indian Reservations, for example, were deleted because of the peculiar nature of American Indian sovereignty over Indian land.[201] Resistence to the bill virtually disappeared when it was amended, in 1962 and 1963, by withdrawal of the proposed establishment of a National Wilderness Preservation Council,[202] reduction of the number of areas identified for initial inclusion in the system, every new addition to the system being made dependent on a special act of Congress, mineral prospecting and mining development being allowed to continue until 31 December 1983, and the President being given power to authorise dams, power plants and roads in wilderness areas if he deemed it to be in the national interest to do so.[203] The compromises made in order to secure congressional support disappointed the preservationist lobby. Their campaign had been to include in the initial wilderness

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[198]In the Senate hearings conducted in Oregon, California, Utah and New Mexico during November 1958, for example, 1 003 letters were received favouring the bill and only 129 in opposition - Nash 225.

[199]Hendee, Stankey & Lucas (1990) 105.

[200]Hendee, Stankey & Lucas (1990) 106 observe that the Wilderness Act 'clearly was a compromise, yet unless it had been, it is unlikely the bill would have ever passed.'

[201]In 1937, nearly five million acres of Native American land had been reserved administratively for wilderness purposes, mainly through the efforts of Robert Marshall; but this designation had been revoked in 1957-8 by the Department of the Interior. Because title to these lands vested in the tribal councils and not in the federal government, wilderness designation required their concurrence. Protection of wilderness was therefore perceived as being less secure than on other lands, and Zahniser 'dropped the areas from his wilderness bill' - Hendee, Stankey & Lucas (1990) 105-6, and see also McCloskey 298. For discussion of Native American sovereignty over Indian land, see Chapter 4.

[202]Opposition by the conservation agencies to the creation of the Council remained even after the proposed lay membership of six (which would have given a majoriyt of six to five to the lay members) was reduced to three. It was believed that the Council would, in effect, make most of the final wilderness classification decisions. The Forest Service also maintained that such a Council would create an unnecessary step in the review process. Zahniser agreed to its removal from the bill, 'and counted on the president to check secretarial recommendations' - Hendee, Stankey & Lucas (1990) 106.

[203]The prohibitions of uses of wilderness were more restrictive in the bill. All new mining in wilderness, for example, would have been prohibited upon enactment. 'Yet', Hendee, Stankey & Lucas (1990) 105-6 comment, 'it became obvious that such a blanket restriction would mean no wilderness bill would pass.' The Act permitted prospecting to continue until 31 December 1983, and mining on claims established prior to this date to continue indefinitely. See also Nash 225-6.

system not only all federal lands managed as wilderness,[204] but also *de facto* wilderness areas in the public domain, amounting in all to about 60 million acres. Only nine million acres were initially approved by the Act. Nonetheless, for the first time wilderness was legally defined, and a national wilderness preservation system was established as a legal institution.[205] The principle and intent of keeping at least some parts of the United States forever in its natural wild state had found formal expression, and the machinery for adding to the system had been established. Nash observes that 'Congress lavished more time and effort on the wilderness bill than on any other measure in American conservation history',[206] and Frome comments that '(t)he very effort surrounding passage may make the law more impressive as a statement of national philosophy than as a formula or compendium of rules and regulations, for it plainly evoked the feeling of countless individuals throughout the country - and likely throughout the world - who would speak for wilderness given the chance and would say that natural islands within our expanding civilization are essential to the spirit of man.'[207] Hendee, Stankey & Lucas describe the Wilderness Act as 'a piece of legislation unique in American as well as international conservation history'[208].

6.9.2 The provisions of the Wilderness Act

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[204]Relatively substantial tracts of land in the national forests were being managed as administrative wilderness. Trefethen 274 writes: 'In 1964, the national forest wilderness system consisted of seventeen wilderness areas, thirty-two wild areas, and the Boundary Waters Canoe Area (a stronghold of the timber wolf) aggregating 8,609,659 acres. Additionally there were thirty-six primitive areas comprising more than six million additional acres. But nearly all of these areas had been established by administrative action and were subject to elimination by the same process.'

[205]Frome 17.

[206]Nash 222.

[207]Frome 17-8.

[208]Hendee, Stankey & Lucas (1990) 106.

The provisions of the Wilderness Act of 1964 are given in full in Appendix A. It consists of a short preamble and seven sections, the purpose, meaning and effect of which will now be discussed briefly.[209]

6.9.2.1 *Preamble and title*

The preamble indicates that the purpose of the Act is to establish a National Wilderness Preservation System 'for the permanent good of the whole people, and for other purposes.' Section 1 states that the Act may be cited by the short title of 'Wilderness Act'.

6.9.2.2 *Section 2: Statement of policy, establishment of wilderness system and definition*

The second section is arranged into three subsections. The first declares that it is the policy of Congress, because of population pressures and growing mechanisation, 'to secure for the American people of present and future generations the benefits of an enduring resource of wilderness', for which purpose it establishes a formal National Wilderness Preservation System composed of federally owned areas designated as 'wilderness areas'. Such areas are to be administered for the use and enjoyment of the American people (reflecting an anthropocentric, utilitarian approach), but 'in such manner as will leave them unimpaired for future use and enjoyment as wilderness' (thereby protecting the interests of future generations). Their administration (management) must ensure 'the preservation of their wilderness character'. Hendee, Stankey & Lucas, noting that the phrase 'as wilderness' appears more than once in the subsection, suggest that it is apparent that Congress fully intended 'use and enjoyment'

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[209]It is not necessary for the purposes of this work to embark on a detailed analysis of all of the provisions of the United States Wilderness Act, or of its ambiguities, complexities and implications for wilderness management in the American context. For excellent detailed analyses and discussions of the Act, see McCloskey's 1966 seminal article (McCloskey 301-314) and Hendee, Stankey & Lucas (1990) generally, and 106-119 in particular - the latter is an A4 size book of 546 pages of detailed analysis and recommendations for the management of wilderness. The discussion in the text of this work is intended to relate to those aspects of American experience which will be instructive in the formulation of an appropriate policy and programme for the protection of wilderness in South Africa.

to be contingent upon the maintenance of the areas as wilderness[210] which, perhaps, suggests some biocentric purpose. In any event, although the Act was clearly not intended as a comprehensive guide to management,[211] the primary purpose of management is manifest: wilderness areas must be preserved in their natural condition, and managers must ensure that the use and enjoyment by people is not inconsistent with preservation of the wilderness condition. Finally, subsection (a) states that no federal lands may be designated as 'wilderness areas' except as provided for in the Act, or by a subsequent Act.[212]

Subsection (b) directs that management responsibility for wilderness areas shall remain with the department and agency having jurisdiction over them immediately before their inclusion in the System. The effect of this provision was that no new management agency was created for wilderness areas.[213]

Subsection (c) defines wilderness as areas where humans and their works do not dominate the landscape, 'where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain.' Hendee, Stankey & Lucas refer to this part of the definition as 'an ideal, almost poetic'. The word 'untrammeled',

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[210]Hendee, Stankey & Lucas (1990) 107.

[211]The Act provides only broad management guidelines and directions; detailed guidelines are contained in regulations subsequently issued by the Secretaries of Agriculture and the Interior - Hendee, Stankey & Lucas (1990) 106.

[212]McCloskey 305-7 suggests that this provision is ambiguous because it is not altogether clear whether Congress intended to establish an exclusive statutory system for *reserving* wilderness areas on federal lands, or whether it is the *designation* or *label* of 'wilderness area' only that is excluded. The latter is clearly the more literal and therefore better interpretation, and there is nothing to prevent federal land management agencies from administering areas as wilderness, but under another title. Congress' intention appears to have been to avoid confusion, and not to compromise the concept of wilderness by allowing areas other than true wilderness to be designated as such. In South Africa, the word 'wilderness' is generally still used inaccurately and loosely to describe almost any wild or naturally attractive area, and this will only change once we have a substantive legislative definition of true wilderness in place.

[213]The three federal agencies originally concerned were the Forest Service in the Department of Agriculture, and the National Park Service and Fish and Wildlife Service in the Department of the Interior. In 1976, the Bureau of Land Management in the Department of the Interior was included in the System pursuant to the Federal Land Policy and Management Act (Public Law 94-579, codified at 43 USCA § 1716), in terms of which the Secretary of the Interior was instructed to review roadless lands of 5 000 acres or more and roadless islands under its administration and to make recommendations as to their suitability for wilderness designation - see Hendee, Stankey & Lucas (1990) 107, 147-152.

they say, was specifically chosen by Zahniser, and means 'not subject to human controls and manipulations that hamper the free play of natural forces.'[214] The definition proceeds, in a more legal sense, to describe wilderness as federal land -

> 'retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's works substantially unnoticable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.'

The American definition thus articulates an ideal conception of wilderness, but at the same time, pragmatically, offers a working definition based on recognition that the ideal no longer exists in the modern world: wilderness areas are those which 'generally' appear to have been affected 'primarily' by the forces of nature, with human imprint 'substantially' unnoticable.[215] The 5 000 acres minimum appears to be arbitrary, but is clearly intended to serve only as a guideline or as an alternative to 'sufficient size as to make practicable its preservation and use in an unimpaired condition'.[216] The reference to geological and other features is also not exclusively prescriptive or a mandatory requirement - wilderness *may* include such features; they are neither prerequisites nor by themselves sufficient criteria for wilderness classification. Hendee, Stankey & Lucas' interpretation of this 'multifaceted' definition is that the criteria of

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[214]Hendee, Stankey & Lucas (1990) 108.

[215]Hendee, Stankey & Lucas (1990) 108 - Congressman Sayler noted in 1963 that the Act first describes wilderness as an *ideal concept*, but then goes on to discuss wilderness *as it is to be considered* for the purposes of the Act.

[216]There seems to be general consensus that, ideally, a wilderness area should be remote, pristine and distant from the sights and sounds of humans. But the debate on appropriate size criteria continues. In New South Wales, Australia, for example, a study recommended a minimum area of 25 000 hectares, with a core area at least 10 kilometres in width and a surrounding buffer zone of 25 000 hectares. In New Zealand, wilderness areas must be large enough to take at least two days foot travel to traverse. Depending on the terrain, therefore, wilderness areas in New Zealand would probably exceed 25 000 hectares - Eidsvik (1989) 60.

naturalness and solitude are the distinguishing qualities, and the principal criteria to guide the managemen,t of classified wilderness.[217]

6.9.2.3 *Section 3: Extent of system*

Section 3, comprising five subsections, provides details of the mechanisms and procedures for inclusion of areas within the System.

The first subsection, section 3(a), designates as wilderness areas all areas within the national forests classified as 'wilderness', 'wild' or 'canoe' thirty days prior to commencement of the Act. It also requires definitive boundary descriptions of these areas to be filed, and pertinent records, maps, descriptions and regulations to be made available to the public.[218]

Section 3(b) instructs the Secretary of Agriculture, within ten years after enactment of the Act, to review each area in the national forests classified as 'primitive' for its suitability or nonsuitability for preservation as wilderness, and report his findings to the President who, in turn, must make recommendations with respect to inclusion in the wilderness system within prescribed periods.[219] Presidential recommendations for wilderness designation only become effective if so provided by a subsequent Act of Congress.

Section 3(c) prescribes a similar review process for units under the administration of the Secretary for the Interior. Every roadless area of 5 000 acres or more in the national parks, monuments and other units of the National Park System, and every such area and

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[217]Hendee, Stankey & Lucas (1990) 108-9.

[218]Fifty-four areas covering 9,1 million acres were thus classified, all in the national forests - no Department of the Interior lands were included in the initial wilderness system - Hendee, Stankey & Lucas (1990) 109.

[219]The prescribed timetable for the review (of the 34 primitive areas, a total of 5,4 million acres at the time the Act was passed - Hendee, Stankey & Lucas (1990) 109) was not less than one-third to be reviewed within the first three years, not less than two-thirds within seven years, and the remaining areas within ten years after enactment of the Act - see s3(b) of the Act (Appendix A).

every roadless island in the National Wildlife Refuges and Game Range System, are required to be reviewed for wilderness classification in the same ten year period.

Section 3(d) makes provision for public notice of, and public hearings on, recommendations to Congress. Section 3(e) prescribes procedures for modification or adjustment of wilderness boundaries.

The review procedures established under these subsections resulted in litigation. In *Parker v United States*,[220] the point was made that one of the main purposes of the Act was to remove absolute administrative discretion from the Secretary of Agriculture and the Forest Service by placing ultimate responsibility for wilderness classification in the hands of Congress. One of the major purposes of the South African Wilderness Act proposed in Chapter 10, similarly, will be to remove ultimate responsibility for wilderness classification and protection to the elected representatives of the people in Parliament where it rightly belongs, consistent with a public trust doctrine which regards wilderness as part of the corpus of the trust, the State as trustee, and the people as the beneficiaries. In *Parker*'s case, the Secretary of Agriculture was restrained from selling timber on federal land in a national forest which the plaintiffs claimed qualified as wilderness under the Act. The court granted the interdict on the basis of the evidence that the area in question was wild in that it was inhabited by animals, thickly wooded, secluded and unspoiled. Witnesses who were familiar with wilderness said that a wilderness experience could be obtained in the area. The court decided that there was sufficient evidence of wilderness character to justify wilderness classification, and that it should therefore be included in the study report to the President and Congress for determination of its character and that, in the meantime, acts which would change its character should be enjoined until such determination could be made. The following is a relevant extract from the judgment:

> 'The concept of preserving certain public lands in their natural state did not originate in the Wilderness Act. For many years primitive, wilderness and wild areas have been set aside by the Secretary of Agriculture and the Chief of the Forest Service.... However, prior to the Wilderness Act,

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[220] *Parker v United States* (1970) 309 F Supp 508.

the issue of what areas should be designated as wilderness, wild or primitive, and what uses might be made of such areas was entirely within the discretion of the Secretary of Agriculture and the Forest Service. Thus, the administrative decisions with respect to the suitability of an area for wild, wilderness or primitive classification, the need for preserving the natural state of such an area, and the relative values of various resources in the particular area were final and unreviewable. One of the major purposes of the Wilderness Act was to remove a great deal of this absolute discretion from the Secretary of Agriculture and the Forest Service by placing the ultimate responsibility for wilderness classification in Congress.'[221]

6.9.2.4 *Section 4: Use of wilderness areas*

Section 4(a) declares the purpose of the Act to be 'within and supplemental to the purposes for which national forests and units of the national park and wildlife refuge systems are established and administered', and then recites certain acts, such as the Multiple-Use Sustained-Yield Act,[222] which remain unaffected.

Section 4(b) states that each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and, further, that such areas are to be devoted to the public purposes of recreational, scenic, scientific, educational, conservation and historic use, except as otherwise provided in the Act.

Section 4(c) prohibits certain uses of wilderness. It stipulates that, except as specifically provided for in the Act, and subject to existing private rights, there shall be

- no commercial enterprise and no permanent road, and,
- except as may be necessary to meet minimum requirements for the administration of the area for the purposes of the Act (including measures required in emergencies involving the health and safety of persons within the area), no temporary road, no use of motor vehicles, motorised equipment or motorboats,

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[221]Extracts from the judgement are quoted in Grad 1289-1293.

[222]74 Stat 215 (1960), codified at 16 USC §§ 528-531. Hendee, Stankey & Lucas (1990) 109 remark that by providing for wilderness preservation under the multiple-use umbrella, s4(a) removes a major reason for conflict between these two potentially incompatible laws.

no landing of aircraft, no other form of mechanical transport, and no structure or installation,

within any designated wilderness area.

The clear purpose of subsection (c) is to outlaw nonconforming uses of wilderness, but to allow administrative latitude for the proper management of the areas as wilderness, and for such situations as the evacuation of injured climbers from mountains by helicopters.[223] Administrative actions must be the minimum necessary for that purpose.[224]

Section 4(d) then proceeds to list, as special provisions, allowable, nonconforming uses which are incompatible with the primary goal of the Act, and which reflect some of the compromises made to secure enactment of the wilderness bill.[225] These include, *inter alia*:

- established uses of aircraft and motorboats,
- actions taken to control fire, insects and diseases,[226]
- any activity, including prospecting, for the purpose of gathering information about mineral or other resources, if carried on in a manner compatible with the preservation of the wilderness environment,
- subject to specified regulations and restrictions, continued application of mining and mineral leasing laws until midnight on 31 December 1983,
- water resource development if authorised by the President upon his determination that such use will better serve the interests of the United States and the people than will its denial,

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[223]McCloskey 309. The mountain rescue team of the Mountain Club of South Africa is regularly involved in such rescues in the Drakensberg.

[224]Hendee, Stankey & Lucas (1990) 110.

[225]Hendee, Stankey & Lucas (1990) 110, 112.

[226]The authority to control fire, insects and disease is discretionary not mandatory - the Secretary of Agriculture is not obliged to take action, but may elect to allow natural processes to run their course - Hendee, Stankey & Lucas (1990) 111.

- livestock grazing established before the Act,
- commercial services to the extent necessary for activities which are proper for realising the recreational or other wilderness purposes of the areas (for example, packing, outfitting and guiding services).

All of the above activities are to a lesser or greater extent incomatible with wilderness; but mining, in particular, is complete anathama to wilderness. Hendee, Stankey & Lucas describe mining in wilderness as a paradox, 'an internal contradiction within the Wilderness Act' - 'its presence can make sense only when viewed as a necessary political compromise.'[227]

6.9.2.5 *Section 5: State and private lands within wilderness areas*

Section 5 makes provision for adequate access to state-owned or privately owned land completely surrounded by national forest wilderness,[228] alternatively for exchange of such land for other federal land in the same State of approximately equal value, and for acquisition or expropriation of such land.

6.9.2.6 *Section 6: Gifts, bequests and contributions*

Section 6 authorises the Secretaries of Agriculture and Interior to accept gifts or bequests of money or land or both in furtherance of the objects of the Act. If land adjacent to an existing wilderness is involved, sixty days notice must be given to Congress prior to acceptance and incorporation into the area. Conditions may be attached to the gift or bequest if they are consistent with the purposes of the Act.

6.9.2.7 *Section 7: Annual reports*

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[227]Hendee, Stankey & Lucas (1990) 112. On wilderness mining, see also Wilkinson & Anderson 361-390.

[228]Described as 'inholdings' - McCloskey 34.

Section 7 instructs the Secretaries of Agriculture and Interior at the opening of each session of Congress to make a joint report to the President for transmission to Congress on the status of the wilderness system, including a list and description of the areas in the system, regulations in effect, and other pertinent information, together with any recommendations they may care to make.

6.10 POST-WILDERNESS ACT

6.10.1 The classification process: expansion of the system

By constituting as wilderness all lands administered by the Forest Service as wilderness, wild or canoe areas, the Wilderness Act created an 'instant' wilderness system.[229] By instructing the Secretaries of Agriculture and Interior to review the lands under their jurisdiction for areas suitable for wilderness designation, it made provision for expansion of the system.

The Forest Service undertook two extensive reviews, the first of which, Roadless Area Review and Evaluation (RARE I), was completed in 1972, within the prescribed ten year review period. It inventoried 1 449 roadless areas with wilderness potential, in extent 56 million acres, and designated 12,3 million acres for detailed study to determine their wilderness suitability.[230] This was followed by a second review (RARE II), which was published on 4 January 1979, and which identified 62 million acres of roadless land - nearly one-third of the National Forest System - 15 million acres of which (624 areas)

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[229]Hendee, Stankey & Lucas (1990) 123.

[230]At this time the Forest Service became embroiled in controversy and litigation over its 'purist' policy and timber management practices. The application of purity criteria meant that otherwise pristine areas were excluded because of nonconforming features such as jeep trails, cabins or the 'sights and sounds of civilisation'. Environmentalists and public interest groups were disappointed that only two of the identified 1 449 areas were in the East, and believed that there were tens of thousands of acres of land in the East that, although not as pristine or as vast as in the West, nonetheless possessed a sufficiently primitive character. The Sierra Club, disatisfied with the agency's timber activities in California roadless areas, instituted interdict proceedings, under the National Environmental Policy Act 42 USC §§ 4321-4370 (1982), to restrain timber sales and other developments in them. The case was settled out of court - see Wilkinson & Anderson 347, and generally on RARE I, 345-8. For a full discussion of RARE I, see Hendee, Stankey & Lucas (1990) 123-132, and for further commentary on wilderness litigarion, Wilkinson & Anderson 350-4.

were designated for wilderness allocation, 36 million acres (314 areas) for nonwilderness management, and 18,8 million acres for further planning.[231] In the meantime, in 1975, Congress passed the Eastern Wilderness Act[232] designating 32 wilderness and wilderness study areas in eastern national forests, and, in 1978, the Endangered American Wilderness Act[233] creating 1,3 million acres of wilderness, some of which had not been identified in the RARE process.[234] In 1984, Congress enacted statutes designating 6,8 million acres as wilderness in twenty states.[235]

The Department of the Interior, in discharging its statutory obligation to review all roadless lands in excess of 5 000 acres and all roadless islands under its jurisdiction, soon after passage of the Wilderness Act, estimated that 22,5 million acres of National Park Service land and 24,1 million acres of Fish and Wildlife Service holdings were subject to wilderness study. These increased as new units were added to the National Park and Wildlife Refuge Systems, resulting, during the ten year review period, to a total of 176 units covering more than 57 million acres being identified for review. By 1974, the Park Service had completed their review of, and submitted wilderness proposals on, 56 areas.[236] The Fish and Wildlife Service, on the other hand, made little progress in the first decade of the Wilderness Act, although it was responsible for the first classsification in the Department - the 3 700 acre Great Swamp Wilderness in New Jersey.[237]

The Bureau of Land Management (BLM) managed 473 million acres of federal land, which was far more than the Forest, Park, and Fish and Wildlife Services. Yet,

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[231]See Wilkinson & Anderson 350, and Hendee, Stankey & Lucas (1990) 138, and 134-142 generally on RARE II.

[232]Public Law 93-622 § 6(a), 88 Stat 2096, 2100 (1975).

[233]Public Law 95-200, 91 Stat 1425 (1978).

[234]Hendee, Stankey & Lucas (1990) 134.

[235]Wilkinson & Anderson 351.

[236]Hendee, Stankey & Lucas (1990) 142, 145.

[237]See Hendee, Stankey & Lucas (1990) 164, who suggest that the reason for its dilatoriness was lack of background experience with wilderness.

curiously, it was not given like recognition and authority to study, protect and manage its wilderness. The lands under its control are described by Hendee, Stankey & Lucas as 'forgotten lands' - vast acreages of the public domain that were never disposed of under the various federal programmes to promote settlement and development, or never designated for special purposes such as national parks or forests.[238] Early 1970 estimates of BLM lands with wilderness character in the lower 48 states range from 50 to 90 million acres, and these lands, together with the BLM lands in Alaska, represented the largest block of potential additions to the national wilderness system. It was the Federal Land Policy and Management Act of 1976[239] which gave the BLM authority to study, make recommendations to the President, and then to manage legally classified wilderness areas under its jurisdiction. The Act instructed the agency to review its roadless lands of 5 000 acres or more and its roadless islands for wilderness designation suitability within 15 years of its enactment.[240] Recommendations with respect to its primitive or natural areas were required to be transmitted to the President by 1 June 1980 - in ten western states, 53 such areas existed which had been established and were being managed as administrative wilderness.[241]

The National Wilderness Preservation System has grown to the extent that today it covers more than 35 million acres, not counting Alaskan wilderness. Alaska accounts for more than 57 million acres, making a total of 92 million acres at present in the system. Hendee, Stankey & Lucas give the following breakdown for the four different agencies involved:

Forest Service	367 units	33 275 432 acres
Park Service	42 units	39 075 415 acres
Fish and Wildlife Service	71 units	19 332 897 acres

[238]Hendee, Stankey & Lucas (1990) 147.

[239]Public Law 94-579 (1976).

[240]Section 603.

[241]Hendee, Stankey & Lucas (1990) 147-8, and see 148-152 for a summary of subsequent BLM studies, inventories and recommendations for wilderness designations.

BLM	28 units	474 902 acres
Total	**492 units**	**92 158 646 acres**[242]

The largest wilderness area is the 8,7 million-acre Wrangell-Saint Elias Wilderness in Alaska, managed by the National Park Service; the smallest is the Pelican Island Wilderness in Florida, managed by the Fish and Wildlife Service. The average size of a wilderness is 200 000 acres; but the average drops to 81 000 if Alaska is excluded in the computation. The western United States, with 20 percent of the population, contains 95 percent of the wilderness system. Only six states have no wilderness: Connecticut, Delaware, Iowa, Kansas, Maryland and Rhode Island.[243]

Although most of the wilderness allocation decisions have already been made, it is anticipated that the system will grow by perhaps another twenty per cent.[244] The limits on the ultimate size of the system, McCloskey suggests, would appear to be the practical ones of 'the disappearing opportunities to reserve wilderness and the sentiment of Congress and the American people.' As the scarcity value of wilderness increases, he submits, sentiment in favour of its preservation will undoubtedly increase too. He sees the greatest challenges as being 'immediately ahead in making the Wilderness Act work before scarcity dictates an ultimate limit that builds up an impregnable consensus in support of that final status quo.'[245]

6.10.2 Alaska

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[242]Hendee, Stankey & Lucas (1990) 530.

[243]These statistics represent the position as at March 1989 - Hendee, Stankey & Lucas (1990) 167.

[244]Hendee, Stankey & Lucas (1990) xv. See also Nash 226 and Trefethen 275. Cordell & Hendee 14 suggest that 'only modest additions are likely in the future.'

[245]McCloskey 314.

Alaska is a vast area of 375 million acres, about 90 percent of which is *de facto* wilderness. Hendee, Stankey & Lucas describe it as 'the epitome of the last frontier.'[246] The Alaska National Interest Lands Conservation Act of 1980[247] (ANILCA) set aside 104,3 million acres of national parks, wildlife refuges, wilderness areas and other conservation areas in Alaska. ANILCA stipulated that designated wilderness be managed in accordance with the provisions of the Wilderness Act, but with certain exceptions in recognition of Alaska's unusual and unique circumstances. Cabins, for example, were considered acceptable because of the severity of the weather and the danger of attack from bears. The need for traditional subsistence hunting and gathering was also acknowledged because of the dependence of the native Alaskans on wild resources.[248] ANILCA more than doubled the extent of the National Wilderness Preservation System. The present disposition of Alaskan wilderness units in the system is as follows:

Forest Service	14 units	5 453 429 acres
National Park Service	8 units	32 979 370 acres
Fish and Wildlife Service	21 units	18 676 320 acres
Total	**43 units**	**57 109 119 acres**[249]

6.10.3 Complementary systems

[246]Hendee, Stankey & Lucas (1990) 152.

[247]Public Law 96-487 (1980).

[248]Hendee, Stankey & Lucas (1990) 154-5, and see 116, 152-5 generally for discussion of the Act and Alaskan wilderness. The traditional rights of the indigenous people in the region were considered in Chapter 4.

[249]Hendee, Stankey & Lucas (1990) 530.

There are other systems and categories of protected areas in the United States which are located at the primitive end of the environmental modification spectrum,[250] and which merit some attention because they complement or supplement the philosophy and purpose of wilderness.[251]

6.10.3.1 *The National Trails System*

The National Trails System was established in 1968 to promote public enjoyment and appreciation of the open-air, outdoor areas of the nation.[252] Two types of trails were created: national recreation trails, mainly for outdoor recreation near urban areas, and national scenic trails, the first two of which were the 2 000-mile Appalachian Trail and the 2 350-mile Pacific Crest Trail. Fourteen other trails totalling more than 15 000 miles were identified for review as potential additions to the system. The most recent addition is the Continental Divide National Scenic Trail which follows the crest of the Rocky Mountains. Portions of the system pass through the National Wilderness Preservation System. The use of motorised vehicles on the trails is prohibited.[253] The trails system clearly has great potential for promoting appreciation of wilderness values.

6.10.3.2 *The Wild and Scenic Rivers System*

The National Wild and Scenic Rivers System was established under the Wild and Scenic Rivers Act of 1968.[254] This Act was originally promoted to counter federal dam construction, but evolved into a general curtailment of development along rivers and

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[250]The concept of an environmental modification spectrum is that there is a continuum of environmental conditions ranging from completely modified urban landscapes at the one end, to remote, pristine or primeval conditions at the other - see Hendee, Stankey & Lucas (1990) 159, 182.

[251]See Bean 119-179 for further information on the following national systems established in the United States: the National Wildlife Refuge System, National Forest System, National Resource Lands, National Wilderness Preservation System, National Park System, and Military Lands.

[252]Public Law 90-543 (1968).

[253]Hendee, Stankey & Lucas (1990) 168-9.

[254]Public Law 90-542 (1968), codified at 16 USCA §§ 1271-87.

their banks in the interests of conservation and outdoor recreation. The Act set aside segments of seven major rivers in their free-flowing state, and authorised the Secretary of the Interior to submit recommendations for including other still-unspoiled streams in the system. The system now comprises 119 river segments extending along more than 9 000 miles.[255] Trefethen describes the Act as a 'corollary of the Wildernes Act' because, like the latter, 'it assured the preservation of large blocks of fish and wildlife habitat that otherwise would have been subject to loss through development.'[256] Nash describes the United States wild rivers in 1980 as 'one of the nation's rarest resources, an endangered species comparable in some opinions to condors and grizzlies.' The Wild and Scenic Rivers Act therefore makes a substantial contribution towards protection of wilderness values. Its enactment and effect are all the more remarkable as, unlike many wilderness areas, all undeveloped rivers have utiitarian value as potential hydropower sources.[257]

6.10.3.3 *State wilderness systems*

The Wilderness Act relates only to federal lands. Another significant 'corollary' to the national wilderness system is state wilderness. More than fifty areas and nearly two million acres have been established in nine states.[258] The consequence has been an expansion not only of the total area of wilderness, but also of the range of wilderness areas and diversity of biological representation and ecosystems protected.[259] The states have also tended to apply a less 'purist' approach than the National Forest Service and

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[255]These river segments receive greater protection than that afforded under the Wilderness Act in that dam construction and other water development projects, power transmission lines, and mineral 'entry' are completely prohibited, whereas these activities are permissible in wilderness areas under certain conditions. In addition to the national river system, there are also 23 state systems which protect nearly 200 rivers extending over 5 800 miles - Hendee, Stankey & Lucas (1990) 169-170.

[256]Trefethen 275.

[257]Nash 236-237.

[258]See Hendee, Stankey & Lucas (1990) 171-4 for a listing of the states concerned, and further information about state wilderness.

[259]The State of Maryland, for example, has no federal wilderness but, as at 1984, had four state wilderness areas totalling 8 870 acres - Hendee, Stankey & Lucas (1990) 172-3.

the Wilderness Act. Minnesota, for example, requires that the area, in order to qualify as wilderness, must appear to have been primarily affected by the forces of nature, with the evidence of humans being substantially unnoticeable, or be one 'where the evidence of man may be eliminated by restoration.' Alaska and Florida also permit resource modification to restore the area to a natural condition, and California allows admission of areas which have 'been substantially restored to a near natural appearance.' Areas may be added to the California Wilderness Preservation System (which contains more than 420 000 acres) either legislatively or by administrative designation. Although generally somewhat more lenient and flexible in their approach, in one respect at least, California is more strict: aircraft flights below 2 000 feet above the ground level of wilderness are prohibited - no such prohibition applies to federal wilderness.[260]

6.10.3.4 *Research natural areas*

In 1966, the Department of the Interior established the Federal Committee on Research Natural Areas, the purpose of which was to inventory and prepare a directory of natural areas on federal land so as to promote the following objectives:

- to assist in the preservation of examples of all significant natural ecosystems for comparison with those influenced by humans;
- to provide educational and research areas for scientists to study the ecology, successional trends, and other aspects of the natural environment;
- to serve as gene pools and preserves for rare and endangered species of plants and animals.[261]

There are at present approximately 440 such areas ranging in size from less than one acre to more than 100 000 acres, and totalling nearly five million acres. Their purpose (maintaining natural processes and preserving a representative array of ecosystems) is

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[260]Hendee, Stankey & Lucas (1990) 172-3.

[261]Federal Committee on Research Natural Areas *A Directory of Research Natural Areas* (1968), cited in Hendee, Stankey & Lucas (1990) 174.

consistent with the rationale for wilderness, and the programme is therefore an important adjunct to the United States' national wilderness system.[262]

6.10.3.5 *Biosphere reserves*

Biosphere reserves are representative examples of the world's major biomes. They typically include a core zone, in which there is little or no human impact, as well as multiple function and cultural zones. There are 38 such reserves in the United States, covering more than seven million acres, portions of several of which are also classified as wilderness.[263] The biosphere reserve concept is an important extension and supplement to the appreciation and preservation of wilderness values.[264]

6.10.3.6 *World heritage sites*

World heritage sites are sites that contain outstanding or superlative qualities of the natural environment. There are 19 such sites in the United States, and one jointly administered with Canada. Selection of areas as world heritage sites 'reflects international recognition of their value as repositories of natural values, as the source of knowledge and understanding about natural processes, and their contribution to society as a source of pleasure and inspiration' - they represent 'another form of recognition and protection of wilderness values.'[265]

6.10.3.7 *Special interest areas*

There are six different kinds of specially designated areas that may be set aside administratively, by regulation, in the national forest lands: scenic areas, geological areas,

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[262]See Hendee, Stankey & Lucas (1990) 174 for further information about research natural areas.

[263]Hendee, Stankey & Lucas (1990) 175.

[264]For further discussion of biosphere reserves, see Chapter 7.

[265]Hendee, Stankey & Lucas (1990) 175. See also Chapter 7.

archaeological areas, historical areas, botanical areas and other special interest areas. Such areas can be, and in some cases are, managed as restrictively as wilderness areas.[266]

6.10.3.8 *The Nature Conservancy*

The Nature Conservancy, a private organisation which has become a major force in protecting natural environments that would otherwise be lost to development, owns and manages 873 nature sanctuaries. Since the early 1950s, it has been involved in the protection of more than 2,4 million acres. Areas under its control are managed primarily to protect critical species or natural communities.[267]

6.10.4 Unfinished business

Although the passage of the Wilderness Act and the establishment of the National Wilderness Preservation System represent a major and unique conservation achievement, much still remains to be done to secure protection of wilderness. Nash refers to the change of attitude that the achievement represents as being 'an intellectual revolution concerning wilderness that is not yet complete.'[268] Frome regards it as 'a beginning rather than an end.' In the preface to the 1984 edition of his book, he writes:

> '(P)assage of the Act produced an age of environmental awareness and activism that is still far from finished. Wilderness itself is strictly unfinished business, a pressing item on the agenda of civilized society - not simply of our nation but of the world - that must be reckoned with for as long as civilization endures. ...When I wrote *Battle for the Wilderness* ten years ago I treated the Wilderness

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[266]Hendee, Stankey & Lucas (1990) 175-6, who state that it is a matter of concern that such areas may also be disestablished administratively at local or regional level, which is why conservationists sought congressional protection for wilderness. Such areas nonetheless provide an administrative adjunct to the wilderness system.

[267]The Iowa Fern Ridge Preserve, for example, provides habitat for balsam firs and an endangered species of snail. In Florida, for added protection of the endangered crocodile, The Nature Conservancy acquired more than 1 700 acres to add to the Crocodile Lake National Wildlife Refuge - see Hendee, Stankey & Lucas (1990) 176.

[268]Nash 235.

> Act as a historic landmark; the United States had become the first country to recognize through law the value of wilderness to the quality of life. Yet even now most foresters, economists and commercial interests consider "setting aside" a wilderness containing anything salable as wasteful, a sacrifice for the benefit of the few at the expense of many. An affinity for wilderness may be rooted in the human soul or psyche, but the philosophical promise of the Act - to incorporate appreciation of wild nature as part of our national purpose - remains unfulfilled.[269]

The mere designation of areas as protected wilderness areas is clearly not enough. Public sympathy for wilderness is necessary, but not enough. The legislative machinery providing for such dedication must prescribe appropriate mechanisms for management of the areas set aside and for their continuing protection. An holistic approach to the political, socio-economic and cultural needs of the people is necessary. A wilderness opportunity spectrum is required for enduring enjoyment of the wilderness resource. Some areas are more fragile than others, and should be subjected to minimal human interference. Others will bear heavier impacts. Each wilderness area is in some way a unique ecosystem or landscape, and will require its own discrete management programme. Other areas that are wild but not wilderness should enjoy a lesser measure of protection for the opportunities that they offer, whether it be recreation, sanctuary for wildlife, or some other potential. Wilderness alone can no longer meet all these needs. For a wilderness system to be sustainable, complementary and supplementary systems and areas must be established. As Hendee, Stankey & Lucas put it: 'The quality of tomorrow's wilderness will depend as much on our success in fully developing these alternative opportunities as on our achievements in developing and implementing innovative wilderness allocation and management programs.'[270]

6.10.4.1 *The Grand Canyon controversy*

'Passage of the Wilderness Act of 1964', Nash writes, 'did not, of course, terminate the American debate over the meaning and value of wild country. Celebrations occasioned by the passage of the Act were still under way when proposals for more dams on the

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[269]Frome vii-viii.

[270]Hendee, Stankey & Lucas (1990) 177.

Colorado River created a whole new front for defenders of wilderness.' The effect of the proposals were that 'the Marble Canyon Dam would flood fifty-three miles of river, while the impoundments behind Bridge Canyon Dam would be ninety-three miles long. Forty miles of Grand Canyon National Monument would be affected and thirteen miles of the National Park. Eventually, sedimentation would mean still further encroachments on the wilderness conditions of the inner canyon.'[271]

The Grand Canyon is not wilderness *per se*, but the controversy between those who wished to preserve its wonder as a national and international heritage and for posterity, and those who wished to develop its enormous potential for technological progress, clearly demonstrated the dilemma confronting humankind in seeking to preserve wilderness. It compelled reconsideration of the rationale for the Wilderness Act, challenged any extension of its principles, and demanded reassessment of the purpose of wilderness. It highlighted the continuing debate in the United States over the meaning and value of wild country in general, and wilderness in particular, a debate which still continues.

The Sierra Club placed full-page advertisements in the New York Times and Washington Post with such headlines as 'NOW ONLY YOU CAN SAVE GRAND CANYON FROM BEING FLOODED...FOR PROFIT' and 'SHOULD WE ALSO FLOOD THE SISTINE CHAPEL SO TOURISTS CAN GET NEARER THE CEILING?' The advertisements evoked considerable public resistence to the proposed dams. 'Mail deploring Bridge and Marble Canyon Dams flooded key Washington offices in one of the largest outpourings of public sentiment in American conservation history.' The Sierra Club's membership rose from 39 000 in June 1966 to 67 000 in October 1968 and 135 000 by 1971. Like the Sistine Chapel, the Grand Canyon was seen as one of the world's treasures, and should be preserved in its pristine condition. Humankind would be poorer if the Grand Canyon were dammed - 'if wonder and humility in the earth's presence were to continue to exist in modern civilization, man needed places like a wild Grand Canyon.'[272] Because of the

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[271]Nash 227-8.

[272]See Nash 229-233.

unprecedented public outcry, the dams, which had originally been supported by the administration, the Secretary of the Interior, and the senators and representatives of the seven Colorado Basin states, as well, of course, by the influential water and power users' lobbies, were not built.[273]

6.10.4.2 *International implications*

It is generally recognised that the United States has played a leading role in the management of renewable resources such as forests, rangelands and wildlife, not only in terms of management of its own resources, but also in the development of principles, policies and programmes which have frequently been followed by other nations. In the early 1970s the United States provided leadership in international environmental and resource deliberations - it played an important role in establishing the United Nations Environment Program, in securing the Washington Convention (on control of trade in endangered species) and other international agreements, and in calling world attention to environmental concerns. Public and private sectors in the United States have acquired much expertise and information on environmental protection and resource management.[274] Frome expresses the leadership role of the United Statesas follows:

> 'There is no doubt that the world looks to the United States for leadership and for direction in the development of rational, responsible, ethical, and moral policy to protect nature. Since the establishment of Yellowstone in 1872 as the first national park anywhere on earth, we have been regarded as the trail-blazers of preservation. That reputation has been sustained through one pioneering action after another in defense of forests, wildlife, parks, soils, water, air - and wilderness.'[275]

It is a matter of critical importance that developing nations such as South Africa seek to achieve truly sustainable development based on self-reliance and on sound

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[273]In 1981, the Grand Canyon was declared a World Heritage Site.

[274]Talbot 9-10.

[275]Frome xii.

environment and resource management. We cannot afford not to seek instruction from the lessons the Americans have learnt and the mistakes they have made in the process of achieving their position of leadership in this field. There is much to be learned from the American experience.

6.11 CONCLUSION: LESSONS FOR SOUTH AFRICA

The decision in the United States to preserve wilderness, and then the allocation process, were essentially political processes. The people, the politicians, the legislature, the executive branches of government, non-government organisations, and the courts were all involved. Wilderness acquired a cultural meaning and significance, the evolution of which forced administrative responses from the four conservation agencies concerned, and ultimately the legislature. Hendee, Stankey & Lucas make the point that important lessons have been learned from the stresses and strains to which they were subjected in the process:

- the American public has (and should be) the ultimate judge of the disposition of roadless lands;
- environmental groups have had a far greater influence on land allocation than initially expected;
- with open access to wilderness review processes, ordinary citizens can have a profound influence on wilderness allocations;
- at first there were frequent problems, controversies and even impasses - when this occurred, the courts were at times the final arbitrator;
- the agencies had to adapt by taking a comprehensive planning approach, by integrating wilderness into long-standing planning processes, and by keeping in touch with public values.[276]

Recognising the many significant differences between North American and South African conditions,[277] there are nonetheless several important lessons that may be learnt from

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[276]Hendee, Stankey & Lucas (1990) 155.

[277]There is, for example, a vast difference in central government control, at two levels: geographical and constitutional. In the United States, federally owned lands comprise nearly one third of the total land area of the nation - Bean 119. In South Africa, about ninety per cent of all land is privately owned. In South Africa parliament is supreme (under the present political and constitutional regime - the position may well change in the near future), and is only limited by political considerations in its power to legislate in respect of wilderness and wildlife. The ultimate source of authority for all governmental regulation in the United States is its Constitution. The federal government is a limited government, in the sense that it is a government of

the history of the American struggle to establish and protect national parks and wilderness areas for their present and future generations. In South Africa wilderness still has limited public support and, understandably in view of our pressing socio-economic and political problems, has not yet gained a position of priority in our nation's affairs. Although not formally at war or in a state of emergency, South Africa is a nation in need - compelling need - for political, social and economic reform and development, which makes it difficult to protect our wild areas from ranching, timber, mining and other interests that wish to exploit all available natural resources. The Americans were persuaded, notwithstanding the national threat and demands of war, that wilderness values not only should be protected, but should be effectively protected by legislation. We should take instruction from that persuasion and commitment. Notwithstanding our pressing needs for the upliftment of the majority of our population, we too should muster the political will to protect our few remaining wild refuges, not only for the present generation, but also for posterity. We must recognise that we will have to tread a delicate line in trying to keep our wilderness areas from being violated while not appearing to be inconsiderate of the subsistence and development needs of our people. One of the battles we will be faced with is to resist proposals that wilderness and wildlife should be made available to the people for use and consumption to alleviate their immediate needs. Our country is large enough to spare a few wild spots. Our nation should be wise enough to preserve some of them in their wild state of nature, free from the hand of commercialisation in the interests of posterity. The status of our animal life is changing with alarming speed. With the increasing encroachment and impacts of humans, protected wilderness areas may be the best hope for a number of threatened species.

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enumerated powers. All powers not delegated to the federal government, nor prohibited to the states, are 'reserved to the States respectively, or to the people' by virtue of the Tenth Amendment. The Constitution's enumeration of federal powers is often couched in general language, the consequence of which is that the courts, and especially the Supreme Court, play a pivotal role in the process of constitutional interpretation and the process by which the respective legal authorities of the state and federal governments are demarcated - Bean 9. One of the powers not specifically delegated to the federal government was the power to legislate in respect of wildlife, and this led initially to the doctrine of state ownership of wildlife. Nonetheless, federal power to regulate wildlife became judicially confirmed, based on the constitutionally delegated federal treaty-making, property, and commerce powers, and the affirmative duty to protect the public trust - see Bean 10-47. In spite of this somewhat tortuous evolution of federal wildlife law, the United States has emerged as a world leader in the legal protection of its wildlife heritage.

The National Wilderness Preservation System founded by the United States Wilderness Act represents an entirely new paradigm of protection for wilderness - a transition from administrative to legislative wilderness. A key lesson to be learnt from the American experience, gained over decades of agonising debate and conflict between resource managers, lumber, mining, power, irrigation and other interests, is that the essential resource of *wilderness cannot adequately be protected other than by specific legislative enactment.*

As in South Africa,[278] statutory wilderness commenced in the United States in state forests under the jurisdiction of the National Forest Service. The other major wilderness agencies are the Bureau of Land Management and the National Parks Service which include wilderness areas on lands under their jurisdiction in the Federal National Wilderness Preservation System. There are also wilderness areas in the National Wildlife Refuge System. Comparative perspective thus indicates that it is by no means impractical to spread *a single umbrella of legislative protection across several administrative agencies.*

The cultural and symbolic values of wilderness should not be underestimated. There is a uniqueness and distinctiveness about South Africa's nationhood and culture which is rooted in the wilderness of the African continent. African wilderness was and is formative of our national character, and could be representative of our distinctive emerging South African culture and a symbol of our nationhood and self-esteem.

When he retired from the National Park Service of the United States in 1933, Albright delivered a farewell message, the following extracts from which are relevant to wilderness, and eloquently summarise many of the arguments presented above:

> 'We are not here to simply protect what we have been given so far; we are here to try to be the future guardians of those areas as well as to sweep our protective arms around the vast lands which may well need us as man and his industrial world expand and encroach on the last bastions of wilderness. Today we are concerned about our natural areas being enjoyed for the people. But we must never

[278]See Chapter 8.

forget that all the elements of nature, the rivers, forests, animals and all things coexistent with them must survive as well.

...Oppose with all your strength and power all proposals to penetrate your wilderness regions with motorways and other symbols of modern mechanization. Keep large sections of primitive country free from the influence of destructive civilization. Keep these bits of primitive America for those who seek peace and rest in the silent places; keep them for the hardy climbers of the crags and peaks; keep them for the horseman and the pack train; keep them for the scientist and student of nature; keep them for all who would use their minds and hearts to know what God had created. Remember, once opened, they can never be wholly restored to primeval charm and grandeur.

I also urge you to be ever on the alert to detect and defeat attempts to exploit commercially the resources of the national parks. ...

Park usefulness and popularity should not be measured in terms of mere numbers of visitors. Some precious park areas can easily be destroyed by the concentration of too many visitors. We should be interested in the quality of park patronage, not by the quantity. The parks, while theoretically for everyone to use and enjoy, should be so managed that only those numbers of visitors that can enjoy them while at the same time not overuse and harm them would be admitted at a given time.

...(E)ach of us is an integral part of the preservation of the magnificent heritage we have been given, so that centuries from now people of our world, or perhaps of other worlds, may see and understand what is unique to our earth, never changing, eternal.'[279]

In brief, the specific lessons for the legal draftsman to bear in mind are the following:

- The evolutionary pattern of protection, from unrestrained use of wilderness to its preservation, that emerges from the above overview suggests a compelling and inevitable logic in the transition to statutory wilderness.

- A review of American experience demonstrates the effectiveness of and need for a specific Wilderness Act and a formal national wilderness system. An *ad hoc*, reactive approach to wilderness protection is not effective; nor is unco-ordinated management of wilderness areas. An holistic, national treatment is essential.

- Wilderness cannot adequately be protected other than by specific and comprehensive legislative enactment.

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[279]Albright 310-1.

- Wilderness policy should be formulated at national level. Definition, general direction, advice and co-ordination are also national functions. Executive and administrative functions can and should be exercised at regional level (because of closer association with regional and local conditions, and the need for local participation).

- The mere setting aside of wilderness areas is not enough. The law must make provision for appropriate mechanisms for management of the areas set aside and for their continuing protection.

- Public participation in the dedication and administration of wilderness areas is essential.

- In cases of conflict, the courts should be the final arbiter.

- An holistic approach is essential. For a wilderness system to be sustainable, complementary and supplementary systems and protected areas must be established in order to provide for the needs of all our people.

CHAPTER SEVEN

WILDERNESS AS GLOBAL HERITAGE: THE GROWTH OF INTERNATIONAL AND INTRANATIONAL RECOGNITION AND PROTECTION

7.1 INTRODUCTION

'We must indeed all hang together, or most assuredly we shall all hang separately.'[1]

In Chapter 6, the history of American efforts to preserve some of its wilderness heritage was outlined in some detail because there is much that may be learned from their experience, gained over more than a hundred years, in setting aside and managing natural areas with wilderness qualities. The United States has been a world leader in the field of nature conservation. Yellowstone Park, established in 1872, was the world's first national park, and today there are more than one hundred countries with national parks. In 1924, the world's first formal wilderness area was set aside in the United States, and 1964 saw the genesis of the institution of statutory wilderness in the enactment of that nation's Wilderness Act. American experience in dedicating and managing wilderness can and should serve as important models and guidelines for similar efforts in other countries. It must, however, be borne in mind that American conditions, needs and culture are different from those of other countries, and it is through each country's peculiar 'cultural filter'[2] that the concept of wilderness must be approached.

The idea of establishing national parks spread rapidly throughout the world, but this was not the case with wilderness, partly because several nations no longer have any wilderness to preserve. In most of Europe, for example, wilderness is simply no longer

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[1]Benjamin Franklin, at the signing of the Declaration of Independence, quoted in Lyster 3.

[2]The concept of cultural filters is discussed in Chapter 2.

an option - apart from the Nordic countries where significant wilderness values do still exist, the entire landscape has been completely modified by human activity. Even Switzerland's rugged mountains lack the quality of wildness.[3] Europe and Great Britain have been settled, shaped and altered by centuries of human occupancy, and nowhere in these regions can it be said that the impact of humans has been minimal.[4]

Another reason for the apparent tardiness of other nations in adopting the concept of wilderness is semantics, the very word 'wilderness'. In Denmark, the word for wilderness disappeared with the reality of wilderness, and the closest term in French is *sauvage*, meaning savage.[5] Latin American nature conservation managers, when speaking English, use the term 'wildlands', presumably based on the Spanish *area silvestre*, meaning wild area.[6] *Dikaya mestnost* is the Russian equivalent of wilderness; but *zapovedniki*, literally 'forbidden areas', was used for the system of nature reserves established in the Soviet Union.[7] In Malaysia, and for most African tribes, there is no synonym for wilderness.[8] For many Africans, wilderness is home, and there is a very basic language and cultural barrier to the very notion of creating a wilderness preserve with restrictions on hunting, gathering, grazing and farming.[9]

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[3]Hendee, Stankey & Lucas (1990) 47 remark of Switzerland: 'People have been here a long time. Only the sheer rock faces of the peaks themselves are without human impact. Spectacular, yes; awesome, yes; dangerous, yes; wild, no. For technical rock climbing it is legendary, the birthplace of mountaineering. But it is not wilderness.'

[4]Between 1951 and 1957, seven national parks were established in England, and three in Wales; but more than 250 000 people live within them, and only two per cent is owned by park authorities, the remainder being in private ownership or held by other government or public agencies - their purpose is to preserve rural lifestyles and traditional agricultural practices, not wilderness qualities - Hendee, Stankey & Lucas (1990) 47. For a searching inquiry into, and full discussion of, the national park system of England and Wales, see MacEwen generally.

[5]Hendee, Stankey & Lucas (1990) 46.

[6]Hendee, Stankey & Lucas (1990) 77.

[7]Hendee, Stankey & Lucas (1990) 82.

[8]A Maasai, for example, suggested *serenget*, as in Serengeti Plains, signifying an extended place. The idea that this place could be *wild* could not be communicated in Maasai - Hendee, Stankey & Lucas (1990) 49.

[9]New Yorkers would be similarly confused and perplexed if, after the creation of an urban reserve in Manhatten, they were prohibited from driving and shopping there - Hendee, Stankey & Lucas (1990) 49.

The language barrier, however, is more perceived than real. Nomenclature is unimportant. What is important is the preservation of wilderness, however it is described, by effective dedication and management programmes. The term 'wilderness' has been adopted in some English speaking countries, has come to have a particular meaning in international forums, and should therefore continue to be used in the interests of consistency and international understanding. The 'cultural blockage' to further adoption of the wilderness concept, mainly in developing countries, appears to be a more serious threat to the objectives of wilderness preservation - it is paradoxical that, as Hendee, Stankey & Lucas put it, 'all the economic surpluses and public consensus in the world cannot offset the fact that wilderness (in the industrialised nations) is gone', and, '(e)qually unfortunate is an abundance of wilderness (in less developed countries) without interest and support for its preservation.' This is, however, an over-pessimistic view because, as they subsequently point out, the cultural blockage compels a reorientation from the more purist American concept of wilderness to '*a new paradigm ... wilderness management linked to economic planning and rural development.*' Another important point made by them is that '*many of the ecological and social values secured in America through wilderness designation are protected elsewhere through other types of land use classifications.*' (emphasis added).[10]

There are at present only six countries which have adopted programmes which explicitly recognise and protect wilderness *per se*. They are the United States, South Africa, Australia, New Zealand, Canada and Zimbabwe. The position in the United States was discussed in the previous chapter. South Africa will be dealt with in detail in Part 4. In this chapter, an overview will be presented of such programmes in the other four countries mentioned. Passing reference only will be made to the many 'other types of land use classifications' in other countries that have the effect, directly or indirectly, of protecting wilderness values.[11] But before dealing with these intranational initiatives

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[10]Hendee, Stankey & Lucas (1990) 48, 49. Other types of land use classifications in South Africa, in which the ecological and social values of wilderness (wilderness values) are secured, are identified and discussed in Chapter 9.

[11]It is beyond the scope of this work to undertake a detailed analysis of all the protected areas in other countries which directly or indirectly afford some protection of wilderness values. This will, however, be done with respect to South Africa in Chapter 9 in order to develop the argument that the only effective way to

which, to a large extent, reflect the growth of the international wilderness movement, they will be placed in context by reviewing the evolution of that movement.

7.2 OVERVIEW OF HISTORY OF INTERNATIONAL RECOGNITION AND PROTECTION OF WILDERNESS AND WILDERNESS VALUES[12]

In 1948, Aldo Leopold wrote: 'The retreat of the wilderness ...is no local thing; Hudson Bay, Alaska, Mexico, South Africa are giving way, South America and Siberia are next.'[13] International collaboration and involvement is now regarded as essential to worldwide protection of natural values and the global heritage of wilderness.[14] In the last two decades, wilderness has received an increasing level of attention as a critical element of international programmes of nature conservation. Examples are the World Heritage Trust and the Biosphere Reserve programmes, which will be referred to further below, and which represent international measures undertaken to ensure the long-term preservation of areas where natural ecological processes will be protected.[15] The reduction of wilderness is clearly not just a matter of parochial concern; it has much wider ramifications. Habitat degradation is the single most important cause of species extinction. Globally, wilderness areas are endangered ecosystems. Yet there is no worldwide treaty specifically for the protection of wilderness, the habitats of endangered species, or of other endangered ecosystems. If there were such a treaty, it would, Lyster points out, 'help fill in gaps left by the regional treaties and, more significantly, would greatly increase cooperation between the developed and developing world.' He argues that CITES has shown that global cooperation to regulate international trade in wildlife

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secure adequate protection of wilderness values in this country is by means of appropriate wilderness legislation. For an overview of efforts made to protect nature and wilderness values in Latin America, USSR (as it then was), the Nordic countries (Norway, Sweden, Finland, Denmark and Iceland), Nepal, Antarctica, and other countries, see Hendee, Stankey & Lucas (1990) 77-91.

[12]The phrase 'wilderness values' is intended to refer to the ecological and social values of wilderness discussed in Chapters 2 and 3.

[13]Leopold 166.

[14]See, for example, Hendee, Stankey & Lucas (1990) 51.

[15]Stankey (1982) 159.

can work, and cooperation to protect habitats is just as important - the regional African Convention (referred to below), for example, would be much more effective if industrialised nations were also parties to it and were bound to commit their considerable financial and technical resources to helping achieve its objectives.[16]

There has, nonetheless, been an evolutionary process by which the importance of protecting the world's diminishing wildlife habitat has been increasingly recognised in international treaties. Before discussing this evolution, however, some commentary on the nature and effectiveness of public international law is required.

7.2.1 Public international law: its nature and effectiveness

Ubi societas ibi ius - where there is a society there is law. There is continuing debate as to whether this aphorism holds true for the community of nations, whether public international law is 'law' properly so called. However law may be defined, its primary function must be to regulate the conduct of the members of a society for their common good. In strict juristic theory it is perhaps more correct to classify international law as a branch of ethics rather than of law. However, in practice questions of international law are generally regarded as being of legal rather than purely moral character. The existence of international law stems from general assent and recognition by member states of the international political community, notwithstanding the absence of a sovereign or effective police force capable of imposing sanctions to ensure adherence to its rules. Compliance without compulsion is generally a matter of self-interest. Most international law rules are respected and adhered to by the majority of nations notwithstanding the apparent weakness of effective organised coercion.[17]

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[16]Lyster 303.

[17]Of course, states may employ counter-measures as a form of sanction against internationally recognised legal wrongs, such as economic sanctions, reprisals, the use of force, and even war, all of which would otherwise be regarded as unlawful. Since World War II, war as an acceptable measure of coercion became increasingly unacceptable to the international community, with the result that international law, in theory at least, became even less enforceable than before. It is, however, arguable that a new world order is emerging under which war is regarded as a legitimate means of coercion, as evidenced by the recent Iraq War. For further discussion of the juristic nature and effectiveness of international law, see Harris 1-18.

The rules of international law are divided into three main categories or law-creating processes: treaties, international customary law, and the general principles of law recognised by civilised nations. Judicial decisions of the World Court, the writings of respected jurists, the resolutions of the General Assembly of the United Nations are other sources of international law. With technological advancement and population increase, more and more activities require international cooperation. In recent years treaties have proliferated, and more treaties are now concluded in the course of a year than were concluded in the first two decades of the twentieth century.[18]

A major problem in international law is the question of enforcement, because there is no international police force or administrative machinery to implement the decisions of the International Court of Justice. However, international trade, politics and public policy ensure that international agreements more often than not become translated into parties' national systems, and treaties are in practice generally well enforced.[19] Treaties can be bilateral or multilateral. The more parties there are to a treaty - in large multilateral agreements as many as 130 states may be bound - the weaker and more ambiguous it is often likely to be because of the compromises made to achieve acceptability by all the states involved.[20] Because wildlife treaties usually affect several states, they tend to suffer from this weakness; but they have generally proved to be reasonably effective for the purposes for which they were designed.

7.2.2 International wildlife law and wilderness

International perceptions of the need to protect wilderness have been greatly influenced by the growth of international wildlife law. In the same way that the emphasis in national wildlife law in the United States[21] and in South Africa[22] has shifted from

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[18]Lyster 3. For a useful summary and discussion of the sources of international law, see Harris 19-54.

[19]Lyster 14.

[20]Lyster 4.

[21]See Chapter 6.

species to habitat protection, from protection of economic values to protection of sport and inherent values, so have the focus and orientation of international treaties similarly evolved. Wilderness has benefitted coincidentally from this shift in international perceptions of value - it has achieved a measure of protection for its wildlife values. There has been increasing degradation of wildlife habitat worldwide, and wilderness provides outstanding habitat for much wildlife. The growing international awareness of the value of wildlife habitat is evident from the increasing number, indeed proliferation, of treaties and conventions in recent years. There are thus three clearly discernible trends in the evolution of international wildlife law: a shift from species to habitat protection, a shift from emphasis on purely economic values to expanding perceptions of the aesthetic and systemic values of wildlife and its habitat, and increasing international cooperation.

Recognition of the usefulness of law as a means to protect wildlife dates back to ancient times.[23] The use of international treaties for this purpose is a relatively recent phenomenon. The first was the Treaty Concerning the Regulation of Salmon Fishing in the Rhine River Basin, signed by Germany, Luxembourg, the Netherlands and Switzerland in 1886. It was the continuing and escalating reduction of valuable migratory species that provided the stimulus for international cooperation. Because they cross international borders in their migrations, strict national control of exploitation becomes irrelevant unless similar controls on shooting and trapping are imposed on other countries en route.[24] Although international trade in ivory and other wildlife products goes back for centuries, in the last three decades it has become a multi-million dollar business which threatens the very survival of many animals and plants.[25] Wildlife

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[22]See Chapter 8.

[23]Forestry conservation laws in Babylon date back to 1900 BC. Akhenaten, King of Egypt, set aside land as a nature reserve in 1370 BC. Emperor Ashoka of India issued a wildlife conservation decree in the third century BC - Lyster xxi.

[24]Lyster 16.

[25]In 1981, the United States alone imported and exported wildlife and wildlife products worth over $962 million; an ounce of rhinoceros horn in an eastern medicine shop can cost more than an ounce of gold; by the late 1960s, a staggering 5-10 million crocodilian skins were entering international trade each year; in 1968, the United States imported the skins of 1 300 cheetah, 9 600 leopard, 13 500 jaguar and 129 000 ocelot; and in

habitat degradation has also increased dramatically in recent years, and international cooperation to protect migratory species fast became a matter of economic necessity.[26] Early treaties concentrated entirely on species of direct utilitarian value to humans, either because they preyed on agricultural pests or because they were a source of food, sport, oil or clothing. The emphasis in the later treaties is more on the role of species in ecosystems, and on the need to protect *all* species from human-induced extinction.[27]

The first wildlife treaties aimed at protection of species, either single species such as polar bears, vicuna and northern fur seals, or groups of related species such as whales, migratory birds, Antarctic seals and North Atlantic seals.[28] These species are particularly vulnerable to human exploitation, and were in fact heavily over-exploited. The treaties aimed primarily at controlling the killing and trading of animals to secure sustained yield or fair distribution of economically valuable animals - which were harvested in large numbers for their meat, oil, skins, feathers or cloth - rather than other threats to them such as pollution or habitat loss. Gradually there came a shift of emphasis to a more ecosystemic approach, although the focus still remained on protecting species from extinction at the hands of humans. The change of emphasis to habitat protection produced regional nature conservation treaties, affecting the Americas, Africa, Europe and Antarctica. The first three emphasised habitat protection, while the fourth was designed to limit fishing in Antarctic waters so as not to damage the Antarctic marine ecosystem.

7.2.2.1 *Bird conventions: shift from species to habitat protection*

The earliest treaties had as their purpose the prohibition of the killing, capturing or trading of birds of agricultural value. Birds of prey were regarded as noxious and not

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1972, Kenya's ivory exports reached their highest recorded annual level of 150 tonnes - Lyster 239.

[26]Lyster xxi-xxii.

[27]Lyster 299.

[28]See Lyster 17-96 for discussion of these treaties.

worthy of protection. More recent treaties deal with a wider range of threats, focus more on habitat protection, and recognise the value of all species, including birds of prey which are now amongst the most strictly protected birds.[29]

The first international initiative to protect birds was made at the 26th General Assembly of German agriculturalists and foresters held in Vienna in 1868, when a resolution was passed requesting the Government of Austria-Hungary to procure agreements with other countries for the protection of animals useful to agriculture and forestry. Many years of negotiations passed, however, before a treaty was concluded. In 1902 twelve European countries signed the Convention for the Protection of Birds Useful to Agriculture, which listed and protected 150 species which were regarded as useful to agriculture - eagles, hawks, most falcons, pelicans, herons and pigeons were considered 'nuisible' and unworthy of protection.[30] Even for this limited and purely utilitarian purpose the 1902 convention was largely ineffective as several countries along the flyways of the birds sought to be protected did not sign, including Italy, the Netherlands, Norway, the United Kingdom and the USSR. The shortcomings of the 1902 Convention and concern over increasing threats to birds in Europe produced a series of conferences which resulted in the signature in 1950 of the International Convention for the Protection of Birds, the preamble to which stated that 'all birds should in principle be protected'. It also went beyond simply regulating the killing, capturing and trading of birds, but encouraged Parties to promote conservation education and to establish protected areas. This represents two important shifts: a shift in perception of the value of birds, and a shift in focus from species protection to habitat protection. However, the terms of the convention were vague and accession by parties was too limited, the result of which was that it became a 'sleeping treaty.'[31]

In 1979 the Council of the European Economic Community adopted a Directive on the Conservation of Wild Birds, which required member states not only to maintain

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[29]Lyster 62.

[30]102 British and Foreign State Papers 969, cited in Lyster 63.

[31]Lyster 64-6.

populations of wild birds at appropriate levels, but also to preserve a sufficient diversity and area of habitats for all species. Article 3(2) states that these measures shall include, *inter alia*, creation of protected areas and upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones.[32]

Several non-European bilateral conventions were concluded for the protection of migratory birds, the oldest of which was entered into between Canada and the United States in 1916. Unlike the first European bird treaty which attributed value to birds only for their direct agricultural use, the preamble to this convention refers to their 'great value as a source of food or in destroying insects which are injurious to forests and forage plants on the public domain, as well as to agricultural crops'. A 1936 convention between Mexico and the United States emphasises the 'national utilization of migratory birds for the purpose of sport as well as for food, commerce and industry.' The circle of perceived values expanded significantly in the four bird treaties entered into in the 1970s, involving Japan, the USSR, Australia and the United States. They refer to aesthetic and scientific as well as recreational and economic values. The 1976 Convention between the United States and USSR refers to the 'educational and ecological value' of birds as well.[33] In the early twentieth century, shooting and egg-collecting posed a greater threat to birds than loss of habitat. Both the 1916 and 1936 Conventions were therefore more concerned with regulating the 'taking' of birds than with the establishment of protected areas. Both, however, do make some reference to the establishment of refuges. Because of the accelerating degradation of wetland and other habitat, all four of the Conventions of the 1970s urge their Parties to establish sanctuaries for migratory birds.[34]

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[32]Lyster 67-9. Each member state of the European Economic Community (EEC) is required to comply with the terms of a Directive adopted by the Council of the EEC; but Member States are allowed to choose the means by which they implement their obligations thereunder.

[33]Lyster 74-5.

[34]Lyster 83. For further commentary on the four conventions between the United States and Great Britain, Mexico, Japan and the Soviet Union, and the United States Migratory Bird Treaty Act of 1918 - current version at 16 USC §§703-711 (1976 & Supp V 1981) - see Bean 68-89.

The need for focus on habitat protection in international wildlife law is highlighted by recent statistics. The Council of Europe reported in 1991 that the 20th World Conference of the International Council for Bird Preservation suggested that two-thirds of the world's 9 000 bird species are in decline, and more than 1 000 threatened with extinction. The principal cause of 'this ecological disaster' is loss of habitat. 90 000 insect, 35 000 plant and 500 mammal species are also 'under immediate sentence of death.'[35]

7.2.2.2 *Regional nature conservation treaties: recognition of wilderness*

There are four important treaties which address the conservation of wildlife on the basis of distinct geographical areas. They are: the 1940 Western Hemisphere Convention (Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere), open to countries in North, Central and South America; the 1968 African Convention (African Convention on the Conservation of Nature and Natural Resources), open to the Member States of the Organisation of African Unity; the 1979 Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats), open to Member States of the Council of Europe; and the 1980 Antarctic Marine Living Resources Convention. The first three all place special emphasis on habitat protection, and require their Parties to establish protected areas for wildlife and to utilise all wildlife habitats wisely, including those outside designated areas.[36]

The 1940 Western Hemisphere Convention was one of the first international agreements to emphasise habitat protection, and makes direct reference to wilderness.[37] The 1968 African Convention refers to 'strict nature reserve', the definition of which is very similar to the 1940 definition of 'strict wilderness reserve'. Although none of the Parties to the

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[35]Naturopa Newsletter 1-2.

[36]Lyster 95.

[37]The convention, which is reproduced in full in Lyster 307-312, defines 'strict wilderness reserve' as 'a region under public control characterized by primitive conditions of flora, fauna, transportation and habitation wherein there is no provision for the passage of motorized transportation and all commercial developments are excluded.'

1940 Convention uses the phrase 'strict wilderness reserve', the closed scientific zones of national parks and many of the scientific and biological reserves of Brazil, Chile and Equador in effect protect wilderness.[38]

7.2.2.3 The 'big four' wildlife treaties

What have been described as the 'big four' wildlife treaties, open to almost all countries and concluded in the environmental decade of the 1970s, 'form the centrepiece of international wildlife law'. They deal with wetlands, habitats of outstanding universal value, international trade in wildlife and migratory species, and represent a further shift of emphasis from regional to a global perspective.[39] They are the Convention on Wetlands of International Importance Especially as Waterfowl Habitat ('the Ramsar Convention'), the Convention Concerning the Protection of the World Cultural and Natural Heritage ('the World Heritage Convention'), the Convention on International Trade in Endangered Species of Wild Fauna and Flora ('CITES'), and the Convention on the Conservation of Migratory Species of Wild Animals ('the Bonn Convention'). The first two will be discussed further below because they relate directly to protected areas. CITES and the Bonn Convention are illustrative of the shift from regional to global focus of attention; but their further relevance in the present context is only the extent to which worldwide attention on endangered and migratory species may promote protection of wildlife habitat and thus wilderness values within participating countries.[40]

7.2.3 First world responsibility

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[38]Lyster 99.

[39]See Lyster xxii and 15. For a discussion of international efforts toward conservation of nature in the Arctic and Antarctic, see Boardman 127-142.

[40]Article III(4) of the Bonn Convention states that Parties which are 'Range States' (any state that exercises jurisdiction over any part of the range of a migratory species, or a state the flag vessels of which are engaged in taking a migratory species outside national jurisdictions) of Appendix I species (listed migratory species in danger of extinction throughout all or a significant portion of their range) shall endeavour 'to conserve and, where feasible and appropriate, restore those habitats of the species which are of importance in removing the species from danger of extinction' - cited in Lyster 279, 280 and 283. There is thus an obligation on Parties at least to 'endeavour' to conserve habitat. For a detailed discussion of CITES and the Bonn Convention, see Lyster 239-298.

At the First World Wilderness Congress held in Johannesburg in 1977, Felipe Benavides from Peru pleaded for a halt to the 'genocide of wilderness' - failure to do so, he said, will result in our 'ending up naked, starving and not a little mad in what remains of the wilderness, crying out (to whom?) that the remedial action was too little, too late.' His paper was on the responsibility of the importing first world nations to do more about the illegal trade in wildlife and wildlife products, and to protect the natural resources of the poor exporting third world countries. He said:

> 'In the Third World we are truly grateful for the help we have received from the developed world in the form of money, equipment, scientific advice and moral support. Yet we are growing weary of the eloquent messages and edicts we receive - especially from those who have little wilderness left to destroy - urging us to conserve our wilderness. We will need your help for many years, but more urgently in a different way. We have made laws to protect our wilderness and wildlife but they are of little effect unless you pass your own laws to give real support to us.'[41]

In 1984 the World Resources Institute sponsored the 'Global Possible Conference', which was attended by experts and experienced leaders from many countries, to identify the key challenges of the next 25 years and the best responses to those challenges. The conference highlighted the need for a comprehensive network of protected biological reserves, and concluded, *inter alia*, that biological resources are global common property, and a cooperative framework for their management must be evolved.[42] In reporting the findings of the conference, Repetto states that the 'first step is to identify crisis situations, where whole ecosystems are on the verge of disappearing.'[43] He sums up the need for developed countries to assume treaty responsibility for protection of representative areas throughout the world as follows:

> 'A new, comprehensive international convention to help fund the network of representative protected areas would overcome the common-property problem. The benefits of conservation accrue to all countries, not just to those in which the resources are located. Such a convention would provide that

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[41]Benavides 189.

[42]Repetto 76.

[43]Repetto 77.

countries requiring support would agree to protect the areas and would receive funds for management and other purposes from an international fund to which all nations would contribute.'[44]

'The industrialized and developing countries alike need good management of global resources at home and abroad: peace and prosperity in the industrial countries ultimately depend on access to needed resources and freedom from the risks of environmental disasters. This is truly one earth, and when dealing with resources that are global in character, the countries of the earth will sink or swim together. This basic fact bears frequent repetition, since it has not yet been adequately appreciated by policymakers or by the public in industrial countries. Support for efforts to improve management of resources is both a moral obligation of the industrial countries and in their direct interest.'[45]

The international focus today is on the protection of important ecosystems. In the global systemic perspective, what remains of wilderness on the planet is increasingly being perceived as international heritage. A world wilderness inventory has been undertaken, and is referred to below. The next logical step is a multi-national wilderness treaty; but this has still to come about. Industrial nations consume the major portion of the world's resources.[46] They have the economic and political muscle to ensure better management of those resources, and the sustainable protection of global heritage. It is their responsibility to do so.[47]

7.2.4 The International Union for Conservation of Nature and Natural Resources (IUCN)

IUCN was formed in 1948 as an independent international organisation with the objective of promoting wise use of the earth's natural resources. Its present membership includes 58 sovereign states, 124 government agencies and 349 non-government

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[44]Repetto 91.

[45]Repetto 135-6.

[46]The United States, for example, with 6 percent of the world's population, consumes one third of the world's non-renewable resources - Macleod 20.

[47]On the principle of additionality (the notion that additional financing should be made available to developing countries to cover the costs taken specifically or primarily to protect or enhance the environment), see Macleod generally.

organisations (NGOs). It works with agencies in the different individual countries, as well as international organisations such as the United Nations Environmental Programme (UNEP), Food and Agricultural Organisation (FAO), and United Nations Educational, Scientific, and Cultural Organisation (UNESCO). It is involved in monitoring conservation activities, planning and promoting conservation actions, and providing assistance and advice in conservation matters. It is organised into six subject area commissions: Ecology; Education; Environmental Planning; Environmental Policy, Law and Administration; National Parks and Protected Areas; and Species Survival. The Commission on National Parks and Protected Areas (CNPPA) operates in the field of natural area management, and assists nations, particularly developing nations, in establishing and managing parks. CNPPA also publishes the United Nations List of National Parks and Protected Areas, which is a comprehensive tabulation of all conservation units managed by United Nations member countries. It supports the Protected Area Data Unit in Cambridge, England, which provides detailed computer-based analyses of the status of protected areas around the world, and is involved in the organisation of the World National Parks Congress which has been held every ten years since 1962. In recent years, because of the difference in terminology between countries, it has also worked towards standardisation of the nomenclature relating to the different categories of protected areas. This standardisation of conservation categories is desirable in order to facilitate the periodic IUCN assessments of world progress in conservation management.[48]

In 1978, IUCN's Commission on National Parks and Protected Areas (CNPPA) proposed and published a system of ten categories of protected areas.[49] Wilderness did not feature as one of the categories.

In November 1984, the General Assembly of IUCN, at its 16th Session in Madrid, Spain, by Resolution recommended 'that all nations identify, designate and protect their

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[48]See Lyster 4, and Hendee, Stankey & Lucas (1990) 52-4.

[49]In May 1990, the CNPPA suggested using 'conservation areas' rather than 'protected areas' as a more positive approach; but many of its members objected strongly, and the latter term was retained - Eidsvik (1990) 4.

wilderness areas on both public and private lands.'[50] In the same year, the CNPPA established a Task Force to review it categories system. It prepared several draft proposals, which were reviewed at working sessions held in Zimbabwe, New Zealand, Argentina and Costa Rica, and corresponded with more than fifty CNPPA members.[51]

In February 1988, the General Assembly of IUCN, at its 17th Session in San Jose, Costa Rica, by formal Resolution acknowledged that its CNPPA now recommended that wilderness be included within its system for classifying protected areas, and congratulated it for doing so.[52] At the November 1990 IUCN General Assembly held in Perth, Australia, the following revised list of five categories was accepted:

- Scientific Reserves and Wilderness Areas
- National Parks and Equivalent Reserves
- Natural Monuments
- Habitat and Wildlife Management Areas
- Protected Land/Sea Scapes (Ecosystem Conservation Areas).[53]

Sites in any of the five protected areas categories may be given the special distinction of recognition under an international legal instrument. The CNPPA declared that protected areas are of importance to all peoples of the world and need to be safeguarded to ensure that unique and representative features of global significance are given appropriate recognition and support in the retention of their integrity. It identified

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[50]Eidsvik (1990) 28.

[51]Eidsvik (1990) 1. On of the difficulties encountered in the revision process was the lack of universally-accepted terminology, as well as the application of existing terminology in different ways by different sovereign states - Eidsvik (1990) 2.

[52]Eidsvik (1990) 29.

[53]Eidsvik (1990) 13. As to the definitions, management objectives, and criteria for selection and management, see Eidsvik (1990) 14-20.

World Heritage Sites, Ramsar Sites and Biosphere Reserves as being of particular importance.[54]

7.2.5 World Heritage Sites

The adoption by the international community of the concept of World Heritage Sites is another example of recognition of the heritage value of physical natural phenomena. Unlike Biosphere Reserves, the essential feature of which is that they are representative examples of the world's natural biomes, the distinguishing quality of a World Heritage Site is the presence of outstanding or superlative qualities. The idea is that it has such universal natural, cultural, or historical value that it belongs not only to the nation in which it occurs, but to the heritage of the entire world community. In 1972, the UNESCO General Conference adopted the Convention for the Protection of the World Cultural and Natural Heritage, which came into effect in 1975 after its adoption by twenty nations. As at July 1990, there were 322 World Heritage Sites in 68 countries. The convention includes both natural and cultural sites. Designation of such a site not only implies recognition by the country concerned that its heritage value surpasses national boundaries, it also produces significant international prestige. If the condition of the site deteriorates, it may be placed on the 'List of World Heritage in Danger', in which event it becomes eligible for technical and financial assistance from the World Heritage Fund for protection and restoration. As far as natural sites are concerned, at least one of the following criteria must be met before inclusion in the World Heritage List. It must:

1. Be an outstanding example representing the major stages of the earth's evolutionary history.
2. Be an outstanding example representing significant ongoing geological processes, biological evolution, and man's interaction with his natural environment.
3. Contain superlative natural phenomena, formations, or features, or areas of exceptional natural beauty.

[54]Eidsvik (1990) 21.

4. Contain the foremost natural habitats where threatened species of animals or plants of outstanding universal value can survive.[55]

Examples of designated World Heritage Sites are the Yosemite and Yellowstone National Parks in the United States, the Chitwan National Park in Nepal, Australia's Great Barrier Reef, Plitvice Lakes National Park in Yugoslavia, and Serengeti National Park in Tanzania.[56] None of these is a wilderness area as such, but the desigation of each of them and, indeed, the very concept and purpose of World Heritage Sites, support the argument for preservation of global wilderness heritage values.[57]

7.2.6 Ramsar Sites

Another significant international contribution towards protection of the natural values that wilderness represents, particularly the maintenance of biological diversity and the free play of natural processes, is the Ramsar Convention on Wetlands of International Importance, Especially as Waterfowl Habitat. With 55 Contracting Parties (member countries), Ramsar (the name of the town in Iran where the convention was held in 1971) now boasts a list of 470 sites designated as 'Wetlands of International Importance', covering over 75 million acres (30 million hectares). Wetlands are critical habitat for waterfowl, and are therefore of interest to duckhunters and bird watchers. In many countries, they also serve as a source for food, thatching grass and building materials, thereby providing the basis of livelihood for many rural people. Wetland areas therefore enjoy a high awareness profile. The international recognition and prestige that accrue to a member country as a result of a listing should promote the security of the natural features of the area.[58]

7.2.7 Biosphere reserves

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[55]Eidsvik (1990) 22.

[56]Hendee, Stankey & Lucas (1990) 55-6.

[57]For a discussion of the World Heritage Convention, see Lyster 208-238.

[58]Hendee, Stankey & Lucas (1990) 56-7. For a discussion of the Ramsar Convention, see Lyster 183-207.

Recognition by the international conservation community of the need for a global network of representative protected areas resulted in the initiation, during a general conference of UNESCO in 1970, of the Man and Biosphere (MAB) Program.[59] The goal of the programme was to establish a series of Biosphere Reserves[60] that would provide, on a representative basis, samples of all major types of ecosystems for *in situ* conservation (on site conservation as opposed to conservation in zoos, botanical gardens, or laboratories) and provide sites for baseline research activities important to other MAB projects.[61] The distinguishing characteristics of Biosphere Reserves include the following:

1. They will be protected areas of land and coastal environments and will constitute a worldwide network linked by international understanding on purposes, standards, and exchange of scientific information.
2. The network of Biosphere Reserves will include significant examples of biomes throughout the world.
3. Each Biosphere Reserve will include one or more of the following categories:
   a. Reprentative examples of natural biomes.
   b. Unique communities or areas with unusual natural features of exceptional interest.
   c. Examples of harmonious landscapes resulting from traditional patterns of land use.
   d. Examples of modified or degraded ecosystems capable of being restored to more natural condition.
4. Each Biosphere Reserve should be large enough to be an effective conservation unit and to accommodate different uses without conflict.
5. Biosphere Reserves should provide opportunities for ecological research, education, and training. They will have particular value as benchmarks or standards for long-term changes in the biosphere as a whole.
6. A Biosphere Reserve must have adequate long-term legal protection.

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[59]The programme was launched in 1971 as a division of UNESCO, and the first biosphere reserves were designated in 1976.

[60]UNESCO defines a biosphere reserve as a representative ecological area combining conservation with ecological research, monitoring, educational, training, and traditional land use.

[61]IUCN *The Biosphere Reserve and its Relationship to Other Protected Areas* (1979), cited in Hendee, Stankey & Lucas (1990) 54.

7. In some cases, Biosphere Reserves will coincide with, or incorporate, existing or proposed protected areas such as national parks or nature reserves.[62]

The emphasis in the selection of Biosphere Reserves is on the extent to which they help to complete a portrait of the world's ecosystems, rather than on their unique or outstanding qualities. In general, they consist of a natural or core zone where minimal human impact is present (ideally a wilderness area), and a buffer zone in which educational, research and controlled traditional harvesting and exploitive practices are permitted and encouraged. Where appropriate, the following further zones are contemplated: a manipulative or buffer zone, a reclamation or restoration zone for the study and reclamation of lands and natural processes severely disrupted by human impact or natural causes, and a stable cultural zone managed to protect and study ongoing cultures and land use practices conducted in harmony with the environment.[63] Each reserve must be approved by the Man and Biosphere International Coordinating Council before it can receive designation as a biosphere reserve.[64]

The programme was thus established in the early 1970s, which was a time when the impact of increased growth and development on the environment had become a matter of global concern. The intention was to maintain diversity for the present and future, and to promote education and research, with a view to establishing an international network. The underlying principle was that humans should be considered as playing a positive role in conservation, and the objective was to secure the co-operation of science and society in establishing harmonious relationships between people and the environment. The primary purpose of biosphere reserves is to protect natural resources, yet at the same time promote sustained local development. They are intended to combine co-existence of conservation of species in core areas with other uses in the buffer zones. The core area would contain, for example, a designated strict nature

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[62]UNESCO *Task Force on: Criteria and Guidelines for the Choice and Establishment of Biosphere Reserves* (1974) 15-6, cited in Hendee, Stankey & Lucas (1990) 54.

[63]Hendee, Stankey & Lucas (1990) 54, citing IUCN (1979) *op cit*, and Eidsvik (1990) 24.

[64]Eidsvik (1990) 24.

reserve or wilderness area, and the buffer, restoration and cultural zone uses would vary from region to region, and could multiple functions, such as include villages, tourism, a national park, etc.[65] In 1981 'representative ecological area' was introduced as a sub-title to 'Biosphere Reserve' because the word 'reserve' may have negative connotations as it implies the setting aside or locking up of an area.

The MAB Program has great potential for advancing international cooperation and understanding of ecological processes, and for improving the scientific basis of global resource management. Since 1976 when the first Biosphere Reserves were established, more than 283 such reserves have been designated in 72 countries. Another important feature of the programme is that it encourages area administrators to recognise that the resources under their management are of international as well as regional and national significance.[66]

Biosphere reserves serve as centres for understanding the co-evolution of human societies in the environment, particularly in the earth's most biologically rich areas. They are landscapes and seascapes for learning and sharing useful knowledge. They are places where men and women of vision can use this knowledge to develop alternate patterns of uses and activities which are ecologically sustainable, culturally appropriate, and meet the needs and aspirations of local people. In this way, biosphere reserves offer a symbolic and practical framework for galvanising human investment and creativity towards a more promising and common future.[67]

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[65]The Carolinian-South Biosphere Reserve was the first coastal reserve to be established in the United States MAB programme. It consists of three units. In one of the units there are two core areas, one a designated wilderness area, and the rest of the unit forms a buffer zone with a transition area comprised of resort developments, a small fishing village and several other small rural communities within a national forest. Biosphere reserves clearly are multi-functional units, not just protected areas. By interaction of lands, peoples and institutions in the different zones, they demonstrate that preservation is not incompatible with wise use, that both preservation and manipulation are necessary for humanity.

[66]Hendee, Stankey & Lucas (1990) 55, 175.

[67]Personal notes taken at the Science Symposium on the Man and Biosphere Programme of the Fourth World Wilderness Congress held in Colorado in 1987 during the presentation of and discussion on 16 papers presented by participants from 9 countries on *inter alia*, the evolutionary history of the biosphere concept and a status report on the implementation of the MAB programme, and the summary of proceedings given at the Plenary Working Session given by Dr William Gregg, co-chairperson of the Symposium and Co-ordinator of the MAB programme in the United States.

The main task of biosphere reserves is to conserve biological and cultural diversity and identity, and the continuation of natural processes. Scientifically, they will preserve genetic information. On a macro scale, and in final form, there will be a planetary network, which will constitute a global science, towards the understanding of the processes which govern the evolution of earth in short and long term perspectives. With satellite information and long term monitoring, they represent a vast laboratory, with international comparative studies for ecologists and other scientists. From an ethical perspective, biosphere reserves, with their balance of man and nature, have the potential of pointing the way for human evolution. They contain the past, present and future. They integrate all the ethical debates of a land ethic, resource-management, animal rights and humane movements, not only in theory but also concretely and tangibly. They may contain a wilderness core, but also have regard to the best values of agrarian traditional societies. They involve artistic modifications, sustainable development, and ecological and scientific values.[68]

7.2.8 International Wilderness Leadership Foundation

The Wilderness Leadership School in Natal, South Africa, had been taking people from other countries on wilderness trails since the early 1970s. A number of wealthy American hunter/businessmen, impressed by the School's achievements, approached Ian Player and suggested the establishment of an international organisation to promote and expand the School's activities. In 1974 Player announced the establishment of the International Wilderness Leadership Foundation (IWLF), based in New York, with the primary purpose of bringing selected people to South Africa to go on trail with the School. Player resigned from the Natal Parks Board, and became director of the IWLF. In 1976 the Wilderness Leadership Foundation (United Kingdom) was established. The name of the IWLF in the United States then changed to 'Wilderness Leadership Foundation (United States).' These international organisations raised money for scholarships and to send children to South Africa to go on course with the School.[69]

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[68]Ibid.

[69]Woodward 69-72.

7.2.9 World Wilderness Congress

The World Wilderness Congress is a project of the International Wilderness Leadership Foundation. It has met on four occasions to explore management, cultural and scientific aspects of wilderness protection, and serves as a continuing international forum for the wilderness concept. It has been, and continues to be, 'a focal point for the worldwide evolution of wilderness definition and legislation.'[70]

During an *indaba* (gathering) held during a wilderness trail in 1975, Magqubu Ntombela, a Zulu game guard who for many years led trailists into the wilderness for the Wilderness Leadership School, and friend and mentor of Ian Player, suggested to him that it was time to have a big *indaba*, a great gathering of all those who had been on trail with the school. This prompted Player into thinking about a world congress at which people from all over the world would come together to discuss wilderness and conservation, 'a gathering where great minds of the world could meet and talk, not only about wildlife and wilderness, but of humanity and where we were going.'[71] Two years later, in October 1977, the First World Wilderness Congress was held in Johannesburg.[72] The congress, which 'nearly failed to materialise as it took place at a time of great political turmoil in South Africa, following the Soweto riots of 1976',[73] was attended by more than 2 000 delegates and speakers from 26 countries. The subject of wilderness - its nature, national and international values, and the need for its protection - was addressed by international experts on wilderness, wildlife and the administration of wild lands and conservation areas. Delegates included research scientists, administrators, politicians, philanthropists, authors, historians, economists, educators, agriculturalists, lawyers, ecologists, biologists, journalists, zoologists, foresters, hunters, zoo administrators, business executives, an American Indian, an aborigine, an illiterate Zulu

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[70]Hendee, Stankey & Lucas (1990) 89.

[71]Ian Player (1982) 199.

[72]Woodward 88. See Player (1979) for an edited version of the proceedings of the conference.

[73]See Woodward 89-91.

game-scout, and others.[74] The success of the five day congress demonstrated the depth and range of international concern for the future of the global heritage of wilderness. A World Wilderness Congress Committee was appointed, and the existing Wilderness Leadership Foundations of the United States, United Kingdom and the Republic of South Africa agreed to be the secretariat for the committee.[75]

The Second World Wilderness Congress was held in 1980 in Cairns, Queensland, Australia, the Third in 1983 in Inverness and Findhorn, Scotland, and the Fourth in 1987 in Denver and Estes Park, Colorado, United States. All were five day conferences, attended by many delegates from many nations - the Fourth Congress, for example, housed over 1 800 delegates from sixty countries, and for three days ran fourteen separate concurrent symposia and workshop sessions.[76] The World Wilderness Congress provides a continuing international forum for wilderness philosophy and management, and serves as a focal point for the worldwide evolution of wilderness definition and legislation.[77]

7.2.10 World Wilderness Inventory

At the Fourth World Wilderness Congress, a 'World Wilderness Inventory', undertaken by the Sierra Club with participation by the United Nations Environment Program, the World Bank and the World Resources Institute, was presented. Its purpose was to provide an initial, reconnaissance-level survey of world wilderness areas, 'a first approximation of how much of the land surface of the globe still remains wild', premised on the following propositions:

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[74]See Arnett i, and Ian Player (1982) 200.

[75]Arnett v.

[76]Martin (1982) is a summary of the proceedings of the Second; Martin & Inglis of the Third; and Martin (1988) of the Fourth World Wilderness Congress.

[77]Hendee, Stankey & Lucas (1990) 89.

> 'The remaining wild land is the patrimony of the world - of all living things, and of all generations to come. With this inventory, we can start to track what is happening and to mark trends as subsequent inventories reveal changes. Humanity can decide whether it is losing too much wild land and where.'[78]

The preliminary inventory indicates that two-thirds of the land of the planet is now dominated by the human species. The presenters described it as representing 'the first time in history that humanity has been able to look at how far it has gone in subjugating the Earth and bending it to its use', and called for collaboration around the world to develop an increasingly accurate inventory, the results of which are to be presented when each World Wilderness Congress convenes.[79]

7.3 RECOGNITION OF WILDERNESS IN NATIONAL LEGAL SYSTEMS

In 1989, Eidsvik, the Chairman of the IUCN Commission on National Parks and Protected Areas, observed that the protection of wilderness is an objective of wildland managers throughout the world; but that few countries had chosen to designate wilderness through a *legal* process.[80] This led him to the conclusion that the concept of wilderness 'remains an idea whose time has not arrived.'[81] This may be true in some countries, and it may be true in most countries if the meaning of wilderness is restricted to a traditional, purist interpretation in terms of which only unsullied, pristine wildland qualifies for designation (essentially the United States' approach). It may also be true if what Eidsvik intended to say was that the concept of *statutory* wilderness remains an idea whose time has not yet arrived in most countries. In the rest of this Part, therefore, the status of wilderness in other countries, and the initiatives they have taken for its

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[78]McCloskey & Spalding 19.

[79]McCloskey & Spalding 29. See also Thatcher 357-361 and, on the need for a truly comprehensive global network of protected areas, Miller *et al* 353-6, where it is suggested that a minimum of ten per cent of the world's land area is required for the maintenance of biological diversity.

[80]Eidsvik (1989) 57.

[81]Eidsvik (1989) 59.

protection, will be considered with a view to determining the extent to which South Africa may derive instruction from such initiatives.

The concept of wilderness as a discrete entity deserving of special treatment and protection was first articulated and accorded legal status in the United States. The world community took up the idea at the level of international organisations and forums. Some countries have enacted legislation for the protection of wilderness, but these have almost exclusively been developed countries. What of the developing countries? To what extent is the concept relevant, or perceived to be relevant, to their conditions, needs and aspirations? Are there insurmountable language and cultural barriers to adoption or adaptation of the American idea of wilderness?[82] Hendee, Stankey & Lucas articulate the international dimension of wilderness, and the relevance of the United States perception and treatment of it, in the following passage:

> 'Wilderness in the United States is different from wilderness elsewhere. Given the cultural foundations of the term, this should be expected. The absence of native cultures in our wildernesses (Alaska being the last remaining major exception), the generally undeveloped quality of our wilderness lands, and the opportunities, in at least some places, for extended wilderness travel are characteristics of American wilderness largely absent elsewhere. But it is important to consider American wilderness as a part of a larger comprehensive world system of wild places, with each offering its own special kind of experience.'[83]

It is estimated that there are *de facto* wilderness or protected areas with minimal resource utilisation in about 125 of the world's 160 countries, and that about fifty per cent of the global system of protected areas, covering 200 million hectares, would qualify as wilderness if its definition were modified to include areas where people co-exist with

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[82]Eidsvik (1989) 59-60 makes the point that, because of the language barrier - there is, for example, no such word as 'wilderness' in the Spanish, Portuguese and French languages - the developed world is limited through vocabulary from easy communication about wilderness with much of the rest of the world. The definition of wilderness in s2(c) of the United States Wilderness Act requires that it be 'untrammeled by man, where man himself is a visitor who does not remain.' Such a definition is clearly inappropriate in those developing countries where people are a part of the wilderness, are dependent on it, and live in harmony with it.

[83]Hendee, Stankey & Lucas (1990) 92.

nature.[84] From a global perspective, therefore, the focus should be on what Hendee, Stankey & Lucas describe as the 'world system of wild places', or what Eidsvik refers to as 'wilderness equivalents',[85] and on appropriate mechanisms for its management and conservation, rather than on language and cultural barriers. In the discussion that follows, reference will first be made to the position in Europe and other countries that have not legally institutionalised wilderness, then to those developed countries that have adopted the concept legislatively, and finally to recent developments in Zimbabwe which suggest that it does have global relevance and the capacity for adaptation to varying regional conditions.[86]

7.3.1 Europe

The United Kingdom, Denmark and most southern European countries have been under the influence of humans for thousands of years and wilderness, in the true sense of the word, no longer exists. There is no part of Britain that has not been influenced by human interference. Most of the landscape has been changed at some time since the last glaciation by human interference. The neolithic agricultural revolution began clearance of the forests, the natural climax vegetation, and this process continued as population increases demanded extension and intensification of agricultural land. The 18th century politically motivated clearances of forest in the Scottish Highlands were the last major efforts at complete environmental transformation.[87] In Europe, too, natural habitats have been greatly modified. Swamps have been drained and forests have been destroyed. Europe is densley populated and almost the entire landscape has been remodelled and shaped by people.[88] The northern European countries within the

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[84]Eidsvik (1989) 58, 59 and 82.

[85]See Eidsvik (1989) 65-76 for an overview of 'wilderness equivalents' in Africa, South and Central America, and Indomalaya, and 79-82 for reference to Antarctica, 'our last great wilderness'.

[86]The current position in South Africa is dealt with in Chapters 5, 8 and 9.

[87]Brockman 207.

[88]Dorst 118.

circumpolar region, however, do have extensive *de facto* Arctic wilderness which is protected within a system of protected areas.[89]

Although true wilderness has virtually ceased to exist in Europe, there has been an increasing interest in protecting what has been described as 'secondary wilderness',[90] also referred to as 'return-wilderness'.[91] Much farmland has been abandoned as agriculture has become increasingly mechanised and converted into a mass production industry. It may take many centuries for these abandoned habitats to return to their primitive state but, in the meantime, these formerly farmed marginal areas will be essential parts of European 'wilderness' and the terrain in which many threatened European animals may find a chance of recovery in the decades to come.[92]

At the Third World Wilderness Congress a formal resolution was passed asking the British government to recognise and preserve the wilderness values in the Cairngorms National Nature Reserve in central Scotland by nominating the area for World Heritage status.[93] Notwithstanding past human habitation and modification, the wilderness-type experience offered by such settings is 'accessible and meaningful to thousands of enthusiastic hill walkers.'[94] There have been similar 'secondary wilderness'

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[89]For a listing of protected areas ('which are wilderness areas in everything but name' - Eidsvik (1989) 78) within the circumpolar region (which includes all of Finland and most of Norway and Sweden, as well as Greenland and portions of the USSR, United States and Canada), and a discussion of Arctic wilderness, see Eidsvik (1990) 76-8. On the question of differing cultural perceptions of wilderness, Eidsvik (1989) 76 makes the pertinent observation that outside the protected areas 'many southern residents perceive the entire northern circumpolar region to be wilderness, while on the other hand, wilderness to the Inuit is Toronto or New York City, which they find far more inhospitable or threatening than their own lands.' The 70 million hectare Greenland National Park, which is largely unoccupied and access to which requires a permit, was established in 1974 and is the world's largest legally designated protected area - Eidsvik (1989) 64.

[90]Hendee, Stankey & Lucas (1990) 89.

[91]Vetrino 132 - an example is the Val Grande area in Italy, an area which was inhabited and used for agricultural activities, and was subject to intense deforestation in the 19th century, but which is slowly assuming the characteristics of a wilderness area because of the increasing abandonment of shepherding in the area as a result of other activities becoming more economically attractive.

[92]Dorst 121-2.

[93]Hendee, Stankey & Lucas (1990) 89. On the wilderness values of the Cairngorms, see Watson 262-8.

[94]Hendee, Stankey & Lucas (1990) 89.

developments in Italy, which indicate the 'divergent and important growth of the wilderness concept internationally.'[95] At the close of the 1983 Third World Wilderness Congress a motion was approved inviting the Italian government, and the government of the Piedmont Region, to classify the district of Val Grande, with its minor valleys, as a wilderness area. At the Fourth World Wilderness Congress, some four years later, the president of the Piedmont Regional Council reported that her council had proposed to the national government's Environment Department that a national park be established in the Val Grande area 'thereby taking a substantial first step toward the realization of the first wilderness area in Italy.'[96]

7.3.2 South and Central America

In South America and in Central America, there are more than 100 'wildland' protected areas which are over 50 000 hectares in size. In 1985, 11 894 302 hectares were listed as protected, including 7 million hectares in the Amazon. They are all remote and undeveloped areas of *de facto* wilderness. They have not been classified as 'wilderness' because the term does not translate well into Portuguese or Spanish and has not gained acceptance in the region.[97] But the wilderness areas, however defined, are dwindling fast. The staggering problems faced by other tropical developing countries also prevail, particularly in Central America: increasing populations placing heavy demands on natural resource, faulty or conflicting land use schemes, the pursuit of short term economic benefits at the expense of wilderness, the lack of trained wildland managers, and continuing lack of recognition of wilderness values by most of the population. The future of wilderness in these regions is bleak.[98]

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[95]Hendee, Stankey & Lucas (1990) 89.

[96]Vetrino 131-2.

[97]Eidsvik (1989) 68-9.

[98]See Budowski 227-8, who comments that the most destructive influence of all is possibly the very recent onslaught on the rain forests, mostly to open new grazing lands to produce beef for export to meat-hungry countries, perhaps above all the hamburger industry of industrialised countries where Central American lean meat is very much in demand.

The poor prospects for wilderness, if it still exists, on other continents emphasises the moral obligation on South Africa to protect its wilderness in the interests of the global community.

7.3.3 Canada

In 1885, the Parliament of Canada decreed that an area of 26 km^2 surrounding a newly discovered hot spring in the Rocky Mountains be 'set apart as a public park and pleasure ground for the benefit, advantage and enjoyment of the people of Canada'.[99] Since then 31 outstanding examples of natural heritage (140,000 km^2) have been set aside as national parks. The Canadian national parks system is recognised as one of the oldest, largest and most complete in the world.[100] The wilderness preservation movement, however, lagged far behind.

Canada is blessed with a 'vast reservoir of wildness' which 'furnishes added evidence for the paradox that the possession of wilderness is a disadvantage in the preservation of wilderness.' Canada's north country, 'unbelievably huge and empty, (is) a continuing frontier that elicits frontier attitudes toward the land.' The result has been that the urgency for protection of wilderness has been lessened, and the preservation movement in Canada has lagged behind that in the United States 'where the frontier vanished nearly a century ago.'[101] In Canada, relatively little reference to or use of the wilderness idea was made until after the turn of the twentieth century and, according to Nelson, it 'never attained anything approaching mythical status as it did in the United States. It was not an icon for a people and a nation.'[102] 'Canadians', he writes,

> 'were and remain a rather utilitarian people whose national consciousness found expression in standards such as the maple leaf and the beaver rather than the wilderness and the bald eagle.

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[99]Rocky Mountains Parks Act, cited in Lien & Graham 9.

[100]Lien & Graham 9.

[101]Hendee, Stankey & Lucas (1990) 68.

[102]Nelson 85.

> ...There have been no John Muirs in Canada, no near religious propagators of the values of wilderness, articulate, impassioned, and tough defenders of sacred high mountain ground such as that of the high Sierras against sheep or other interlopers. We have had no spokesmen for the wilderness with such power and persuasiveness as to be able to found the preservationist school of thought or institutions such as the Sierra Club.'[103]

The 'ecology decade of the 1960s' produced a growing worldwide concern about the negative human effects on the environment, and it was in this period that United States environmental thought spread into Canada. In about 1970, this concern in Canada focused on a proposed development, the Banff National Park - Village Lake Louise complex, which involved ski, hotel, condominiums, parking and other facilities, and which would have violated the outstanding natural beauty and wilderness quality of the area. The proposal evoked widespread opposition across the nation. The development did not proceed, and the controversy, a 'conservation battle in the United States' sense', was an event 'that mark(ed) the elevation of the classical wilderness concept to a position of new eminence in Canada.'[104]

As at 1985, Canada's protected area system comprised 78 areas covering nearly 23 million hectares. Wilderness is accommodated through zoning systems. Alberta, Saskatchewan, Ontario and Newfoundland have legislated wilderness areas. Apart from Wood Buffalo, Canada's six northern parks, which extend over more than 14 million hectares, are all roadless. The dominant characteristic of these parks is wilderness.[105]

At national level, until 1988, wilderness protection in the national parks was achieved through administrative zoning. Because of concern about the long-term security of administrative protection (similar to that which ultimately led to enactment of the Wilderness Act in the United States[106]), the National Parks Act was amended in 1988

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[103]Nelson 86.

[104]Nelson 89.

[105]Eidsvik (1989) 62, 63.

[106]See Chapter 6.

to provide for legislative designation and protection of wilderness boundaries. The amendments accorded legal protection to all areas in the parks designated as wilderness, and allowed for the declaration of additional areas by the Governor in Council. Canada Park Service has recently begun the wilderness zoning process and, because 90 per cent of the 34 national parks is of wilderness quality, it is anticipated that large areas will be designated.[107]

At regional level, the protection and management of wilderness varies from province to province, and in only two of the ten provinces is there legislation which is designed specifically to protect wilderness: the Wilderness Areas, Ecological Reserves and Natural Areas Act of 1980[108] in Alberta, and the Wilderness and Ecological Reserves Act of 1980 in Newfoundland.[109] In Alberta wilderness is managed very strictly. Although recreation use is permitted, visitors may not use horses, hunt or fish, or gather berries. Local wilderness supporters are urging that in addition to these 'ecological' wildernesses, 'recreational' wildernesses managed to facilitate recreation should also be designated.[110] In Ontario, the Provincial Parks Act makes provision for the establishment of wilderness parks, within which four zones are contemplated: wilderness, access, nature reserve and historical zones.[111] In British Columbia, the Park Act of 1979[112] is the only statute that includes something of a wilderness mandate. A park may be categorised to preserve 'its particular atmosphere, environment or ecology';[113] but perhaps a more effective provision is that which authorises the Lieutenant Governor

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[107]See Hendee, Stankey & Lucas (1990) 68-70.

[108]RSA 1980 cW-8.

[109]Hendee, Stankey & Lucas (1990) 70 - Alberta has four wilderness areas covering 3 500 square miles (5 600 km²), and Newfoundland one, in extent 664 square miles (1 070 km²); Ontario did have a Wilderness Act, which became subsumed under its Provincial Parks Act.

[110]Stankey 161.

[111]Hendee, Stankey & Lucas (1990) 72.

[112]RS Chap 309.

[113]Section 12(1)(a) - s12(3) provides that no person shall carry on, in any park, any activity that will restrict, prevent or inhibit the use of the park for its designated purpose.

in Council to designate an area in a park or recreation area as a nature conservation area.[114] This is a highly protected zone, defined as a roadless area retained in a natural condition for the preservation of its ecological environment and scenic features.[115] In 1985, a special advisory committee on wilderness preservation was appointed 'to review land use issues in 16 key areas of the province and provide recommendations to government.'[116] The committee recommended, *inter alia*, that the natural area designation of 'wilderness conservancy' be created in legislation, and defined it as follows:

> 'A Wilderness Conservancy is an expanse of land, preferably greater than 5,000 hectares, retaining its natural character, affected mainly by the forces of nature, with the imprint of modern man substantially unnoticeable.
>
> It will be managed as a roadless tract in which natural systems proceed without alteration. Uses include hiking, climbing, camping, riding, fishing, nature study and hunting. Restrictions may be imposed upon the use of combustion engines and other activities.'[117]

it has been suggested that the apparent abundance of wilderness in Canada has handicapped efforts to develop a systematic programme of protection; but that there appears to growing recognition that its wildland is limited, highly valued by Canadians and foreigners, and that aggressive programmes are required to ensure to ensure its survival. They refer to a recent comprehensive appraisal of wilderness protection in Canada, which calls for a coordinated effort at provincial, territorial and national levels to secure legal protection of at least twelve per cent of the nation's landscape by the turn of the century, and remark that the push for adequate protection is gaining strength and sophistication on Canada's political agenda.[118]

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[114]Section 5(1)(b).

[115]Section 1. For further commentary, see Wilderness Advisory Committee, British Columbia 18.

[116]Wilderness Advisory Committee, British Columbia Appendix A.

[117]Wilderness Advisory Committee, British Columbia 24.

[118]See Hendee, Stankey & Lucas (1990) 73-4, and on wilderness protection in Canada generally, Hendee, Stankey & Lucas (1990) 68-74 and Brooks (1979) 249-253.

7.3.4 Australia[119]

Australia enjoys one of the most extensive protected area systems in the world: 581 areas covering more than 35 million hectares.[120] It is one of the few affluent nations with large tracts of rainforest wilderness.[121] In those states which have legislated for wilderness protection, the approach has been to establish wilderness zones within other protected areas.

7.3.4.1 *The constitutional framework for wilderness protection*

Australia is a federation of six States and two Territories. In terms of its Constitution, the States legislate on all matters not specifically reserved to the Commonwealth (the federal government). The Constitution was drafted in the 1890s when the environment had not as yet become a political or human rights issue. Reflecting the concerns of the time, the Constitution did not reserve environmental protection to the Commonwealth.[122] The Commonwealth, therefore, has no direct legislative power in relation to the environment, except insofar as the Territories and land owned by the Commonwealth in the States (over one million hectares) are concerned. Nor does it have any direct powers of control over Crown land (land not converted to private freehold title) in a State. Indirectly, however, it does have some power to intervene in environmental issues. It can validly exercise the powers which it does possess for environmental reasons, even if the constitutional head of power under which it acts has

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[119]For a useful overview of the history and current status of wilderness preservation in Australia, see Hendee, Stankey & Lucas (1990) 57-64.

[120]Eidsvik (1989) 62, 63.

[121]Valentine 132.

[122]Environmental conservation was not reserved because it 'was not an issue which occupied the minds of the legislators' in 1900 when the Constitution Act was passed - Bates 37, and see Barry Cohen (Australian Minister for the Environment) 51 and Galvin 168. The federal government has no plenary power to legislate in respect of land use, forest management, wildlife conservation, pollution control or environmental protection generally, all of which are matters of individual state responsibility.

nothing to do with the environment.[123] For example, the National Parks and Wildlife Conservation Act of 1975 was validly enacted pursuant to the Commonwealth government's trade and commerce power, because it encourages interstate tourism and tourism from abroad, and the nationhood power.[124] In the event of conflict between State legislation and Commonwealth legislation correctly made in pursuance of one of the constitutionally recognised heads of power, the latter prevails.[125] This was well demonstrated in the *Tasmanian Dam* case,[126] an environmental *cause célèbre* which 'threw into sharp relief the powers of the Commonwealth Government to protect the Australian environment by intervening in State land use decision-making.'[127]

In 1982, the Tasmanian Government passed an Act[128] authorising construction of the Gordon-below-Franklin Dam for a power scheme. The Franklin River has been described as one of the last wild rivers in the world, and the dam would severely have damaged one of the largest areas of temperate wilderness in Australia and one of the last such areas remaining in the world. The proposal aroused large public demonstrations, not seen in Australia since the anti-conscription days of the war in Vietnam. It produced the most important and controversial conservation issue in Australia's history which ended the careers of two State Premiers, a State Government

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[123]The purpose of the legislation is irrelevant, provided that the legislation 'rests' on one of the heads of power enumerated in s 51 of the Federal Constitution. See Bates 38, and 60-3 re control over Crown land.

[124]Bates 37-8. The matters on which the Commonwealth government is empowered to legislate are enumerated in s 51 of the Constitution. However, it may also exercise unwritten 'nationhood' power, which is deemed necessarily to have been implied by the Constitution in the act of creating Australia as a nation. This implied grant of power is to enable the Commonwealth to do such things and make such laws as are necessary for it to function as a national government.

[125]Section 109 of the Constitution.

[126]*Commonwealth v Tasmania* (1983) 57 ALJR 450. See Barry Cohen 47-54 for discussion of the significance of the case in relation to wilderness and world heritage areas in Australia. See Bates 16, 37, 39 and 41 for further brief commentary, and 39 f 6 for reference to further journal commentaries on the case.

[127]Bates ix.

[128]Gordon River Hydro-Electric Power Development Act 1982 (Tas).

and many Parliamentarians, both State and Federal.[129] To stop the scheme from proceeding, the federal government enacted legislation and passed regulations thereunder in 1983 which effectively prohibited construction work on the project from proceeding without federal ministerial consent.[130] The issue was resolved by the High Court ruling in favour of the validity of the federal statute, which therefore prevailed over the conflicting Tasmanian statute.

One of the implications of the *Tasmanian Dam* decision is that it may be possible for the Commonwealth to enact a constitutionally valid federal umbrella wilderness statute, thereby overriding any conflicting State legislation, on the basis that wilderness has national and international significance.[131] It has, however, not as yet attempted to do so, and it remains to be seen whether the wilderness movement will gather sufficient strength and momentum to give it the political will to do so.[132]

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[129]Barry Cohen op cit 47-54. He describes the bitter conflict that raged for three years, and concludes with the statement, in relation to the Tasmanian Wilderness, that it belongs neither to the State, nor to the Commonwealth - 'The wilderness belongs to us all.' See Bob Brown 'The Use and Misuse of Wilderness in Southwest Tasmania' in Martin (1982) 81-6 for a strong plea to save 'this rugged riverine wilderness' made in 1980 at the Second World Wilderness Congress held at Cairns, Australia - he too gives it a global context in referring to 'the sad history of our devastation of our planet Earth.'

[130]World Heritage Properties Conservation Act 1983.

[131]The ambit of the 'nationhood' power is not certain. The High Court in the *Tasmanian Dam* case did not accept it as authority for the federal legislation in issue; but 'it may come to be relied upon in the future as a means of preserving Australia's national heritage of unique landscapes and buildings, artefacts and items of cultural, historic and religious significance.' The court decided that the Commonwealth may validly legislate in respect of 'external affairs' if the subject matter of the legislation is of 'international concern' or in appropriate implementation of an international treaty or agreement. Section 51(20) of the Constitution empowers the Commonwealth to legislate with respect to 'trading or financial corporations', and the court found in favour of the federal government on this basis as well as on the basis that one of the principal functions of the Tasmanian Hydro-Electric Commission (which was involved in the proposed power project) was the sale of electricity. It has been suggested that the federal 'corporations power' could be used for conservation purposes by, for example, intervention in forestry operations to ensure more effective management of forestry resources - Bates 38-41.

[132]Several environmental statutes have in fact been passed by the federal government pursuant to international agreements - see Bates 40 for a listing. The depth of feeling aroused in support of the 'Save the Franklin' battle, and the other controversies over the protection and use of public lands (the Cape Tribulation rainforest in Queensland, logging in Tasmania, Victoria, New South Wales and Western Australia, and uranium mining in South Australia) suggest that there is a sufficiently powerful environmental lobby to produce the political will and support for a federal wilderness statute. Bates writes that 'the development and exploitation of resources is no longer an automatic or unquestionable process to a growing number of Australians. ...it is as permissible today to argue for the preservation of the environment in its natural state as it is to press for development. Significant increases in recent years in the amount of land set aside for national parks and other reserves and in the public use of such areas testify to a growing need to conserve aesthetically and biologically

7.3.4.2 *Commonwealth legislation*

Although the Commonwealth has constitutional power to protect reserved or unreserved State land, with or without the cooperation of the State affected, as discussed above, the primary responsibility for declaration and protection of conservation areas vests in the States. Indirectly, however, the Commonwealth may promote acquisition and management of land for conservation purposes by making financial grants available to States for such purposes.[133] In terms of the National Parks and Wildlife Conservation Act 1975, the Commonwealth is also authorised, not only to establish and manage parks and reserves in the Territories, Australian coastal waters and the continental shelf, but also in the States. This is subject to the proviso that land within a State which is already reserved for conservation purposes may not be acquired by the Commonwealth without the consent of the State.[134] Although the power of unilateral and compulsory acquisition by the Commonwealth is thus authorised, and would be constitutionally legitimate, in practice it is unlikely to be exercised.[135]

Any part of a commonwealth national park or reserve may be declared to be a wilderness zone, provided that such declaration is consistent with the management plan for the park or reserve.[136]

7.3.4.3 *The States*

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important features in their natural environments' - see Bates 61. Another recent indication of likely developments in Australia in this context was given at the Fourth World Wilderness Congress in the following statement: 'The Australian Labor Party, which holds government in Canberra and in four of the six states, is committed to encourage and promote the preservation of Australia's wilderness areas under *appropriate legislation*' (emphasis added) - Galvin 173.

[133]In terms of the State Grants (Nature Conservation) Act 1974 and Environment (Financial Assistance) Act 1977 pursuant to s 96 of the Constitution - see Bates 41-2 and 124.

[134]Section 6(2).

[135]Compulsory acquisition is unlikely because of the obvious political implications of such action. Section 4 of the National Parks and Wildlife Conservation Act 1975 authorises the establishment of such parks as are appropriate having regard to the status of the Commonwealth government as a national government and for the purpose of tourism, which is within the ambit of ss 51(1) and 51(31) of the Constitution - Bates 125.

[136]Section 7(2)(b) and (4).

The States are primarily responsible for the establishment and management of conservation areas within their borders, and various types of reserves have been created under national parks and wildlife Acts, or under management powers contained in other legislation. There are variations in descriptions and nomenclature, but the basic approaches and declared purposes of protection in the different States are essentially similar.[137]

The Victoria National Parks Act 1975 makes provision for national parks and 'other parks'. 'Other parks' may be classified, *inter alia* as wilderness parks, and wilderness areas may also be designated as part of a national park.[138] Parts of reserved forests may also be declared wilderness areas.[139]

The Queensland National Parks and Wildlife Act 1975 provides for parts of national parks to be reserved for various purposes, including 'primitive areas' in which human interference is strictly controlled. Although not described as such, these are in effect protected as wilderness.[140]

South Australia and Tasmania do not make specific provision for wilderness areas or zones. In Western Australia, land may be classified as wilderness, but only within national parks. In the Australian Capital Territory, 'reserved areas' may be declared as wilderness zones. Similarly, in the Northern Territory, areas within declared parks and reserves may be classified as wilderness zones, provided that this is in accordance with the overall management plan for the area.[141]

7.3.4.4 *New South Wales Wilderness Act 1987*

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[137]For a more detailed discussion see Bates 126 *et seq.*

[138]See Bates 132.

[139]Forests Act 1958 s 50(1).

[140]See Bates 133.

[141]See Bates 134-6.

Most of the States, therefore, have identified wilderness as worthy of formal dedication and protection, but have opted for its protection through designation of wilderness zones within national parks or reserves. New South Wales, on the other hand, does have a specific Wilderness Act.[142] The following is a brief summary of the more important provisions of the Act (the full text is reproduced in Appendix B).

'Wilderness area' is defined as 'lands declared to be a wilderness area under this Act or the National Parks and Wildlife Act 1974.'[143] The stated objects of the Act are to provide for the permanent protection and proper management of wilderness areas, and to promote the education of the public in the appreciation, protection and management of wilderness.[144] It is the function of the Director of National Parks and Wildlife, *inter alia*, to investigate and identify areas of land that are wilderness or are suitable to be declared as wilderness areas or for addition to existing wilderness areas.[145] It is the function of the National Parks and Wildlife Service to 'carry out such works and activities as the Minister may direct either generally or in any particular case in connection with wilderness areas.'[146] The definition of wilderness is given meaning by the provisions relating to the 'identification of wilderness': before identifying an area of land as wilderness, the Director must be of the opinion that it is, together with its plant and animal communities, in a state that has not been substantially modified by humans and their works or is capable of being restored to such a state; of sufficient size to make its maintenance in such a state feasible; and is capable of providing opportunities for

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[142]Act 196 of 1987.

[143]Section 2. Although there is provision in the National Parks and Wildlife Act of 1974 for the declaration of wilderness areas within national parks and nature reserves, not much use was made of this provision. In the management plan prepared for 1974, only four areas in the Kosciusko National Park were specifically zoned as wilderness. In addition to these areas, however, there were a number of large unroaded areas in many of the 51 national parks managed by the National Parks and Wildlife Service, and 14 of the 20 areas identified as the major remaining wilderness areas in New South Wales were regarded as 'safely located' within the national parks system - Armstrong 153. The purpose of declaration of a wilderness area under the 1974 Act is to maintain the area in a wilderness condition, free from man-made structures, except for purposes of research, safety and the protection of the area or park in question - ss 59 and 61.

[144]Section 3.

[145]Section 5(1)(a) as read with s2.

[146]Section 5(2).

solitude and appropriate self-reliant recreation.[147] Any person, body or organisation, even if not the owner of the land concerned, may submit to the Director a written proposal that an area be identified as wilderness or added to an existing wilderness area, and the Director is then obliged, within two years, to consider the proposal and advise the Minister in relation to it.[148] Declaration of a wilderness area is by means of notification published in the *Gazette*, preceded by a 'wilderness protection agreement' or a 'conservation agreement'. A declaration relating to an area subject to a wilderness protection agreement may be varied by a further notification in the *Gazette*, but may not be revoked except by an Act (not just Resolution) of Parliament. A declaration relating to a conservation area may be varied or revoked by notification in the *Gazette*, but a copy must be laid before Parliament.[149]

The Act prescribes the management principles that must be applied to wilderness areas. They must be managed so as to restore (if applicable) and to protect the unmodified state of the area and its plant and animal communities; to preserve the capacity of the area to evolve in the absence of significant human interference; and to permit opportunities for solitude and appropriate self-reliant recreation.[150] The Minister is authorised to enter into wilderness protection agreements[151] and conservation agreements[152] relating to lands identified by the Director as wilderness. The Act prescribes the manner of giving public notice of proposed agreements,[153] their purpose and content,[154] duration and manner of variation.[155] It also makes provision for

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[147]Section 6(1). Interestingly, before the Wilderness Act was passed, the National Parks and Wildlife Service subscribed to the view that it is impossible to define wilderness in any specific manner - Armstrong 152.

[148]Section 7.

[149]Section 8.

[150]Section 9.

[151]Section 10.

[152]Section 16.

[153]Section 11.

[154]Section 12.

management plans for wilderness areas,[156] the resolution of certain disputes,[157] and the establishment of a Wilderness Fund.[158] The Director is required to prepare an annual report on the status of areas identified as wilderness and on matters relating to wilderness areas.[159] The provisions relating to *locus standi* are significant: *any* person may bring proceedings in the Land and Environment Court for an order to remedy or restrain a breach of the Act, whether or not any right of that person has been or may be infringed by or as a consequence of that breach.[160] The Governor is authorised to make regulations to carry out and give effect to the provisions of the Act, including the creation of offences for criminal sanctions.[161]

In general tenor and principles the Act is not unlike the United States Wilderness Act of 1974. Its main features are the recognition of the importance of wilderness, the prescription of management principles and the requirement of management plans for wilderness areas, and the provisions for public participation, resolution of disputes, a wilderness fund, and the extension of *locus standi*. Before summarising the position of wilderness in the whole of Australia, it will be instructive to consider other legislation relating to management plans, public participation, national heritage, covenants with private landowners, conservation orders and *locus standi*.

7.3.4.5 *Management plans and public participation*

In general, the purpose of classification of a conservation area in Australia is indicated in the management plan for the area. The management plan reflects the management

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[155]Section 13.

[156]Sections 17-19.

[157]Section 21.

[158]Section 23.

[159]Section 24.

[160]Section 27.

[161]Section 29.

policy of the relevant administrative agency within whose jurisdiction the area falls. In respect of the Commonwealth conservation areas and in some of the States the preparation of management plans is a statutory obligation, and the procedure for their formulation is prescribed or indicated in the relevant statutes. Some States make provision for public comment on the policies contained in the management plans, and the general trend is toward greater public participation and better access to decision-making processes.[162]

The Commonwealth legislation requires preparation of a management plan 'as soon as possible' after a park or reserve has been declared. The plan may be amended, but otherwise remains in effect for ten years. It sets out the planning and policy objectives of the park. The plan is prepared by the Director of National Parks and Wildlife, must be approved by the relevant Minister, and is subject to a negative resolution of Parliament - if no resolution is passed within twenty sitting days disallowing the plan, it becomes operative. When plans are prepared, the Director is obliged to invite representations from interested persons, and again after they have been prepared. He must make copies available for inspection and public comment. Any representations received must be sent to the Minister with the plan. Aboriginal rights are also protected in relation to prescribed land in the Northern Territory which vests in land trusts administered for the benefit of aborigines. Land forming part of a trust may fall within a national park or reserve, in which event the Director is obliged to protect the interests of the trust and the aborigines in preparing management plans.[163]

In New South Wales, the Director is bound to prepare management plans for all conservation areas. Wilderness area declarations must be in accordance with such plans. He must consult with other interested government agencies such as Water Boards and the Minister for Fisheries in preparing a plan and, in respect of wildlife reserves or areas, must obtain the consent of owners and occupiers of land which will be subject to the plan. Public participation in its preparation is required in the case of national parks

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[162]See Bates generally 143-150.

[163]Aboriginal Land Rights (Northern Territory) Act 1976. See Bates 144-5 for further comment.

but not other types of reserves. The plan and any representations are submitted to an Advisory Council for its consideration and advice, and then to the Minister for approval or alteration.[164] Wilderness zones must be maintained in their natural state, and may only be used for scientific research approved by the Director, and for recreational and such other purposes as are stated in the management plan. Mining is prohibited, as are all other development works, timber felling and use of vehicles, except by the director pursuant to the management plan for essential management purposes.[165]

In Victoria, the Director of National Parks is obliged to prepare management plans for all national and other parks. However, the procedure for such preparation is not prescribed, and there is no formal provision for public comment. Ministerial approval of plans is required. Approval by owners and occupiers of lands within wildlife management co-operative areas is also required.[166]

Queensland makes no statutory provision for management plans. Management takes place according to classification. Wilderness areas, therefore, are preserved virtually intact, free of any roads or structures; in primitive and recreation areas roads, tracks and huts may be constructed; recreation areas are to be managed for camping, picnicking, boating and the like. At least once every 15 years a report of the results of biological surveys undertaken in wildlife reserves must be presented to the Minister.[167]

In South Australia it is the Minister's responsibility to prepare management plans, which are then made available for public comment. Thereafter they, and any representations thereon, are considered by the Advisory Council, and 'the whole package' is then

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[164]Bates 145-6.

[165]Bates 152.

[166]See Bates 146-7 for more detailed information and comment.

[167]Bates 147.

reviewed again by the Minister. Wilderness zones may be included in the plans. After final acceptance, the decision is advertised in the *Gazette*.[168]

Similar statutory provisions exist in Western Australia, Tasmania and the Northern Territory for the preparation of management plans and for public participation in such preparation. In Western Australia management plans are more oriented towards protective and research functions. In Tasmania they may restrict access to certain areas. In the Northern Territory, there is provision for consultation and formal agreement with the Aboriginal inhabitants in relation to the protection and conservation of wildlife and natural features. There is no statutory provision for management plans in the Australian Capital Territory.[169]

In summary: apart from New South Wales (under its Wilderness Act), there are no provisions in Australia for management plans directly and specifically related to wilderness, as wilderness areas are generally protected as zones within declared national parks or reserves; and where management plans are required by statute, as is the norm, there is usually detailed prescription of procedures designed to ensure proper public participation in their formulation.

7.3.4.6 *Wilderness as national heritage*

The Australian Heritage Commission Act 1975 of the Commonwealth defines the 'national estate' as consisting of 'those places, being components of the natural environment of Australia or the cultural environment of Australia, that have aesthetic, historic, scientific or social significance or other special value for future generations as well as for the present community.'[170] It is the task of the Australian Heritage Commission, established to advise the Commonwealth on matters relating to the national estate, to identify such places and objects as are worthy of inclusion on the Register of

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[168]Bates 147-8.

[169]See Bates 148-150 for more detailed information and comment.

[170]Section 4.

the National Estate.[171] The definition of national estate is wide enough to include wilderness areas, and the Commission has in fact indicated that it believes that the Register should contain, *inter alia*, wilderness, other places which demonstrate the main stages and processes of Australia's geological and biological history, rare or outstanding natural phenomena, and habitats of endangered species of plants and animals. Listing does not amount or lead to a preservation order. All that it does is to identify important sites, the protection of which is then a matter of State initiative, and in each State a National Trust has in fact been established for the purpose of identifying, protecting and if necessary acquiring elements of the national estate.[172]

7.3.4.7 *Covenants*

Although large areas of land are reserved under national parks and reserves legislation, National Trusts in some States are empowered to enter into covenants with private landowners restricting development and use of their land. Bates comments:

> 'This is an attractive arrangement for private landowners since it allows them to make some commitment towards conserving and managing their property in the public interest, while retaining private ownership of it. Such arrangements may also have rates and land-tax advantages for the owner. From a conservation viewpoint, covenants are advantageous because they will bind future purchasers though there are provisions for the discharge or variation of such covenants. In Victoria, interested parties such as neighbouring landowners must be given a chance to make representations to the Minister, before the making or variation of such an agreement is approved.'[173]

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[171]Section 32. The following components of Australia's national heritage, considered to be of international significance, are included on the World Heritage List compiled under the Convention for the Protection of the World's Cultural and Natural Heritage, 1972: the Kakadu National Park, the Great Barrier Reef, the Willandra Lakes Region of New South Wales, the South-West Wilderness of Tasmania and the Lord Howe Island Group - Bates 159.

[172]See Bates 160-1 and 164.

[173]Bates 164.

There is no reason why the same principles should not be applied in South Africa with respect to wilderness on private land.[174]

7.3.4.8 *Conservation orders*

In New South Wales, the Heritage Act of 1977 makes provision for items or places of the environmental heritage to be protected by conservation orders, which may be interim or permanent. The purpose of an interim order is to allow the Heritage Council to investigate and determine whether to recommend to the Minister that a permanent order be made. It is not required that notice of intention to make an interim order be given, but affected owners and occupiers and relevant government authorities must be given notice as soon as is practicable after it has been made. It remains in effect for two years, or until revoked or a permanent conservation order takes effect.[175] There is no provision in the Act for compensation in the event of the value of the land being reduced in consequence of a permanent conservation order, or to compel the government to purchase the land. This may seem unfair, but there is a distinction between expropriation of ownership and restriction of rights of use. This distinction was endorsed by the court in the *Tasmanian Dam* case, which held that the restriction of activities on land (which may subsequently again be allowed) did not amount to an acquisition.[176] In any event, surely some sacrifice of private interest is acceptable in the interests of the public good.

Again, there is no reason why the same principles should not be applied in South Africa, particularly with respect to wilderness areas that are subject to imminent threat of development or degradation - an interim wilderness conservation order will serve to afford it the urgent protection that it may require pending full investigation and

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[174]See s7 of the draft Wilderness Act in Chap 10 and Appendix D for suggested provisions relating to the declaration of wilderness on private land.

[175]Sections 24, 25, 28, 29, 31, 32, 35 and 36, and see Bates 165-6.

[176]Bates 178-9.

environmental evaluation to determine whether or not it should be permanently dedicated as part of the wilderness national heritage.[177]

7.3.4.9 *Locus standi*

The New South Wales Heritage Act of 1977 makes provision for 'any person' to institute proceedings to restrain a breach of the Act, whether or not any rights of that person have been infringed.[178] This obviously gives substance to the provisions relating in particular to the issuing of interim conservation orders, and is worthy of consideration for inclusion in South Africa's wilderness legislation.[179]

7.3.4.10 *Current status of wilderness in Australia*

The following summary reflects Australian statutory approaches to wilderness protection as at 1990: the Australian Capital Territory, the Northern Territory, and three of the five states (New South Wales, Western Australia and Victoria) have statutory wilderness (in the sense that wilderness is formally recognised as a land use in legislation); there are fifteen designated areas in total, ranging in size from 6 000 acres (2 400 ha) to 283 700 acres (113 500 ha), and several other areas are under consideration; the federal government has agreed to fund a national wilderness inventory, which is to be completed by 1993; Queensland has no wilderness legislation, but does have one 'primitive area'; South Australia and Tasmania do not as yet protect wilderness by legislation. The relevant statutes, terminology used, number and extent of designated areas are as follows:

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[177]See s15 of the draft Wilderness Act in Chap 10 and Appendix D for suggested provisions relating to interim protection of candidate wilderness areas.

[178]Section 153.

[179]See ss70-2 of the draft Wilderness Act in Chap 10 and Appendix D for suggested *locus standi* provisions.

1. Victoria has two areas designated as 'wilderness park' or 'wilderness zone' under the 1975 National Parks Act, in extent 100 000 acres (40 000 ha) and 284 000 acres (11 500 ha) respectively.

2. Australian Capital Territory has one proposed 'wilderness zone' under the 1980 Nature Conservation Ordinance, in extent 75 000 acres (30 000 ha).

3. New South Wales has twelve 'wilderness areas' under the 1974 National Parks and Wildlife Act, and 1988 Wilderness Act, ranging in extent from 6 000 acres (2 400 ha) to 231 000 acres (92 400 ha).

4. Western Australia has one 'wilderness zone' (others are proposed) under the 1984 Conservation of Land Management Act, in extent 39 700 acres (15 900 ha).

5. Northern Territory makes provision for 'wilderness zones' under the 1980 Territory Parks and Wildlife Conservation Act, but none has as yet been designated.

6. Commonwealth of Australia has two proposed 'wilderness zones' under the 1984 National Parks and Wildlife Act.

Victoria, New South Wales and the Commonwealth of Australia all require parliamentary approval for revocation of wilderness designation.[180]

The opinion has been expressed that, because Australia is a federation of separate states that prize and protect their autonomy, little chance may exist for instituting a national programme of wilderness protection which parallels the United States system.[181] Nonetheless, the Wilderness Society of New South Wales is campaigning for a federal

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[180]The summary of information in the text is taken from information supplied by the Land Conservation Council (1990), cited in Hendee, Stankey & Lucas (1990) 61.

[181]Hendee, Stankey & Lucas (1990) 61 - but surely the United States is also a federation of separate states that also prized and protected their autonomy?

Act, and there is no doubt that wilderness protection has become an increasingly important public policy issue in Australia.[182]

7.3.5 New Zealand

The protection of wilderness in New Zealand is by means of wilderness zones designated by legislation within an extensive protected areas system (147 areas covering 2 787 392 hectares).[183]

Murphy describes the historical background which produced what he calls the 'loss of wilderness experience' in New Zealand. Before human habitation, the country only had two land mammals, both a small type of bat; but it had a considerable number of birds including many ground-dwelling species, some of which (moas) were of considerable size standing up to ten feet tall. The first settlers, Polynesians from the Pacific Islands, brought with them rats and dogs and soon hunted several species of large birds to extinction. Europeans introduced farm animals and exotic game animals, including red deer (*cervus elaphus*) which is the most common of seven different species of introduced deer found in New Zealand today. Because of the lack of competition and predation, these game animals proliferated to the point where they became a problem. Legislation was accordingly enacted which declared all introduced game species as noxious, and could be taken by anyone, anytime and by any means. The game animals, although considerably reduced in number, have great commercial and recreational value. This has encouraged the use of helicopters for hunting. They now cruise and operate over New Zealand's wild lands with very little control; thus Murphy's lament at the destruction of the wilderness experience by 'marauding helicopter gun-ship(s)'.[184]

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[182]See Hendee, Stankey & Lucas (1990) 61-4 - the controversy surrounding the proposed construction of a hydroelectric dam on the Gordon River in southwestern Tasmania (which culminated in the *Tasmanian Dam* case previously referred to in the text) demonstrates the powerful political nature of the wilderness preservation movement.

[183]Eidsvik (1989) 62, citing 1985 IUCN statistics. For a brief history and description of national parks, forest parks and administrative wilderness in New Zealand, see Murphy 118-125.

[184]Murphy 120-4.

We should learn from the New Zealand experience, and provide in our legislation for prohibition of helicopters over South African wilderness areas.[185]

National parks were established in New Zealand under specific Acts of Parliament. Tongariro and Egmont National Parks were set aside in 1894 and 1900 respecively, and the public reserve that would subsequently form the basis of the three million acre (1,2 million ha) Fiordland National Park was created in 1905. In 1952, the National Parks Act was passed in order to consolidate and coordinate previous *ad hoc* park legislation. The Act made provision for the establishment of wilderness areas, which were required to be 'kept and maintained in a state of nature', without any buildings, roads or tracks, and with access by foot only. Their establishment depended on recommendation by the Park Board concerned - a board was constituted for each park. Because local interests, which were generally not in favour of preservation, were usually represented on the boards, initially few wilderness areas or zones were set aside in the national parks.[186]

Wilderness areas may also be set aside on lands managed in terms of the Forest Act of 1949, and the Reserves Act of 1977. The procedures for establishing and managing wilderness are therefore spread across three statutes and three agencies (New Zealand Forest Service, Department of Lands and Survey, and National Park Authority). Instead of a formal national wilderness preservation system under its own legislation, New Zealand has elected to develop a coordinated system based on the existing legislation. Largely as a result of the efforts of conservation groups, in particular the Federated Mountain Clubs,[187] and subsequently the Wilderness Advisory Group, which was appointed by the Minister of Lands and Forests in 1981, progress has been made in identifying and setting aside wilderness: by 1990, six areas totalling 740 000 acres (300 00

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[185]Subsection 36(5) of the draft Wilderness Act in Chap 10 and Appendix D specifically prohibits helicopters and other aircraft from entering the airspace to a level of 500 metres above the ground level of wilderness areas, except in cases of emergency or unless authorised to do so in terms of the Act.

[186]Hendee, Stankey & Lucas (1990) 64-5.

[187]The Federated Mountain Clubs urged the formation of a wilderness commission to oversee the management of New Zealand's wilderness resource. Detailed proposals for at least 16 new wilderness areas (7 in the North Island, 9 in the South Island) totalling 6% of the area of New Zealand were proposed and discussed with the Forest Service and the Lands Department - Murphy 122.

ha) had been designated as wilderness, a further five areas totalling 394 000 acres (164 000 ha) zoned as wilderness in management plans, and three others totalling 679 500 acres (275 000 ha) identified as potential areas.[188]

7.3.6 Zimbabwe

Zimbabwe has 'wilderness equivalents' in the 219 600 hectare Mana Pools National Park and contiguous Safari areas, which all together extend over 1 261 300 hectares, and in which there is no permanent human habitation. The area is zoned for scientific research in wilderness areas, and hunting in other portions of the Safari areas.[189] But it is developments in another area that have resulted in Zimbabwe being described as 'the first truly developing country to proclaim a wilderness area.'[190] In 1989 the Mzaribani District Council, a tribal authority, proclaimed the Mavuradonna Wilderness Area on their communal tribal lands on the Zambezi Valley escarpment. The area, approximately 500 square kilometres in extent,[191] is extremely rugged, and has a resident population of elephant and various other large mammals in small numbers. According to the Zimbabwe Department of National Parks and Wildlife Management, its major attraction lies in its scenic and wilderness qualities. The project was 'entirely conceived by the District Council in Mzarabani assisted by local commercial farmers. The Council gazetted the wilderness area within a communal land on their own initiative.' The Department carried out an ecological survey of the area and calculated the economic potential of the scheme. It recommended the inclusion of the Great Dyke State Land which lies immediately to the south of the gazetted wilderness area in the project, and estimated that with such incorporation 'opportunities exist for sport hunting,

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[188]See Hendee, Stankey & Lucas (1990) 67, 69; 64-8 for an overview of the history of the wilderness movement in New Zealand; and 69 for a table of existing and proposed wilderness areas as at 1990. The New Zealand government has formally adopted a draft wilderness policy proposing a minimum of 20 000 ha for wilderness areas with large buffer zones - Bennett 293.

[189]Eidsvik (1989) 68.

[190]Martin (1989).

[191]Martin (1989).

bow hunting, wilderness trails and wildlife cropping totalling no less than a half-million dollars in the very near future.' It estimates gross income by 1993 to be Z$ 600 000.[192]

Provided that the proposed hunting is not mechanised and is pursuant to a management plan that requires or permits a properly controlled culling programme to maintain the integrity of the wilderness ecosystem, the revenue producing activities contemplated are not inconsistent with the concept of wilderness, save in its purest form which requires that natural forces play themselves out with no human interference. But perhaps the 'continuing international evolution'[193] of the concept requires this compromise from the purist.

There are three highly significant implications in this development in Zimbabwe. In Martin's words: 'Firstly, it signals a profound shift in attitude in the developing world in favor of the wilderness concept. Secondly, with the emphasis of management being for sustainable economic development of the local people, the wilderness use is tied to rural development. Finally, under this emphasis, wilderness in Zimbabwe will involve somewhat different management than U.S. wilderness, substantiating the concept that wilderness (or any land use designation) must be relative to the culture in which it resides.' As a result of this project, two other areas are being considered for wilderness designation by other tribal authorities in the Plumtree and Tjolotjo areas south of Hwankie National Park.[194]

These developments in Zimbabwe represent an important breakthrough and affirmation of wilderness values in developing countries. They effectively counter charges of exclusivity, elitism and the locking up of resources to the detriment of the majority. Perceptions of value will obviously be different in developing countries, with less emphasis on recreation, and greater emphasis on natural resource conservation for sustained economic benefit, and traditional cultural, spiritual and educational values.

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[192]Zimbabwe Report 1989 13.

[193]Martin's phrase - see Martin (1989).

[194]Martin (1989).

Another important lesson to be learnt from Zimbabwe is that the local people themselves must be involved in the decision making process in designation and management of wilderness. The American concept of wilderness will only be relevant in developing countries if two basic components are included in its definition and application: integration of indigenous cultural values and sustainable resource utilisation. Neither of these, if properly applied, is essentially inconsistent with wilderness preservation and evolving perceptions of its nature, and acceptance of both will advance international efforts to protect what little remains of the global heritage of wilderness.

7.4 CONCLUSION

The pattern of international environmental treaties that has emerged in recent years clearly demonstrates a shift from species protection to habitat and ecosystem protection. The values of wilderness to humankind[195] are increasingly being recognised and protected in international treaties and national legal systems. There *is* an international wilderness movement, and it is growing. Ultimately there will be a world wilderness inventory and global wilderness network. Wilderness could serve as a benchmark, a cornerstone or foundation on which a new age of environmental integrity may be constructed. It is increasingly being perceived as a global, and no longer just national, patrimony.[196] Hendee, Stankey & Lucas write:

> 'International interest in wilderness is growing. Numerous countries around the world have begun to consider how wilderness might fit into their particular system of areas under conservation management. Even in countries where long-term occupancy and development have greatly modified the landscape, such as Taiwan, the possibility of restoring wilderness is being discussed. In many countries ...such as India, the wilderness idea has many advocates. It is likely a matter of time before this advocacy evolves into overt protection of wilderness areas. This growing interest reflects an increasing understanding both of the importance of wilderness settings as a repository of a country's

[195]The values of wilderness are discussed in Chapter 3.

[196]Croze & Gwynne 31.

> natural heritage and as a symbol of that country's international responsibility to protect the environment.'[197]

Not all countries are in a position to discharge this 'international responsibility to protect the environment' by 'overt protection' of their wilderness areas. In some areas, like Salonga in Zaire,[198] wilderness protects itself through isolation; but in other countries, such as Angola, Mozambique, Sudan and Chad, military activities are so intense that any form of protection is virtually impossible. Throughout the world, social unrest, civil war, depressed economies and unlawful activities such as poaching, prospecting and boundary encroachments are threatening the existence of wilderness.[199] Given the political will to do so, however, South Africa *is* in a position to protect what is left of its wilderness heritage.[200]

Principle 21 of the Stockholm Declaration adopted by the United Nations Conference on the Human Environment held at Stockholm in 1972 reads as follows:

> 'States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.'[201]

Even if degradation of natural areas does not directly cause immediate and apparent 'damage to the environment of other states', the incremental or cumulative adverse effects of worldwide reduction of wilderness will ultimately affect all nations.

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[197]Hendee, Stankey & Lucas (1990) 91.

[198]Salonga National Park, situated one degree south of the equator in the central Zaire basin, is a vast area of 3 600 000 ha of tropical forest, which is primarily accessible via the Zaire river, in which most tropical African species are abundant, and in which indigenous people are resident - Eidsvik (1989) 68.

[199]Eidsvik (1989) 60-1, 82.

[200]The status of and prospects for wilderness in South Africa are discussed in detail in Part 4.

[201]Quoted in Harris at 204.

Quite apart from the diplomatic and other advantages which would be gained from international co-operation and recognition, South Africa could derive a great deal of practical benefit from participation in such programmes as the United Nations Man and Biosphere programme, in which wilderness areas play a key role in that they represent the core area around which a biosphere reserve is designed. It is, however, more than simply a matter of advantage. South Africa has an obligation to recognise and accommodate these international trends and developments. There are about 160 countries in the world, and only a few of them, including South Africa, directly provide some measure of statutory protection of wilderness. If wilderness is indeed an essential global resource, this places an awesome responsibility on these countries.

Many of the ecological and social values of wilderness secured in America through wilderness designation are protected in other countries through other types of land use classifications. Socio-economic and cultural differences require a reorientation from the more purist American concept of wilderness to a new paradigm: wilderness management linked to economic planning and rural development.

In virtually all the countries in which the legal system makes some provision for protection of wilderness, there is recognition of the need for public participation in the wilderness identification and planning processes. Another important lesson for South Africa is the trend toward protection of wilderness on all the public lands on which it occurs, and on private land by means of covenants or other suitable arrangements with the owners. But perhaps the most important lesson to be learnt from the above overview of the international wilderness movement is that South Africa should acknowledge the international trend towards wilderness preservation, recognise that its wilderness is a global heritage, and accept that it has an obligation to protect what remains of its wild country, not only in the interests of its present and future generations, but also in the interests of the world community.

Time is of the essence. Globally wilderness is fast diminishing. There is clearly an urgent and compelling need for effective legislation. The time is now. If we do not act today, there will be no tomorrow for wilderness. This is Africa, not Europe, not the

North American continent nor the Antipodes. There is effectively no wilderness left in Europe, and the remnants of wilderness on other continents are different from our African wilderness. We have a unique contribution to make to the international community. A South African Wilderness Act would be a priceless and timeless gift of African wilderness to the world and a substantial contribution to international environmental security.

PART 4

WILDERNESS PROTECTION IN SOUTH AFRICA

Part 4 comprises three chapters.

Chapter 8 deals with wilderness, past and present, in a review of the history and current status of the protection of wilderness in South Africa - the transition in this country from *de facto* to *de jure* wilderness.

There are many laws which, although they may have some other primary or stated purpose, nonetheless have the incidental or indirect effect of protecting wilderness or the values which reside within it. The most important of these are laws which fall under the rubric either of 'wildlife law' or 'protected areas legislation', and it is these two topics which are dealt with in Chapter 9 - a comprehensive listing of legislation in effect as at the end of 1991 is provided and considered with a view to determining the extent to which it provides protection of wilderness areas, wilderness values, or wilderness equivalents.

Chapter 10 presents a legal praxis for effective and sustainable protection of South African wilderness by means of legislation. This chapter deals with the *future*, wilderness for tomorrow. It represents the culmination of this work in the form of a proposed prescription for an enduring South African wilderness mosaic. The theoretical threads of the discussion in the preceding chapters are drawn together in a practical pattern of protection of wilderness in the form of a draft Wilderness Act. A draft of each section will be suggested, followed by commentary thereon. For ease of reference, the complete draft of the Act is set out in Appendix D, without commentary.

The word 'model' in the title of Chapter 10 is not intended in a presumptuous sense of being an ideal, but rather as indicating a basis from which an appropriate statute may be constructed.

CHAPTER EIGHT

THE TRANSITION FROM DE FACTO TO DE JURE WILDERNESS

8.1 DE FACTO WILDERNESS: HISTORICAL BACKGROUND

8.1.1 Introduction: the vanishing wilderness

The earliest inhabitants of South Africa, the Khoisan, like their counterparts in the North American continent, the native Americans, had minimal impact on their habitat. They were part of the wilderness and not apart from it, blended with their surroundings, and did not feel any need to modify it. In Hey's words, they 'walked lightly over the veld'.[1] Human numbers and influence on the natural environment increased, first with the advent of the blacks from the north and then, to a greater extent, with the movement of whites from the south. As the colonial pioneers penetrated the wilderness of the interior, the large herds of game rapidly disappeared. The entire landscape of the region changed as a result of their efforts to exploit and modify the wilderness to serve their more complex demands upon its resources. The inevitable consequence of their herding, hunting, mining, agriculture and afforestation was irreversible impacts upon wildlife habitat and reduction of the numbers and composition of wildlife populations in the region to the point, in many instances, of near or total extinction.[2] As these impacts became increasingly patent, attitudes toward wildlife and wilderness changed, and attitudinal changes, in turn, affected the development of nature conservation laws and policies.

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[1]Hey 159.

[2]These impacts on wildlife and wilderness are not unique to southern Africa; they occur in most of the developing countries in Africa, and the socio-economic and political causes of which are many and complex: a history of colonial expansion, profligate exploitation of natural resources, hunting excesses, unenlightened land policies and distribution, lack of education, poverty, inadequate job opportunities, and over-population in many areas, all contribute to the production of a land hunger which forces people to intrude into fragile, marginally productive areas which could have served as wildlife refuges. They need land to grow food, and wood for fuel and building material. Not only does wildlife provide an immediate source of food if it is poached, its natural habitat meets short term needs for fuel, building materials and traditional medicines.

The history of the evolution of South Africa's modern conservation laws and policies reflects a similar pattern to developments in the United States. Four stages of growth are discernible. The early white settlers were presented with a cornucopia of wilderness riches, lavishly bestowed by nature and freely taken in a pioneer ethos of unrestricted exploitation. The folly of the minimal regulation of hunting which applied during this phase soon became apparent as wildlife became scarcer. The second stage saw the emergence of game protection societies, evidencing a shift from economic to sport value being placed on wildlife. The law responded to this change in society's perception of value by affording greater protection to game species so as to ensure their sustained harvest, whilst at the same time endeavouring to serve the pastoral needs of farmers intent upon taming the wilderness. The third stage is represented by the emergence of doctrines designed to protect not only 'game' species, but other forms of wildlife and natural areas for their aesthetic, educational, historic and other non-economic values. The fourth and most recent phase is still developing, with the law attempting to respond to a variety of first and third world philosophies and perceptions which, although differing in their premises and goals, appear to have a common methodology and purpose: holistic treatment of environmental problems with a view to securing maximum sustainable protection and diversity of species, ecosystems and landscapes under natural rates of change. This development represents a shift from purely anthropocentric attitudes to a new kind of environmentalism, which still includes a human utilitarian perspective, but tends toward a biocentric approach recognising humankind's ethical obligation toward and stewardship of other life forms because of their intrinsic worth.[3]

8.1.2 Impact of white settlers

> 'If we were to enquire when nature conservation in Africa was most effective, the answer would be: long before the words "nature conservation" were ever spoken. Nature conservation prevailed in Africa before our European technological society put in an appearance. In those days everybody lived

[3]For further discussion of the rights of nature and of future generations, and of the other philosophical implications of the attitudinal shift referred to in the text, see Chapter 2.

in what we now call national parks, and scarcely any species of animal or plant could be called threatened.'[4]

8.1.2.1 *On wildlife*

(a) The 17th century

The roots of modern South African nature conservation legislation were struck soon after the first Dutch settlers arrived at the Cape. In setting up a victualling station, the Dutch East India Company required fresh fruit and vegetables, meat and timber. This necessitated the introduction of laws to protect the natural resources on which such a station depended. Wild animals provided meat, and the Company introduced restrictions on the right of free burghers to hunt. In 1658 a ban was imposed on the cutting of trees. Official woodcutters were appointed from whom timber and firewood had to be purchased.[5] These controls represented the genesis in South Africa of the principle of State responsibility for and control over the nation's natural resources.

Lions, leopard and hyenas presented a problem to the first white settlement at the Cape. Rewards were offered to those who captured or shot them, and this was in effect the earliest law in South Africa aimed at controlling 'problem' animals. In spite of the bounties, the wild animals continued to pose a threat to human life (the Commander himself was confronted by a lion whilst strolling in the gardens one morning in June 1656), as well as to the cattle and sheep which steadily increased in number as trade with the Hottentots increased. Sawyers and carpenters in the forests were constantly under threat. Nevertheless, the Dutch East India Company's interests were paramount, and it retained the exclusive right to hunt. In a Placaat dated 1 January 1657, all shooting of birds and game animals was prohibited. Venison had to be bought from the Company. In September 1658, it took control of the ivory trade and required that

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[4]Dr Ray Dasmann, chief ecologist of IUCN, at an international gathering in Zaire in 1975, cited in Pringle 277.

[5]President's Council Report (1984) 22.

freemen sell all tusks, horns and feathers direct to the Company. In January 1661, however, the restrictions on hunting were lifted because of complaints that the household needs for game were not being fulfilled; but the negative impacts on the local game populations of the hunting excesses which followed resulted in the re-imposition of controls by Governor Simon van der Stel in 1680. A licence system and limited seasons for hunting were introduced, and penalties imposed for illegal hunting.[6]

(b) The 18th century

By the 1730s hunting excursions into the interior resulted in wagonloads of ivory being brought back to Cape Town. More severe penalties were introduced in 1753, including banishment from the Cape in the case of a seller or purchaser of ivory (the Company alone was entitled to dispose of ivory). A petty officer or soldier who negligently allowed a tusk to slip past the Company's storekeeper faced the prospect of a flogging, a branding and ten years in chains. In spite of the increased deterrents, the ivory trade continued. Successive governors declared their strong intention to eradicate unlawful hunting, and imposed stricter controls. Fines were doubled; weapons involved in illegal hunting were liable to forfeiture; dogs taken into the veld had to be muzzled; the sale and purchase of unlawfully obtained game was prohibited; and hunting by slaves, Hottentots and half-castes was curtailed. Hunting on horseback or by wagon between the Castle and the last house in Cape Town was prohibited in 1740. Rhenius' placaten of 1792 were a comprehensive revision of game laws; but the destruction of wildlife continued, largely because of problems of enforcement in remote areas.[7]

(c) The 19th century

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[6]For a more detailed account of the Dutch East India Company's activities and attitudes toward wildlife control and conservation during this period, and of the relevant placaten, see Pringle 18-28 and Rabie (1976) 53.

[7]Pringle 29, Rabie (1976) 53-4.

The profligate mood of the past is captured in Pringle's description of the 19th century as 'The Century of the Big Shoot'.[8] Such laws as did exist for the protection of wildlife were ill-conceived, inadequately enforced, incapable of enforcement, or ineffective because they were simply disregarded. In the first year of the 19th century, the British Governor at the Cape, Sir George Young, granted 'liberty to all persons beyond 30 miles (48 kilometres) from Cape Town to kill game at all seasons without licence or prohibition'.[9] Hippos, which were not uncommon in the vicinity of Cape Town at the beginning of the 18th century, were hunted to extinction in the Cape - by 1900 there was none left south of the Natal border, notwithstanding that in 1822 Lord Charles Somerset had proclaimed the hippo 'royal game' which could only be hunted on special permit from the Governor. In terms of Somerset's proclamation, which was to remain in force for 64 years, bontebok and elephant were also declared 'royal game'. A closed season was introduced for the hunting of ostriches, francolins, partridges, korhaan, paauw, buck, zebra and hares, and nobody could hunt on private land without the permission of the landowner. Licences were required for hunting, but animals found destroying crops could be killed without licence. Bounties were offered for the killing of leopards, hunting dogs, cats, polecats and hawks. Hunting on Sundays was prohibited, as was hunting by slaves. Travellers beyond the Hottentots Holland Mountains, however, were exempt from the provisions of the proclamation. For many species Somerset's law was either too late, or offered inadequate protection. By the time the 1820 Settlers arrived, the wild herds of hartebeest, quaggas, and other large game described by earlier travellers had almost completely disappeared. The legendary migrations of the trekbokke (springbok) which, like those of the North American bison, will never be seen again, were awesome. Equally awesome was the carnage inflicted by hunters on the ten to fifteen thousand animals involved in those migrations.[10]

The rate of reduction and local extinction of wildlife populations as a result of hunting and trade in game products is illustrated by the following statistics:

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[8]The title of Chapter 3 of Pringle.

[9]Pringle 34.

[10]See Pringle 35-6, and 68-9 where he describes a springbok trek and the aftermath of their slaughter.

'In the first seven months of 1824, 22 700 kilograms of ivory changed hands (in the Cape) and a flourishing trade developed in Grahamstown. The export of elephant tusks and hippo teeth increased steadily and by 1825 these commodities had reached a total of 48 050 kilograms.'[11]

'The Kroonstad district in the Orange Free State became known as *Riemland* (land of thongs). During 1866 one Kroonstad firm exported 152 000 skins of blesbok and wildebeest.'[12]

'In 1858 ivory represented the largest export item from Natal and produced £31 754 in revenue, being twice the value of any other single item. But by 1883 the best years of the ivory trade had come - and gone. In 34 years ivory to the value of R337 109 had been exported through Natal. The peak year had been 1887 when 19 350 kilograms had left the Colony. At a rough estimate, 400 elephants had been killed to supply that ivory. But by 1895 the trade had dwindled to 30 kilograms. Elephants were still killed in the far interior but in Natal they had almost disappeared. ...the returns showed that in 1883 only 7 000 wildebeest and zebra skins were exported. Ten years before there had been 62 000.'[13]

The inadequacy of past conservation laws[14] in the protection of particular species is well illustrated by the quiet, but final, demise of the bloubok[15] and the quagga. Both were slaughtered to extinction. Pringle tells the story of the demise of the quagga which, ironically, was given legal protection by the Cape Government 'for the first time three years after it had disappeared forever.' The following are extracts from his account:

'The quagga certainly was a curious animal resembling an unfinished zebra with stripes only on its head, neck, shoulders and part of its trunk. When the Boer farmers began their steady trek inland, herds of quaggas were a familiar sight on the open Karoo plains. Although the farmers had no taste

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[11]Pringle 37.

[12]Pringle 44.

[13]Pringle 10-11.

[14]For reference to pre-Union statutes dealing with wildlife conservation, see Rabie (1976) 54-5.

[15]The bloubok was an antelope resembling the roan in its size, the shape of its horns, and the colour of its coat. It was limited in its distribution to the grassland areas of the south-western Cape. The only remaining physical evidence of its existence is a skeleton, some horns, and four mounted specimens in the museums of Stockholm, Vienna, Leiden and Paris, and perhaps a few teeth in South Africa. The last specimen was probably shot somewhere near Swellendam about 1799, at which time no one realised that the species had become extinct - Pringle 30.

for horsemeat themselves, their Hottentot workers liked quagga flesh, so the herds were chased for servants' rations. They were tame animals, easy to hunt. ...

But the "gay glittering coats of the quagga" were one by one to become shoes or grainbags. ...

By 1876 ... the last quagga had been shot on the veld. There remained only the quagga that had been living in the Amsterdam Zoo since 1867. And when she died, nobody was sure that she was the last one. Zoos looking for replacement quaggas were quite shocked to be told: There aren't any more. ...

All that South Africa has to show is a mounted female and a skull in the South African Museum, Cape Town, and a skull in the Transvaal Museum, Pretoria. There are skeletons in the British Museum, the Humbolt University in Belgium, the Rijksmuseum in Leiden, the Peabody Museum of Natural History at Yale University, as well as eight mounted specimens in Continental museums. There are altogether 22 skins and 13 skulls in various museums and collections around the world. ...

(W)hen the Cape Government at last gave it legal protection in 1886, there were no quaggas left anywhere. In fact it was 23 years since anyone could remember seeing a quagga - one had been shot near Aberdeen in the eastern Koroo in 1858. The law came at least 23 years too late.

The quagga was not the first or only species to become extinct in South Africa.

For wildlife the law has perhaps always been too late.'[16]

The plunder of wildlife by hunting represents one of the most significant human impacts on wildlife in the past. The figures quoted in the literature are shocking, for example: one big game hunter claimed to have shot 102 elephants in one day, and in 1860 five thousand antelope were killed in a hunt organised in the Orange Free State for the amusement of the sixteen year old Prince of Wales.[17] Human alteration of habitat, however, has proved to be the major cause of depletion of our once exceptionally abundant wildlife populations.

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[16]Pringle 14-16.

[17]See Hey 310, and Pringle 38-43, for an account of the hunt, described by Pringle as 'the greatest hunt in history.'

(d) The 20th century

Before dealing with past human impacts on wildlife habitat, it should be noted that the dawn of the twentieth century did not offer any respite to beleaguered wildlife species. Hey, discussing events in and around 1935, writes:

> 'At the time an extensive trade in wild birds, particularly with the East and Europe, was being conducted through South African ports. Despite existing legislation great difficulties were experienced in curbing this trade. ...
>
> It is sad to recall that although there has been legislation protecting fauna and flora and regulating hunting since the days of Van Riebeeck, this has been largely ineffective owing to the lack of enforcement. There were no wildlife wardens and the enforcement of the legislation was left entirely to the S.A. Police. Apart from the fact that they were fully occupied with their normal duties, flower picking and poaching were not regarded as really serious offences. In fact poaching was regarded as "sport" and in the early days of the conservation movement it was often difficult to persuade country magistrates to treat such offences seriously.'[18]

In sheer numbers the year of 1947 represents 'the year of the greatest killing in South Africa's wildlife history.' It is estimated from the number of shooting permits issued in the Transvaal that 100 000 head of game were killed in that province alone in the winter of that year.[19] It is a sad irony of human nature that there was no public reaction to this killing, but a great deal of public sympathy for the plight of the 18 Addo elephants, 4 Knysna elephants and 3 mountain zebra referred to below.

8.1.2.2 *On wilderness*

(a) Forests

At the same time that the animals were being destroyed, so too were the forests. South Africa has never been well-endowed with forests. Within five years of establishment of

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[18]Hey 301-2.

[19]Pringle 189-190.

the first white settlement at the Cape a shortage of fuelwood was experienced. The nearest forests had already been demolished and consumed. By means of a placaten issued in 1658, the felling of trees was controlled by the Company. Wood, which the Company believed belonged to it, could only be bought from officially appointed sawyers. Yellowwood trees could only be felled for use as planks. Notwithstanding these and other measures introduced by the Company, by the end of the seventeenth century the forests around the Peninsula had almost disappeared.[20]

The 1878 Bulwer Commission of Inquiry, set up to inquire into the state of Natal's forests, estimated that a third of the forests had already disappeared. Natal farmers had been exporting wagon loads of yellowwood across the Drakensberg to the treeless Orange Free State in exchange for sheep. For impecunious settlers, woodcutting was a lucrative trade. Yellowwood was used for flooring, ceilings, window frames and, of course, the currently popular yellowwood furniture. Other giants of the forest were felled for other commercial purposes: red milkwood for wagon-building, and sneezewood and stinkwood also for furniture. Mangroves were chopped down for frames for houses. The Commission reported that: 'The condition of the forests is for the most part lamentable. Their destruction is proceeding apace.'[21]

(b) Grasslands

> 'There is little or no vegetation in South Africa which is in its original condition. Vegetation changes according to the way it is treated. ...
>
> ... South Africa is covered by two rival and antagonistic floras. First in possession was an ancient, southern flora of forest trees, fine-leaved shrubs and bushes - the plants of the fynbos and Karoo. At that time there was no grass. The southern flora was older than grass.

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[20]Pringle 22, 26. At 28 he writes that 'despite the laws, by 1666 many of the forests of Van Riebeeck's day had been exhausted. Fifty years after his arrival yet another *placaat* was issued making it an offence to damage a tree on public property. The penalty was a sound flogging at the foot of the gallows.'

[21]Pringle 11-13.

> Grass came much later, part of a tropical flora that began infiltrating from the north. ...The final struggles were on the plains, but slowly the southern flora was driven back, until the grasses were dominant at last.'[22]

In geological timescale this is the background to South Africa's rich wildlife heritage - the Cape floristic kingdom of fynbos in the south, and a heartland representing one of the greatest grassland pastures the world has known and which once was home to a million antelope. It was small wonder that the pioneers were awed by the glimpse of Eden presented to them. And then came cattle, sheep and the plough - and 'the creeping desert.'[23] The selective grazing of domestic stock has disturbed the ancient patterns of wildlife, and the grassland is being replaced by desert. Proteas and other wild flowers and succulents were indiscriminately gathered and exported overseas. Many plant species became extinct. Many more are endangered, vulnerable or rare.[24] But it is not the extinction of individual species that poses the greatest threat to biological diversity. It is human impact on natural systems and the destruction of entire communities that should be our primary concern. The old rhythms of nature have been disturbed, and will perhaps never be completely re-established; but it may be possible to promote the restoration of representative samples of flora, for example by dedicating sufficiently large tracts of the Karoo as wilderness.[25]

8.1.3 Protection of farming interests

> 'The ploughshare and the grazing herds, not the hunter's gun, will determine the ultimate fate of Africa's wildlife. Conservationists have given so much attention to the protection of wild animals from

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[22]John Acocks, cited in Pringle 229.

[23]The title of Chapter 18 of Pringle.

[24]A 1977 survey, reported in Pringle 240, reveals that 60 per cent of the Cape's fynbos had disappeared, and that in the remaining 18 000 square kilometres, an area smaller than the Kruger National Park, 1 259 plants were threatened, 36 species already extinct, 89 endangered, 110 vulnerable, and 278 rare. On 'the creeping desert' and human impacts on climate and flora and wildlife habitat generally, see Pringle 228-242. Human impacts on wildlife habitat, combined with over-collecting, eradication of foodplants and the use of insecticides, have also produced the extinction of butterfly species - Hey 172.

[25]The Baviaanskloof Wilderness Area, for example, provides protection to 66 000 ha in the Cape Fynbos region.

> the gun and the poachers' snare, that they have failed to plan a strategy and tactics against this last enemy - the invasion and destruction of natural habitats by the farmer. ...unless this can be done so that at least a few strong points hold out, the remaining natural habitats may have disappeared within the lifetime of children at school today.'[26]

Historically 'the invasion and destruction of natural habitats by the farmer' is, of course, a fact of life in any developing country. The setting aside of areas for conservation is the setting aside of areas from farming, and has therefore invariably met with resistence from the agricultural lobby. This lobby has always been politically powerful in South Africa, and any historical overview, however brief, would be incomplete without some reference to past protection of farming interests at the expense of wildlife and its habitat. The 'invasion' of habitat is a central theme throughout this chapter. The question of so-called 'problem' animals relates directly to the status of specific species, and remains a controversial issue even today, but has limited relevance in this context. It may be noted in passing, however, that in the past substantial sums of money were spent on destruction of 'vermin' (leopards, jackals, hunting dogs and wild cats), far more than was spent on game preservation.[27] The focus of this section will be on the tsetse fly story because it graphically illustrates the classic conflict between farming and wildlife interests, and also the lengths to which society will go in order to prefer the former.

The story of the *nagana*[28] campaign in Zululand is a chronicle of hubris and extravagance in the promotion of human interests which it is difficult to look back on without some sense of shame, or at least regret, albeit from the more comfortable vantage point of a later generation. It was a period of indiscriminate slaughter and

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[26]TC Robertson, former director of the National Veld Trust and author of many publications on conservation, cited in Pringle 226.

[27]Between 1911 and 1934, for example, more than £369 000 had been spent on destroying vermin and only £238 000 on game and fish preservation, which latter total included the costs of the game destruction of the *nagana* campaign. A ridiculous example of the extent to which farmers' interests were sought to be protected was the fact that the aardwolf, which subsists mainly on termites, was declared vermin in the Orange Free State. According to a letter from the Provincial Secretary, it was classed as vermin 'because a majority of members of the Provincial Council are convinced that this animal does in fact destroy lambs, etc' - notwithstanding scientific evidence to the contrary - Pringle 174.

[28]*Nagana* is a type of sleeping sickness in cattle. According to Bruton, Smith & Taylor 446, the word *nagana* is derived from the Zulu *uNakane*, meaning the pest.

decimation of wildlife, heralded and typified by the opinions expressed in the following extract from the Ubombo Magistrate's annual report in 1914:

> 'Malaria and nagana are the curse of this Division. It is an ideal country for cattle, having the appearance of an English park .... A few years ago it was heavily stocked with cattle but it is now given up entirely to game. There are thousands and thousands of wildebeest roaming about this area, and a large number of game, vermin, carnivora, and other wild beasts. It is a shocking waste of excellent country ....'[29]

In 1916, special shooting areas were proclaimed, some of which were adjacent to game reserves, and in which hunters were encouraged to shoot at any time of the year subject only to purchase of a licence to do so. It was hoped, in vain, that the game, which carried the disease, would not disperse but seek refuge in the reserves. In August 1917, by proclamation in the *Government Gazette*, the district of Ubombo was officially declared open for hunting of all game apart from rhinoceros, hippopotamus and nyala. No official records were kept of the numbers and species destroyed; but it is recorded that hundreds of zebras rotted in the veld because their skins were regarded as useless, and 25 000 wildebeest were shot. It is estimated that over 70 000 head of indigenous game were destroyed in a fruitless effort to control the spread of *nagana*. By this stage it was already becoming apparent that the way to control the disease was by eradication of the flies that carried it. Nevertheless, in February 1919, the district of Ingwavuma was proclaimed open for hunting. A strong public protest followed these excesses, but not before much of Maputaland's prolific wildlife had been senselessly slaughtered.[30] The game that survived this wholesale butchery scattered, with the likelihood that *nagana* might break out in areas not previously affected.

A fresh outbreak occurred at Ntambanana west of Umfolozi Game Reserve, an area settled by white farmers for the first time when 72 farms were allocated to returning soldiers after World War I. In their first year their cattle thrived. but in their second year they succumbed to *nagana*. The settlers demanded deproclamation of the Reserve,

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[29]Cited in Pringle 117.

[30]See Pringle 118-122, and Bruton, Smith & Taylor 446-7.

which they succeeded in obtaining in 1920. Once again, the protection of game and its habitat had to yield to the interests of farmers. But now a new player entered the contest - the white rhino. In 1916 it was estimated that there were between 30 and 40 adult white rhinos resident in the Reserve. These, together with a number of calves and a few outside the Reserve but close to its boundaries, represented the last remaining specimens of the southern subspecies which previously ranged over large areas of southern Africa. It was partly because of the white rhino, the saga of which captured public imagination and, ironically, partly because of *nagana*, that Umfolozi became reproclaimed in 1929. The Reserve was deproclaimed in an effort to get rid of the tsetse fly, and then reproclaimed in order to get rid of it after nine years of continued game slaughter, debate and research. It was then believed that the game should be concentrated in order to wipe out the fly and thus the disease, and this is ultimately what saved Umfolozi Game Reserve. But the slaughter campaign continued even after reproclamation. It is estimated that more than 35 000 animals were destroyed between 1929 and 1931.[31] Eventually the more scientific and effective approach of killing the fly rather than its host prevailed.

RHTP Harris, an employee in the Department of Agriculture, was appointed by the Division of Entomology to conduct research on the behaviour of the tsetse fly. He set up camp on a bank of the White Umfolozi River. After several years he perfected the 'Harris fly trap'. In 1931 traps were set up in the reserve, and with 487 traps he caught more than seven million flies. The agricultural lobby remained unconvinced! In September of that year the then Minister of Agriculture stated at a conference that

> 'the only solution to the problem is to eliminate the host of the fly, which can only be done by eliminating the game reserves. Hluhluwe and Mkuzi must be abolished. The white rhino can be preserved at Umfolozi, but the rest of the game there must be reduced when it becomes too plentiful. *Settlers and game cannot co-exist. One must give way to the other* (emphasis added).'[32]

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[31] *African Wildlife* (Nov/Dec 1987) 332.

[32] Cited in Pringle 139.

By 1937, the number of flies caught with more than 8 900 traps was down to 57 000. The traps appeared to be succeeding. They were getting rid of the fly and of the disease, because after 1931 there were few cases of *nagana* in local cattle. However, there was another epidemic in 1942. Sixty thousand head of cattle died. The traps had failed, and the farmers were understandably furious. The slaughter recommenced in all areas apart from Hluhluwe which was isolated by clearing the bush surrounding it. In the first three months 30 000 head of game were destroyed. The final tally was 138 529 head of game. And then came the breakthrough, a new wonder chemical used by the American Army to eliminate malarial mosquitoes in the war zone in the Pacific Ocean - dichloro-diphenyl-trichloro-ethane - DDT. Mkuze Game Reserve, which in the meantime had also been deproclaimed, was selected for the first experimental aerial spraying. The trials were successful, the ancestral breeding grounds of the tsetse fly located (it had previously been determined by Dr JS Henkel that the fly used restricted and permanent breeding sites), and the decision was taken in 1950 to attack the fly by selective aerial spraying. By 1952 the fly and *nagana* had been eradicated. Mkuze and Umfolozi were handed back to the Natal Parks Board.[33]

In the formulation of laws to protect wildlife and wilderness which will be appropriate in the area, it should be borne in mind that the events described above are within living memory, and have undoubtedly influenced attitudes toward conservation. In 1975, a Zulu chief made the following statement at a conference:

> 'I remember when my country's plains were full of game. Then the whites said this game must be wiped out because it provides food for the tsetse fly which carries nagana. So whites came from all over South Africa to kill the game on my plains and there was a terrible slaughter with hunting parties everywhere, trampling on our fields and shooting, shooting, shooting. To those of us who witnessed those killings it is strange now to hear of a black man gaoled for five years for killing one animal.'[34]

8.1.4 Shift to protection of sport values

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[33]For a detailed account of the *nagana* campaign, see Pringle 118-148, from which the statistics and data in the text are derived. For a summary of the game drive statistics see *African Wildlife* (Nov/Dec 1987) 332.

[34]Cited in Pringle 268.

Inevitably wildlife populations began to dwindle, and public attitudes began to change. Hunting was a popular sport, and it was a sport that was now becoming threatened. Game protection associations began to spring up, the first of which was formed in Natal in 1883. Today some of their efforts would be regarded as misguided. For example, they promoted the establishment of poisoning clubs and bounties for the elimination of 'troublesome' species of vermin. It was believed that some animals, such as lynx, jackal, porcupine and hawks were partly responsible for the dwindling game populations, therefore qualified as vermin, and their extermination was necessary to ensure that something would be left for the sportsmen.[35] For twenty years bounties were paid for kingfishers because of their threat to the trout imported into South African waters.[36] The formation of these associations, however, did herald a significant change in perceptions of the value of wildlife.

Pringle refers to the formation of the game protection associations as marking 'a turning point in public attitudes.'[37] He writes:

> 'Quail, partridge and hare had already become almost the only "game" sportsmen could expect to find in the vicinity of Cape Town in 1886, when the Cape Government took a look at the 64-year-old game laws originally introduced by Lord Charles Somerset. It was obvious that new restrictive measures were necessary, and the act passed in 1886 gave special protection to the following: hippo, zebra, quagga, Burchell's zebra, or any gnu or wildebeest. Farmers, however, were allowed to shoot elephants on their property without licence or authority.
>
> The law - as always - was well intentioned but too late. The quagga was extinct, the last hippos were found 600 kilometres from Cape Town in the lower reaches of the Orange River, the last elephants and buffalo had taken refuge in pockets of dense bush and forest.

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[35]See Pringle 32 and 78.

[36]Pringle 76. Many species of European fish were introduced into South African waters for sport angling and human consumption. The most successful introduction was that of trout. However, they preyed on the smaller indigenous fishes, many of which were completely eliminated from local rivers. See Hey 112-122 for a discussion of the introduction of trout into South Africa.

[37]Pringle 32.

> The WDGPA [Western Districts Game Protection Association] came into existence in the same year as the new Game Act of 1886 was passed because of the growing realisation by genuine sportsmen that game laws alone had failed to protect wildlife. ....[38]

> By 1899 the Association's message was a depressing one: "The gradual disappearance of big game in the Colony and throughout South Africa is a matter of profound regret and the committee strongly urges upon the government the necessity of arresting the process of destruction before it is too late ...."[39]

8.1.5 Transition from free taking to concern for threatened species

It was nine days after the death of the last surviving quagga in the Amsterdam Zoo on 12 August 1883, that a group of sportsmen met in the Durban City Hall to form the Natal Game Protection Association. The event was significant for reasons other than the coincidence of the birth of the Association with the death of the quagga species: it marked the emergence of the first known wildlife conservation body in South Africa, and the acceptance by members of the public that the protection of wildlife was not solely the responsibility of the government;[40] but it also represented formal expression of the transition from a free taking ethos to concern for threatened species.

8.1.6 Transition from species to habitat protection: establishment of protected areas

The first formal conservation areas in South Africa were the forest reserves demarcated in terms of the Cape Forest Act 28 of 1888. A forestry officer was appointed in Natal in 1891, and by 1903 there were forest services in the Orange Free State and the Transvaal, and control was also extended to include the forests of the Transkei and Pondoland. Both flora and fauna were protected in these forest reserves. In historical sequence, the next conservation areas to be established primarily for the protection of

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[38]Pringle 63.

[39]Pringle 69.

[40]Pringle 10, citing *The Natal Mercury* 23 August 1883.

wild animals were: the Pongola Game Reserve in the Transvaal in 1894 (deproclaimed in 1921); the Hluhluwe, Umfolozi and Mkuzi Game Reserves in Zululand in 1897; the Sabie Game Reserve in the Transvaal in 1898; and Giant's Castle in the Drakensberg in 1903.[41] After Union in 1910 the central government assumed conservation responsibility for forestry (which included the management of coastal driftsand areas, indigenous forests and mountain catchments), inland waters, islands, and the seashore between the high and low water marks. In addition to these large tracts of natural areas, its responsibility also extended to management of crown lands.[42] It was in the Cape, the Transvaal and Natal KwaZulu, therefore, that the first initiatives toward nature conservation were taken in South Africa, and it is to an overview of the early history of events in these regions that we now turn.

8.1.6.1 *Cape Province*

The Cape Province covers more than 721 000 km^2, which is almost 60% of the total area of the Republic of South Africa. The Cape is a province of striking beauty and remarkable variety of natural regions: desert in the north-west, a winter rainfall area in the south-west (home of the fynbos, which is one of the six floristic kingdoms of the world), karoo plains, mountain ranges, evergreen forests and a coastline of 2 500 km with the Atlantic Ocean along the West Coast and the Indian Ocean along the East Coast. Within this vast area, no fewer than 130 protected areas, totalling 1 255 139 hectares, have been established, including indigenous forests, nature reserves, wilderness areas, drift sands, mountain catchment areas and rock lobster sanctuaries.[43] This extensive pattern of protection has its origins in public concern for the protection of the region's game populations.

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[41]President's Council Report (1984) 23-24.

[42]President's Council Report (1984) 23.

[43]Information supplied by the General Provincial Services Branch of the Chief Directorate Nature and Environmental Conservation of the Provincial Administration of the Cape of Good Hope in a statement made in October 1989 in soliciting applications for its 1990 calendar.

In 1888, the committee of the Western Districts Game Protection Association agreed that the Crown Lands 'offer a suitable field' for the proper preservation of game, and approached the Commissioner of Crown Lands with this suggestion. Pringle suggests that this was the rough beginning of a new idea which within four years would crystalise into the first public demand for game reserves in South Africa. In 1892 the Association asked the Cape Government to create a game reserve on Crown Lands in a suitable locality as near to Cape Town as possible, where specimens of the rarer antelopes, now gradually disappearing, could be re-introduced. In 1894, the Cape Government placed an amount on the estimates to establish the Cape's first nature reserve; but no further action was taken, and the following year the item was withdrawn. The Cape thus lost the chance of being the first region to establish a game reserve in Africa (Transvaal's Sabie Game Reserve was established in 1898) - and the people of Cape Town 'the chance of having, right on their doorstep, a remnant of the country as Van Riebeeck found it.'[44]

In 1899 the existing game laws were revised and for the first time provision was made for the definition of areas as reserves. The Boer War (1899 - 1902) intervened, and it was only after the war, in 1903, that the first game reserve in the Cape was proclaimed: the Namaqualand Game Reserve, an area of 102 000 hectares, increased to 141 280 hectares in 1909, and set aside for the preservation of gemsbok and wild ostriches. No funds were voted for the development of this reserve during its 16 years of existence, however, and no warden was appointed. Mounted police patrolled the area irregularly. The boundary was ill-defined and only five insignificant beacons marked the 128 kilometre boundary. Some roads through the reserve were closed; but others were left open, providing ample opportunity for poaching. The reserve was deproclaimed, for division into farms, on 12 April 1919.[45]

On 12 October 1908 an area of 23 900 square kilometres was proclaimed as the Gordonia Game Reserve, an area larger than the Kruger National Park and at that time

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[44]Pringle 64-6.

[45]Pringle 69-70.

probably the largest reserve of its kind anywhere. However, almost immediately after proclamation, the Department of Agriculture received a number of applications to drill for water in the reserve and, because there appeared to be good prospects of finding water in this arid area, it was partially deproclaimed, and drilling permits were issued. After several years of negotiations between the government and the provincial departments concerned, the reserve was reproclaimed in 1923, but by then reduced to less than half its original size. In 1928, the Lands Department investigated the merits of, in effect, exchanging the Gordonia Reserve for an area between the Auob and Nossob rivers which appeared to be more suitable for conservation of the desert flora and fauna of the Kalahari. The National Parks Board, Cape Branch of the Wildlife Society, and other organisations consulted, supported the idea. In 1930 the Gordonia Game Reserve was deproclaimed, and in 1931 the land between the Auob and Nossob rivers was proclaimed as the Kalahari Gemsbok National Park.[46]

The story of the Addo Elephant National Park is another illustration of the setting aside of an area of wild country primarily for the purpose of protecting a specific species of fauna. The dense and thorny Addo Bush, known as a hunter's hell, had provided the final refuge for a herd of about 100 elephants. But it was a haven with virtually no water. The nearest water was in dams on neighbouring farms, and the inevitable trampling of fences and crops by the elephants in their excursions out of the bush for water resulted in demands by the farmers for their extermination. In April 1919, the Cape Provincial Council employed a well known hunter of the time, Major P J 'Jungle Man' Pretorius to get rid of the elephants. By April 1920 he had killed all except 16 of them.[47] On one occasion, timed by two local farmers, he killed six elephants in 30 seconds. He was not unconscious of the magnitude of his accomplishment. 'It was', he said, 'a dramatic thought that I had fought and defeated a family of elephants that had held undisputed sway in that bush for thousands of years.' Negative public response to

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[46]Pringle 70, 74.

[47]There is some confusion about how many he shot. Pringle 154 (footnote) writes that immediately after he had completed his assignment, Pretorius was called to Cape Town to give a personal account to the Administrator. At this meeting he informed Sir Frederick de Waal that he had shot 90 elephants. The conflicting statement in his book *Jungle Man* that he had shot 120 odd elephants was written as a posthumous publication from notes prepared by Pretorius many years after these events.

his achievement resulted in the Provincial Administration deciding not only that the few remaining animals should be left undisturbed, but that they should be protected in a special elephant reserve. In July 1931 the reserve was given the title 'Addo Elephant National Park'.[48]

After eight years of lobbying by the Wildlife Society to save the last few mountain zebras in the Cape, the Mountain Zebra National Park was proclaimed in July 1937 specifically to ensure their survival. It then contained only six animals: five stallions and one mare.[49] In 1964 there were 25, and by 1988 this number had increased to more than 200. More than 200 mountain zebra have also been resettled in 19 other parks and nature reserves within their originial distribution area.[50]

The depredations of hunters and landowners reduced the vast herds of bontebok to the point of near-extinction. Because of the close resemblance between bontebok and blesbok, there was some confusion about numbers; but the official estimate in 1923 of the number surviving was 220. This number reduced to 121 by 1927. In order to prevent their total extinction, the farm 'Quarrie Bos', in extent 722 ha and situated about 27 km from Bredasdorp, was acquired by the State and proclaimed as a national park on 3 July 1931. It contained 22 bontebok. In 1960 the location of the reserve was moved to the Swellendam district at the foot of the Langeberg mountains, and 61 animals were moved to the new site of the Bontebok National Park. In 1988 the Park contained 200 bontebok, and their total number in South Africa was estimated at more than 1 000.[51]

The above brief historical account of the establishment of selected reserves in the Cape is illustrative of the incidental protection of wild country, the primary purpose of

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[48]See Pringle 150-157.

[49]Pringle 162-4.

[50]'South Africa's National Parks' *Custos* (official publication of the National Parks Board) 11.

[51]Pringle 166, and *Custos op cit* 16.

protection being the establishment of wildlife habitat in order to preserve particular species from extinction. At about the same time another perspective, indicative of changing public attitudes, emerged in the campaign to save and preserve part of the Cape peninsula for the nation. Dr SH Skaife, then Cape Inspector of Science, editor of 'Nature Notes', and the first chairman of the Wildlife Society (Cape), wrote to the newspaper *Cape Times* to say that the property known as 'Smith's Farm', located at Cape Point on the tip of the African continent, was about to be put up for sale, and should be purchased for the purpose of a national park for the protection not only of its fauna, but also the proteas, heaths and lilies with which it was covered. An extensive publicity campaign was launched, and public meetings were held; but neither the Minister of Lands nor the Cape Town City Council responded positively. Eventually, in July 1939, the Divisional Council of the Cape purchased 'Smith's Farm' for the nation, and it now forms part of the enlarged Cape of Good Hope Nature Reserve.[52]

The chequered history of the Cape's protected areas clearly demonstrates the need for public participation in the setting aside of such areas and the determination of their boundaries, and for their entrenchment by appropriate legislation. It is also illustrative of the pattern of changing human attitudes and purposes of protection: a shift of the focus of protection from species to habitat, and then to landscapes and natural systems.

8.1.6.2 *Transvaal*

It was a conservative descendant of trekboere, Stephanus Johannes Paulus Kruger, President of the South African Republic, who was responsible, notwithstanding initial opposition from his colleagues in the Volksraad, for the establishment in 1894 of the Pongola Reserve, the Transvaal's first sanctuary for game animals and the first game reserve in Africa.[53] The Pongola Reserve was subsequently (in 1921) deproclaimed; but

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[52]See Pringle 166-170.

[53]The reserve included seven farms with a total area of 17 400 hectares. That members of the Volksraad could be persuaded that game should be provided with some kind of refuge from hunting was truly remarkable, given their pioneering background of a sparsely populated territory still full of game. The reserve was proclaimed on 13 June 1894, and five days later one HF van Oordt was appointed as its ranger, the first such appointment in Africa. He served in that capacity from 1894 to 1899. For an account of the story of the

in 1898 Kruger achieved another, more enduring, milestone in South Africa's conservation saga. On 26 March 1898 he signed a proclamation setting aside the 'Gouvernement Wildtuin', which later became known as the Sabie Game Reserve, a wildlife reserve in the Transvaal Lowveld between the Sabie and Crocodile Rivers.[54] The British assumed control of the Transvaal in 1902 after the Boer War and, although faced with many reconstruction problems after the devastations of the war, the Governor, Lord Alfred Milner, promptly reproclaimed the Pongola and Sabie reserves.[55] Some 24 years later, because of fears that the Sabie Game Reserve was inadequately protected against agricultural and mining development, representations were made to the central government for its permanent protection. On 31 May 1926, the National Parks Act 56 of 1926 was passed as a direct result of those representations.[56] The Act reproclaimed the Sabie reserve as the Kruger National Park, a fitting monument to a man who epitomised his people's national character which had been forged in a pioneering trek, farming and hunting ethos, but nonetheless had the foresight to consider the interests of future generations. He had written: 'If I do not close this small portion of the Low Veld, our grandchildren will not know what a kudu, an eland or a lion looks like ....'[57] Although his concern was typical of the Victorian era in that his focus was on 'big' game preservation, the fact that the area was set aside for the protection of wildlife represents a milestone in world conservation.[58]

Pongola Reserve, see Pringle 49-58.

[54]The late TC Robertson suggested that RK Loveday may be regarded as the true father of the Kruger National Park. He writes: 'The minutes of the Transvaal Volksraad, the People's Council, revealed that the hidden persuader there was R K Loveday, an English-speaking representative from the Barberton goldfields, who had the idea and found an attentive ear when he suggested it to Paul Kruger, the State President. There are many who consider that in some respects Loveday was the true father of the Kruger National Park which grew out of the Sabie Game Reserve' - Robertson TC 114.

[55]Pringle 80.

[56]For an interesting account of the fourteen year struggle for the Kruger National Park and the National Parks Act, the conflicts with the farming lobby (over grazing rights for sheep and access to land for timber, cattle ranching and agriculture), conflicts with railway and coal interests, regional resistence to nationalisation of the park, and the lobbying efforts of the Wildlife Society, see Pringle 86-108.

[57]Cited in Gordon 21.

[58]The establishment of the Sabie Game Reserve was pre-dated by the United States' Yellowstone National Park which was proclaimed in 1872, but Yellowstone was set aside primarily for the purpose of serving as a

Other early, but less significant, efforts toward habitat protection were made by the South African Republic. In 1895 two game reserves were proclaimed, one within the townlands of Pretoria and the other on the farm 'Groenkloof'.[59] Springbok on the Springbok Flats were protected as early as 1905, and in 1909 Rustenburg Reserve was set aside, mainly for the purpose of protecting a group of hartebeest in the area. However, when an official was sent to inspect this reserve in 1913, he found that the ranger had shot all the game! In 1914 Rustenburg Reserve was deproclaimed.[60]

8.1.6.3 *Orange Free State*

In the early 19th century, the grassy plains of the area now known as the Orange Free State teemed with game and were a hunter's paradise. Settlers entered the area, and the great herds were rapidly reduced as the landscape became converted to agricultural production. Apart from a few token herds which were preserved by conservation-minded farmers, the region's game population dwindled to a fraction of its former abundance. The black wildebeest (white-tailed gnu), for example, was one of the most numerous species in the region; but was harvested by the farmers for its meat and hide. The decline of the species was hastened by professional hunters in the 1870s, and by the turn of the century the only black wildebeest that remained were on two private farms. Other farmers followed their example in the 20th century by conserving remnant herds on their properties. It is believed that the species would have become extinct if it had not been for the farmers concerned.[61]

A few small nature reserves were established in the 1920s and 1930s. In 1936, the Provincial Administration bought a few black wildebeest from a farmer and located them on its Somerville Game Reserve near Bultfontein. Other animals were added, and by

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'pleasuring ground for the enjoyment of the people' and not directly for the purpose of protecting wildlife - see President's Council Report (1984) 24, and Gordon 18-21.

[59]Pringle 54.

[60]Pringle 81-2.

[61]See Duggan 116, 122.

1945 the herd had grown to fifty-two. This reserve was abolished in the early 1960s, and its game moved to the new Willem Pretorius Nature Reserve around Allemanskraal Dam. By 1966 there were 370 black wildebeest in the reserve, and their numbers were growing. The Administration began relocating the surplus animals to other reserves. Between them, the Administration and private farmers have built up the herds of black wildebeest to the point that the species is no longer endangered and is, in fact, so numerous that it is once more being hunted.[62]

The Orange Free State today boasts one national park, the Golden Gate Highlands National Park, fourteen provincial nature reserves and several private nature reserves.[63]

8.1.6.4 *Natal KwaZulu*

Nature conservation in this region has its historical roots in the tsetse fly story.[64] In 1895 five areas were demarcated and set aside as reserved areas for game where hunting was prohibited, four of which, Hluhluwe, Umfolozi, Umdhletshe and St Lucia, were proclaimed as reserves in 1897. They all lay within fly belts. The Umfolozi valleys had previously been reserved as royal hunting grounds by King Cetshwayo, and there is still evidence in the reserve of the pits used to trap animals in the hunts.[65] In 1905 Hlabisa Reserve was established, stretching from the Corridor between the Umfolozi and Hluhluwe reserves, east to the shores of Lake St Lucia. But wagon roads traversed it, and in 1907 transport riders complained that nagana was again killing off their trek-oxen. Hlabisa and Umdhletshe reserves were deproclaimed, but 23 000 hectares were added to Umfolozi. At that time none of the reserves was fenced or had guards.[66] It was in

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[62]Duggan 122.

[63]Register of Protected Areas (1988) 3, 6-7. For a summary and description of some of the Orange Free State protected areas, see also Duggan 116-125 and Greyling & Huntley 1-2, 236-246.

[64]See the section on 'Protection of farming interests' above, and Pringle Chapter 9, entitled 'The Tsetse Fly Story in Zululand'.

[65]Pringle 260.

[66]See Pringle 114-117.

Umfolozi that the idea of setting aside wilderness areas was first conceived. Before discussing this genesis and subsequent developments, however, it is necessary for proper perspective to consider the recent history and environmental impacts of agricultural law and policy under the apartheid and, in particular, its implications for wilderness.

8.1.7 *Agricultural law and policy under apartheid: implications for wilderness*

An overview of the historical development and current situation in agriculture in southern Africa reveals a sharp dichotomy between the white commercial farming sector and black subsistence farming. Agricultural laws and policy have evolved directly as a result of the imposition of the spatial structure of the apartheid system, with insufficient regard to environmental considerations. The consequence has been that the carrying capacity of the land in certain areas has been exceeded to the point that human needs in those areas can no longer be met by the available natural resources. The concept of a land ethic[67] and notions of conservation of soil and other natural resources hold very little meaning for people living in poverty. South Africa, like many other developing countries, suffers from widespread poverty. Poverty and environmental degradation go hand in hand and there is extensive environmental degradation in the rural areas of South Africa. It is against this background, and within the context of current and future agricultural law and policy that legal prescription for protection of our remaining wilderness areas must be viewed.

It is generally accepted that some degree of control is required over man's freedom to do what he will with his property. It is in the nature of man to seek to maximise his individual position to the greatest extent possible, even if this is to the detriment of the society of which he is part.[68] It is common sense that a town will operate better if it is properly planned. The same applies to regional and national planning. It is self-evident that proper planning should take into account conservation of natural resources.

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[67]The land ethic articulated in Leopold 224-5, in terms of which a thing is only right when it tends to preserve the integrity, stability and beauty of the biotic community and wrong when it tends otherwise, is discussed in Chapter 2.

[68]See Hardin 1243 -1245.

Accordingly, in South Africa as in other countries, the concept of public control over the use of private land has been accepted for some time and in more recent years the concept has been extended to include the notion that government can and should regulate the use of the environment for conservation as well as for social purposes.[69] In 1980 a White Paper was published on a 'National Policy regarding Environmental Conservation'. Its stated purpose was to formulate a national policy 'which will, in broad outline, afford the necessary protection to the natural as well as the urban environment, in spite of essential development, in order to insure a balance between man and his environment'.[70] In the White Paper it is stated as being the Government's policy

> 'that a golden mean between dynamic development and the vital demands of environmental conservation should constantly be sought. The aim is, therefore, that man and nature should co-exist in productive harmony to satisfy the social, economic and other expectations of the present and future population. Only by always respecting the environment in any development action will a high quality of life be realised for South Africa and its people.'[71]

There have been shortcomings in the past in applying these principles. Institutional arrangements have been better suited to producing exploitation of the environment rather than its protection, and public authorities have interpreted their role as that of umpire between competitors for utilisation of natural resources, rather than as conservators.[72] Instead of an holistic treatment, problems have been addressed in an *ad hoc* fashion. These inadequacies insofar as soil conservation is concerned were recognised in the White Paper, which states:

> 'The exploitation and utilisation of the country's resources, particularly soil, by its inhabitants, in an endeavour to ensure their survival have not always been judicious and systematic and have led to extensive damage to and misuse of the soil. To curb these malpractices, steps

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[69]Fuggle (1980) 77.

[70]White Paper (1980).

[71]Para 3.

[72]Fuggle (1980) 77.

> have been taken in the past and further action is contemplated to combat and prevent soil erosion for the conservation, protection, improvement and optimum utilisation of the soil.'[73]

It therefore appears that the stated policy of central government is to conserve South Africa's natural resources in the interests of all its peoples. There is little doubt, however, that the way that government developed politically in South Africa has resulted in reduction of wilderness and severe land degradation in many areas.

Agriculture is a major industry in South Africa, and agricultural activity covers the major portion of its land surface. Proper planning and land usage are thus most important. There is a plethora of legislative provisions regulating agricultural activity, only some of which will be referred to briefly hereunder.[74] South Africa has a dualistic agricultural economy; a well-developed and commercially-orientated agricultural sector and a largely subsistence agricultural sector in the black homelands.[75] At the turn of the century South Africa's economy was almost exclusively agricultural (apart from mining), and agriculture still accounts for about 6% of the nation's gross domestic product. Agricultural products contributed approximately 11% of the total value of exports in 1982. Development and progress in farming over the years have been described as phenomenal,[76] notwithstanding the fact that South Africa is not well-endowed with natural agricultural resources. Our climate, terrain and soils are such that only about 12% of the total land area is arable. In 1970 the arable land area available per person in South Africa was 5,5 hectares, including 0,6 hectares of cultivated soil. It is estimated that by the year 2020 a mere 1,5 hectare will be available to every South African, including only 0,2 hectare of cultivated soil.

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[73]Para 4.1.

[74]It is not necessary for the purposes of this work to undertake a detailed analysis of all relevant agricultural laws, and only some of them will be referred to briefly in the text. For a review of the legislative history in this field and reference to most of the relevant legislation, see Rabie & Theron 142-163.

[75]This statement and the information and statistics which follow in this part of the text have been extracted from the Official Yearbook.

[76]Official Yearbook 609.

8.1.7.1 *The white commercial sector*

Legislative controls in the commercial farming sector are aimed at agricultural development and production, and the protection of natural resources.[77] The Subdivision of Agricultural Land Act 70 of 1970 controls the subdivision of agricultural land so as to prevent the establishment of uneconomic farming units. The Fencing Act 31 of 1963 prescribes the financial responsibilities of owners of adjoining farms for the erection of boundary fences. There are several statutes which provide for the improvement and the protection of the livestock industry.[78] The Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 1947, provides for registration of the products mentioned in the title of the Act, and for their regulation, importation and sale. Statutes also provide for the regulation of the manufacture of wine, other fermented beverages and spirits,[79] and provision is made for the establishment of research accounts for tobacco, wine and agriculture in general.[80] The Conservation of Agricultural Resources Act 43 of 1983 provides for 'control over the utilization of the natural agricultural resources of the Republic in order to promote the conservation of the soil, the water sources and the vegetation and the combatting of weeds and invader plants; and for matter connected therewith'.[81]

The effect of the substantial legislative intervention and control, combined with comprehensive state intervention in the marketing of agricultural produce, has been to produce a relatively healthy and stable agricultural sector in white South Africa. It has been estimated that the number of farmers in 1982-83 was 70 000 and that the average

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[77]See Official Yearbook 614 for a listing of some of the statutes.

[78]For example, the Livestock Improvement Act 25 of 1977, the Animal Diseases and Parasites Act 13 of 1956, the Animal Slaughter, Meat and Animal Products Hygiene Act 87 of 1967, the Livestock Brands Act 87 of 1962.

[79]The Wine, Other Fermented Beverages and Spirits Act 25 of 1957.

[80]See the Tobacco and Wine Research Account Act 60 of 1960, and the Agricultural Research Account Act 37 of 1964.

[81]The preamble to Act 43 of 1983.

income per farmer was approximately R27 871.[82] State control of marketing came about as a result of the hardship suffered by farmers during the depression in South Africa from 1929 to 1932 and the severe drought in 1933. After the depression and the drought, agricultural prices did not recover to the same extent as the prices of industrial products, and the policy of increased, permanent State intervention was adopted. The Marketing Act was passed in 1937 and was subsequently consolidated in 1968.[83] Several sophisticated marketing schemes evolved through the Marketing Act, and many boards have been established with the aim of securing a greater measure of stability in the prices of farm products and of reducing the price difference between the producer and the consumer. Maize is an example. It is the staple food of the majority of the population and is also exported. It is South Africa's most important crop and is cultivated on approximately half of the arable land available in the country. The producers of maize are obliged to sell exclusively to the Maize Board, which fixes the price payable to them.[84]

There are other statutory and co-operative controls, for example the Sugar Act 9 of 1978 and the Co-operative Societies Act 29 of 1939. In terms of the latter the compulsory sale of produce through a co-operative society or company may be enforced, and lucerne seed, hay and ostrich products, for example, are marketed in this way. Approximately 75% of all wine exporting is done through the KWV, which is a wine producers co-operative which was formed in 1918 primarily to avoid adverse economic conditions and overproduction from time to time. The result of all these controls is that South Africa is self-sufficient in virtually all the important agricultural products, and exports in 1982,

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[82]Official Yearbook 616.

[83]Act 59 of 1968.

[84]There are also, *inter alia*, Chicory, Rooibos Tea, Tobacco, Dairy and Oil Seeds Boards. The Wool and Mohair Boards administer pools and sell these products on open auction markets paying an advance sum (*voorskot*) to the producer upon delivery, and a deferred payment *(agterskot)* at the end of the season. The Deciduous Fruit Board is the sole exporter of deciduous fruit, and the Citrus Board the sole exporter of citrus fruit. There are also surplus disposal schemes operated by the Potato, Egg and Meat Boards. Supervisory and price-regulating schemes are operated by the Canning Fruit and Cotton Boards. The Dairy Board operates sales-promotional schemes and the Karakul Board promotes sales locally and overseas, in the latter case through pelt auctions conducted in London. The objective of these schemes is to stabilise the market and to avoid price fluctuations.

for example, constituted approximately 11% of the total of its export earnings (excluding gold bullion).[85]

The fact that South Africa is able to export part of its agricultural produce suggests that commercial production has increased at a faster rate than the population. Part of the reason for this is the continuing research that is undertaken through the medium of various institutes, such as the Soil and Irrigation Research Institute at Pretoria which conducts soil surveys and analyses various soil types, determining the production potential of arable soils, and playing a leading role in the planning of new irrigation schemes. The use of mechanised irrigation systems has also contributed to this development and such use is expected to continue increasing in the future. The Division of Agricultural Engineering (Silverton) provides extension services to the agricultural community on all aspects of engineering and agriculture with research, extension and development programmes. Construction of soil conservation dams in eroded catchments and structures for run-off control in key areas is a priority of the Division. About 350 soil conservation dams reclaiming an area of 11 000 hectares at an estimated cost of 13 million rand have been completed.[86] Several high schools offer agriculture on their curricula, and there are five agricultural colleges. Technical training in plant protection, meat hygiene, land use planning, agricultural mechanical engineering, irrigation and horticulture is provided by the technikons, and academic training is offered by the faculties of agriculture at four universities. The Department of Agriculture acts as a communication link between research and the farming community. The objective of its extension service is to provide farmers with optimum resource utilisation. Extension officers are responsible for the implementation of measures relating to conservation of resources, and farmers are encouraged to become involved in extension programmes.

South African farmers are also blessed with substantial financial assistance opportunities. State finance is available through the Department of Agriculture by means of loans granted by the Agricultural Credit Board established in terms of the Agricultural Credit

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[85]Official Yearbook 622.

[86]Official Yearbook 626.

Act 28 of 1966.[87] They may also be assisted through the Conservation of Agricultural Resources Act 43 of 1983 by means of loans or subsidies for the erection of soil conservation works or other anti-erosion measures. Drought relief for stock farmers is provided for the purchasing of stock feed and in the form of a rebate on transport charges for stock feed in drought-stricken areas. The Land and Agricultural Bank of South Africa was established in 1912 specifically to provide for the credit needs of farmers. It has its head office in Pretoria and has 24 branch offices. In 1982 mortgage loans granted by the land bank totalled R182,69 million and short-term (seasonal) loans totalled R4 722,20 million.[88] There is also the South African Agricultural Union, which is a voluntary organisation of primary agricultural producers, having as its main objective the attainment of an optimum economic and social dispensation for agricultural producers in the South African community. This Union has also accepted the responsibility of helping to develop the agricultural potential of neighbouring states.[89]

The picture that emerges is that the agricultural industry in South Africa is highly sophisticated. It enjoys legal controls, organisation, research facilities, financial assistance and general stability, all of which are in large measure consistent with conservation of soil and other natural resources and an enlightened land ethic. The aggressive promotion and extensive support of white commercial farming has, however, had the inevitable consequence of converting much of South Africa's wild landscape to agricultural use. In the homelands wilderness has also suffered, but for other reasons. The position in the homelands represents the other side of the agricultural coin in Southern Africa.[90]

8.1.7.2 *The homelands*

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[87]Section 2.

[88]Table 19 of Official Yearbook 629.

[89]Official Yearbook 630.

[90]For a summary of soil conservation legislation in black areas as at 1976, see Rabie (1976) 43-47.

> 'God will not seek thy race, nor will He ask thy birth: alone He will demand of thee - what hast thou done with the land I gave thee?'[91]

In this section, the position in the Natal KwaZulu region in particular will be considered for purposes of illustration. The conditions and causes described, and conclusions drawn, below are, however, applicable to most of the black rural areas in southern Africa to a greater or lesser extent.

One of the primary causes of poverty and adverse environmental conditions in KwaZulu is the policy of balkanisation which has resulted in two separate administrations in the Natal and KwaZulu region. Natal and KwaZulu combined occupy only 7,5% of the land area of the Republic of South Africa, but they contain about 20% of its population. The area has been categorised into 11 bioclimatic groups according to the way in which each group is suited to a particular type of land use. These groups are a classification of a natural biological continuum; but the system of land allocation and use which has been applied in the region is based on political developments with very little ecological realism, and it has been suggested that this has been one of the main contributing causes of rural poverty in the area.[92] KwaZulu's population growth rate in 1980 was estimated at 3,1%, and at that rate was one of the highest of all Black groups in the African continent. At this rate it has been estimated that this population will have exceeded 6 million before the end of this century. The population resident within KwaZulu according to the 1970 census was 2 313 896. The high rate of human population growth is clearly a major contributing factor to rural poverty. In 1980 over half of the region's population was under 14 years of age, and nearly 60% under 20 years of age.[93] There are simply too many people in KwaZulu. Their traditional requirements can no longer be met by available natural resources - the population has exceeded the carrying capacity of the land. By tribal custom, each member of the tribe is entitled to a plot of land, but with the population increase, those plots of land have been broken up as huts have

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[91]Ancient Persian proverb quoted in Rabie (1974) 294.

[92]Hanks (1980) 2.

[93]Hanks (1980) 3.

replaced areas previously cultivated and used for grazing. Cultivation and grazing have then extended into marginal and fragile systems, increasing soil degradation. Soil and wilderness loss have been aggravated by deforestation. In a rural subsistence economy, it has been estimated that each person consumes over one ton of wood per annum for cooking, heating and building. When wood becomes scarce, people use substitutes, for example dried animal dung. This further impoverishes the soil as the dung would otherwise return nutrients to the soil, which would then be able to produce more crops.

Immense social problems result from the breakdown of the traditional way of life and the migrant labour system. Faction fighting increases when people are uprooted and placed in resettlement areas such as Nondweni, where they have no hope of employment. In other overcrowded areas, such as the Msinga district, faction fighting is seen as an attempt by the traditionalists to maintain the infrastructure of the rural economy which is threatened by available land being diminished by overpopulation.[94] In 1981, conservatively estimated, some 74 000 people from the black states crossed daily over the borders to work in the white controlled areas, and a further 1,5 million were absent from their homes for longer periods, working on contract as migrant workers.[95] It is difficult for a rural black woman to obtain work in a white controlled town, with the result that it is the men from the village who migrate, leaving their families behind them. The effect of this migration is to remove productive labour from the rural area to the urban area, but without relieving the population pressure on the land because the migrant labourer retains a foothold in the rural area. The migrant worker may not find work in the town, in which case he returns to his village and unemployment increases, thereby adding further stress on the natural resources. Generally, however, the pattern in villages is that these are inhabited mainly by women, children and the elderly, and it is they that bear the brunt of poverty. A survey undertaken in 1982 in the KwaZulu district of Nkandla, showed an average income per head from all sources of R144 per

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[94]Hanks (1980) 8.

[95]Natrass 14-15, citing Buro vir Ekonomiese Navorsing en Ontwikkeling *Pretoria Statistical Survey of Black Development (1981)*.

annum, and in the case of households headed by women, R74 per annum.[96] If migrant males had been able to obtain security of tenure in the towns, they would have had the opportunity of becoming committed urban dwellers and would not have retained a foothold in the rural areas, and the land released by them would thus have become available to others committed to remaining in the rural areas.

It was not only urban tenure reform that was required under the apartheid order, but also rural land tenure reform. Communal land tenure still applies in most areas in rural KwaZulu. This is a traditional form of tenure which was eminently suitable for small stable populations. Circumstances have now changed, and a greater degree of security of tenure should in some way be provided to the individual, without necessarily going to the extent of introducing private ownership. If a person does not have a sufficient degree of security, he or she will lack incentive to make permanent improvements. In addition to totally inadequate access to land, subsistence farmers in rural KwaZulu still have unequal and inadequate access to the essential services required for viable agricultural activity, such as water, finance, fertilisers, seeds, marketing assistance, extension services, and the other facilities which make up the infrastructure enjoyed by commercial farmers in other areas. There is a marked difference between the sophisticated agricultural industry of the white farming areas of Natal and the subsistence agriculture of rural KwaZulu. In the latter, there is an unstable community, utilising uneconomic units of land which are not viable even for subsistence farming purposes, unsupported by any meaningful infrastructure, clean water, energy, health services, education, government assistance and markets. The tragedy of this social and environmental degradation is that it has been estimated that over 40% of the region has high agricultural potential.[97]

In terms of natural resources, and in particular in regard to water supplies, Natal and KwaZulu may be regarded as one entity. All the major rivers in the region have catchment areas in both Natal and KwaZulu. Much of the lower and drier areas,

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[96]Natrass 15-16.

[97]INR Annual Report (1981) 2.

especially in KwaZulu, is eroding actively. For example, the Tugela River spills 7 million tons of soil into the sea each year. Conservation practices applied in KwaZulu will obviously affect agriculture in Natal and vice versa.[98] Crop yields per hectare in KwaZulu for all crops apart from sugar cane have remained at extremely low levels. Two thirds of the land in both areas is used for grazing purposes. Stocking levels in Natal are generally within carrying capacity; but in KwaZulu the veld is overstocked to an alarming degree with the inevitable consequence of environmental degradation. The 3,3 million hectares of land in KwaZulu are occupied by approximately 2,5 million people grouped into 400 000 households. The average landholding per family in KwaZulu is approximately 8,25 hectares with the majority occupying much smaller plots of one to two hectares, or less. White-owned farmland in Natal, 5 million hectares in extent, contains about 8 600 farming units. The mean size of the small farms, which occupy about 10% of the total area, is 118 hectares, while the mean for the area as a whole is 576 hectares.[99] The current situation cannot continue without a total collapse of the natural resources in KwaZulu.

Based on the existing capacity of the physical resources of KwaZulu, and assuming a fairly high degree of management expertise and a completely integrated market economy, the region nonetheless has a substantial agricultural potential. At reasonably practical production levels, and not the highest levels that are theoretically possible, it has been estimated that at prices applicable in 1982, an investment in fixed improvements, livestock and equipment of the order of R813m would be required to achieve this potential. An amount of R135m would be required to provide the supporting services necessary to keep production at this level. To achieve this, a total of approximately 2 400 professional, technical and administrative personnel would be required to staff the KwaZulu Department of Agriculture and Forestry alone in order to provide the necessary extension and auxiliary services required to support and maintain the total development programme.[100]

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[98]See Erskine 9.

[99]Erskine 1.

[100]Erskine 24-26.

What emerges from this brief summary is the incontrovertible fact of environmental degradation, and consequent loss of wilderness and wildlife. The imposition of artificial political demarcations of areas in the process of establishing the apartheid system has exacerbated that loss and degradation. It has long been accepted that environmental conservation is a matter of public responsibility. Government can and should be involved in regulating the use of land and the environment for conservation purposes, and not only for purely political purposes. Blacks make up about 80% of the entire population of South Africa; but only 13% of the surface area of South Africa (including the Transkei) was, and still is (pending transition to a new order in South Africa) under the control of blacks.[101] Quite apart from any concept of distributive justice, this sort of land allocation has had disastrous environmental consequences, not the least of which has been the loss of much of the region's unique African wilderness heritage. Attempts to preserve what remains of that heritage have, however, been made, and it is in the Natal KwaZulu region that the first tentative steps to do so were taken.

8.1.8 The birth of administrative wilderness

In 1955 Ian Player, then a Natal Parks Board game ranger, was transferred from Mkuze Game Reserve to Umfolozi Game Reserve, where fellow ranger Jim Feely introduced him to American literature on the concept of wilderness.[102] Player began corresponding with Howard Zahniser, executive secretary of the American Wilderness Society, and other Americans involved in the wilderness movement in their country. He and Feely began to press for a wilderness area to be set aside within the Umfolozi Game Reserve. They met with opposition from some members of the Board, but persisted with their request and, after three years, the southern part of the reserve was administratively designated as a wilderness area. At that time there were no other designated wilderness areas in South Africa.[103] The eleventh annual report of the Natal Parks Board for the

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[101]Buthelezi 106.

[102]What Player found in this literature marked a turning point in his life. He wrote: 'I realise that I had always understood physical wilderness but had never appreciated the intellectual concept.' - Ian Player 25, and Woodward 10.

[103]Ian Player 25, Woodward 10-11, and Junkin 7.

year April 1958 to March 1959 records: 'Some 12 150 hectares were set aside by the board as a wilderness area in which all forms of motor traffic are prohibited, and only rangers, or visitors on foot accompanied by a ranger, are permitted to enter. The idea of wilderness trails originated from America and was introduced into South Africa for the first time by the Natal Parks Board.'[104]

In 1957 Player was sent to Lake St Lucia to establish a rangers' post near Charter's Creek. He writes that he at once began to ensure that a wilderness area would be set aside on the lake, and it was here in July 1957 that he took six schoolboys on a wilderness trail, and the seeds were sown for the organisation that he would found and call the Wilderness Leadership School. A Trust was formed in 1963 and the School formally established, having as its main purpose the fostering of leadership development through direct and personal contact with wilderness. It was staffed by former members of the Natal Parks Board, who took small groups of youngsters who had demonstrated leadership qualities, and subsequently adults, on wilderness trails in the Umfolozi Reserve.[105] During the course of the next twenty years the School took almost 3 500 people on wilderness trails, and in 1977 it hosted the first World Wilderness Congress.[106]

The Umfolozi wilderness zone was South Africa's first formally set aside wilderness area, albeit administrative wilderness. The wild areas of St Lucia, Giants Castle and the Mkuzi Game Reserve were subsequently also administratively set aside as wilderness areas by the Natal Parks Board.[107]

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[104]Page 240, who writes that Player 'enthusiastically sought the support of his director, Colonel Jack Vincent, who sent the author (Page) to Umfolozi to test the practicability of the proposals. All concerned then combined to seek the approval of the Natal Parks Board which finally set aside Natal's first wilderness area in the Umfolozi Game Reserve in 1958.'

[105]See Ian Player 25, Woodward 3, Junkin 8, and Pringle 247.

[106]Woodward 5, 97.

[107]Page 240.

South Africa is a recognised leader in the international wilderness movement.[108] The wilderness area at Umfolozi was set aside in 1958, some four years before the enactment of the United States Wilderness Act. The concept of walking safaris or wilderness trails, as opposed to vehicular game viewing, was pioneered by the Wilderness Leadership School with the Natal Parks Board. Player was involved in these developments in both organisations. Other organisations now conduct wilderness trails in other parts of South Africa, for example the National Parks Board in the Kruger National Park, their purpose, however, being primarily recreational rather than educational. The Wilderness Leadership School also played a leading role in introducing the South African wilderness movement to other countries by arranging wilderness trails for foreign participants and by establishing contacts with other countries.[109]

By 1971 public opinion had been sufficiently developed to produce legislative protection of wilderness areas on state land.

8.2 DIRECT LEGISLATIVE PROTECTION: THE FOREST ACT

8.2.1 The transition to statutory wilderness

The United States Wilderness Act was passed in 1964.[110] Although South Africa does not have a specific wilderness statute, wilderness did achieve legislative recognition in this country some seven years later, in 1971, by the addition to the Forest Act 72 of 1968, by the Forest Amendment Act 37 of 1971, of section 7A, which empowered the Minister of Forestry[111] to set aside wilderness areas. As had occurred in the United States, the notion that wilderness required statutory protection evolved in the Forest Service, initially under the leadership of the then Chief Director of Forestry, DP

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[108]Martin (1989).

[109]Woodward 95-6. For a summary of the achievements of the Wilderness Leadership School see Woodward 94-9.

[110]See Chapter 6.

[111]Subsequently Minister of Environment Affairs.

Ackerman, a Yale forestry graduate who returned to the United States periodically and was abreast of the wilderness movement in that country.[112] He was influential in motivating the 1971 amendment, the passage of which marks the birth of statutory wilderness in South Africa and, indeed, on the continent of Africa. As to the import of the amendment, Ackerman wrote: 'Future generations may well regard the amendment of the Forest Act of 1971 as one of the most significant acts taken by Parliament in that year.'[113] A new Forest Act 122 of 1984 was promulgated on 29 August 1984, which repealed and substituted the 1968 Act, and came into effect on 27 March 1986. It confirms legislative recognition of the importance of wilderness by providing,[114] *inter alia*, that no land set aside as a wilderness area may be withdrawn except with the approval, by resolution, of Parliament.[115]

8.2.2 Summary of the relevant provisions of the 1984 Forest Act

The Act provides for the establishment of nature reserves and wilderness areas within State forests. It also makes provision for diverse other matters, including the establishment of a national hiking way system; the protection, management and utilisation of forests; the protection of natural water sources; the protection of a particular tree, or group of trees, or trees belonging to a particular species, on private land; and the establishment of national botanic gardens.[116]

8.2.2.1 *Preamble*

The preamble (short title) of the Act reads as follows:

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[112]Hendee, Stankey & Lucas (1990) 75.

[113]Ackerman 150.

[114]In s15(2).

[115]Originally the House of Assembly, subsequently construed as the Houses of Parliament in terms of ss97(c) and 100(2) of the Republic of South Africa Constitution Act 110 of 1983, and now simply 'Parliament'.

[116]The provisions of the Act relating to natural water sources, State forests, protected trees on private land, and national botanic gardens are dealt with in Chapter 9.

'To provide for the protection, management and utilization of forests; the protection of certain plant and animal life; the regulation of the trade in forest produce; the prevention and combating of veld, forest and mountain fires; the control and management of a national hiking way system and national botanic gardens; and matters connected therewith.'

The preamble does not even refer to wilderness areas, which are at least as important as the regulation of trade in forest produce, the combating of fires, and the control and management of a national hiking way system. In South African law a preamble does not constitute an organic part of the statute and is only invoked as an aid in construction where there is ambiguity in the statute itself.[117] The lack of reference to wilderness is, nonetheless, unfortunate, as it suggests that wilderness is less important than the other matters mentioned in the preamble. A clear statement of the intention to protect South African wilderness, albeit only in State forests, would have gone some way toward establishing something of a wilderness ethic, and serving as an administrative guide to interpretation and implementation of wilderness policy. Although it is not usual in South African legislative drafting practice to include a statement of policy or purpose as an organic part of the statute, this is not without precedent,[118] and there are good reasons why this should be done in a conservation statute, the most important of which is that it will have a mandatory function and serve as a directive, not just a guide, to interpretation, conflict resolution, administration and management. It will, therefore, be proposed in the draft Wilderness Act presented in Chapter 10 that there be a clear statement of policy and purpose in the Act itself, as has been done in the United States Act,[119] so that an expanded preamble to indicate purpose more clearly will not, in any event, be required.

8.2.2.2 *Definitions*

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[117] *S v Kola* 1966 4 SA 322 at 326 (A).

[118] Section 4 of the National Parks Act 57 of 1976, for example, provides that the object of a national park is, *inter alia*, the preservation therein of wild animal, marine and plant life and objects of geological, archaeological, historical, ethnological, oceanographic, educational and other scientific interest, and that it be retained in its natural state as far as may be and for the benefit and enjoyment of visitors. This is a clear statement of national parks policy and of the primary purpose of their establishment, and leaves no doubt as to how they should be managed.

[119] See s2(a) of the United States Wilderness Act, Appendix A.

Section 15, which is quoted hereunder, refers to both nature reserves[120] and wilderness areas. No clear definition of either category is offered in the Act. It simply states that a nature reserve is a State forest or part thereof which has been set aside as such, and a wilderness area, similarly, is a State forest or a part thereof set aside as such under section 15(1)(a)(ii).[121] The distinction between the two is indicated by the statement in section 15(1)(a) of the purposes for which each may be established, and the fact that public open air recreation facilities are permitted within nature reserves, but not within wilderness areas.[122]

The definition of a State forest is important because the Act permits wilderness areas to be established only within a State forest. It is so defined as to include areas set aside on State land for conservation purposes, as well as commercial timber exploitation. Section 1 defines a State forest as follows:

> 'State forest' means State land which was acquired for the purposes of this Act or which was reserved for those purposes with the concurrence of the Minister of Public Works, and includes a State plantation, State sawmill, State timber preservation plant, land controlled and managed by the department for research purposes, as a tree nursery, or for the establishment of a commercial timber plantation, an area which has been set aside for the conservation of fauna and flora, for the management of a water catchment area, for the prevention of indigenous forests, and all trees on -
>
> (i) any other State land, excluding land purchased from the State but not yet transferred to the purchaser; and
>
> (ii) any other land if the right to those trees vests in the State.

8.2.2.3 *Section 15*

Section 15 contains all the important provisions relating to the establishment of wilderness areas, and is therefore quoted in full:

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[120]The title 'forest nature reserve' would have been more appropriate, first because such reserves may only be established within State forests, and secondly because of the possiblity of confusion with provincial nature reserves - provincial nature reserves are dealt with in Chapter 9.

[121]Section 1.

[122]Section 15(3)(b).

15. Nature reserves and wilderness areas

(1) (a) The Minister may by notice in the *Gazette* set aside any State forest or any defined part thereof -

(i) as a nature reserve for the preservation of a particular natural forest or particular plants or animals or for some other conservation purpose mentioned in the notice;

(ii) on the recommendation of the Council for the Environment established by section 2 of the Environment Conservation Act, 1982 (Act 100 of 1982), as a wilderness area for the preservation of an ecosystem of the scenic beauty.

(b) A notice in terms of paragraph (a) must define the area set aside with the aid of a map or a description of the boundaries thereof.

(c) The control over, and the management of, a nature reserve or wilderness area vest in the director-general.

(2) No land set aside as a nature reserve or wilderness area or any part thereof shall be withdrawn from such setting aside except with the approval, by resolution, of Parliament, and the Minister must by notice in the *Gazette* give notice of such withdrawal.

(3)(a)(i) Subject to the provisions of subparagraph (ii), no person shall in a nature reserve or wilderness area cut, disturb, take, collect, destroy or remove any forest produce.

(ii) The director-general may perform any act and take any measure in a nature reserve or wilderness area which is not inconsistent with the objects for which that reserve or area was set aside.

(b) An act or measure contemplated in paragraph (a) may, in respect of a nature reserve, be aimed at -

(i) the restoration of ecologically disturbed habitats;

(ii) the prevention and combating of soil erosion;

(iii) the prevention and combating of veld, forest and mountain fires;

(iv) the maintenance of the natural genetic and species diversity;

(v) the exercise of control over plants and animals which are, in the opinion of the Minister or an officer of the department or other person designated by him, undesirable;

(vi) the removal and marketing of any forest produce;

(vii) the making available to the public or open air recreation facilities;

(viii) research;

(ix) education,

and in respect of a wilderness area, any of those objects other than that mentioned in subparagraph (vii).

(4) (a) Subject to the provisions of section 11 (2) (b), subsections (3), (5) and (6) of this section, and paragraph (b) of this subsection, the Minister may grant a servitude or other right of any nature in respect of any nature reserve or wilderness area or any part thereof with the approval, by resolution, of Parliament and on such conditions as Parliament may determine.

(b) If the Minister is satisfied that the national security necessitates it, he may grant a servitude or other right of a temporary nature to any person, subject to the approval thereof, by resolution, of Parliament as soon as practicable after the granting thereof and subject to such conditions as Parliament may then determine.

(5) Every servitude or right which is in force on the date of a notice in terms of subsection (1), remains in force, and in the case of a temporary right the director-general may renew that right in terms of section 11 (2) (a) in favour of the beneficiary or any other person, if he is satisfied that the continued exercise of that right will not materially prejudice the achievement of the objects for which the nature reserve or wilderness area in question was set aside.

(6) The director-general may in terms of section 11 (2) (a) renew any temporary right the granting of which was approved by Parliament in terms of subsection (4) in favour of the beneficiary or any other person, if he is satisfied that the continued exercise of that right will not materially prejudice the achievement of the objects for which the nature reserve or the wilderness area in question was set aside.

In summary, the notice in the *Gazette* must define the areas set aside with the aid of a map or a description of the boundaries. The control and management of such areas vest in the Director-General.[123] No land set aside as a nature reserve or a wilderness area or any part thereof may be withdrawn from such setting aside except with the approval, by resolution, of Parliament, and the Minister must by notice in the *Gazette* give notice of such withdrawal.[124] Servitudes and other rights may only be granted by the Minister

[123]Section 15(1).

[124]Section 15(2).

in respect of any nature reserve or wilderness area or part thereof with the approval, by resolution, of Parliament and on such conditions as Parliament may determine.[125] However, if the Minister is satisfied that the national security necessitates it, he may grant a servitude or other right of a temporary nature to any person, subject to such Parliamentary approval as soon as practicable thereafter and subject to such conditions as Parliament may then determine.[126] Servitudes and other rights existing at the date of setting aside remain in force, and the Director-General may renew temporary rights if he is satisfied that their continuance will not materially prejudice the objects for which the area was set aside.[127]

8.2.2.4 *Criminal sanctions*

Enforcement is by means of criminal sanctions. No person may in any such area cut, disturb, damage, take, collect, destroy or remove any forest produce.[128] Forest produce is widely defined so as to include anything which grows in a forest or is produced by any vertebrate or invertebrate member of the animal kingdom or any member of the plant kingdom in a forest, timber plantation or State forest.[129] The Director-General may, however, perform acts which are not inconsistent with the objects for which the nature reserve or wilderness area was set aside.[130] Some of such acts which are identified in the Act as being those which the Director-General may take are the restoration of ecologically disturbed habitats, the prevention and combating of soil erosion and fires, the maintenance of the natural genetic and species diversity, the exercise of control over undesirable plants and animals, the removal and marketing of any forest produce, research and education. These are all activities which may be undertaken in both nature

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[125]Section 15(4)(a).

[126]Section 15(4)(b).

[127]Section 15(5) and (6).

[128]Section 15(3)(a)(i).

[129]Section 1.

[130]Section 15(3)(a)(ii).

reserves and wilderness areas. The removal and marketing of forest produce from a wilderness area is, of course, inconsistent with the concept of wilderness as an area protected from extractive utilisation and subject to minimal human interference.

The penalties for contravention of the provisions of the Act range from R12 000,00 or imprisonment for 3 years or both, for cutting, damaging, destroying, collecting, taking or removing seven-week ferns *(Runohra adiantiforne)* and R4 000,00 or imprisonment of one year or both, for doing so in respect of any other forest produce, to R2 000,00 or imprisonment for 6 months or both such fine and such imprisonment for various other activities, including clearing or cultivating land in a State forest without authority. The severity of the penalties indicate recognition of the seriousness of causing ecological harm within protected areas.[131] It is often difficult to enforce protective laws and to apprehend offenders, particularly in remote areas. The Act authorises a Court to award a sum not exceeding one-fourth of the fine recovered to an informant upon whose information the offender is convicted or who assisted materially in bringing him to justice.[132]

8.2.3 The need for a separate Wilderness Act

Is a specific Wilderness Act really necessary or desirable? Would it not make more sense, in planning terms, to have one consolidated national statute dealing with the entire land use continuum, wilderness simply being one category of such use? Or perhaps a series of statutes once a national policy on conservation of all our natural areas has been formulated and adopted by government? One response to these questions is that such comprehensive approaches will inevitably take time, and time is

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[131]There is, however, a curious inconsistency between the penalty (R4 000/one year in terms of s75(2)(a)(i)(bb), as read with s75(2)(bb)) for removal of forest produce, which is so widely defined as to include anything which occurs in the forest, however insignificant (see s1), and the penalty (R2 000/6 months in terms of s75(3)(a)(i), as read with s75(12)) for clearing land in a State Forest. The lesser harm can thus attract a greater penalty.

[132]Section 82. This provision should aid enforcement and is not without precedent. In early American wildlife law, private citizens were encouraged to be environmental watchdogs by being rewarded with part of the fine or part of the animal poached, or even, in Virginia, all of the miscreant in that the poacher became bound to his betrayer for a year - Lund 31.

of the essence. The continuing contamination and depletion of our natural resources suggest that we are in the process of destroying our natural environment. There is an urgent and compelling need for timeous and effective action.

Another argument in favour a separate and specific wilderness statute is that it is simply not practical to bring all the different protected areas under one legal umbrella. There are too many of them, they are too disparate, and they all have important but different purposes.[133] There is a clear need for co-ordination and an holistic approach; but a single comprehensive protected areas statute would be too lengthy and complicated, and would involve too many conservation agencies with different jurisdictions, to be workable. If this approach of a collective statute is nevertheless adopted,[134] then the draft Wilderness Act suggested in Chapter 10 could form the basis of a chapter in the umbrella statute. A systemic approach would lead to less confusion. South Africa already has a national hiking way system and, in effect, a national parks system. There is no reason why other national systems should not be established, such as, for example, a national wilderness system, a national wildlife refuge system, a national protected rivers system, a national mountain catchment areas system, and a national lakes system.

The law must also clearly distinguish wilderness areas from national parks and other protected areas. The Cedarberg controversy, referred to below, highlighted three important points: first, there is a very clear distinction between the land use categories of wilderness area and national park; secondly, it is important that the different categories be legislatively defined to avoid confusion and a blurring of this distinction;

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[133]The many and different kinds of protected areas and the legislation governing their utilisation and protection and dealt with in Chapter 9.

[134]The *President's Council Report on a National Environmental Management System* emphasises the 'utmost' importance of the 'formulation of a national policy to serve as a guide for the establishment of future conservation areas and for the rationalisation of the twenty-odd different types of conservation areas, currently in existence'. It recommends 'that all legislation dealing with conservation areas be reconsidered with a view to rationalising the situation by establishing an Act dealing comprehensively with all conservation areas' - President's Council Report (1991) 168. The Report does not, however, address the question of the practicality or desirability of a single statute dealing with such a large number of different conservation areas, in different parts of the country, with different objectives and different management authorities. Such a comprehensive statute would have to be divided into several chapters to avoid confusion, and one chapter could relate specifically and exclusively to wilderness.

and, thirdly, the way in which an area is defined is and should be a clear and enduring statement of attitude or policy in regard to that area.

The lumping together within the Forest Act of such diverse matters as the utilisation of forests, a national hiking way system, forest nature reserves, national botanic gardens, protected trees on private property, and wilderness areas, is not only inelegant and clumsy, it is likely to lead to administrative uncertainty and confusion. The objects of the Forestry Council established under the Act[135] are 'to promote and encourage the development of the forest and timber industry.'[136] The mutually contradictory activities of commercial extractive utilisation of resources and the preservation or non-extractive utilisation of resources should be seen to be clearly distinguished in the legislation. The statutory dispensation for wilderness preservation must be separated from forestry.

The Forest Act only provides for the setting aside of wilderness areas in State forests. There should be provision for declaration of wilderness in areas other than State forests, for example on private land with appropriate compensation where necessary, and in inhabited areas. There are sound socio-economic and ecological reasons for permitting certain groups to enter or live in particular wilderness areas, thereby according to them greater or preferential rights compared with those of the general public.[137]

An interesting feature of the earlier 1968 Forest Act (and of the Forest Bill[138] which was published in April 1984 and preceded promulgation of the 1984 Forest Act), was the requirement that wilderness areas should be set aside upon the recommendation of the National Monuments Council. Ackerman made the point that this provision, and the notion that the Secretary for Forestry should consult that council in the management of

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[135]Section 47 provides that the Forestry Council established by s10A of the Forest Act 72 of 1968 continues ...to exist as a juristic person.

[136]Section 48.

[137]See Chapter 5 for a discussion of traditional rights to the land and wilderness in South Africa, and whether inhabited wilderness is an 'oxymoron'.

[138]B76-84.

wilderness areas, amounted to recognition that 'maintenance of wilderness areas is of great cultural and scientific value'.[139] This was no doubt a valid observation, as wilderness does have these values; but it does seem somewhat anomolous in view of the role and purpose of this council. In terms of the National Monuments Act 28 of 1969, the National Monuments Council is appointed by the Minister of National Education in order: 'to preserve and protect the historical and cultural heritage, to encourage and to promote the preservation and protection of that heritage, and to co-ordinate all activities in connection with monuments and cultural treasures in order that monuments and cultural treasures will be retained as tokens of the past and may serve as an inspiration for the future.'[140]

The powers, functions and duties of the National Monuments Council are prescribed, and relate mainly to the declaration, preservation and repair of burial grounds, gardens of remembrance and national monuments.[141] These are admirable and desirable objectives indeed, but with limited relevance to wilderness. The cultural value of wilderness is important, but the scientific and other values are equally important. The Council for the Environment, on the other hand, consists of members appointed by the Minister of Environment Affairs, after consultation with the Administrator of each province, on the basis that they 'have knowledge of and are able to make a contribution towards the protection and utilization of the environment.'[142] Members are appointed from both the public and the private sectors, and should be appointed because they are experts in the field of environmental conservation. Three important principles which should be applied in the identification of areas suitable for dedication as wilderness are thus established: regional representation, private sector involvement, and environmental expertise as the main criterion for appointment. The Council for the Environment therefore seems to be better qualified than the National Monuments Council to advise

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[139]Ackerman 150-1.

[140]Section 2A.

[141]Section 5.

[142]Section 6 of the Environment Conservation Act 73 of 1989, which replaced the Environment Conservation Act 100 of 1982, under which the Council for the Environment was originally established.

the Minister on the setting aside of wilderness areas. In terms of the 1984 Forest Act, therefore, it is now the function of the Council for the Environment to recommend such setting aside.

In the draft Wilderness Act presented in Chapter 10, provision is made for the establishment of a National Wilderness Council. The Forest Act makes provision for a National Hiking Way Board, a Board for National Botanic Gardens,[143] and a Forestry Council. Surely the protection of wilderness is of at least equal societal importance. The object of the proposed National Wilderness Council is to promote, by means of the National Wilderness System, the preservation and good management of South African wilderness. Its proposed functions include, *inter alia*: investigating and advising the Minister of Environment Affairs on any matter relating to national wilderness policy; causing a survey to be undertaken to identify suitable candidate areas for inclusion in the system; advising wilderness conservation agencies on the protection, management, use or promotion of wilderness areas and their buffer zones; and promoting education on, research in, and public appreciation of wilderness. The members of the Council should, therefore, have particular expertise in the establishment, management and promotion of wilderness. To ensure that they do, the draft proposes that recognised institutions and organisations, involved at national level with environmental conservation, nominate a specified number of the members of the Council.[144]

8.2.4 The need for proper definition and statement of purpose

The stated purpose of setting aside wilderness areas as being 'for the preservation of an ecosystem, or the scenic beauty' is too bland and does not convey the critical importance and purpose of setting aside such areas. The wording should be expanded to indicate

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[143]The title of the Board for National Botanic Gardens was changed to National Botanic Institute by s4 of the Forest Amendment Act 53 of 1991.

[144]One of the criticisms levelled at the prescribed method of appointment of the Council for the Environment is that there is no requirement that some of the members be nominated by recognised environmental organisations and institutions, although there is such a requirement in the case of the Committee for Environmental Management in terms of s14. Allowing the Minister to appoint all the members without such nominations not only means that influential, independent and expert opinion may not be sought, it also opens the way to political nepotism - Glavovic (1990) 110.

the preservation of ecosystems, in an unimpaired condition, for their scientific, ecological, geological, educational, scenic, historical and recreational value to present and future generations.

The object of the United States Wilderness Act is stated in its preamble as being '(t)o establish a National Wilderness Preservation system for the permanent good of the whole people, and for other purposes', which object is given form and substance in an expanded statement of policy.[145] The drafting practice in South Africa is to indicate the purpose of a statute in its preamble, but not to include a statement of policy as a substantive provision in the body of the statute. There is merit in the American technique. Where there is a general purpose or policy, it should be stated, so as to serve as a more authoritative guide to interpretation and implementation than is afforded by a statement in a preamble or a departmental White Paper. In 1980 [146]a White Paper was published in South Africa, setting out a national environmental conservation policy in which emphasis was placed on protection of the natural environment and the co-existence of humans and nature in productive harmony to satisfy the expectations of the present and future population. Section 2(a) of the American Act recognizes wilderness as a resource for use and enjoyment by present and future generations. The same recognition is implicit in the White Paper but it does not have the force of law. It is merely a statement of government policy, and cannot be referred to by the courts as an aid in interpretation. It does not bind the administrative arm of government and, in any event, it is far easier to change a policy than an act of parliament.

Within the definition of wilderness in the United States Wilderness Act[147] are, in effect, several statements of policy. In a wilderness area humans are visitors who do not remain and there can therefore be no permanent improvements. The area is to remain undeveloped, retain its primeval character and afford opportunity for solitude. It follows that human entry must be restricted and there should be no mining, roads or holiday

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[145]Section 2 (a) - see Appendix A.

[146]White Paper (1980).

[147]Section 2 (c) - see Appendix A.

chalets. The natural features must remain undisturbed. There should be a statement of purpose and a definition in our wilderness legislation along the lines of these provisions of the United States Wilderness Act.

8.2.5 Mining and servitudes

Section 15(4)(a) allows the Minister to grant servitudes and other rights in wilderness areas only with the approval of Parliament, but he may, in terms of section 15(4)(b), grant temporary rights if satisfied that national security necessitates it, and subject to subsequent Parliamentary approval. This section is, however, made subject to the provisions of section 11(2)(b) which excludes from prohibition the granting under any law of prospecting and mining rights in respect of precious metals, base minerals, precious stones, natural oil and source materials, subject to the proviso that no forest produce shall be cut, damaged, taken or removed by the holder of such a right, except on the authority of a licence or permit by the Director-General. Sections 15(5) and 15(6) give the Director-General discretion to renew servitudes and temporary rights if he is satisfied that their continued exercise will not materially prejudice the achievement of the objects for which the wilderness area in question was set aside.

Ideally, the preservation of wilderness areas should be perceived as being so important as to warrant legislation prohibiting any ecological disturbance whatsoever. The demand for raw material and progress is such that the intrusion of the thin end of the development wedge into these areas may well spell their doom. If a situation arises in which the need for disturbance becomes of national importance, Parliament could always pass an appropriate *ad hoc* law. The Act recognises the importance of wilderness by making provision for the granting of rights subject to Parliamentary approval but then proceeds - inconsistently - to leave its potential degradation in the discretion of a government official, the Director-General.

Mining is anathema to wilderness - the two are totally incompatible and it makes nonsense of the legislative protection of wilderness if mining rights prevail over wilderness objectives. However, if the needs of political expediency dictate acceptance

of the paradox, prospecting licences and mining leases relative to wilderness areas should only be issued if in the national interest, upon the authority of the Minister with approval by Parliament, and after furnishment of a mandatory environmental impact assessment as a pre-requisite to the granting of any rights whatsoever in wilderness areas.

Whilst recognising that South African conditions are different from those of the United States, there is still much that we can learn from American experience in this context. Most national parks are closed to all mining in the United States. The 1964 Wilderness Act permitted the continued staking of claims in national forest wilderness areas 'until midnight December 31, 1983', subject to reasonable regulations governing ingress and egress.[148] The need for control is vital. Prospecting activities can be damaging to the ecologically sensitive and fragile high mountain catchment ecosystems, for example, and thus affect our supply of clean water. Unlike wilderness, mining is a temporary land use, not a permanent one; but it must be acknowledged that both wilderness and minerals are important national resources, and there is a continuing need for mineral products - ultimately the community, or its political representatives on its behalf, should decide whether a mineral resource within a wilderness area should be extracted.[149]

8.2.6 Establishment of wilderness areas

The selection of appropriate areas for dedication as wilderness was left to regional teams. In 1973, the first three wilderness areas were declared under the Forest Act. Dr DP Bands played a significant role in the declaration of the Cedarberg Wilderness Area in the western Cape, and in Natal Ackerman successfully motivated the setting aside of the Mdedelelo and Mkhomazi Wilderness Areas in the Drakensberg Mountains, and was

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[148]Section 4(3).

[149]Lewis 187. Lewis 187-190, Lewis argues in favour of a rehabilitation process, after mining in wilderness, which may take 50 to 100 years. This may seem a long time to people unaccustomed to thinking in geological or ecological time scales; but if we aim to preserve our wilderness for all time this, he suggests, is not a very long time to wait for these small pockets within the wilderness to become indistinguishable from their surroundings. He does, however, concede that the different stages of plant succession after rehabilitation, and the ranges of animal species that adapt to and occupy the site, will probably be markedly different in composition from the pre-mining stage and range during the immature stages of the vegetation, and may also change rapidly from year to year.

instrumental in the development of a wilderness management policy in the area.[150] As at 1990, twelve areas, totalling 340 900 hectares, have been designated as wilderness under the Forest Act. Another three areas, totalling 86 500 hectares, have been identified as candidate wilderness areas in State forests. There are administratively determined wilderness zones, totalling 714 900 hectares, in national parks and game reserves.[151] A complete listing of wilderness areas, wilderness zones and candidate areas is given in Appendix C.

The wilderness management agencies in South Africa at present are the National Parks Board (18 wilderness zones in the Kruger National Park), the Natal Parks Board (five wilderness areas, and two wilderness zones in Umfolozi Game Reserve and Lake St Lucia), the Cape Provincial Department of Nature and Environmental Conservation (six wilderness areas), and the Transvaal Nature Conservation Department (one wilderness area). In general, these agencies apply scientifically-based management systems and management plans. The Drakensberg areas, for example, are intensively managed in terms of a management programme formulated under the leadership of WR Bainbridge.[152] The programme includes construction and maintenance of trails, visitor registration and user fees, elimination of exotic plants, and restoration of degraded areas through the use of indigenous and pioneer plant species. Because the prehistoric pattern of fire burns no longer occurs, a prescribed system of burns is applied regularly in a simulated natural pattern so as to maintain natural fire climax vegetation communities. Interpretative services are provided, and wilderness-associated experiences promoted. Regular armed patrols are responsible for law enforcement, the protection of rock art

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[150]Hendee, Stankey & Lucas (1990) 75.

[151]The Kruger National Park has 18 wilderness zones administratively determined and managed in terms of a management masterplan - see Joubert 765-792. The Lake St Lucia Wilderness, an administratively protected area in Natal, is an interesting development as it is, in effect, a marine wilderness, demarcated by a fence protruding above the lake surface.

[152]Hendee, Stankey & Lucas (1990) 76.

sites, control of trespass and poaching, and illegal smuggling into and out of the neighbouring Kingdom of Lesotho.[153]

South Africa lies in the arid latitudes of the Southern Hemisphere, and is poorly served with natural lakes.[154] As the population and economy expand, the demand for potable water increases. High mountain ecosystems and watershed areas are environmentally fragile and sensitive areas. It is essential for South Africa's water needs that high rainfall mountain catchment terrain be conserved. Even relatively light agricultural use may cause considerable environmental disturbance,[155] if not degradation to the point of permanent impairment. The designation of the Drakensberg wilderness areas therefore serves the country's need for a stable water supply. It also resulted in legal protection of the only Afro-alpine vegetation which occurs in South Africa, together with two other Veld Types. About 1 800 species are thus conserved in the Drakensberg, an estimated 300 of which are endemics. The area is, moreover, regarded as one of the great natural spectacles of the African continent.[156] The aesthetic values of this mountain wilderness have thus also been preserved.

The Cedarberg became a wilderness area on 27 July 1973. At the declaration ceremony, the then Minister of Forestry pledged:

> 'to dedicate (the Cedarberg) to the people of South Africa as a wilderness area where they can commune with nature as the Creator made it and intended it to be. It is my earnest desire that the Sederberg (Afrikaans spelling) remains as a wilderness area in perpetuity and I charge my successors

[153]Bainbridge 119, and Hendee, Stankey & Lucas (1990) 76 citing WR Bainbridge 'The Use of Fire to Maintain Indigenous Vegetation in the Wilderness Systems in Southern Africa', a Paper presented at the Fourth World Wilderness Congress Symposium on Management of National Park and Wilderness Reserves (1987).

[154]Allanson & Rabie 238.

[155]Bainbridge 122.

[156]Bainbridge 124.

> in office for all time, to guard and protect this wilderness area against encroachment or alienation to the utmost of their ability.'[157]

On 23 March 1984, it was reported in the newspaper, *Die Burger*, that the National Parks Board had applied to the Minister of Environment Affairs and Fisheries for control of the area and adjacent state land, with a view to establishing a national park. This, in effect, would have amounted to transfer of control of the Cedarberg wilderness area from the Directorate of Forestry to the National Parks Board. In other words, the area would have been deproclaimed as a wilderness area in terms of the Forest Act and become a national park under the National Parks Act 57 of 1976. The area concerned covers 71 000 hectares and was then one of eight wilderness areas set aside covering a total area of 244 598 hectares, that is approximately 29% of all wilderness areas then set aside in South Africa. The proposal evoked negative response from members of the public, private landowners in the area, outdoor clubs, professional environmental scientists and conservation bodies. They were concerned that the wilderness character of the area would be destroyed if increased development and visitor use were permitted - after handover there would be no legislative prohibition of building of roads and structures within the area, which is allowed in national parks for recreational purposes.[158] Once an area has been developed in any way, and its essential wilderness character altered, it is very difficult to restore the wilderness ecosystem. The Minister (now of Environment Affairs and Tourism) referred the issue to the Council for the Environment,[159] which appointed a committee to investigate and deal with the matter. The National Parks Board and Directorate of Forestry (which was the agency charged with management of the wilderness area) addressed the committee *in camera*. The committee received memoranda from other interested parties, conducted interviews, held public hearings and undertook site inspections. Upon completion of its investigation, the Council reported to the Minister who, on 2 November 1984, issued a formal press

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[157]Cited in BC Glavovic 14.

[158]In terms of s 12(2) of the National Parks Act 57 of 1976.

[159]A statutory body established in terms of the Environment Conservation Act 100 of 1982 (now replaced by the Environment Conservation Act 73 of 1989, which provides for a similar Council), to advise the Minister on environmental matters.

statement accepting its recommendation that no further action be taken until such time as a national conservation policy has been approved, and that the control and management of the State forests in the Cedarberg by the Directorate of Forestry be maintained pending specific recommendations to the Minister on the future of the area within the framework of such a policy.[160] It is remarkable, not only that South Africa does not as yet have such a policy,[161] but also that an attempt should have been made to deproclaim one of its few designated wilderness areas and thus to alter its conservation status to that of national park in which roads and recreation facilities may be established. In the result, however, wilderness advocates won the day, and the Cedarberg remains wilderness for the time being. The victory resulted from the considerable public support given to preservation of the wilderness character of the area. Perhaps Hendee, Stankey & Lucas are correct when they remark: 'As in other countries, efforts to secure long-term protection for wilderness in South Africa are characterized by increasing sophistication and maturity.'[162]

In 1976, all private land, excluding agricultural land, in the Cedarberg area was proclaimed part of a mountain catchment area - the Cedarberg Mountain Catchment Area.[163] Four zones were established in the Cedarberg catchment: the wilderness zone, a semi-intensive development zone on State Forest land, a semi-intensive development zone on private land next to the wilderness zone (incorporating privately owned campsites and cottages), and a zone on private property used for controlled natural resource exploitation, including wild flower production and grazing.[164]

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[160]See BC Glavovic 19-22 on the 'Cedarberg controversy', and 7-19 on the earlier history of the area.

[161]On the lack of a national environmental policy in South Africa, see Glavovic (1990) 108-110.

[162]Hendee, Stankey & Lucas (1990) 76 - they make this remark in the context of wilderness management programmes in South Africa, and the 'evolution' of the 'citizen-based' Wilderness Action Group (referred to in Chapter 1) 'to provide improved leadership in the movement for specific national wilderness legislation.'

[163]In terms of the Mountain Catchment Areas Act 63 of 1970.

[164]BC Glavovic (1988) 16-17.

This successful arrangement suggests that it would be practical to make provision for the declaration of wilderness areas on, or partially on, private land; provided that this is done in prior consultation with the private landowners concerned, and in accordance with prescribed procedures for their establishment and management.

The importance of wilderness protection as a means of maintaining species diversity is illustrated by the declaration of the Baviaanskloof Wilderness Area. The effect of the declaration is to give legal protection to 66 000 hectares of Cape Fynbos, a South African biome of great ecological importance. The Cape Floristic Kingdom is the smallest, but richest in species diversity, of the world's six floristic kingdoms. It is estimated to contain over 6 000 endemic species out of a total of approximately 8 500 constituent species.[165] It is richer by a factor of two than its nearest competitors in New Guinea, and by three when compared with areas in Central and South America. The Cape Floristic Kingdom has been reduced in area by humanity by about 61 per cent, and it has been suggested that there is a special responsibility on South Africans to protect what remains of it.[166] The dedication of Baviaanskloof to wilderness is a major step toward discharging that responsibility.

8.3 CONCLUSION

Ackerman makes the point that although South Africa is a large country with a comparatively small population and one would expect that large parts of the country should still be in a primitive condition, virtually unchanged since the arrival of whites, this is in fact not so. The population may be spread fairly thinly in parts of the country, but few large areas are completely uninhabited.[167] We have lost most of our wilderness and wildlife. What little remains must be effectively protected if we are to retain some of our wilderness heritage. Although wilderness areas do enjoy some measure of statutory protection in South Africa, compared with the position in the United States,

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[165]Bainbridge 124.

[166]Hall & Rabie 167.

[167]Ackerman 147.

for example, we are not well endowed with areas thus far set aside for such protection. As at 1983, the United States had set aside 264 wilderness areas encompassing over 32 million hectares;[168] but only 8 wilderness areas covering a total area of 244 500 hectares had been set aside in South Africa.[169]

The history of early efforts in South Africa to protect natural areas, and the chequered history of the Cape's protected areas in particular, clearly demonstrate:

- the need for public support for, and participation in, the setting aside of such areas and the determination of their boundaries;

- the desirability of their protection being entrenched by appropriate legislation;

- the pattern of changing attitudes and purposes of protection: a shift of the focus of protection from species to habitat, and then to landscapes and natural systems.

In the formulation of laws appropriate for the protection of wilderness and wildlife, it must be borne in mind that the events relating to the slaughter of wildlife during the *nagana* campaign, described in this Chapter, are within living memory, and have undoubtedly influenced attitudes towards conservation.

There is little doubt that the way in which government developed politically in South Africa has resulted in reduction of wilderness and severe land degradation in many areas of the country.

Legislative recognition and protection of wilderness in South Africa is restricted to declared wilderness areas in State forests. There is need for extension of the national wilderness system to include wilderness areas on other State land, and on private land.

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[168]Block 75.

[169]Bainbridge 123.

Effective legal protection of wilderness will make an important contribution to the maintenance of the biotic complexity and diversity which are essential to human survival. Wilderness legislation could be the cornerstone of a national environmental land use policy and planning programme, in terms of which land use is graded according to the quality and quantity of permissible human impact. Wilderness areas should, therefore, be sacrosanct and protected from any development which is incompatible with wilderness values.

Wilderness legislation should make provision for:

- a statement of wilderness policy as a matter of substantive law, clearly articulating the national will and purpose in protecting wilderness, as opposed to a mere indication of intent in a preamble which is not an organic part of the statute or an administrative declaration of policy in a White Paper;

- a comprehensive definition of wilderness areas, so as clearly to indicate their purpose and importance and as an authoritative guide in interpretation and implementation of declared national policy;

- the elevation to the status of statutory wilderness of all areas at present administratively zoned or managed as wilderness;

- the establishment of wilderness areas on all public lands, not just within State forests, and on privately owned land (subject to prior notice to affected owners and financial compensation where appropriate);

- the deproclamation of a wilderness area, or the alteration of its boundaries, to be subject to the prior approval, by resolution, of Parliament;

- prior notice of and public participation in the declaration, deproclamation and alteration of boundaries of, and any significant intrusion into, wilderness areas,

and also in respect of the adoption and implementation of their management plans;

- the establishment of a National Wilderness Council, with prescribed objects and functions, to promote the preservation and good management of wilderness areas;

- no prospecting contracts, mining leases, servitudes, or any other rights resulting in significant intrusion into wilderness areas, being granted in wilderness areas except by the Minister with Parliamentary approval, and then only after furnishment to the National Wilderness Council of an environmental impact statement and upon its advice and recommendations.

CHAPTER 9

INCIDENTAL LEGAL PROTECTION OF WILDERNESS AND WILDERNESS VALUES

Many of the ecological and social values of wilderness[1] secured in America through wilderness designation[2] are protected in South Africa under wildlife law[3] and in terms of protected areas legislation. In this chapter, therefore, the laws relating to the protection of wildlife species and natural areas will be identified and discussed with a view to determining their efficacy in protecting the totality of wilderness values. In the first section the focus will be on species protection, with commentary on its effectiveness, future directions and implications of wildlife law for wilderness legislation. In the second section of this chapter, protected areas legislation (the laws relating, *inter alia*, to habitat protection) will be considered.

9.1 WILDLIFE LAW: SPECIES PROTECTION

Wildlife is an essential component of wilderness. Genetic and species diversity is an essential purpose of wilderness preservation. It follows that no legal prescription for the protection of wilderness would be complete if it did not take into account the role and efficacy of wildlife law. Jan van Riebeeck imposed restrictions on hunting in 1657 in the Cape Province.[4] Simon van der Stel introduced comprehensive controls over hunting in 1680.[5] Since then over one hundred statutes and ordinances have been enacted for

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[1]Wilderness values are discussed in Chapters 2 and 3.

[2]See Chapter 6.

[3]For an introduction to the topic of Wildlife Law, see Glavovic (1988 SALJ) 519-532.

[4]Placaat of 1 January 1657.

[5]Placaat of 8 and 9 April 1680.

the conservation of wildlife. At present wildlife law is almost wholly contained in three categories of legislative enactment: laws which provide incidental protection of wildlife,[6] those which offer direct species protection, and those which protect wildlife habitat. The modern approach to nature conservation is to try to maintain species diversity by protecting entire ecosystems, biomes or landscapes. The protection of species cannot effectively be achieved without protection of their habitats. Habitat protection occurs primarily at national level, although protected areas are also established at provincial and municipal level. National legislation recognises a wide variety of natural areas as deserving of protection, including nature reserves, national parks, lake areas, mountain catchment areas and wilderness areas, all of which either directly or indirectly afford substantial protection of wildlife through protection of its habitat.[7] But the reduction of wildlife continues, and this compels the question: are current laws adequate, or is there an urgent need for an entirely new approach to nature conservation if the remnants of our wildlife and natural areas are to be preserved?

In terms of the Financial Relations Act 65 of 1976, the responsibility for the preservation of flora and fauna and the regulation and control of hunting of game and other animals vests in the provincial administrations.[8] Each of the provinces has its own nature conservation ordinance containing extensive provisions relating to wildlife. What follows is an overview of the relevant provisions of the different ordinances. As will appear from the overview, there are differences in the approaches of the different provinces.

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[6]These include laws relating to such matters as national monuments, integrated environmental management, soil conservation, acid rain and pollution control, all of which affect wildlife and its habitat to some extent, either directly or indirectly.

[7]Protected areas legislation will be dealt with in the next section of this chapter. There is some limited species protection at national level. Cruelty to wild animals under control or in captivity is made an offence under the Animals Protection Act 71 of 1962, and the exhibition or training of animals without a licence is an offence under the Performing Animals Protection Act 24 of 1935. An example of a national statute which affords direct protection of wildlife is the Sea Birds and Seals Protection Act 46 of 1973. Section 3 makes it an offence to disturb, capture or kill any sea bird or seal or to damage the eggs of any sea bird or to collect or remove any such eggs or feathers or guano, unless in the performance of duties under the Act or under the authority and subject to the conditions of an exemption or a permit.

[8]Section 11(1)(a) as read with Schedule 2 Paras 2 and 2A.

Each ordinance has its own schedules, some of which are lengthy.[9] Generally, however, there are far more similarities in the ordinances than differences. Notwithstanding these similarities, the question must be asked whether an holistic and uniform national approach to wildlife protection would not have been preferable and far more effective than the current fragmented state of wildlife law in South Africa.

9.1.1 Natal

The Nature Conservation Ordinance 15 of 1974 (Natal) is divided into 12 chapters and 13 schedules, as follows:

Chapter I:	Definitions
Chapter II:	The Natal Parks Board
Chapter III:	Game
Chapter IV:	Private Reserves
Chapter V:	Mammals
Chapter VI:	Professional Hunters and Hunting-outfitters
Chapter VII:	Amphibians invertebrates and reptiles
Chapter VIII:	Wild birds
Chapter IX:	Freshwater fish
Chapter X:	Coastal fishing
Chapter XI:	Indigenous plants
Chapter XII:	General

Schedule 1:	Ordinary game
Schedule 2:	Protected game
Schedule 3:	Specially protected game
Schedule 4:	Open game
Schedule 5:	Mammals excluded from the definition of 'indigenous mammal'
Schedule 6:	Endangered mammals
Schedule 7:	Protected amphibians, invertebrates and reptiles
Schedule 8:	Unprotected wild birds
Schedule 9:	Specially protected birds
Schedule 10:	Unprotected indigenous plants

[9]See the schedules to the respective ordinances - because of their length they will not be reproduced here.

Schedule 11:	Protected indigenous plants
Schedule 12:	Specially protected indigenous plants
Schedule 13:	Laws repealed.

The main purpose of the first 12 schedules is to classify wildlife into different categories so as to afford different species different levels of protection.

9.1.1.1 *The Natal Parks Board*

The administrative agency charged with the control and management of national parks,[10] game reserves and nature reserves, and for the enforcement of the provisions of the Ordinance and other laws relating to game, fish and other fauna and flora in the province of Natal, is the Natal Parks Board.[11] A primary function and duty of the board is to control, manage and maintain all such parks and reserves 'for the exhibition, propagation, protection and preservation therein of wild animal[12] life, wild vegetation and objects of geological, ethnological, historical or other scientific interest.'[13] The Board may, *inter alia*, within such areas construct roads, bridges, ponts, buildings and fences and carry out such other works as it may consider necessary, and take such steps as will ensure the security and preservation of such areas and of the animal and vegetable life therein in a natural state. It may also sell necessities, foodstuffs, curios and other goods for the convenience of visitors, and set aside special areas from which visitors may be excluded.[14] It may also use its hounds for the destruction of vermin, hire out its hounds, whether trained or untrained, to vermin hunt clubs or persons, and

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[10]These are provincially established national parks as opposed to national parks established in terms of the National Parks Act 57 of 1976.

[11]Sections 4(1) and 24(1). Part I of Chapter II deals with the establishment of such parks and reserves, and the constitution of the Board.

[12]'Animal' is defined in s1 as any member of the animal kingdom other than man.

[13]Section 11(1)(a).

[14]Section 11(4).

provide instructional services in vermin hunting techniques.[15] The permission of the Board is required for entry into such areas, which permission may only be granted for such purposes as health, study or recreation or, generally, such purposes as are not inconsistent with the provisions of the Ordinance.[16] Unless done with the permission of the Board, the performance of the following acts within such areas is also prohibited:

- being in possession of any weapon, explosive, trap or poison;
- killing, injuring, capturing or disturbing any animal, or taking or destroying any egg, larva or nest, provided that any dangerous animal or noxious insect may be killed in defence of human life or to prevent the infliction of personal injury;
- introducing any animal or permitting any domestic animal to stray into such an area;
- removing any animal, whether alive or dead, from such an area;
- being in possession of a snare;
- hunting or capturing any animal by means of any trap, snare or poison, or with the aid of artificial light of any kind or by means of veld fires or from any vehicle.[17]

The Board is given extensive regulatory powers, including the power to make regulations generally for the efficient control and management of parks and reserves.[18] Authorised officers or employees of the Board have the power to arrest without warrant any persons suspected upon reasonable grounds of having contravened any of the provisions of the Ordinance or of any other laws relating to game, fish and other fauna and flora, including any proclamations or regulations issued or made thereunder.[19]

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[15]Section 11(9)(c), (d) and (e).

[16]Sections 15 and 16.

[17]Section 15(1).

[18]Section 17.

[19]Sections 22(1) and 29.

Part I of Chapter II deals primarily with the protection of wildlife within reserves. Part II refers to the duties of the Board with respect to game, fish and other fauna and flora in general. The Board is required to take all such measures as it may deem necessary or proper for the enforcement of the provisions of the Ordinance, as well as other laws relating to such wildlife.[20] The Board or any officer or person authorised by it may, with the consent of the Minister of Co-operation and Development, enter any scheduled area or any released area for the purpose of ascertaining whether the provisions of such laws are being complied with therein, or for any other purpose connected with the administration of those laws.[21]

The Board or any officer or other person authorised by it may, at any hour reasonable for the performance of the duty, enter any private land or premises for the purpose of carrying out any investigation connected with the administration or enforcement of such laws.[22] Any person who fails to give or refuses access to such authorised person, or obstructs or hinders him in the course of any investigation, is guilty of an offence and liable on conviction to a fine not exceeding R500,00 or imprisonment for a period not exceeding 6 months or to both such fine and imprisonment.[23] The Board is also authorised to appoint officers, honorary officers and employees for the proper and efficient administration of laws relating to fauna and flora outside reserves.[24]

9.1.1.2 *Game*

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[20]Section 24(1).

[21]Section 25.

[22]Section 26(1).

[23]Section 26(2).

[24]Section 27.

Chapter III contains detailed provisions relating to game and the restrictions imposed on the hunting and other interference with game.[25] Schedules 1, 2, 3 and 4 create four classes or categories of game, namely ordinary game, protected game, specially protected game and open game. Cheetah, black rhinoceros and giraffe, for example, are deemed to be worthy of special protection classification, whilst springbok and blesbok are listed as open game. The square-lipped rhinoceros, buffalo, eland and nyala, *inter alia*, are listed as protected game, whilst impala and grey duiker are ordinary game.

(a) Hunting, Capture and Keeping in Captivity

The Administrator may from time to time by proclamation in the *Provincial Gazette* appoint an open season for the whole of the province of Natal, or any defined area or areas thereof, during which ordinary game or protected game may be hunted.[26] He may proclaim different open seasons for different species of game. Unless otherwise permitted to do so in terms of the Ordinance, no person may hunt game during the close season.[27]

The Ordinance makes provision for various classes of hunting licences and permits, including ordinary game licences, protected game permits, special game licences, commercial game-reserve licences and professional culling licences. All licences and

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[25]'Game' is defined in s1 as meaning any of the mammals or birds, alive or dead, mentioned in Schedules 1, 2, 3 or 4 of the Ordinance, including any meat, fat or blood thereof, whether fresh, preserved, processed or manufactured in any manner, and also any tooth, tusk, bone, head, horn, shell, claw, hoof, hide, skin, hair, egg, feather, or other durable portion of any such mammal or bird, whether preserved, processed, manufactured or not, but not including any trophy.

[26]Hunting is widely defined. In terms of s1, 'hunt', 'kill', 'catch' or 'capture' means 'to kill or capture by any means whatsoever and includes to search or lie in wait for, or wilfully disturb, drive, pursue, discharge any missile at or injure'. Unlike the definitions in the other provinces, the words 'to search or lie in wait for' in this definition are not qualified by the addition of the words 'with intent to kill, shoot or capture', or similar words. The question whether searching for or lying in wait for an animal without the intention of killing or capturing it can amount to hunting was left open in the case of *R v Carter* 1954 2 SA 317 (E). However, in the context of the definition, it is most unlikely that the courts will interpret the definition in such a way as to conclude that searching or lying in wait for an animal in order to photograph it, for example, amounts to hunting.

[27]Section 31.

permits are personal to the holder and are not transferable to any other person.[28] A licence or permit is required for the hunting of ordinary or protected game,[29] and no person may hunt open game except with the prior permission of the landowner or occupier concerned, or an authorised government officer in respect of State land occupied or reserved for a public purpose.[30] Licensing permits are issued subject to such conditions as may be prescribed by regulations.[31] The Administrator is authorised to make regulations in respect of a wide variety of matters relating to hunting, including the conditions subject to which licences and permits may be granted, the conditions subject to which any species of game may be hunted or captured, the regulation or prohibition of the use of any kind of calibre of firearm and ammunition for the purpose of hunting game, and generally any other matter which he may deem necessary or expedient for the effective and convenient administration of the provisions of Chapter III of the Ordinance.[32]

An ordinary game licence or a combined hunting and fishing licence entitles the holder to hunt ordinary game during open season.[33] A special game licence entitles the holder to hunt ordinary game during the close season upon land the owner or occupier of which consents to such hunting; but such owner or occupier must be in possession of a commercial game reserve licence or ordinary game permit.[34] An ordinary game permit may be obtained by any owner or, with the owner's written consent, any occupier of land, which will then entitle him, his spouse and children, or any one nominated full-time employee resident and actually working on the land, to hunt ordinary game as specified in the permit in the close season. He may also allow the holder of a special game

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[28]Section 33(2).

[29]Section 33(1)(a).

[30]Section 33(1)(b) as read with s42(1).

[31]Section 33(3).

[32]Section 58.

[33]Section 34(1)(b) and (d).

[34]Section 34(1)(c).

licence to hunt ordinary game on such land during the close season.[35] The owner, or such an occupier, and his spouse and children, or such an employee, may hunt ordinary game on the land in the open season without being in possession of a licence.[36]

The holder of a protected game licence also requires the consent of the owner or occupier, but in this case the owner or occupier must be in possession of a commercial game-reserve licence or protected game permit.[37] An owner or occupier in possession of a protected game permit, and his spouse and children, are entitled to hunt on the land without a protected game licence, but only to the extent as far as number, sex and species are concerned, as specified in the permit. He may also allow hunting on his land by the holder of a protected game licence.[38]

Without a written permit from the Administrator, no person may at any time hunt, capture or keep in captivity any specially protected game.[39] The significance of this provision is that the Administrator must grant a permit in relation to specially protected game, whereas the Board issues permits in respect of other game. The capture or keeping in captivity of protected or ordinary game requires the permission of the Board, which may be granted with the prior approval of the Administrator, in respect of such game on land the owner or occupier of which has been granted an ordinary game permit or protected game permit.[40]

It is difficult to escape the conclusion that these provisions are unnecessarily complex and confusing. There are too many categories of wild animals, and too many different

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[35]Section 34(2).

[36]Section 34(3).

[37]Section 35(1).

[38]Section 35(2).

[39]Section 37.

[40]Section 38(1) and (2).

kinds of permits, licences and authorities. The Ordinance is at present under review. Hopefully these provisions will be simplified and the procedures streamlined.

(b) Hunter Competence

In the past there has been criticism of the licensing system in that hunters were not required to pass examinations before being issued with a licence, so as to ensure that they could identify and distinguish between ordinary and protected game, that they had sufficient knowledge of sound hunting principles, and that they were familiar with the provisions of the ordinances. Enforcement of permit conditions, and the control of the conduct of hunters in remote areas, have also proved to be extremely difficult in practice. To some extent, these concerns have been addressed in Natal. In a 1987 press release, for example, the Board announced a new controlled hunting area, in extent 4 200 hectares, adjoining the southern boundary of the Mkuzi Game Reserve, in which three initial hunts involving a limited number of animals were scheduled for the year. The announcement recorded that all hunts would be personally guided by experienced Board staff, and that the hunter's marksmanship skills would be tested before each hunt.[41] In 1988 the Board announced that it was offering ten hunts to local hunters from March to July 1988 in the area; that each hunting party may only consist of two hunters accompanied by two non-hunters; that the species to be hunted would be impala, nyala, warthog and duiker, which were excess animals which would normally have to be removed by Board staff in routine management operations; and that the hunters would be required to pass a shooting test prior to hunting and would be accompanied at all times by trained Board staff.[42]

As far as professional hunters were concerned, the Board announced in a press release in 1988 that compulsory written examinations on theory and law are held four times a year in the major centres of each province; that people intending to escort overseas hunters for reward were required to sit these examinations; that the theory paper was

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[41]Natal Parks Board *Press Release* No 48 dated 1 September 1987.

[42]Natal Parks Board *Press Release* No 7/88 dated 26 January 1988.

standard throughout the country; and that question papers on the hunting laws in all the other provinces would also be available at Natal examination venues should any of the candidates wish to write them. In addition to these written examinations, each candidate would be required to undertake a practical field test before being granted a professional hunting licence.[43]

In 1990 the Board offered twelve hunts during April, May, July and September in the controlled hunting area adjacent to Mkuzi Game Reserve. Each hunt accommodated four hunters and four non-hunters, and was subject to accompaniment by Board staff of each group at all times, and to the hunters being required to pass a practical shooting test before being allowed to hunt.[44] The Board also issued a news release of a joint announcement by the four provincial authorities for nature conservation to the effect that the testing of professional hunters and hunting outfitters was to be undertaken by the hunters themselves. The past arrangement of testing by the four provincial departments would no longer be required during times of testing. Henceforth it would be necessary for prospective professional hunters or hunting outfitters to be registered at professional hunting schools where the necessary testing and examinations would be taken. The newly formed National Professional Hunters Committee would be the official body responsible for the registration of professional hunting schools, would serve as the appeal committee for applications for exemption from compulsory attendance at such schools, and would also function as the disciplinary committee to which the different nature conservation departments would refer instances of misconduct by professionals.[45]

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[43]Natal Parks Board *Press Release* No 3/88 dated 18 January 1988.

[44]Natal Parks Board *News Release* No 53/89 dated 12 December 1989.

[45]Natal Parks Board *News Release* No 3/90 dated 8 March 1990.

In 1991 the Board is offering fourteen hunts to South African hunters during April, May, July and September, and four overseas hunts will go out to tender for trophy hunts during June and August.[46]

(c) Other Restrictions on Hunting

It is an offence for any person to hunt or capture game on land on which he is trespassing, or if he trespasses upon any land on which game is or is likely to be found with any weapon or trap in his possession, or is accompanied by any dog; provided that he will not be deemed to have trespassed if he satisfies the Court that his trespass was unintentional and that he was not aware that that he was trespassing.[47] Unlicenced persons may be used to assist licenced persons, provided that they do not use any weapon to kill game.[48] The hunting, killing or capturing of game in any public road or in the road reserve of any public road is prohibited, as is the discharge of any weapon at any game which is off such road or reserve.[49] It is also an offence for any person to have any loaded firearm other than a revolver or pistol in his possession or in any vehicle upon which he is travelling, on any road, whether public or private, traversing land in any locality in which game is or is likely to be present; provided that this will not apply to the owner or occupier of any land or his spouse or children, or to any person having shooting rights over any land, in relation to any private road situate on such land.[50]

Possession of a snare is an offence, unless the person in possession is able to prove that the snare is required for a lawful purpose.[51] Unless he is a holder of a permit issued

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[46]Natal Parks Board *News Release* No 32/90 dated 3 November 1990.

[47]Section 42(2).

[48]Section 44.

[49]Section 45(1).

[50]Section 46.

[51]Section 47.

by the Board, and subject to such conditions imposed in such permit, no person may hunt or capture game by means of any trap, snare or poison, or with the aid of any artificial light, or by means of veld fires or of a bow and arrow or crossbow and bolt, or from or within 200 metres of any motor vehicle, aircraft, horse or other means of transport; provided that any person hunting birds listed in Schedules 1, 2, 3 or 4 may do so within 200 metres of any horse. Prohibited times for hunting of game are between half-an-hour after sunset on any day and half-an-hour before sunrise on the following day.[52] The owner or occupier of any land shall not be convicted of an offence if he satisfies the Court that any trap or snare that he set was set or constructed by him, or poison was laid on such land by him, for the preservation of his livestock or crops or produce, or against the depredations of vermin or marauding dogs or the like, and that he took all reasonable precautions against game being caught or destroyed thereby.[53]

(d) Sale and Purchase of Game

The Board may purchase, sell or otherwise dispose of game; but no other person may sell game without a written permit from the Board. However, no such permit is required by the owner or occupier of land who, subject to any municipal by-laws or veterinary or health regulations, sells game lawfully killed upon his land, or any person who is licenced or exempted under the Licences and Business Hours Ordinance 11 of 1973 who resells game lawfully sold to him. No person may purchase game other than such game as may be sold in terms of these provisions.[54]

(e) Possession, Sale and other Disposal of Trophies

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[52]Section 48(1).

[53]Section 48(3).

[54]Section 49.

Any person in possession of a trophy[55] derived from specially protected game is guilty of an offence unless it is proved that he is in lawful possession thereof or that he acquired it from an approved person.[56] Without a written permit from the Board, no person may sell or otherwise dispose of any trophy. Subject to any conditions which may be prescribed, an approved person may, however, sell or otherwise dispose of any lawfully acquired trophy.[57]

(f) Exportation of Game

A permit is required from the Board for the exportation of game from the province of Natal to any place in any other province of the Republic. For the exportation of game from Natal to any place outside the Republic a permit issued by the Board with the prior approval of the Administrator is required, and such exportation must not be contrary to any condition imposed by the Administrator and contained in such permit.[58]

(g) Destruction of Crops by Specially Protected Game

If it is alleged in writing by any owner or occupier of land that damage or destruction is being caused on his land by any species of specially protected game at any time, the Administrator is required to cause the matter to be investigated and, upon being satisfied that the complaint is well founded, to determine what measures, if any should be taken in the circumstances.[59]

(h) Capture or Destruction of Game for Prevention of Human or Animal Diseases, the Preservation of Fauna or Flora, or for Scientific Research

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[55]'Trophy' is defined in s1 as meaning any mounted head or skin of any game used or intended for private display or museum purposes or any skin or portion of such skin used in a processed or manufactured article.

[56]'Approved', in terms of s1, means approved by the Administrator.

[57]Section 50.

[58]Section 51.

[59]Section 40(1).

The Administrator may authorise, upon such terms and conditions as he may determine, the destruction, capture or removal of game or any species of game, if he deems that to be necessary or desirable for the prevention of human or animal diseases, or the preservation of fauna or flora, or for educational or scientific purposes, and he may also cause scientific and technical research to be undertaken in connection with any such matter. Any person authorised by him in writing, or any officer, may at any time reasonable for the purpose enter upon any land to carry out any such measures as the Administrator may direct in the exercise of this power, and any person who fails to give access to any officer, or obstructs or hinders him in the performance of his duties, shall be guilty of an offence. The Administrator may delegate his powers under these provisions to the Board, subject to such conditions as he may impose.[60]

(i) Offences and Presumptions

Any person who contravenes any of the provisions of Chapter III or of the regulations made thereunder shall be guilty of an offence and be liable on conviction to penalties ranging from fines not exceeding R500,00 or imprisonment for a period not exceeding 6 months, to R2 000,00 to 2 years, or both such fine and such imprisonment, depending on the nature of the offence. Upon a second or subsequent conviction for contravention of the same section or regulation, the court may impose double the fine or double the term of imprisonment, or imprisonment without the option of a fine.[61]

Whenever any person is or has been in possession of or handles or has handled any game, and there exists at any time a reasonable suspicion that such game was hunted unlawfully, he shall be guilty of an offence and liable on conviction to the same punishment to which he would be liable if he had hunted such game unlawfully, unless he proves that he did in fact lawfully hunt and acquire such game, or that he did not kill or capture it and took no part in its killing or capture.[62] Whenever any game is upon

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[60]Section 51.

[61]Section 55.

[62]Section 39(1).

any vehicle or at any camping place, every person who is in any way associated with such vehicle or who is at or in any way associated with such camping place, shall be deemed to be in possession of such game and similarly guilty of an offence unless he proves that it was lawfully hunted and acquired by him or that he did not kill or capture it and took no part in its killing or capture.[63] Other presumptions are that any person who is in possession of any game shall be deemed to have hunted or captured it unlawfully, unless it is proved that he was in lawful possession of it; that any person found removing game from any trap or snare shall presumed be until the contrary is proved to have hunted or captured it unlawfully by such means; and that any person who is found conveying game between half-an-hour after sunset on any day and half-an-hour before sunrise on the following day shall be deemed unlawfully to have hunted or captured it during such times unless in any prosecution the contrary is proved.[64]

9.1.1.3 *Private Reserves*

Chapter IV deals with private reserves. Upon the recommendation of the Board, after written application to it by the owner, the Administrator may by notice in the *Provincial Gazette* proclaim an area of privately-owned land to be either a private nature reserve or a private wild-life reserve.[65] In his application, the owner must include particulars of the indigenous plants, wild birds, ordinary game, protected game or specially protected game which he intends to protect and conserve in the area, and his plans and specifications for the proposed fencing of the area.[66] Private reserves must be

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[63]Section 39.

[64]Section 57.

[65]Section 59. 'Private nature reserve' is defined in s1 as meaning a privately-owned area of land, enclosed by fence, wherein rare or interesting indigenous plants or wild birds are protected and conserved, and which has been proclaimed as such. 'Private wild-life reserve' is defined as meaning a privately-owned area of land, enclosed by a fence, wherein rare or interesting indigenous plants, wild birds, ordinary game, protected game or specially protected game are protected and conserved, and which has been proclaimed as such.

[66]Section 65.

effectively enclosed within a fence conforming to minimum standards laid down by regulations.[67]

Without a permit issued by the Board, no person may gather any indigenous plant or hunt any wild bird within either a private nature reserve or a private wild-life reserve.[68] No person may hunt ordinary or protected game in a private wild-life reserve, save that the owner may hunt ordinary game during an open season, and protected game under the authority of a permit. Such a permit may be granted by the Board to an officer, the owner or his nominee, in respect of game considered by it to be surplus to the requirements of the carrying capacity of the reserve, and it must specify the period during which and the types, numbers and sexes of the animals in respect of which it shall be operative. In addition, the owner or his specially authorised agent may, outside the open season, or without such a permit, kill any sick or injured ordinary or protected game animal where it is reasonably necessary to do so to prevent suffering, in which event he must within seven days report the fact of such killing and his reasons to the Board. The holder of such a permit is required to comply with all the provisions of Chapter III applicable to the animals referred to in the permit.[69] The hunting of specially protected game in private wild-life reserves is prohibited, except that an officer may do so with the approval of the Administrator in terms of Chapter III.[70]

Chapter IV also contains detailed provisions relating to conditions applicable to the grant of applications for proclamation of private reserves, revocation of proclamations, the right of the Board to remove wildlife from private reserves in certain circumstances, the powers of officers to enter reserves, offences and penalties, and regulations relating thereto. Regulations may relate, *inter alia*, to the numbers and species of game, and any other matter deemed by the Administrator to be necessary or expedient for effective and

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[67]Sections 63 and 64.

[68]Section 60.

[69]Section 61.

[70]Section 62.

convenient administration.[71] The provisions relating to private reserves clearly represent an effective, albeit somewhat complex, form of habitat protection for wildlife, with great conservation potential, which will only be realised to the extent that private landowners are persuaded to dedicate portions of their property to this purpose.

9.1.1.4 *Mammals*

Chapter V deals with mammals, and does not apply to any of the species listed in Schedule 5, namely chinchilla, mink and common hamster.[72] Without a permit issued by the director of the Board, no person other than the Board may at any time purchase, acquire by any means, possess, sell, exchange or otherwise dispose of, or keep in captivity any endangered mammal.[73] However, it is specifically provided that no such permit shall be granted in respect of any baboon or monkey which is an indigenous mammal, except in the case of research institutions, museums or circuses recognised as such by the Board, or upon renewal of previously existing licences or permits. No permit is required in the case of stray baboons or monkeys acquired by any person and handed over to any officer within 30 days of acquisition, or in the case of registered zoos.[74]

There are detailed provisions relating to the establishment, conduct, maintenance and registration of zoos, and the issue of zoo licences.[75] There are also provisions relating to cruelty to indigenous mammals or exotic mammals,[76] and seizure and confiscation of them upon failure by any person to comply with the provisions of this Chapter, the

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[71]Sections 67 to 77. Extensive regulations have in fact been published under the Ordinance.

[72]Section 78 and Schedule 5.

[73]Sections 79, 80, 81 and 84. 'Endangered mammal' is defined in s1 as any indigenous mammal or exotic mammal listed in Schedule 6.

[74]Section 80(1).

[75]Sections 82, 83 and 85.

[76]Section 86.

regulations, or the conditions attaching to any permit or licence.[77] Provision is also made for appeals to the Administrator,[78] and for criminal sanction by the creation of offences and penalties for contravention.[79]

9.1.1.5 *Professional Hunters and Hunting-outfitters*

Chapter VI deals with professional hunters and hunting-outfitters. No person may act as such unless he is the holder of a licence which authorises him to do so. The requirements to be complied with in order to obtain a licence are determined by the Board from time to time, and it may appoint a testing team to ensure compliance. The testing team, upon payment by the applicant of the prescribed fee to the Board, examines him and inspects his premises or facilities.[80]

A client may not hunt unless the hunt has been organised by a hunting-outfitter and he is escorted by a professional hunter, who is required to take all steps necessary to ensure that his client does not hunt contrary to the provisions of the Ordinance. The holder of a professional hunting licence may kill ordinary, protected or specially protected game while accompanying a client if such killing is in defence of life or property, or to prevent the suffering of any such game.[81] A hunting-outfitter may not present or organise the hunting of game for a client, and a professional hunter may not escort a client, on any land unless the hunting-outfitter is the owner of the land or the holder of the written permission of the owner. The client must also be the holder of an appropriate licence or permit in terms of the Ordinance.[82]

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[77]Section 88.

[78]Section 89.

[79]Section 90.

[80]Sections 93 and 94.

[81]Section 95.

[82]Section 96.

Provision is made for the Administrator to make regulations relating to testing teams, and the registers, records, books and documents required to be kept by a professional hunter or hunting-outfitter and the inspection thereof. Such regulations may provide for penalties for contravention of up to R1 000,00 or imprisonment for one year, or both such fine and such imprisonment.[83] The penalties prescribed for the contravention of the provisions of the Chapter itself are R2 000,00 or imprisonment for two years, or both, or imprisonment without the option of a fine.[84]

9.1.1.6 *Amphibians, Invertebrates and Reptiles*

By notice in the *Gazette*, the Administrator has the authority to suspend, for any stated period, the permits issuable in terms of Chapter VII in respect of any family, genus or species of protected indigenous amphibian, invertebrate or reptile, whether generally or in any defined area or areas in the Province. He may similarly declare that the provisions of this Chapter shall not apply to any such family, genus or species, or shall only apply when such family, genus or species is found within any defined area or areas in the Province. Any notice or proclamation so issued by him may be amended, varied or revoked by a like notice or proclamation.[85]

Without a permit, no person may kill or capture any protected indigenous amphibian invertebrate or reptile. However, such killing or capture without permit is permitted if in defence of human life or property; but in such case any officer or honorary officer may require that it be surrendered to the Board for disposal.[86] A permit is also

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[83]Section 98.

[84]Section 99.

[85]Section 100. 'Indigenous amphibian, invertebrate or reptile" is defined in s1 as meaning such as are indigenous to the Republic or South West Africa or any territory which formed part of the Republic and in terms of an Act of Parliament became an independent state, or any part of or derivative from such amphibian, invertebrate or reptile, or the eggs or other immature stages thereof, but not including any marine invertebrates. 'Protected indigenous amphibian, invertebrate or reptile' is defined as meaning any species of amphibian, invertebrate or reptile included in Schedule 7, whether alive or dead, indigenous to the Republic or South West Africa or any territory which formed part of the Republic and in terms of an Act of Parliament became an independent state.

[86]Section 101.

required for keeping it in captivity or otherwise retaining it. If not protected, it may be kept without permit; provided that if, on inspection by such an officer, it is his opinion that it is being kept in unsatisfactory conditions, the owner shall be required to improve the conditions to the satisfaction of the officer within 30 days.[87] A permit is required for the importation into the Province of exotic amphibians, invertebrates and reptiles.[88]

Contravention of the provisions of Chapter VII or the regulations made thereunder constitute offences attracting penalties ranging from fines of a maximum of R100,00 or imprisonment for one month, to R500,00 or six months, or both such fine and imprisonment. Upon second or subsequent conviction, the court may impose double the fine or alternatively double the term of imprisonment, or both, or it may impose imprisonment without the option of a fine.[89] Any permit or other authority granted to a person found guilty of an offence shall be cancelled by the Court and he may be declared to be ineligible from obtaining any such licence or permit or other authority under the Ordinance for a period not exceeding three years.[90] Failure to comply may also result in seizure and confiscation of the relevant animal.[91] Any person found in possession of, or who disposes of, any protected indigenous amphibian, invertebrate or reptile, whether alive or dead, shall be deemed to have killed or captured or otherwise acquired it in contravention of the provisions of Chapter VII, unless the contrary is proved. There is a similar presumption, effectively shifting the burden of proof to the accused, that if any person is found removing any such protected animal from a trap or snare or similar device, he shall be deemed to have killed or captured it unlawfully.[92] The Administrator is given wide-ranging powers to make regulations, not inconsistent

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[87]Sections 102 and 103.

[88]Section 104A.

[89]Section 109.

[90]Sections 109A, 215B(1)(c) and 215B(2).

[91]Section 110.

[92]Section 110A.

with the provisions of the chapter, in order to promote its effective and convenient administration.[93]

9.1.1.7 *Wild Birds*

Chapter VIII deals with wild birds.[94] Schedule 8 lists 'unprotected wild birds' and Schedule 9 'specially protected birds'. The Administrator may by notice in the *Gazette* declare that the relevant provisions of the chapter shall apply to any species of wild birds only when found in any defined area or areas of the Province.[95] The chapter also makes provision for control measures relating to the following:

- the killing or capture of wild birds, and the removal, destruction, injuring or disturbance of their nests or eggs;[96]
- the sale, purchase and disposal of wild birds;[97]
- the granting of permits to kill or capture wild birds;[98]
- registration and licencing of aviaries;[99]
- exhibition and display of wild birds;[100]
- importation and release from captivity of foreign birds;[101]

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[93]Section 111.

[94]'Wild bird' is defined in s1 as 'any non-domestic bird of a species which inhabits either permanently or temporarily any part of the Republic or South West Africa or any territory which formed part of the Republic and in terms of an Act of Parliament became an independent state, but does not include any such bird which is classified as game by virtue of its inclusion in Schedule 1, 2, 3 or 4 and shall include any skin or egg of any such bird which has not been completely processed.'

[95]Section 112.

[96]Section 114.

[97]Section 115.

[98]Sections 116 and 117.

[99]Sections 118, 119 and 120.

[100]Section 121.

[101]Sections 123 and 124.

- exportation of wild birds;[102]
- prohibited methods of killing or capturing wild birds;[103]
- controls over trespassing in the exercise of permit rights;[104]
- prohibition of killing or capture in public roads or road reserves;[105]
- offences and penalties, and presumptions of evidence;[106]
- Administrator's regulations to implement and give proper effect to the provisions of the chapter.[107]

9.1.2 Transvaal

Nature Conservation Ordinance 12 of 1983 (Transvaal) is divided into a definitions section,[108] ten chapters and twelve schedules with the following headings:

Chapter I:	Continued existence of nature conservation branch and nature conservation advisory board, establishment of nature conservation advisory committees and appointment of officers
Chapter II:	Declaration of nature reserves
Chapter III:	Wild animals
Chapter IV:	Professional hunters and hunting-outfitters
Chapter V:	Problem animals
Chapter VI:	Fisheries
Chapter VII:	Indigenous plants
Chapter VIII:	Endangered and rare species of fauna and flora
Chapter IX:	Trading in and preservation of cave-formations
Chapter X:	General

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[102]Section 125.

[103]Section 127.

[104]Section 128.

[105]Section 129.

[106]Sections 130 and 132.

[107]Section 133.

[108]Section 1.

Schedule 1:	Laws repealed
Schedule 2:	Protected game
Schedule 3:	Ordinary game
Schedule 4:	Protected wild animals
Schedule 5:	Wild animals to which the provisions of section 43 apply[109]
Schedule 6:	Exotic animals to which the provisions of section 44 apply[110]
Schedule 7:	Invertebrata
Schedule 8:	Problem animals
Schedule 9:	Trout waters
Schedule 10:	Prohibited aquatic growths
Schedule 11:	Protected plants
Schedule 12:	Specially protected plants.

In terms of Chapter 1 the Nature Conservation Division[111] is charged with the 'advancement, control and administration of nature conservation.'[112] The Administrator is authorised to appoint a director, nature conservators and staff,[113] and provision is made for the continued existence of the nature conservation advisory board and the establishment of nature conservation advisory committees.[114]

9.1.2.1 *Nature reserves*

[109]In terms of s43 no person may keep, possess, sell, donate or receive as a donation or convey a live wild animal referred to in Schedule 5 unless he is the holder of a permit authorising him to do so.

[110]In terms of s44 no person may convey, keep, possess, sell, purchase, donate or receive as a donation a live exotic animal referred to in Schedule 6 unless he is the holder of a permit which authorises him to do so.

[111]Previously known as the Nature Conservation Branch in terms of the 1967 Ordinance.

[112]Sections 2 and 3.

[113]Sections 4 and 5.

[114]Sections 6 and 7.

Chapter II makes provision for the Administrator to declare nature reserves, to amend the definitions of such areas, or to withdraw the declaration of a nature reserve, all by notice in the *Provincial Gazette*.[115]

9.1.2.2 *Wild animals*

Wild animals[116] are divided into three classes: 'protected game' being those wild animals listed in Schedule 2 to the ordinance, 'ordinary game' as listed in Schedule 3, and 'protected wild animals' as listed in Schedule 4. The Administrator may by notice in the *Provincial Gazette* amend, substitute or repeal Schedules 2, 3 or 4.[117]

The hunting[118] of protected game is prohibited. However, the owner of land may apply for a permit for himself, or for any other person indicated in the application, to hunt the species, number and sex of protected game referred to in the permit on his land.[119] The criminal sanction for contravention of this provision for a first conviction is a fine not exceeding R1 500,00 or to imprisonment for a period not exceeding 18 months, or to both such fine and such imprisonment. Upon subsequent conviction these figures increase to R2 000,00 and 24 months respectively.[120]

The hunting of ordinary game is also strictly controlled. The Administrator may by notice in the *Gazette* declare a period to be an open season, and he may specify the

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[115]Section 14.

[116]'Wild animal' is defined in s1 as 'any vertebrate, including a bird and a reptile but excluding a fish, belonging to a species which is not a recognised domestic species and the natural habitat of which is either temporarily or permanently in the Republic, the territory of South West Africa or a territory which was formerly part of the Republic, and includes the carcass, egg, flesh, whether fresh or cured, biltong, hide, skin, thong, tooth, tusk, bone, horn, shell, scale, claw, nail, hoof, paw, tail, ear, hair, feather or any other part of such vertebrate, excluding any part of such vertebrate which has been processed into a final product'.

[117]Section 15.

[118]Hunting is widely defined in s1 so as to include shooting at, pursuing, searching for or lying in wait for with the intent to kill or to shoot, wilfully disturbing, and collecting or destroying the eggs of a bird or reptile.

[119]Section 16(1).

[120]Section 16(2).

persons or category of persons that may hunt the species and sex of ordinary game referred to in the notice in defined areas. The owner of land may hunt ordinary game on his land during an open season, and so may his relatives with his prior written permission.[121] The holder of a licence with the prior written permission of the owner of land may also hunt ordinary game on the land of the owner during an open season. A permit may, on written application by the owner, be issued to him or to any other person indicated by him in his application to hunt the species, number and sex of ordinary game specified in the permit on the land of the owner outside of an open season. Where ordinary game is damaging cultivated trees or crops, the owner or occupier may hunt such game at any time during the day whilst it is doing so. Failure to comply with these provisions attracts penalties for the first conviction of R750,00 or 9 months, and on second or subsequent conviction R1 000,00 or 12 months, or both.[122]

The hunting of protected wild animals is also prohibited, except by the owner of land upon written application for a permit in his favour or any other person indicated by him in his application, authorising the holder to hunt the species, number and sex referred to therein on his land. In addition, the owner, or his relative or an occupier with his written permission, may hunt a buffalo if cattle are kept on the land, or any other protected wild animal during the day or night while it is causing or is about to cause damage to stock or is in the immediate vicinity of the carcass of stock which it has or apparently has killed. When any person has killed or wounded a buffalo, lion, leopard or cheetah in these circumstances, he must report it within 24 hours at the nearest police station or office of the nature conservator. Contraventions of these provisions attract sanctions of up to R1 500,00 or 18 months imprisonment for first conviction, and R2 000,00 or 24 months imprisonment on subsequent conviction, or both.[123]

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[121]'Relative' is defined in s1 as meaning the parent, spouse, child, step-child, grandchild, son-in-law, or daughter-in-law of the owner or occupier of land.

[122]Section 17.

[123]Section 18.

No person may hunt game in a nature reserve, provided that upon written application by the owner of land within such reserve, a permit may be issued to him or to any other person indicated by him in the application, authorising the holder to hunt the species, number and sex of game referred to in the permit on the land of the owner. The owner to whom such a permit has been issued may grant written permission to hunt to the holder of the licence authorising the holder to hunt ordinary game on the land of the owner during an open season. Penalties for contravention range from up to R1 500,00 or 18 months imprisonment, to R2 000,00 or 24 months, or both such fine and imprisonment.[124]

Hunting during the night without a permit is also prohibited.[125] A permit is required for hunting game with certain types of weapons, including automatics, a shotgun or air-gun; provided that any person may hunt a hare or bird with a shotgun, and the owner of land or his relative may with his permission hunt game with any firearm on his land.[126] The use of snares, traps, gins, nets, and other devices, and the construction of pitfalls or holding pens, are prohibited, except in the case of the owner of land or his relative with his permission, the occupier of land, a licenced trader, and other persons with the written permission of the owner or occupier.[127]

Without a permit, no person may hunt a protected wild animal which is under the influence of a tranquillizing narcotic, immobilizing or similar agent, or which has been allured by sound recording or bait, or which has been confined to a cage or an enclosure which is less than 400 ha and from which it cannot escape readily. However, the owner, or his relative or an occupier with his written permission, may hunt a lion, leopard, cheetah or wild dog allured by bait and which is in the immediate vicinity of the carcass of stock which it has or apparently has killed. In such a case, the incident must be

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[124]Section 19.

[125]Section 20.

[126]Section 21.

[127]Section 22.

reported within 24 hours to the nearest police station or office of nature conservator. Again, there is criminal sanction for contravention.[128]

Controls are also provided for:

- entry with weapons upon land on which game is likely to be found, unless with lawful reason or written permission of the owner or occupier;[129]
- conveying a firearm on a public road traversing land on which game is likely to be found;[130]
- the catching of game;[131]
- the leaving or making of openings in fences so designed that game entering through the opening cannot easily find the opening to escape through it;[132]
- hunting or catching by means of snares, traps, bow and arrow, set gun or similar devices, a dog or an aircraft;[133]
- hunting or catching of wild animals which are not classified as game;[134]
- the hunting or catching of exotic animals[135]
- poisoning of game[136]
- sale of game[137] and of biltong[138]

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[128]Section 23.

[129]Section 24(1).

[130]Section 24(3).

[131]Section 25.

[132]Section 26.

[133]Section 27.

[134]That is wild animals not listed in Schedules 2, 3 and 4 (s15(1) as read with the definition of 'game' in s1). The consent of the owner of the land is required for the hunting of such wild animals - s 28.

[135]Sections 29 and 30.

[136]Section 31.

[137]Section 32.

- purchase,[139] donation,[140] picking up or removal of game[141]
- receipt, possession, acquisition or handling of dead game[142]
- the conveyance of dead game[143] and the keeping or conveyance of live game,[144] wild animals or exotic animals[145]
- the importing[146] and exporting or removal of wild animals from the Province.[147]

Permits are required for the keeping, possession, sale, donation or conveyance of certain live wild and exotic animals and invertebrates.[148] Where the Administrator deems it necessary for the survival of any species of wild animal he may, after consultation with the owner or occupier of the land on which it is found, instruct an officer of the Nature Conservation Division in writing to catch such species and release it on the land defined in the instruction. Obstruction of such officer is an offence. The Administrator may pay such compensation to the owner of the land as he, the Administrator, may deem reasonable.[149]

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[138]Section 33.

[139]Section 34.

[140]Section 35.

[141]Section 36.

[142]Section 37.

[143]Section 38.

[144]Section 39.

[145]Section 40.

[146]Section 41.

[147]Sections 41 and 42.

[148]Sections 43, 44 and 45, and Schedules 5, 6 and 7.

[149]Section 46.

Where the Administrator is of the opinion that land is fenced in such a way that game cannot readily gain access to it or escape from it, he may, on written application from the owner of the land, exempt the owner or any other person indicated by the owner in his application, from all or any of the provisions of the Ordinance applicable to hunting, catching or sale of game on such land. The holder of such an exemption may grant written permission to any other person to hunt, catch or sell the species of game referred to in the exemption on such land.[150] No person may establish or operate a game park, zoological garden, bird sanctuary, reptile park, snake park or similar institution, without a permit.[151]

9.1.2.3 *Professional hunters and hunting-outfitters*

No person may act as a professional hunter or hunting outfitter unless he is the holder of a permit authorising him to do so. However, the Administrator may, by notice in the *Provincial Gazette*, exempt any group or class of professional hunters or hunting-outfitters from this requirement. He may from time to time determine or prescribe the requirements to be complied with by a professional hunter or hunting-outfitter, and he may appoint a testing-team to advise him whether an applicant complies with such requirements. The testing team may examine an applicant and inspect his premises or facilities.[152]

A client[153] may not hunt a wild or exotic animal unless the hunt has been organised by a hunting-outfitter, and he is escorted by a professional hunter. The professional hunter must see to it that the client does not hunt contrary to the provisions of the

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[150]Section 47.

[151]Section 50. This restriction does not apply to an institution which is subject to the provisions of the Cultural Institutions Act 29 of 1969.

[152]Section 51.

[153]'Client' is defined in s1 as any person not normally resident in the Republic and who pays or rewards any other person for or in connection with the hunting of a wild animal or an exotic animal.

Ordinance.[154] The owner of land may in writing transfer certain of his hunting rights to any other person who, before he exercises such rights, must be the holder of an appropriate licence or permit.[155] A hunting-outfitter may not present or organise a hunt, and a professional hunter may not escort a client, unless the hunting-outfitter is the holder of the hunting rights in respect of the land on which the hunt is presented or organised.[156]

9.1.2.4 *Problem animals*

The provisions of Chapter V deal with 'problem animals', but do not apply to nature reserves or similar reserves, national parks or State forests.[157] Problem animals are those referred to in Schedule 8 to the Ordinance, and they are deemed to be vermin or other animals causing damage.[158] Seven or more occupiers of land may establish a club to hunt problem animals in an area, which must have a constitution and office bearers and must be registered. Notice of registration is published by the Administrator in the *Gazette*.[159]

Upon application by the majority of owners of land within the hunting area of a club, the Administrator may declare that membership of the club shall be compulsory, and every owner of land within that area must pay the membership fee.[160] A club may, without the permission of the occupier of land, hunt a problem animal on his land if it is within the hunting area of the club. The club may pursue a problem animal which

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[154]Section 52.

[155]Section 53.

[156]Section 54.

[157]Section 55.

[158]Section 56. The animals listed in Schedule 8, which may be amended by the Administrator from time to time, are the following: chacma baboon, vervet monkey, black-backed jackal, caracal (red lynx) and bush pig.

[159]Sections 57, 58 and 59.

[160]Section 60.

flees while it is hunted lawfully, and kill it on the land to which it has fled. Where the occupier of the land is not a member of the club, the club may claim the reasonable expenditure incurred in connection with the hunt, or the average membership fee for the preceding financial year, whichever is greater, from the occupier who is obliged to pay such amount within 30 days. If he disputes the claim or the amount claimed, he may within 10 days make representations to the Administrator who, on receipt of the club's comments, may either exempt the occupier from payment or determine the amount to be paid by him. The secretary of a club shall, by at least 3 days' prior written notice, summon the members of the club who are to attend the hunt, and a member who without reasonable excuse fails to attend the hunt, may be fined by the club an amount not exceeding R20,00, which must be paid within 14 days. A member who, without reasonable excuse, refuses or fails to render assistance to the club while a problem animal is hunted on the land of which he is the occupier, shall be guilty of an offence. Where the member of a club thus summoned is a juristic person, it shall procure the services of a male person over the age of 15 years to attend the hunt on his or its behalf.[161]

Provision is also made for the hunting of problem animals by employees of the Administration, upon application of the occupier of land in respect of which no club has been established,[162] and for research to be done on problem animals or animals the names of which may, in the opinion of the Administrator, be included in the schedule of problem animals.[163] The Administrator may also acquire, keep, breed or train dogs for the hunting of problem animals, and sell such dogs to a club or any person on conditions determined by him.[164] He may also render financial assistance to clubs.[165] It is an offence for any person to lay poison within the hunting area of a club, unless he

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[161]Section 61.

[162]Section 62.

[163]Section 63.

[164]Section 64.

[165]Section 65.

has obtained the consent of the club beforehand or is in terms of any law authorised to do so; nor may any person acquire, convey, breed or set free a live problem animal in the province, or export or remove such an animal, unless he holds a permit authorising him to do so. It is an offence wilfully to obstruct, hinder or interfere with a club or any person performing any function or duty in terms of this Chapter.[166]

9.1.2.5 *Fisheries*

Chapter VI contains provisions concerning closed seasons for catching fish, trout waters, catching of fish otherwise than by angling, permissible fishing tackle and bait, possession of nets or traps, angling licences, the placing or releasing of fish in waters, the sale and importing of live fish, pollution of waters, and related matters.[167]

9.1.2.6 *Endangered and rare species of fauna and flora*

Every species of fauna and flora referred to in Appendices I and II to the Convention of International Trade in Endangered Species of Wild Fauna and Flora (Washington DC 1973), as amended up to 6 June 1981, and any readily recognisable part or derivative part thereof, is declared to be an endangered species or a rare species of fauna and flora respectively.[168] The Administrator was required after the commencement of the Ordinance forthwith to publish in the *Provincial Gazette* a list of such endangered species and rare species.[169] He did so on 1 February 1984.[170]

No person may import into or export or remove from the Province an endangered or rare species without permit; save that such movement into or from another province, or

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[166]Section 66.

[167]Sections 67 to 85.

[168]Section 97(1).

[169]Section 97(2).

[170]Administrator's Notice 164 dated 1 February 1984.

into or from the territory of South West Africa or a territory which was formerly part of the Republic, of such species as the Administrator may from time to time determine by notice in the *Gazette*, unless otherwise prohibited in terms of the Ordinance, is permissible. Contravention of these provisions is an offence, attracting penalties of up to R1 500,00 or 18 months imprisonment on first conviction, and up to R2 000,00 or 24 months imprisonment on subsequent conviction, or both such fine and such imprisonment.[171]

9.1.2.7 *Regulations*

Chapter X contains general provisions relating to such matters as licences, permits and exemptions, powers of the Administrator, the making of regulations, presumptions and evidence, forfeiture of goods and privileges, and a declaration that the Ordinance does not bind the State.[172] On 14 December 1983 the Administrator published Nature Conservation Regulations[173] dealing with the following matters:

Chapter I:	Nature Conservation Advisory Board and Nature Conservation Advisory Committees
Chapter II:	Matters relating to wild animals[174]
Chapter III:	Matters relating to professional hunters and hunting-outfitters[175]
Chapter IV:	Matters relating to problem animals[176]

[171]Section 98.

[172]Sections 100 - 116.

[173]Administrator's Notice 2030 dated 14 December 1983.

[174]This chapter deals with the requirements relating to the report which must be made by any person who has wounded or has presumably wounded an elephant, rhinoceros, hippopotamus, buffalo, lion or leopard. It also deals with the issue of permits and licences.

[175]This chapter deals with the issue of permits to act as professional hunter or hunting-outfitter, the appointment of a testing-team, the details relating to the keeping of proper registers by professional hunters, requirements relating to supervision of hunting by clients and the provision of services and conveniences by hunting-outfitters, the transfer of hunting-rights, and related matters.

[176]This chapter deals with the qualifications and disqualifications of members of clubs, the duties of secretaries of clubs, the organisation of hunts and recording of particulars of hunts by clubs, the inspection of registers and other documents of clubs, and the poisoning of wild animals which are not game and the use of

Chapter V:	Matters relating to fisheries[177]
Chapter VI:	General.[178]

9.1.3 Orange Free State

The preamble to Nature Conservation Ordinance 8 of 1969 (Orange Free State) declares its purpose to be 'To provide for the conservation of fauna and flora and the hunting of animals causing damage and for matters incidental thereto.' The Ordinance is thus intended to serve a dual purpose, namely nature conservation and the protection of property from damage by wild animals. It is divided into 8 chapters and 6 schedules, headed as follows:

Chapter I:	Introduction
Chapter II:	Wild animals
Chapter III:	Fish
Chapter IV:	Indigenous plants
Chapter V:	Nature reserves
Chapter VA:	Animals causing damage
Chapter VB:	Nature conservation fund
Chapter VI:	General

Schedule 1:	Protected game
Schedule 2:	Ordinary game
Schedule 3:	Specified wild animals
Schedule 4:	Exotic animals to which the provisions of section 19(1)(b) apply[179]
Schedule 5:	Aquatic plants
Schedule 6:	Protected plants.

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poison-pellets.

[177]This chapter deals with angling licences, number and size of fish which may be caught, angling competitions and the prohibition of the making of feeding areas.

[178]Amongst the general matters dealt with in this chapter, are provisions relating to the marking and registration of elephant tusks.

[179]In terms of s19(1)(b) no person may, except under authority of a permit issued by the Administrator, keep in activity or under his control or supervision, sell, donate or otherwise dispose of, purchase or acquire in any other manner or convey any exotic animal referred to in Schedule 4. Schedule 4 refers *inter alia* to all species of exotic tortoises, turtles and terrapins.

9.1.3.1 *Wild animals*[180]

Chapter II of the Ordinance divides game[181] into protected game and ordinary game. The species listed in Schedule 1 to the Ordinance are declared to be protected game. A 'reverse listing' approach is employed in reference to birds. All birds which are wild animals are declared to be protected game, except for those which are ordinary game and those which are specifically listed in Schedule 1. There is no reason why the same sort of approach should not be applied in all the ordinances to all wildlife. The Administrator may delete from or add to the schedule by notice in the *Provincial Gazette*.[182]

The hunting[183] of protected game is prohibited except:

- under authority of a permit issued by the Administrator;
- in a declared private nature reserve by the owner of the reserve or a person under his direct supervision; and
- any species of hawk or shrike while it is causing damage or about to cause damage on land, which may be hunted during the period between half an hour before sunrise and half an hour after sunset by the owner of the land.[184]

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[180]Chapter 1, comprising one section, is devoted to definitions. 'Wild animal' is defined to mean 'any vertebrate (including a bird and reptile but not a fish) belonging to a non-domestic species whose habitat is either temporarily or permanently in any part of the Republic or the territory of South West Africa, and includes the carcass, egg, meat (fresh or cured), biltong and the unprocessed or partly processed hide, skin, thong, tooth, bone, horn, shell, scale, claw, nail, hoof, paw, tail, hair, feather or any other part of any such vertebrate animal.'

[181]'Game' is defined as 'any species of protected or ordinary game (whether alive or dead) as contemplated in Sections 2 and 3.' The species contemplated in these sections are those specified in Schedules 1 and 2 as protected and ordinary game respectively.

[182]Section 2(1) and (2), and Schedule 1.

[183]'Hunt' is defined in s1 as in any manner whatsoever to kill or capture or to attempt to kill or capture; to shoot at; to search for, follow or lie in wait with intent to kill, shoot at or capture; or wilfully to disturb; and the word 'hunting' as having a corresponding meaning.

[184]Section 2(3).

Ordinary game is listed in Schedule 2 and the Administrator may by notice in the *Gazette* delete from or add to Schedule 2.[185] The Administrator is authorised to declare by proclamation that ordinary game, or a specified species or specified number of ordinary game, may during a specified period be hunted. The proclamation may refer to the entire province, or a specified area of the province, and to any person or persons of a specified class.[186] No person may hunt ordinary game unless the hunt is authorised by such a proclamation. However, this prohibition does not apply to a hunt carried out in a declared private nature reserve by its owner or a person under his direct supervision, or by the owner of land between half an hour before sunrise and half an hour after sunrise while the game is damaging cultivated trees or crops on his land.[187] No person (apart from the owner of the land, a relative of the owner, or a full-time employee of the owner acting on his instructions) may hunt ordinary game without a licence to do so, and in addition hunts under the direct supervision of the owner or carries the owner's written permission, containing prescribed particulars, with him while he hunts.[188]

Restrictions are also imposed on the times and methods of hunting. No person may hunt game during the period between half an hour after sunset and half an hour before sunrise, or on a Sunday, unless authorised thereto by permit issued by the Administrator.[189] Hunting with poison is prohibited, except under authority of a permit. However the laying of poison to destroy rodents or insects is not prohibited.[190]

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[185]Section 3.

[186]Section 4. An example of such a proclamation is Proclamation No 94 (Administrator's) of 1990, which declared that owners of land may during 1991 hunt all species of ordinary game on their land except white rhinoceros, oribi, klipspringer, grey rhebuck, African buffalo, blue crane and Namaqua sandgrouse. Persons other than owners are authorised to hunt ordinary game during the same period, namely 1991, as listed in Part 2 of the proclamation, including black wildebeest, eland, giraffe, kudu, bontebok, and red-knobbed coot.

[187]Section 5(1).

[188]Section 5(2).

[189]Section 6.

[190]Section 7(1).

Only a veterinarian may hunt by means of a weapon[191] or other contrivance which injects an intoxicating agent or poison into an animal, unless authorised by a permit issued by the Administrator.[192] Apart from owners of land and their relatives, or full-time employees acting on their instructions, a permit is also required for the hunting of game by means of a weapon capable of discharging more than two shots consecutively and which reloads automatically, or weapons discharging a 5,6 *mm* or similar calibre rimfiring cartridge.[193]

Certain contrivances are prohibited, except under authority of a permit, and these include snares, traps, kerries, sticks, set guns, and dogs. However these restrictions do not apply to the owner, his relatives and employees, in respect of wild animals which are not game. A dog may also be used at a lawful hunt for birds, or in pursuit of a wild animal which was wounded.[194] Possession without permit of contrivances capable of being used for hunting is also prohibited, except by an owner of land, his relative or full-time employee with his written permission.[195]

Apart from the provisions relating to the control of hunting, the Ordinance also provides for other restrictions on dealing with game and game products. The owner of land may sell game lawfully hunted on his land; but no other person may sell a wild animal except under authority of a permit. The holder of a butcher's licence may sell the carcass or meat of game lawfully hunted, provided that he keeps a record in the prescribed manner.[196] No person may buy or sell a wild animal unless upon delivery a document

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[191]'Weapon' is defined in s1 so as to include not only firearms, but any other instrument with which a projectile can be propelled in such a way that it can kill or injure or immobilise a wild animal, and so as to include ammunition and such projectiles as well as any chemical substance or preparation for use in connection with such projectiles.

[192]Section 7(2).

[193]Section 8.

[194]Section 9.

[195]Section 10.

[196]Section 11(1).

containing the prescribed particulars is handed to the purchaser.[197] Donation of wild animals is similarly controlled,[198] and no person may convey a wild animal unless in possession of written authority. The provisions relating to conveyance do not apply to the owner of land on which the animal was lawfully hunted. Conveyance must, in any event, take place in such manner and in such containers or crates as may be prescribed.[199]

The keeping of live wild animals in captivity[200] without a permit is prohibited, unless kept in captivity for a period not exceeding 30 days after having been lawfully hunted and intended for lawful sale or donation.[201] Permits are also required for the process or manufacture of any product from any part of the body of a wild or exotic animal of a species specified in Schedule 3 (elephants and rhinoceroses), and for the sale of any such processed part or product.[202] The exportation and importation of wild animals and animal products,[203] and the hunting, release and keeping in captivity of exotic animals are also controlled.[204] Without a permit, no person may organise or arrange, for reward, a hunt in which a person who is not an inhabitant of the Republic participates.[205]

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[197]Section 11.

[198]Section 12.

[199]Section 13.

[200]'Captivity', in relation to an animal, is defined in s1 as 'the confinement or mutilation of such animal to such an extent that it cannot maintain its natural way of living.'

[201]Section 14(1).

[202]Section 14(2).

[203]Sections 15 and 16.

[204]Sections 17, 18 and 19. Section 1 defines 'exotic animal' as meaning any live vertebrate animal, except a fish, belonging to a non-domestic species and the habitat of which is not in any part of the Republic or Namibia, and includes the egg of such animal.

[205]Section 20.

Entry upon land, upon which game is likely to be found, without the written permission of the owner of the land is prohibited, and no person may hunt a wild animal from a public road without a permit, unless he is the owner of the land over which the road runs.[206] The Administrator may authorise the hunting of a wild or exotic animal found on land if, in his opinion, the animal is detrimental to the preservation of any animal or plant, is likely to be dangerous to human life, is wounded, diseased or injured, or should be hunted in the interest of nature conservation. The carcass of such an animal becomes the property of the Administrator.[207]

9.1.3.2 *Fish*

Chapter III contains provisions relating to the issuing of angling licences,[208] closed seasons for fishing,[209] fishing methods,[210] nets and traps,[211] the importation, sale and release of fish,[212] and prohibited acts relating to certain aquatic growths.[213] The provisions relating to the catching of fish do not apply to the owner of land or his relatives, or to his employees acting on his instructions in a constructed dam which is not in a public stream and which is entirely surrounded by such owner's land.[214] The owner's permission to catch fish in waters on his land is required by any other person.[215]

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[206]Section 21.

[207]Section 17.

[208]Section 23.

[209]Section 25.

[210]Section 26.

[211]Section 27.

[212]Section 28.

[213]Section 29.

[214]Section 22.

[215]Section 24.

9.1.3.3 *Indigenous plants*

The species of indigenous plants listed in Schedule 6 to the Ordinance, which may be amended by the Administrator from time to time, are declared to be protected plants. A permit is required for the picking of any such plants; but the unavoidable damaging or destruction of such plants in the course of any agricultural or development activity lawfully being carried out on the land is allowed, and the owner and his relatives and employees are allowed to pick flowers of protected plants, and protected plants especially cultivated on his land.[216] In addition to a permit, any other person picking such plants also requires the written permission of the owner of the land on which they occur.[217] The picking of indigenous plants within 100 *m* of a public road also requires a permit,[218] and the sale, donation, importation, exportation and conveyance of protected plants or plants of an endangered[219] or scarce[220] species are also controlled.[221]

9.1.3.4 *Nature reserves*

Chapter V makes provision for the establishment of provincial and private nature reserves.[222] No person may hunt a wild animal or pick an indigenous plant in a

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[216]Section 30(3).

[217]Section 31.

[218]Section 32.

[219]'Endangered species', in relation to an animal or plant, is defined in s1 as 'a species specified in Appendix I to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington, 1973) and includes any reasonably identifiable part or derivative of such species.'

[220]'Scarce species', in relation to an animal or plant, is defined in s1 as 'a species specified in Appendix II to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington, 1973) and includes, in the case of an animal, any reasonably identifiable part or derivative of such species.'

[221]Section 33 and 34.

[222]Sections 35 and 36.

provincial nature reserve except with the permission of the Administrator.[223] No person may hunt a wild animal or pick an indigenous plant in a private nature reserve except with the written permission of the owner of the reserve, or of a person authorised in writing by him to give such permission.[224]

9.1.3.5 *Animals causing damage*

An association known as 'Oranjejag', registered as a hunt club, is charged in Chapter VA with the hunting of animals causing damage. The constitution of Oranjejag may not be amended except with the approval of the Administrator, who may amend it at any time as he may deem fit, and he may make grants-in-aid or aid Oranjejag in any other manner he may deem fit.[225] For the purposes of this Chapter, 'Animal, is defined as any mammal, but excluding any animal classed as game or livestock.[226] Notwithstanding anything to the contrary contained in the Ordinance, any person authorised by Oranjejag, or an authorised officer,[227] may enter upon any land other than State land, when it is suspected that an animal has caused damage to property in a rural area, with or without vehicles, horses, dogs or other aids to hunt the animal. He may carry out any other act, including the making of an opening in a fence, which he deems necessary for the purpose of the hunt; provided that a private nature reserve may not be entered without the approval of its owner.[228] Where the animal is destroyed, whether on the land it is found or elsewhere, the occupier of the land is required, if he is not a member of Oranjejag or has not entered into an arrangement with it to carry out the hunt, to pay

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[223]Section 35(3).

[224]Section 36(3).

[225]Sections 36A and 36B.

[226]Section 36A.

[227]'Authorised officer' is defined in s1 as an officer or honorary officer appointed in terms of the Ordinance, or a member of the South African Police.

[228]Section 36C.

compensation to it when called upon to do so.[229] Any person who obstructs or hinders such authorised person in the exercise of his powers or discharge of his duties in terms of Chapter VA, or knowingly kills, injures, damages or destroys a horse, dog, equipment or other property used in connection with the hunt, or being an occupier of land refuses or fails to render such reasonable assistance as such authorised person may require during such hunt, shall be guilty of an offence and liable on conviction to a fine not exceeding R400,00 or to imprisonment for a period not exceeding 6 months or to both such fine and imprisonment.[230]

9.1.3.6 *General*

Chapter VB makes provision for the establishment of a nature conservation fund to receive monies donated to the Administration and such other monies as may be appropriated by the Provincial Council. The Administrator may appropriate such monies to meet any expenditure authorised by the Provincial Council for the establishment of provincial nature reserves in the Orange Free State.[231]

Chapter VI contains general provisions relating to the issue of permits, licences and exemptions,[232] the making of regulations by the Administrator for the achievement of the purposes of the Ordinance,[233] the appointment of officers and honorary officers and their powers,[234] and for criminal sanctions for contravention or failure to comply

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[229]Section 36D. The compensation prescribed, which must be paid within 21 days, is as follows for every adult animal destroyed by Oranjejag: R450,00 for caracal (*Felis caracal*) or brown hyaena (*Hyaena brunnea*); R300,00 for red jackal (*Canis mesoemelas*); R150,00 for silver jackal (*Vulpes chama*), African wild cat (*Felix lybica*) or hybrid offspring of an African wild cat. It is regrettable that not only must a farmer who objects to the animal being killed submit to its destruction, but he is also compelled to pay compensation to Oranjejag for such destruction.

[230]Section 36E.

[231]Section 36F, 36G and 36H.

[232]Section 37.

[233]Section 38.

[234]Section 39.

with the provisions of the Ordinance. These criminal sanctions are in the usual form of fines ranging from a maximum of R400,00 to R800,00, and imprisonment for a maximum period of 6 months to 2 years, or both such fine and imprisonment.[235] Where a person suffers damage as a result of unlawful poisoning of an animal, the Court is authorised to impose a fine not exceeding such damage, which fine, when recovered, shall be paid to the aggrieved person.[236] There is also provision for cancellation of permits, licences or exemptions upon conviction, as well as forfeiture of objects used in connection with the commission of offences, including vehicles, vessels or aircraft. However such forfeiture will not be made in the case of an offence committed by the owner of land or his relative.[237] In order to facilitate the task of prosecution, provision is made for certain presumptions which have the effect of shifting the burden of proof from the State to the accused. For example, where it is alleged that a person is not the holder of a permit, it is presumed that such person is not the holder until the contrary is proved. Further, where an animal is found on a vehicle, vessel or aircraft, or at a camping place, it is presumed that every person upon such vehicle, vessel, aircraft or at such camping place, or in any way associated therewith, was in possession of such animal.[238]

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[235]Section 40(1).

[236]Section 40(2).

[237]Section 41.

[238]Section 42.

In addition to his extensive regulatory powers,[239] the Administrator may exempt any person from any or all of the provisions of the Ordinance, and he may, by notice in the *Gazette*, suspend any or all of the provisions of the Ordinance. He may do so for a definite or indefinite period, in relation to a specified species of animal, fish or plant in the Province, or a specified area of the Province.[240]

9.1.4 Cape Province

Nature Environmental Conservation Ordinance 19 of 1974 (Cape) is divided into the following chapters and schedules:

Chapter I:	Definitions and establishment of department of nature and environmental conservation and advisory committee
Chapter II:	Nature reserves
Chapter III:	Miscellaneous conservation measures
Chapter IV:	Protection of wild animals other than fish
Chapter V:	Protection of fish in-land waters
Chapter VI:	Protection of flora
Chapter VIA:	Professional hunters and hunting contractors
Chapter VII:	General and supplementary
Schedule 1:	Endangered wild animals
Schedule 2:	Protected wild animals
Schedule 3:	Endangered flora

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[239]Administrator's Notice 184 of 12 August 1983 (replacing Notice 276 of 12 December 1969) promulgated in terms of s38 contains detailed provisions relating to the conditions and requirements attaching to permits, licences, written permissions, records and other documents required in terms of the Ordinance; the conditions relating to the conveyance of wild animals and their keeping in captivity; the requirements of professional hunters (for example, an applicant for a permit in terms of s20(1) must pass theoretical and practical tests set for the purpose with a total of not less than 70%, and the facilities and services offered by him must be found after inspection to be of a satisfactory standard - however, the 70% minimum requirement does not apply to an owner of land who organises hunts only on his land); licences relating to fish and other aquatic animals; documents relating to indigenous plants; permits and conditions relating to entry into nature reserves and conduct therein (for example, no person may introduce or use a firearm, bow and arrow, catapult, airgun or any other weapon into or in a nature reserve; or feed, injure or disturb an animal therein; damage any plant or object in or remove any plant, object or animal from a nature reserve, or light a fire in it other than at a designated place). The regulations promulgated by the Administrator include numerous declarations of provincial nature reserves and several declarations of private nature reserves.

[240]Section 43.

Schedule 4: Protected flora
Schedule 5: Noxious acquatic growths
Schedule 6: Ordinances repealed.

9.1.4.1 *Nature Reserves*

Chapter II makes provision for the establishment of three classes of nature reserves: provincial, local and private. The Administrator may by proclamation establish provincial nature reserves on any land under his control or management and, after consultation and conclusion of an agreement with any state department, on land which is under the control or management of such state department. He may by agreement or expropriation acquire any land which he considers necessary and suitable for the purpose of establishing a provincial nature reserve, and is given wide-ranging powers to make regulations relating to such reserves.[241] Any local authority may, with the approval of the Administrator and subject to such conditions as he may specify, establish a local nature reserve on land vested in it or under its control or management, and it may, for that purpose, acquire land by agreement or expropriation.[242] Subject to the approval of the Administrator and any conditions he may specify, any owner of land may establish a private nature reserve on his land and give it a name. With the approval of the Administrator, he may alter the boundaries or the name of the reserve, or abolish it. Any alteration or abolition must be notified in the *Provincial Gazette*.[243] Subject to any conditions imposed by the Administrator, any person who has established a private nature reserve must manage, control and develop it with a view to the propagation, protection and preservation of fauna and flora.

Notwithstanding anything to the contrary in the Ordinance, the owner may at any time and by any means other than the use of fire or poison, hunt any wild animal in a private nature reserve, subject to his holding an appropriate permit in respect of endangered or

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[241]Section 6.

[242]Section 7(1).

[243]Section 12.

protected wild animals, and subject to the provisions relating to certificates of adequate enclosure.[244] No person may hunt any wild animal or pick an flora in a provincial or local nature reserve unless in possession of a permit.[245]

9.1.4.2 *Miscellaneous Measures*

Chapter III of the Ordinance deals with miscellaneous conservation measures. If the Director of Nature and Environmental Conservation at any time considers it necessary or desirable that special measures should be taken to ensure the survival of any species of endangered wild animal he may, with the approval of the Administrator and after consultation with the owner of any land on which any animal of such species is found, cause such number of either or both sexes of such animal as he may deem necessary to be captured and removed to a provincial nature reserve or such other place as he deems fit for the purpose of preserving such species; or he may take such measures as he may consider necessary for the preservation on such land of such species. It is an offence to resist, hinder or wilfully obstruct any person acting on the written instructions of the Director in this regard. The owner may apply to the Administrator for compensation for wild animals removed from his land, or any other damage suffered by him as a result of the exercise of these powers.[246] If the Director is of the opinion that any wild animal or any species of wild animal found on any land is detrimental to the preservation of fauna or flora, is likely to be dangerous to human life, is wounded or diseased or injured, is causing damage to crops or other property of any person, or should be hunted in the interests of nature conservation, he may, with the approval of the Administrator, cause such animal or such number of such species as he may determine, to be hunted.[247]

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[244]Sections 13, 26, 27 and 35.

[245]Section 14.

[246]Section 17.

[247]Section 18.

Provision is also made in Chapter III for the appointment of nature and environmental conservation officers, honorary nature and environmental conservation officers, and nature and environmental conservation rangers.[248]

9.1.4.3 *Wild Animals*

Chapter IV is entitled 'Protection of wild animals other than fish.' Protection is sought primarily through restrictions on hunting and possession. No person may hunt or be in possession of any endangered wild animal or the carcass of any such animal without a permit.[249] No person may hunt any protected wild animal, either during a hunting season, or at any other time, unless he is the holder of the prescribed permit or licence. However, this does not apply to the owner of land, any relative[250] of the owner or any full-time employee of the owner acting on his authority. It also does not apply to unarmed persons acting as beaters. The Administrator may by proclamation, for the province or any area in the province and either indefinitely or for a specified period, determine the number of any species of protected wild animal which may be killed, captured or caught on any one day, during the period commencing one hour before sunrise and ending one hour after sunset.[251] No person may exceed the daily bag limit thus determined.[252] There are various restrictions on methods of hunting. For example, no person may, unless he is the holder of a permit authorising him to do so, hunt any wild animal by means of fire or poison, with the aid of artificial light, on or from a public road, by means of any trap, between one hour after sunset and one hour

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[248]Sections 20-25.

[249]Section 26. 'Endangered wild animal' is defined in s2 as 'a wild animal of any species which is in danger of extinction and is specified in Schedule 1 or Appendix 1 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, 1973; provided that it shall not include a wild animal of any species specified in such Appendix and Schedule 2.'

[250]Section 27. 'Relative' in relation to the owner of any land is defined as being 'the spouse, parent, step-parent, adoptive parent, son-in-law, child, step-child, adopted child, brother, sister or grandchild of such owner provided that in relation to an owner of land which is an unincorporate association of persons, "relative" means the relative as hereinbefore defined of every member of such association.'

[251]Section 79(a).

[252]Section 28.

before sunrise by means of a firearm which discharges more than two shots without being manually reloaded, or a bow and arrow, or a set gun, or by the use of a dog except to search for an animal which has been wounded. Nor may any person without permit hunt by means of any device which injects an intoxicating or a narcotic agent or poison into the animal; but this does not apply to a registered veterinary surgeon in the practice of his profession.[253] No person may use a firearm having a barrel of a calibre of 6.5 mm or less to hunt any buffalo, eland, kudu, wildebeest, oryx or red hartebeest.[254]

There are also restrictions on keeping of wild animals in captivity,[255] the release of exotic wild animals,[256] the manipulation of boundary fences,[257] the laying of poison,[258] and the use of motor vehicles and aircraft for the purpose of hunting or filming or photographing a hunt.[259] Provision is made for the issue of certificates of adequate enclosure to owners of land on which species of protected wild animals is found. Application is made to the Director, who must be satisfied that the land is adequately enclosed in relation to the species of protected wild animal found thereon. He may in his discretion grant the application subject to such conditions as he may consider desirable.[260] The owner of land to whom such a certificate is issued, and his relatives, and any full-time employee acting under his authority, and any other person in possession of a permit to hunt a protected wild animal during the hunting season, with the permission of the owner, may, notwithstanding anything to the contrary in the Ordinance but subject to any conditions stated in the certificate, at any time by any

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[253]Section 29.

[254]Section 30.

[255]Section 31.

[256]Section 31A.

[257]Section 31B.

[258]Section 32.

[259]Section 33.

[260]Section 35.

means other than by the use of fire or poison hunt any number of the species of protected wild animal specified in the certificate. Subject to any regulations which may be relevant, and provided that the animal is not restrained by means of a rope, cord, chain or similar contrivance, any animal of such species which has been captured on the land to which the certificate relates, may be kept in captivity on such land, and may be sold or donated, as may be the carcass of such animal.[261]

The Director may in writing authorise the owner of land to transfer his hunting rights, either temporarily or permanently, to a person approved by the Director and subject to such conditions as he may impose.[262] Any owner of land may also permit any other person to hunt any wild animal on his land and to remove it or its carcase from the land, subject to the provisions of the Ordinance. However such permission must be in writing and must specify the full names and address of the parties, and the number and species of wild animal, the date or dates and the land in respect of which it is granted, and it must be signed and dated by the owner. This provision does not apply to permission given to the owner's relatives or full-time employees.[263] No person may hunt on land of which he is not the owner without such permission from the owner.[264] A signed document containing prescribed particulars must accompany the donation or sale of wild animals or their carcasses.[265] Any person found in possession of any wild animal or its carcass will be guilty of an offence unless in possession of such written permission or document, but this does not apply to the relatives or full-time employees of the owner of the land on which the animal was hunted.[266]

No person may without a permit:

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[261]Section 36 as read with s31(2).

[262]Section 38.

[263]Section 39.

[264]Section 40.

[265]Section 41.

[266]Section 42.

- import into, export from or transport in or through the Province any wild animal;
- import into the Province from any place outside the Republic the carcass of any wild animal;
- export from the Province the carcass of any endangered wild animal or any protected wild animal or any protected wild animal specified in Appendix II of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, 1973);
- sell, buy, donate or receive as a donation the carcass or anything manufactured from the carcass of any endangered wild animal;
- process, prepare, cure, tan or in any way treat the carcass of any endangered wild animal for the purpose of manufacturing any article from it, or exhibiting the carcass or any article manufactured from it, or mounting the carcass; or
- sell, buy, donate, receive as a donation, or be in possession of any live endangered or protected wild animal.[267]

There are also restrictions on the sale and purchase of biltong and biltong sausage. The meat from which it is made must be from the meat of a wild animal lawfully hunted, it must be packed in a securely sealed and unbroken container, and the names and address of the producer must appear on the container.[268] The sale of carcasses of wild animals is also controlled.[269]

Where damage is being done to crops or other property of an owner of land within the area of jurisdiction of a local authority, by any species of protected wild animal (other than African elephant, African lion, bontebok, red hartebeest, eland, oryx, black wildebeest, oribi, blue duiker, klipspringer or ant-bear), he may apply to such local

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[267]Section 44.

[268]Section 45.

[269]Section 46.

authority for a permit to hunt such species. Such permit will be valid for the period specified therein, but not exceeding one month from date of issue.[270]

9.1.4.4 *Professional Hunters and Hunting Contractors*

Unless exempted, or the holder of a permit authorising him to do so, no person may act as a professional hunter or hunting contractor.[271] The Administrator may make regulations:

- relating to the group or class of professional hunters or hunting contractors exempted from holding a permit;
- controlling a professional hunter or a hunting contractor and controlling and regulating his services and facilities; and
- controlling and regulating the hunting of wild animals.[272]

9.1.4.5 *General*

Chapter VII contains detailed provisions relating to the issue of permits and the other authorities required by the Ordinance, and the conditions relating thereto.[273] The Administrator is given extensive powers, including the following:

- to amend the schedules to the Ordinance;[274]
- each year to determine the hunting season;[275]

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[270]Section 47.

[271]Section 72B.

[272]Section 72C.

[273]Sections 73-76.

[274]Section 77.

[275]Section 78.

- notwithstanding anything to the contrary contained in the Ordinance, to prohibit, control or restrict the hunting of wild animals or any species of wild animal;[276]
- to declare any species of wild animal which in his opinion is, by reason of its prevalence in any area or its mode of living or other characteristics, detrimental to any other species of wildlife or any property, to be a problem wild animal and suspend any of the provisions relating to prohibited ways of hunting in so far as it relates to such animal in any area specified by him in his proclamation;[277]
- if in his opinion it is necessary or desirable in the public interest or in the interests of nature and environmental conservation, in writing and subject to such conditions and for such period as he may determine, to exempt any person from any provision of the Ordinance in so far as it relates to any specified species of fauna or flora.[278]
- to make regulations relating to many specified aspects of wildlife conservation, and generally in regard to any matter which he considers necessary or expedient to prescribe or regulate in order to further or achieve the objects of the Ordinance.[279]

Chapter VII also makes provision for criminal sanction in the case of contravention of the provisions of the Ordinance.[280] The penalties prescribed range from fines of R750,00 or imprisonment for three months to R6 000,00 or 24 months, or both such fine and such imprisonment.[281] There is also provision for certain presumptions,[282]

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[276]Section 79(c).

[277]Section 79(d).

[278]Section 80.

[279]Section 82.

[280]Section 85.

[281]Section 86.

[282]Section 84.

cancellation of permits and other authorities, and forfeiture of articles used in connection with the commission of an offence.[283]

9.1.5 Zoos, hunting, game farming and ranching

In considering the future directions of wildlife law in South Africa, three specific issues relative to the legal protection of wilderness values require further commentary: zoos, hunting, and game farming and ranching.

9.1.5.1 *Zoos*

Is wilderness necessary for the protection of threatened species, or can zoos perform this function? And if so, at what cost?

In general terms, zoos are collections of wild animals which are usually gathered together for public display or entertainment. They have a long history. The Romans, for example, kept wild animals for their gladiatorial games. The first modern zoos were founded in Europe in the eighteenth century, and in the United States in the nineteenth.[284] In an essay presenting the arguments against zoos, Dale Jamieson suggests that there is a moral presumption against keeping wild animals in captivity. She identifies the four most commonly cited benefits to humans which are believed to be derived from zoos: amusement, education, opportunities for scientific research, and help in preserving species; but argues strongly that none of these provides sufficient justification for their continuation, for the following reasons.[285]

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[283]Section 87.

[284]According to Jamieson 109, the first modern zoos were founded in Vienna, Madrid and Paris in the eighteenth century and in London and Berlin in the nineteenth. The first American zoos were established in Philadelphia and Cincinatti in the 1870s.

[285]See Jamieson 110-115. For further discussion of the limitations of zoos as vehicles for preserving endangered species, see Myers (1979) 219-221.

There is little evidence that zoos are very successful in educating people about animals, and most of the educational benefits of zoos can also be obtained by presenting films, slides and lectures. Research that is conducted in zoos, and it should be borne in mind that very few zoos conduct any research, can be divided into two categories: studies in behaviour and studies in anatomy and pathology. Behavioural research on zoo animals is very controversial. There are very severe constraints on the experiments that may be conducted on zoo animals, and the scientific merit of using zoo animals as models for humans is at best questionable. The fourth reason for having zoos is directly relevant to the argument that we need wilderness as gene pools and to maintain biological diversity. Zoos are justified, it may be argued, because they are able to assist in the preservation of species that would otherwise become extinct. As the destruction of the natural habitats of wildlife accelerates, and as breeding programmes become increasingly successful, this rationale for zoo breeding programmes gains in popularity. But, Jamieson argues, they continue to remove more animals from the wild than they return, and there is a lack of genetic diversity among captive animals. In some species the infant mortality rate among inbred animals is six or seven times that among non-inbred animals, and in others it is 100 per cent. In other species the infant mortality rate among inbred animals is 100 per cent. There is no doubt that such programmes have achieved some success; but at very high cost, and it is estimated that under the best possible conditions American zoos could preserve only about a hundred species of mammals. In addition to these problems, Jamieson writes:

> 'the lack of genetic diversity among captive animals also means that surviving members of endangered species have traits very different from their conspecifics in the wild. This should make us wonder what is really being preserved in zoos. Are captive Mongolian Wild Horses really Mongolian Wild Horses in any but the thinnest biological sense? ...
>
> Is it really better to confine a few hapless Mountain Gorillas in a zoo than to permit the species to become extinct? ...In doing this, aren't we using animals as mere vehicles for their genes? Aren't we preserving genetic material at the expense of the animals themselves? If it is true that we are inevitably moving towards a world in which Mountain Gorillas can survive only in zoos, then we must

> ask whether it is really better for them to live in artificial environments of our design than not to be born at all.'[286]

Her conclusion is that morality and perhaps our very survival require that we learn to live as one species among many rather than as one species over many - both humans and animals will be better off when zoos are abolished.[287]

Rawlins offers contrary arguments.[288] He argues that most people cannot and never will reach wild areas for economic or other practical reasons, or because of political barriers, and that, although it is often claimed that such lack of opportunity can be compensated for on television or in the cinema, with almost perfect representation of the natural world, there is no substitute for the real thing. 'The sight', he says, 'of a living animal, at reasonably close quarters, is worth any number of TV programmes in applying the final push which turns passive sympathy into active support for the conservation of wildlife and the protection of its habitat.'[289]

Secondly, he argues that 'even the most sophisticated modern tourist may know the game reserves of Africa but not the jungles of the Amazon; he may have seen the Sahara Desert but not the Gobi. But in his zoo he can see a little of all these different kinds of wilderness ....'[290]

Thirdly, wilderness cannot be experienced by large numbers of people and still remain wilderness: 'Man's curiosity and enterprise will never allow him to keep permanently out of wild places, so he has to be allowed in under strict control, and, at the same time,

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[286]Jamieson 115-6.

[287]Jamieson 117.

[288]See Rawlins 202-6.

[289]Rawlins 203.

[290]Ibid.

given the chance to see some of the beauty and fascination of wilderness under simulated conditions elsewhere.'[291] He continues:

> 'An encapsulated wilderness can thus be presented, perhaps in the middle of a great conurbation and accessible to millions of people who may never be able to see the real thing and who may, indeed, no longer consider it a practical proposition to try to do so because of the availability of the artificial one. A second-best situation, perhaps, but one which indirectly helps to protect wilderness areas from excessive human presence and thus to improve the prospects for their future. ...(Zoos) show a real living part of wilderness, its animals, making it easier for people to visualise and become concerned about the wilderness itself ....'[292]

These are strong arguments for zoos, but clearly are not arguments against wilderness, 'the real thing'. Nor do they take into account the 'rights' of the animals in the zoos themselves.

Rawlins concludes:

> 'A zoo can be a wilderness by proxy; it can remind its visitors of the wild places which they have seen or create in those, still the majority of the world's people, who have never known a true wilderness, a yearning for it. In the midst of civilisation a zoo can give a glimpse of wilderness, like a quiet sunny glade in the middle of the seething urban forest.'[293]

Whether or not zoos are ethically justifiable is debatable. What is beyond dispute, however, is that at best they play a limited role in the maintenance of biological diversity and the protection of endangered species. The most effective means of achieving these objectives is the establishment of wilderness areas.

9.1.5.2 *Hunting*

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[291]Ibid.

[292]Rawlins 204.

[293]Rawlins 206.

Hunting requires a licence from the provincial agency and permission from the owner of the land upon which the animal is hunted. Hunting as a so-called sport is very difficult to control. It usually takes place in remote areas difficult to police, and the value of the licence system as a method of control is limited because most hunters do not depend on hunting for their livelihood and the sanction of losing a licence is therefore weak. It is difficult to keep track of how many animals are killed by hunters, and virtually impossible to do so with those killed by poachers and owners who do not require licences. Owners of land are over-privileged insofar as the hunting of wildlife on their land and not owned by them is concerned. They do not require a licence to hunt ordinary game in the open season, and may be licenced to hunt in closed seasons. They enjoy further priveleges in regard to the weapons and methods that may be employed in hunting, and may even hunt protected animals causing damage to property. Even when they do not own the wildlife on their property, they are masters of the destiny of wildlife because of their power to modify and destroy its habitat. Those animals which interfere with farming activities may qualify as 'problem' animals, previously referred to as 'vermin', for the purpose of their organised killing. The concept of vermin hunt clubs is not only offensive, but inconsistent with current conservation thinking. A farmer may kill in defence of person or property; but where is the line to be drawn? Should a leopard be shot merely because it appears to adopt a threatening attitude? Should a valuable animal be destroyed because of relatively small damage to crops? The privileged position of landowners and occupiers needs to be re-assessed. Individual rights must be measured against public interest. There is a public dimension to wildlife which makes its legal classification as *res publica* more appropriate tham *res nullius* and *res intra commercium*. These are particular issues which need to be addressed in modern wildlife law if the dwindling national heritage of wildlife is to be adequately protected.

9.1.5.3 *Game farming and ranching*

The dedication of farms or portions of farms to game farming[294] or game ranching[295]

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[294]The phrase 'game farming' refers to the utilization of game in small enclosures or paddocks.

will contribute to the prospects of survival of many endangered species. A recent survey suggests that game is significantly utilised on over 8 000 farms in South Africa.[296] Yet game farmers remain largely unprotected by the common law. Farmers may pay large sums of money for game, and incur substantial expenses in fencing off camps and providing fodder; but if the game escapes and regains its natural freedom, the farmer as 'occupier' loses his ownership under common law as it reverts to the status of *res nullius* and ownership of it may be acquired by anyone who captures or kills or otherwise exercises effective control over it.[297] Most wildlife now occurs in protected natural areas or on private property. The common law has become outmoded and virtually irrelevant in present-day circumstances. Nor do the provincial ordinances offer adequate protection to game farmers, notwithstanding the privileged position they occupy in relation to the game on their land in terms of the ordinances. The ordinances are aimed at nature conservation, and not at protecting their interests. The common law position, however, has been changed. On 26 October 1988, the Minister of Justice requested the South African Law Commission to carry out an investigation into the acquisition and loss of ownership of wild animals. In a working paper published for comment, the Commission made the following recommendations:

- A general measure should be laid down that can be applied to determine whether a person exercises sufficient physical control over game in order to be regarded as owner thereof.
- Game thieves should not be able to establish ownership of game unlawfully caught.
- Loss of possession of wild animals upon which ownership has been established should not result in loss of ownership.[298]

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[295]The phrase 'game ranching' refers to the utilization of game which roams freely in large areas (albeit fenced).

[296]Mulder.

[297]See van der Merwe & Rabie 38, and van der Merwe 138-42 for reference to the relevant Roman Law and Roman Dutch Law authorities.

[298]South African Law Commission (1989) 48.

These recommendations were adopted in the Game Theft Act 105 of 1991, which was published on 5 July 1991, and which provides, *inter alia*, that, notwithstanding the provisions of any other law or the common law:

(a) a person who keeps or holds game[299] or on behalf of whom game is kept or held on land that is sufficiently enclosed, or who keeps game in a pen or kraal or in or on a vehicle, shall not lose ownership of that game if the game escapes from such enclosed land or from such pen, kraal or vehicle;

(b) the ownership of game shall not vest in any person who, contrary to the provisions of any law or on the land of another person without the consent of the owner or lawful occupier of that land, hunts, catches or takes possession of game, but it remains vested in the owner referred to in paragraph (a) or vests in the owner of the land on which it has been so hunted, caught or taken into possession, as the case may be.[300]

Land is deemed to be sufficiently enclosed if, according to a certificate (which shall remain valid for three years) of the Administrator of the province in which the land is situated, or his assignee, it is sufficiently enclosed to confine to that land the species of game mentioned in the certificate.[301] The Act also makes it an offence for any person to enter another person's land with intent to steal game thereon or to disperse game from that land or, without entering another person's land, intentionally to disperse or lure away game from another person's land.[302]

9.1.6 The need for reform: future directions and implications for wilderness

The above review has demonstrated that the legal protection of species occurs at provincial level, and is sought mainly through the control of hunting, capture and

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[299]Section 1 defines 'game' as all game kept or held for commercial or hunting purposes, and includes the meat, skin, carcass or any portion of the carcass of that game.

[300]Section 2(1)(a) and (b).

[301]Section 2(2)(a) and (b).

[302]Section 3(1).

disturbance of game. The ordinances all provide for different classes of wild animals. The measure of protection that is given to a species depends on how it has been classified. The Cape Province distinguishes between endangered wild animals and protected wild animals; Transvaal between protected game, ordinary game and protected wild animals; and Orange Free State between protected game, ordinary game and specified wild animals. Natal has the most complicated legal machinery and prescription, with different schedules for ordinary game, protected game, specially protected game, open game, endangered mammals, protected amphibians, invertebrates and reptiles, unprotected wild birds and specially protected birds. Complexity and efficacy do not necessarily go hand in hand. A far simpler and more effective approach would be 'reverse' listing. Instead of enumerating species that qualify for varying degrees of protection, and thereby running the risk of overlooking a species or migrant animals, all wild animals should be fully protected unless specifically excluded or afforded reduced protection. An holistic treatment and uniform approach would far better protect the wildlife resource. The listings in the class schedules differ from province to province, with the result that what may be an offence in regard to a particular species in one province will not necessarily be an offence in regard to that species in another province. Even recognising that different regions may have different conservation needs, the current dispensation is clumsy and anomolous and clearly in need of reform.

There is, therefore, an urgent need for re-assessment of the adequacy of existing laws. Current conservation programmes are inadequate to meet the challenges confronting a developing South Africa. There are too many statutes and ordinances, and this plethora of laws represents a serious constraint on the effectiveness of wildlife law. The high prices paid at game auctions conducted by the Natal Parks Board[303] suggest that current hunting fees and fines are disproportionately low. There is a severe shortage of nature conservation law enforcement officers. Their salary benefits should be made more attractive. Legally protected natural areas provide habitat protection for wildlife, and in effect constitute a national wildlife refuge system. What is required in South Africa is uniform and comprehensive species protection outside of protected areas. This

[303]For example, R2,2 million was paid for five black rhino at the second Natal Game Auction held on 18 June 1990 - (1990) 14 *News from the Natal Parks Board* 2.

would best be achieved through national prescription and regional administration, national prescription in the form of a Wildlife Protection Act, with regional regulation and administration by existing provincial conservation agencies.[304] This suggestion is consistent with the following recommendations of the recent President's Council Report on a national environmental management system:

- It is recommended that the four different provincial Nature Conservation Ordinances be consolidated into one uniform Nature Conservation Act.
- The diverse circumstances of individual provinces could be accommodated through regulations.
- An issue which requires particular attention is that more emphasis should be placed on habitat and ecosystem protection, rather than on the protection of individual plant and animal species.[305]

The suggested emphasis on habitat and ecosystem protection endorses the need for a national wilderness system. It is manifest from the above overview that wildlife law needs to be complemented in order to secure all the benefits and values of wilderness. At best current wildlife law offers only partial protection of the wildlife component of wilderness. At best the proposed reform will only enhance protection of this component.

9.2 Protected areas legislation

There are other categories of protected area which are located at the primitive end of the environmental modification spectrum,[306] and which need to be considered because they complement or supplement the philosophy and purpose of wilderness. A review of protected areas legislation is, in any event, necessary to determine (a) the extent to which it effectively protects wilderness *values*, and (b) the extent to which wilderness

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[304]The notion of national prescription and regional administration is not novel. A recent example of this approach is the Road Traffic Act 29 of 1989, which effectively consolidates and co-ordinates the previous four provincial road traffic ordinances.

[305]President's Council Report (1991) 167.

[306]The concept of an environmental modification spectrum is that there is a continuum of environmental conditions ranging from completely modified urban landscapes at the one end, to remote, pristine or primeval conditions at the other - see Hendee, Stankey & Lucas (1990) 159, 182.

equivalents[307] are afforded protection under South African law. If such protection is inadequate, the argument in favour of appropriate wilderness legislation is reinforced. In this section, therefore, protected areas legislation in South Africa is reviewed in order to determine the need, if any, for discrete wilderness legislation.[308]

South African law acknowledges that there are various categories of land use. In general terms, wilderness is at the primeval end of the spectrum of environmental use. At the other end is sophisticated, technologically advanced, urban development. Between these extremes there is a variety of land uses, including agriculture, forestry, and recreation. To the extent that it is practically possible to do so, it is desirable that all these uses should be properly planned. There are several examples of legislative recognition of different forms of land use in respect of undeveloped areas. Although there seems to be an unnecessary proliferation of categories of land use, it is necessary to cater for a diversity of uses. As far as recreation is concerned, wilderness areas are at the primitive end of the spectrum. At the other end of the outdoor recreational spectrum are areas providing boating, playgrounds, picnic areas and so on. In between these should be provision for outdoor recreation in areas that are wild in character, but not wilderness. There are many different government departments and officials involved in the planning process in South Africa and, whilst all the areas referred to above are clearly essential components of overall environmental and physical planning, the question must be asked whether an holistic, coordinated approach should adopted in place of the present fragmented, piecemeal dispensation.

In October 1989 the Council for the Environment published a report in which it recommended a new system of protected areas legislation for South Africa. The following are relevant extracts from that report:

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[307]The phrase 'wilderness equivalents' is used by Eidsvik 65-76 to denote *de facto* wilderness enjoying some measure of legal protection by virtue of being located in protected areas (particularly in developing countries), albeit not *de jure* wilderness in the sense of having been legally identified and protected as wilderness *per se*.

[308]For a complete listing of protected areas in South Africa, and their number, extent and controlling authorities, see Register of Protected Areas (1988).

'A "protected area" is an area in which species, ecosystems and/or outstanding landscapes are provided with protection or constraints in their utilization by man. Protected areas (also called conservation areas) are usually administered by government or provincial authorities, but in South Africa many game and nature reserves have been established by private individuals or companies.

A wide diversity of categories with attendant names have evolved within the concept of protected areas. A consequence of this situation is a considerable measure of confusion regarding names, definitions, and management objectives of individual reserves. Until recently, the definitions and categories recommended by the International Union for the Conservation of nature and Natural Resources (IUCN) were followed by many countries, but even the IUCN system has failed to serve the varying needs of different countries and is now under review. The Council for the Environment has recently proposed a new system for South Africa which promises to fulfil our national needs while following universally applicable criteria. The system provides for 15 categories, each distinquished in terms of its management objectives and other characteristics such as size and natural or cultural features.'

The report then proceeds to list fifteen categories of protected area, one of which is 'wilderness area', and continues as follows:

'An important feature of the Council for the Environment's proposals is that it provides for the devolution of administrative and management functions for given protected areas to regional or local levels on condition that these bodies have the necessary professional, technical, administrative and financial capabilities. Further conditions within the system require that national parks, wilderness areas and special nature reserves should not be allocated a level lower than second tier government and that these three categories should be afforded the highest protection status.'[309]

Relative to wilderness, the important points to note from the report are the following:

- the formal recognition of wilderness,

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[309] Council for the Environment (Oct 1989) 23. The phrase 'protected areas' is used in this Chapter in the wide sense of areas 'in which species, ecosystems and/or outstanding landscapes are provided with protection or constraints in their utilization by man.' Areas such as the seashore and coastal zone (portions of which may qualify as candidate wilderness areas or 'wilderness equivalents') which are or have in the past been accorded some legal protection, will therefore be discussed. Such areas are not protected areas in the narrower sense of 'conservation areas', as the primary purpose of their legal protection is not nature conservation. Estimates of the total land surface area under conservation in South Africa vary from 3,4 per cent to 5,5 per cent (President's Council Report (1984) 112-3); but areas such as the seashore and coastal zone are not included in these estimates.

- the need for administration and management of wilderness areas at first or second tiers of government, and
- wilderness areas should be afforded the highest protection status.

There is some limited formal recognition of wilderness in the Forest Act 122 of 1984, limited because it only applies to wilderness in state forests.[310] What about wilderness conditions or values elsewhere?

9.2.1 National Parks Act 57 of 1976[311]

9.2.1.1 *National Parks*

The first National Parks Act 56 of 1926 was promulgated as a direct result of representations made to the central government for the permanent protection of the Sabie Game Reserve for the whole nation. This reserve had been proclaimed as a game reserve in 1898 by the South African Republic, and it was feared that the area was inadequately protected against agricultural and mining development. The 1926 Act reproclaimed the Sabie Game Reserve as the Kruger National Park.[312] In 1931 three further national parks were established: the Kalahari Gemsbok National Park, the Addo Elephant National Park and the Bontebok National Park. In 1937 the Mountain Zebra National Park was created to protect the Cape Mountain Zebra, a rare species. The 1926 Act was repealed and replaced by the National Parks Act 42 of 1962. In 1963 the Golden Gate Highlands National Park was established in the Orange Free State. The following year two further national parks were established in the Cape, namely the Tsitsikama Forest Park and Tsitsikama Sea Coast Park, and this was followed by the establishment of the Augrabies Falls Park in 1966. The 1962 Act was repealed and replaced by the National Parks Act 57 of 1976. In 1979 the Karoo National Park was

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[310]The relevant provisions of the Forest Act are discussed in detail in Chapter 8.

[311]The Act came into effect on 28 April 1976, but has been subject to amendment since that date. The discussion and references in the text relate to the Act as amended from time to time up to and including the National Parks Amendment Act 60 of 1987.

[312]President's Council Report (1984) 24.

declared, which produced a total area of approximately three million hectares set aside as national parks in South Africa. All of these parks, apart from the Kruger and Golden Gate Highlands National Parks, are situated in the Cape Province.[313]

(a) *Object of a park*

The purpose for which national parks are established in South Africa is stated in the 1976 Act as follows:

> The object of the constitution of a park is the establishment, preservation and study therein of wild animals, marine and plant life and objects of geological, archaeological, historical, ethnological, oceanographic, educational and other scientific interest and objects relating to the said life or the first-mentioned objects or to events in or the history of the park, in such a manner that the area which constitutes the park shall, as far as may be and for the benefit and enjoyment of visitors, be retained in its natural state.[314]

(b) *Scheduled Parks*

Existing parks were enumerated and their areas defined in Schedule 1 of the Act. The Minister of Environment Affairs and Tourism[315] was authorised to declare by Notice in the *Gazette* any other area to be a national park under a name to be assigned to it in such notice, and to amend Schedule 1 by the addition of the name and definition of the area of the park so established. He may also include any land or, subject to Parliamentary approval, exclude any land from any park and amend Schedule 1 accordingly.[316] The high degree of inviolability of scheduled parks is illustrated by the

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[313]President's Council Report (1984) 27.

[314]Section 4.

[315]In terms of s1 'Minister' means the Minister of Environment Affairs and Tourism, which definition was inserted by s1(a) of National Parks Amendment Act 43 of 1986. Subsequently the title of the Minister changed to Minister of National Education and Environment Affairs. For convenience, the Minister will hereafter in the text be referred to as the Minister of Environment Affairs, notwithstanding any changes in his title from time to time as a result of any reallocation of ministerial portfolios and redesignation of his title.

[316]Section 2(2).

fact that the Act specifically provides that no land included in a park described in Schedule 1 may be alienated or excluded or detached from the park, except under the authority of a resolution of Parliament.[317]

(c) *Establishment of Parks on State Land*

The Minister of Environment Affairs may, by notice in the *Gazette*, with the concurrence of the Minister of Mineral and Energy Affairs, declare State Land 'in respect of which no right in connection with prospecting or mining has been granted in terms of any law' to be a park, and amend Schedule 1 accordingly. Notwithstanding the provisions of the Lake Areas Development Act 39 of 1975, he may also declare State Land situated in a declared lake area to be a scheduled park. He may also declare any such State Land to be part of a scheduled park.[318]

(d) *Acquisition of Land for Purposes of a Scheduled Park*

The Minister of Communications and of Public Works may, with the concurrence of the Minister of Mineral and Energy Affairs, by purchase or otherwise, including the exchange for State Land situated outside a park or, failing agreement with the owner, by expropriation, acquire land or a mineral right to land for the purposes of a park.[319] Land so acquired which is not already included in a park, must forthwith be included by the Minister of Environment Affairs in a park by Notice in the *Gazette*.[320]

(e) *Registered Parks*

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[317]Section 2(3).

[318]Section 2A, which was inserted by s3 of Act 43 of 1986.

[319]Section 3(1), which was substituted by s4(a) of Act 43 of 1986.

[320]Section 3(3).

In addition to parks which are listed in Schedule 1, thereby enjoying the Parliamentary protection referred to above, the Act makes provision for land to be declared to be a park or part of a park, particulars of which must be kept in a register maintained by the National Parks Board of Trustees. Registered parks are established by the Minister of Environment Affairs by notice in the *Gazette*, with the concurrence of and subject to conditions determined by the Minister of Mineral and Energy Affairs and the Minister of Communication and of Public Works, and after consultation with any other Minister who has an interest by virtue of the functions of his department. If the land is privately owned, the Minister must consult with the Minister of Mineral and Energy Affairs and his declaration of the park is subject to any agreement entered into between the Board and the Minister and any other Minister having such an interest, as well as the owner of the land. The Board must keep a register of such land declared to be a park or part of a park, or declared to be excluded from a park. The register must contain a full description of the land, the name of the land and any other particulars that the Board deems necessary or desirable.[321]

(f) *National Parks Board of Trustees*

The National Parks Board of Trustees is charged with the control, management and maintenance of parks,[322] and its constitution and functions are defined in the Act.[323] The Board is given extensive powers within a park, including the construction of roads and buildings, the provision of accommodation and refreshments for visitors, the carrying on of any business or trade for the convenience of visitors, the sale or donation of specimens of animals and plants, and the taking of such steps as will ensure the security of the animal and plant life in the park and their preservation in a natural state.[324] The Board may also, with the approval of the Minister of Environment Affairs, make

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[321]Section 2B, which was inserted by s3 of Act 43 of 1986.

[322]Section 5 (1).

[323]Sections 5-12.

[324]Section 12.

regulations consistent with the Act with regard to a long list of matters enumerated in the Act, including the exclusion of members of the public from certain areas within a park, the killing, capturing or impounding of any animals, the burning of grass, the cutting of trees, reeds and grass, the admission of motor cars or other vehicles, the maintenance, protection and preservation of a park and the animals, plant life and property therein, and generally for the efficient control and management of a park.[325] No action lies against the Board for the recovery of any damage caused to any person by any animal in a park.[326]

(g) *Funding*

The Act makes provision for the establishment of a fund to be known as the National Parks Land Acquisition Fund, consisting of all monies received by the Board by way of subscriptions, donations and bequests, in addition to monies appropriated by Parliament for the purposes of the fund. Money in the fund is applied to the acquisition of land or mineral rights to land for the purposes of a park and to defray expenses incurred by the Board in connection with the management and control of the fund.[327] The revenue of the Board for operating expenses consists of voluntary subscriptions, donations and bequests from the public, fees or other monies received or raised by it in terms of the Act, fines recovered in respect of offences under the Act, and any other contributions from any other source.[328]

(h) *Prohibited Activities*

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[325]Sub-section 29(1).

[326]Section 28(1).

[327]Section 12A.

[328]Section 16.

No prospecting or mining whatsoever may be undertaken on land included in a scheduled park.[329] No one may enter a park without the permission of the Board, and the Act specifically prohibits various other activities within a park, including the following: being in possession of any weapon, explosive, trap or poison; hunting or otherwise wilfully or negligently killing or injuring any animal; disturbing any animal; damaging or destroying any egg or nest of any bird, or taking honey from a beehive; wilfully or negligently causing a veld fire, or any damage to any object of geological, archaeological, historical, ethnological, oceanographic, educational or other scientific interest; removing any animal, whether alive or dead, or any part of an animal; cutting, damaging, removing or destroying any tree or other plant (including any marine plant); removing seed from any tree or other plant without permission; and feeding any animal.[330] Contravention of any of these provisions constitutes a criminal offence.[331] To facilitate prosecution, the Act makes provision for certain presumptions to be applied, which have the effect of shifting the burden of proof to the accused. For example, where it is proved that an accused had in his possession or handled the carcass of an animal or part of such a carcass, it will be presumed that he killed that animal until such time that he may prove the contrary.[332]

9.2.2 Mountain Catchment Areas Act 63 of 1970

9.2.2.1 *Mountain Catchment Areas*

(a) *Establishment, Purpose and Definition*

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[329]Section 20 which, largely as a result of the public outcry when it appeared that there was a threat that the Kruger National Park would be subjected to mining operations for coking coal, was substituted by s5 of Act 23 of 1983 to *limit* prospecting and mining, and by s11 of Act 43 of 1986 to *prohibit* prospecting and mining.

[330]Section 21(1).

[331]Section 24.

[332]Section 26(5).

Mountain catchment areas are established in terms of the Mountain Catchment Areas Act 63 of 1970.[333] The preamble to the Act indicates that its purpose is:

> To provide for the conservation, use, management and control of land situated in mountain catchment areas, and to provide for matters incidental thereto.

'Mountain catchment area' is defined simply as an area declared as such in terms of Section 2 of the Act.[334] Section 2 provides that the Minister[335] 'may by notice in the *Gazette* define any area and declare that area to be a mountain catchment area and may from time to time by like notice alter the boundaries of any mountain catchment area or withdraw any notice whereby a mountain catchment area was established.' The Director-General may for the purposes of the definition of any such area, cause beacons to be erected on the land concerned at the places designated by the Minister.[336]

(b) *Administration*

State land is not declared as mountain catchment areas in terms of the Act. However, certain parts of State forests, nature reserves and wilderness areas are in practice managed as mountain catchments in combination with mountain catchment areas declared on private land.[337] In terms of the Act, mountain catchment areas are administered by the Minister, assisted by advisory committees[338] and fire protection committees[339] appointed by him. The Director-General may, after consultation with

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[333]As amended by the Expropriation Act 63 of 1975, the Mountain Catchment Areas Amendment Act 41 of 1976, and the Mountain Catchment Areas Amendment Act 76 of 1981.

[334]Section 1.

[335]In terms of s1 the Minister of Water Affairs, Forestry and Environmental Conservation. The titles of Ministers change from time to time with the reallocation of ministerial portfolios.

[336]Section 2A(1).

[337]Rabie (1985) 59.

[338]Section 6.

[339]Section 7.

the advisory committee established in respect of any area, declare a fire protection plan to be applicable to the land within such area.[340] Every owner and occupier within such area, and their successors in title, are bound by the provisions of the plan.[341] The Director-General must at least one month prior to the date of commencement of the plan cause particulars thereof to be published by notice in the *Gazette*, and he may, if he deems fit, serve a copy of the plan on every owner or occupier of such land.[342] He may also from time to time after consultation with the advisory committee and fire protection committee concerned, amend such plan after not less than one month prior notice in the *Gazette*.[343]

The Minister may also 'declare a direction' to be applicable to land situated both within any mountain catchment area, and outside it but within a distance of 5 km from its boundary. In respect of land within the area, the direction may relate to the conservation, use, management and control of the land; the prevention of soil erosion; the protection and treatment of the natural vegetation and the destruction of vegetation which is, in his opinion, 'intruding vegetation'; and any other matter which he considers necessary or expedient for the achievment of the objects the Act. In respect of land outside the area but within 5 km of its boundary his direction may relate to the destruction of vegetation which is in his opinion 'intruding vegetation'. Notice of the direction must be given by the Minister in the *Gazette* or communicated by him by written notice to every owner and occupier of affected land. The direction is binding on every such owner and occupier, and their successors in title. The Minister may withdraw, amend or, with such conditions as he may determine, suspend a direction.[344]

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[340]Section 8.

[341]Section 8(4).

[342]Section 8(3).

[343]Section 9.

[344]Section 3.

Fire protection plans relate to the regulation or prohibition of veld burning; the prevention, control and extinguishing of veld and forest fires; and the functions, powers and duties of fire protection committees in relation to the execution of fire protection plans.[345]

(c) *Compensation and Relief*

Where the owner or occupier of land affected by any limitations imposed in terms of ministerial direction suffers patrimonial loss as a result of the limitations imposed, he will be entitled to such compensation as may be agreed with the Minister, in consultation with the Minister of Finance. In the absence of such agreement, the amount of compensation will be determined in terms of the Expropriation Act 63 of 1975.[346]

If the effect of such a direction is that no farming may be carried on in respect of any land within a mountain catchment area, such land shall be exempt from all taxes imposed by a local authority on the value of immovable property.[347]

The Minister may also, in consultation with the Minister of Finance, render financial aid to fire protection committees, and to owners and occupiers of land who incur expenses in order to comply with the provisions of any fire protection plan.[348]

(d) *Miscellaneous Provisions*

The Act makes provision for official right of entry upon or way over any land situated within mountain catchment areas,[349] and for the performance by the Minister of any

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[345]Section 8(2).

[346]Section 4.

[347]Section 5(1).

[348]Section 10.

[349]Section 11.

acts which he deems necessary in order to achieve the objects of the Act.[350] The Minister may make regulations to achieve the objects of the Act.[351] Penalties are provided for contravention of the provisions of the Act and regulations made by the Minister - any person convicted is liable to a fine not exceeding R1 000,00 or to imprisonment for a period not exceeding two years or to both such fine and such imprisonment.[352] The Minister or the Director-General may delegate all or any of his powers under the Act to any officer in any department of state.[353] Anything done by the State, the Minister, any officer in any department of state, or any member of any advisory committee or fire protection committee, or any person authorised under the Act, will not be liable for anything done in good faith under the Act.[354]

9.2.3 Water Act 54 of 1956

9.2.3.1 *Catchment Control Areas*

The Minister[355] may, if he is of the opinion that any land is required for the protection of any portion of the catchment area of a public stream by proclamation in the *Gazette*, declare the channel of that stream, together with such portion of the land on the sides of the channel, or any other area situated within the catchment of such stream as he may consider necessary for such purpose, to be a catchment control area. He may, in the same way, also amend or repeal such proclamation.[356] He may also cause certain work

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[350]Section 12.

[351]Section 13.

[352]Section 14.

[353]Section 17.

[354]Section 18.

[355]In terms of s1 the Minister of Water Affairs.

[356]Section 59(2).

to be done on any land in such an area, and may by notice in writing suspend all or any of an owner's rights in or over any land in the area.[357]

These provisions have been little used. There is a declared catchment control area in Upington, and part of the Berg River was declared such an area during the late 1950s, but was deproclaimed a year later and then declared an irrigation district.[358] The administration appears to have opted for the use of irrigation districts rather than catchment control areas. Irrigation boards within irrigation districts exercise general supervision over public streams and may cause them to be cleansed, deepened, widened, straightened, restored to their former channels or otherwise improved.[359]

9.2.4 Lake Areas Development Act 39 of 1975

9.2.4.1 *Lake Areas*

(a) *Definition and Establishment*

Lake areas are established under the Lake Areas Development Act 39 of 1975.[360] The Act does not specifically indicate the purpose of their establishment; nor does it define lake areas. They are established by the Minister[361] by notice in the *Government Gazette*.[362] He may 'declare any land comprising or adjoining a tidal lagoon, a tidal river or any part thereof, or any other land comprising or adjoining a natural lake or a river or any part thereof, which is within the immediate vicinity of a tidal lagoon or a tidal river, to be a lake area'. He may also declare any land to be a part of or excluded

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[357]Section 61(1).

[358]Rabie (1985) 61. Irrigation districts are areas declared as such under s73 of the Water Act 54 of 1956.

[359]Section 89(1)(e).

[360]Section 2.

[361]In terms of s1, the Minister of Agriculture.

[362]Section 2.

from any lake area.[363] The only existing lake area is the Wilderness Lake Area, in extent 2 100 ha, which was declared in 1978. Other lake areas under consideration for declaration are Boesmans, Kariega and Langebaan.[364] No land which is under the control of a Provincial Administration shall be declared to be a lake area or part of a lake area except after consultation by the Minister with the Administrator concerned.[365]

(b) *Administration*

The Act establishes the Lake Areas Development Board.[366] Its objects are to control, manage and develop any State land situated within a lake area.[367] However, with effect from 1983, the powers of the Lake Areas Development Board were transferred to the National Parks Board of Trustees.[368]

In controlling, managing and developing any State land within a lake area, the Board may, inter alia:

- subdivide, lay out, plan and develop the land;
- with the approval of the Minister and subject to any conditions he may determine, sell, let, hypothecate or otherwise encumber such land or any part thereof, or exchange it for private land within a lake area;
- acquire by lease, exchange or otherwise, any private land or interest therein situated within a lake area, or any building or any structure, in so far as such

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[363]Section 2(1). Before 1986, lake areas were proclaimed by the State President. His powers and duties were transferred to the Minister by the Transfer of Powers and Duties of the State President Act 97 of 1986.

[364]Rabie (1985) 57.

[365]Section 2(2).

[366]Section 3.

[367]Section 11.

[368]Section 30B of the National Parks Act 57 of 1976.

acquisition may be necessary for or incidental to the attainment of the objects of the Board; and

- provide accommodation and amenities to any lake area, and provide other services for their convenience.[369]

The mouth of a tidal lagoon or a tidal river may be opened or closed by the Board, and a water work as defined in the Water Act 54 of 1956 may be constructed within any lake area, but only in consultation with and subject to the directions of the Minister of Water Affairs.[370]

(c) *Regulations*

The Minister may make regulations providing, inter alia, for the regulation and control of State land within a lake area, the construction, maintenance and control over buildings and other improvements, the use and control generally of the seashore and of the sea, and of any lake or river, within any lake area, and the use of amenities provided for visitors.[371]

(d) *Private Land*

Provision is made for the acquisition of private land within a lake area. The Minister may, by exchange of State land situated either within or outside any lake area, acquire private land in a lake area for the purposes of the Act, If he is unable to acquire the land by purchase, he may expropriate the land, but subject to the provisions of the Expropriation Act 63 of 1975. Any land so acquired must be transferred to the State.[372]

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[369]Section 11.

[370]Section 15.

[371]Section 23.

[372]Section 16.

9.2.5 Environment Conservation Act 73 of 1989

Three further legislatively defined categories of protected area were introduced by the Environment Conservation Act 73 of 1989: 'protected natural environments' which relate primarily to privately owned land, 'special nature reserves' which relate exclusively to State owned land, and 'limited development areas'. An attempt was also made to define and protect the 'coastal zone' by means of regulations under the Act.

9.2.5.1 *Protected Natural Environments*

An Administrator may by notice in the *Official Gazette* concerned declare any area defined by him to be a 'protected natural environment', and he may allocate a name to such area; provided that he may only issue such declaration if in his opinion 'there are adequate grounds to presume that the declaration will substantially promote the preservation of specific ecological processes, natural systems, natural beauty or species of indigenous wildlife or the preservation of biotic diversity in general.'[373] He must also consult with the owners of, and the holders of real rights in, land situated within the defined area. If such persons cannot readily be located, the Administrator must give notice, in the *Official Gazette* and in one Afrikaans and one English Newspaper circulating within the district where the land is situated, of his intention to declare such land to be a protected natural environment, and invite them to lodge any complaints against the intended declaration with the Director-General of the Province within 30 days from the date of the notice.[374]

In order to achieve the general policy and object of the Act, the Administrator may issue directions relating to any land or water in a protected natural environment. However, he is required to furnish owners and holders of real rights in the land with a copy of the directions, which may only be issued with the concurrence of each Minister charged with the administration of any law which in the opinion of the Administrator relates to a

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[373]Section 16(1)(a).

[374]Section 16(1)(b).

matter affecting the environment in that area.[375] Owners and holders of real rights, and their successors in title, are subject to the provisions of such directions.[376] The Administrator is required to direct the relevant Registrar of Deeds to make appropriate entries of the directions in his registers and to endorse the office copy of the title deeds of affected properties accordingly.[377] With the concurrence of the Minister of Finance and subject to such conditions as he may determine, the Administrator may render financial aid by way of grants or otherwise to such owners or holders of real rights in respect of expenses incurred in compliance with any such directions.[378] The Administrator may, with its concurrence, assign the control and management of a protected natural environment to a local authority or Government institution, or he may withdraw such control and management.[379]

An Administrator may also establish management advisory committees to advise him with regard to the control and management of protected natural environments in order to advance the objects for which they are established.[380] The membership of management advisory committees is determined by the Administrator.[381] He is, however, required to appoint members from relevant government agencies and owners, holders of real rights, and users of the affected land. Where control and management has been assigned to a local authority or government institution, the appointment of

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[375]Section 16(2).

[376]Section 16(3).

[377]Section 16(4).

[378]Section 16(5).

[379]Section 16(6).

[380]Section 17(1).

[381]Section 17(2).

members must be made with its concurrence.[382] The Act also makes provision for administrative support for the performance of the functions of the committee.[383]

The Physical Planning Act 88 of 1967[384] introduced the legislative category of 'nature areas', defined in the Act as any area which could be utilised in the interests of and for the benefit and enjoyment of the public in general, and for the reproduction, protection or preservation of wild animal life, wildlife, wild vegetation or objects of geological, ethnological, historical or other scientific interest.[385] Nature areas were managed in terms of the Environment Conservation Act 100 of 1982 (which was repealed and substituted by the Environment Conservation Act 73 of 1989) by the Minister of Environment Affairs, advised by a management committee which he was authorised to appoint for such areas.[386] The Environment Conservation Act 73 of 1989 deleted the provisions relating to nature areas in the Physical Planning Act, but deemed any land reserved as a nature area under the latter to be declared a 'protected natural environment'.[387]

9.2.5.2 *Special Nature Reserves*

The Minister of Environment Affairs may by notice in the *Government Gazette* declare any area defined by him in the Republic of South Africa, including the territorial waters

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[382]Section 17(2), (3) and (4).

[383]Section 17(7) and (8).

[384]Now repealed and substituted by the Physical Planning Act 125 of 1991.

[385]Section 4(1)(b).

[386]Section 9. By 1988, four nature areas had been established under the Physical Planning Act, namely Magaliesberg Nature Area, comprising approximately 30 000 ha, of which 88% was privately owned land, and established in 1977; Cape Peninsula Nature Area, comprising approximately 29 000 ha, of which 21% was privately owned land, and established in 1983; Rietvlei Nature Area, comprising 527 ha of privately owned land and established in 1984; Langebaan Nature Area, comprising approximately 40 500 ha (exact figures are not available) and established in 1984 - Visser 249.

[387]Sections 43 and 44.

as defined in the Territorial Waters Act 87 of 1963,[388] to be a 'special nature reserve'.[389] The purpose for which he may make such a declaration is stated as being the protection of the environment in the area.[390] He may only make such a declaration in respect of land or water of which the State is the owner, or which is under the exclusive control of the State.[391] He may only do so with the concurrence of the committee for environmental management established to advise the Director-General on any manner affecting activities which may influence the protection and utilisation of the environment and to co-ordinate and promote the implementation of the provisions of the Environment Conservation Act.[392] The declaration of a special nature reserve may not be withdrawn or its boundaries altered except by resolution of Parliament.[393] With its concurrence and subject to a management plan being drawn up in consultation with it, the Minister may assign the control of a special nature reserve to any local authority or Government institution.[394] Entry into a special nature reserve is strictly controlled. No person may gain admittance, nor perform any activity in or on such an area, except upon written exemption granted by the controlling local authority or Government institution, after consultation with the Minister, granted to a scientist occupied with a specific project, or an officer charged with specific official duties.[395] In respect of such admission and activity, the air space to a level of 500 m above the ground level of the reserve is treated as included in the reserve.[396]

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[388]The sea within a distance of 12 nautical miles from low-water mark - s2 of Act 87 of 1963.

[389]Section 18.

[390]Section 18(2)(a).

[391]Section 18(2)(b).

[392]Section 18(2)(c) as read with ss1, 12 and 13.

[393]Section 18(3).

[394]Section 18(4).

[395]Section 18(6) and (7).

[396]Section 18(8).

9.2.5.3 *Limited Development Areas*

A third category of protected area introduced by the Environment Conservation Act 73 of 1989 is a 'limited development area'. The Minister may by notice in the *Government Gazette* declare any area defined by him as a limited development area, and no person may then undertake any development or activity prohibited by the Minister by notice in the *Gazette*, or cause such development or activity to be undertaken, unless he has on application been authorised to do so by the Minister or a local authority designated by the Minister in the notice, and then only subject to the conditions contained in any such authorisation.[397] In considering any application for such authorisation, the Minister or the designated local authority may request the person applying to submit a report as prescribed concerning the influence of the proposed activity on the environment in the limited development area, in effect an environmental impact assessment.[398] Public participation is catered for in that the Minister may only declare such an area after prior notice in the *Gazette* and newspapers circulating in the area, allowing for not less than 60 days for submission of comment on the proposed declaration. The Minister has to consider all representations received in terms of such notice, and must consult with the relevant Administrator and each Minister charged with the administration of any law which in his opinion relates to a matter affecting the environment in that area.[399]

9.2.5.4 *Coastal Zone*

In 1986 the Minister of Environment Affairs published regulations,[400] commonly referred to as the coastal zone regulations, in terms of the Environment Conservation Act 100 of 1982, the purpose of which was to control coastal development. The regulations required that a permit be issued to any person, including the State, for any

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[397]Section 23(1) and (2).

[398]Section 23(3).

[399]Section 23(4).

[400]GN R2587 dated 12 December 1986.

proposed activity which could lead to the disturbance of the natural state of vegetation, soil, water or other natural surface, within 1 000 metres measured landward from the high water mark of the sea. If applied, the regulations would, in effect, have converted this 1 000 metre strip along the whole of South Africa's 3 000 kilometre coastline into a protected area.

Initially the coastal zone regulations were effectively integrated into the land-use planning and development control procedures of the Natal Provincial Administration; but not in the Cape, mainly because municipal areas were exempted from the regulations notwithstanding that many of these areas were environmentally sensitive and subject to development pressure.

The Environment Conservation Act 73 of 1989, which repealed[401] and replaced Act 100 of 1982, makes no mention of the coastal zone regulations; but provides that anything done under any provision of a repealed law and which could have been under a provision of the 1989 Act shall be deemed to have been done under the relevant provision of the new Act.[402]

Early in 1990 the Chief State Law Adviser notified the Department of Environment Affairs that the regulations were considered to be *ultra vires* in terms of the 1989 Act.[403] The Department advised the Cape and Natal Administrations accordingly, and the Department and the Cape Administration immediately ceased applying the regulations. Natal continued to apply them for some months thereafter, but also stopped doing so in early 1991.

If the regulations were *ultra vires* the 1982 Act, this raises the question whether anything done invalidly under the 1982 Act is deemed to have been done validly under the new

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[401]Section 42(1).

[402]Section 42(2).

[403]For commentary on the coastal zone regulations, and the reasons why they are arguably *ultra vires* or void for vagueness or unreasonableness, see Rabie (1987) 197-201.

Act. It also raises the question whether there is a provision in the new Act under which the regulations could have been published. In any event, there is judicial precedent for the proposition that regulations promulgated under an Act which is superceded by a new Act remain valid, even if such regulations are not specifically referred to in the new Act.[404] There is also a presumption of validity expressed by the maxim *omnia praesumuntur rite esse acta*, and until the regulations are found to be unlawful by a court, there is no certainty that they are unlawful.[405]

The consequence of the above administrative decisions not to apply the coastal zone regulations is their practical demise; legal measures considered to be indispensable for controlling environmentally undesirable development by coastal conservation agencies are no longer enforced, notwithstanding the presumption of their validity until such time as a court of law has ruled otherwise. The coastal zone, as defined in the regulations is, in effect, no longer a protected area in terms thereof.

9.2.5.5 *Protected Areas Recognised under International Instruments*

The Minister may make regulations relating to the application of the provisions of any international convention, treaty or agreement relating to the protection of the environment which has been entered into by or has been ratified on behalf of the Government of the Republic of South Africa.[406] Such regulations may relate, for example, to wetland areas or world heritage sites. The State President may also by proclamation in the *Government Gazette* add to the Environment Conservation Act any schedule containing the provisions of an international convention, treaty or agreement relating to the protection of the environment which has been entered into or ratified by the Government of the Republic. He may similarly amend any such schedule.[407] He

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[404] *Ex parte Glavonic* (*sic*) 1967 (4) SA 141 (N).

[405] Baxter 355.

[406] Section 28(c).

[407] Section 38(1) and (2).

may also enter into an agreement with the government of a self-governing territory as defined in section 38 of the National States Constitution Act 21 of 1971 in order to promote the objects of the Environment Conservation Act.[408]

9.2.5.6 *General Provisions*

(a) *Criminal Sanctions*

When the Administrator has issued directions in respect of a protected natural environment, any person who contravenes any provision of such directions, or fails to comply therewith, is guilty of an offence and liable on conviction to a fine not exceeding R8 000,00 or to imprisonment for a period not exceeding two years or to both such fine imprisonment.[409] In relation to special nature reserves, any person who has gained admittance or performed an activity without exemption, or who contravenes a condition of exemption, shall be guilty of an offence and liable on conviction to like penalties. Any person convicted of an offence in terms of the Act for which no penalty is expressly provided, shall be liable to a fine not exceeding R2 000,00 or to imprisonment for a period not exceeding 6 months or to both such fine and such imprisonment.[410] Continuing offences attract penalties of R250,00 or 20 days imprisonment or both in respect of every day that the offence continues.[411] In the event of conviction in terms of the Act, the Court is authorised to order that any damage to the environment resulting from the offence be repaired by the person convicted to the satisfaction of the Minister or the local authority concerned.[412] Upon default, the Minister or local authority may take the necessary steps to repair the damage and may recover the cost

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[408]Section 39.

[409]Section 29(2)(a).

[410]Section 29(5).

[411]Section 29(6).

[412]Section 29(7).

thereof from the person convicted.[413] The Magistrate's Court is given authority to impose any penalty provided for in the Act.[414] Any vehicle or other thing used in the commission of an offence may be declared by the Court convicting any person of an offence under the Act to be forfeited to the State.[415]

(b) *Public Participation*

Before the Administrator declares an area to be a protected natural environment, a special nature reserve, or a limited development area, a draft notice must first be published in the *Government Gazette* or the *Official Gazette*, which notice must include the text of the proposed declaration, a request that interested parties submit comments in connection with the proposed declaration within the period stated in the notice, being not less than 30 days after publication, and the address to which such comments should be submitted.[416]

(c) *Delegation*

The powers or duties conferred upon or assigned to Ministers, Administrators, local authorities or government institutions, may all be delegated or assigned to officers or employees in the relevant Government or provincial or local authority departments, save for certain specified powers which may not be delegated. Amongst the powers which cannot be delegated are the issue of directions by an Administrator in respect of protected natural environments, the declaration of special nature reserves by the Minister of Environment Affairs, the Minister's power to assign the control of a special nature or Government institution, and the Minister's power to make regulations with regard to limited development areas.

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[413]Section 29(8).

[414]Section 29(9).

[415]Section 30(1).

[416]Section 32.

(d) *Compensation for Loss*

If limitations are placed on the purposes for which land may be used or on activities which may be undertaken on the land, the owners and holders of real rights in such land have a right to recover compensation from the Minister or Administrator concerned for actual loss as a result of such limitations. The amount recoverable is determined by agreement with the Minister or Administrator, as the case may be, with the concurrence of the Minister of Finance. In the absence of such agreement the amount to be paid will be determined by a Court in terms of the Expropriation Act 63 of 1975.[417]

(e) *Appeals and Reviews*

Decisions made by officers or employees enforcing provisions of the Act under delegated authority are subject to appeal to the relevant Minister or Administrator, who may confirm, set aside or vary the decision of such officer or employee.[418] In addition, any person whose interests are affected by a decision of an administrative body under the Act may, within 30 days after becoming aware of such decision, ask such body in writing to furnish reasons for the decision within 30 days after receiving the request. Within a further 30 days after being furnished with reasons (or after the expiration of the period within which reasons should have been furnished), the person concerned may apply to the Supreme Court for review of the decision.[419]

9.2.6 Forest Act 122 of 1984

Before Union in 1910 each colony had its own laws for the preservation of trees and veld. The various laws relating to forests, grass, grass burning and veld conservation were consolidated by the Forest Act 13 of 1941 which, in turn, was repealed and substituted by the Forest Act 72 of 1968. The 1968 Act was amended several times, and

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[417]Section 34.

[418]Section 35.

[419]Section 36.

was eventually repealed and substituted by the Forest Act 122 of 1984 which, as subsequently amended,[420] is the current law relating to the protection, management and utilisation of forests, the protection of certain plant and animal life, the creation of a national hiking way system, and the establishment of wilderness areas, forest nature reserves and national botanic gardens.

9.2.6.1 *Natural Water Sources*

The Minister of Environment Affairs may by notice prohibit the planting of trees within any area of land which is being used or may be used to produce timber in terms of the Act, or prohibit any other act, or direct the owner to take any other steps which in the opinion of the Minister are necessary for the protection of any natural water source. After an existing timber crop has been harvested or destroyed, an owner of land may not allow the regeneration of a commercial timber plantation on any part of his land to which such a notice applies.[421]

9.2.6.2 *State Forests*

'State forest' is widely defined so as to include not only State plantations and land controlled and managed by the Department of Environment Affairs for research purposes or for the establishment of a commercial timber plantation, but also an area which has been set aside for the conservation of fauna and flora, for the management of a water catchment area, for the prevention of soil erosion or sand drift, or for the protection of indigenous forests.[422]

If the Minister is of the opinion that it is necessary for the better achievement of the objects of the Act that an undemarcated forest or a part thereof be entrenched against alienation by being converted into demarcated forest he must give notice of his intention

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[420]By Acts 97 of 1986, 52 and 90 of 1987, and 25 of 1989.

[421]Section 8.

[422]Section 1.

to do so in the *Government Gazette* and serve a copy of such notice on the body which in his opinion represents organised agriculture in the district in which that forest or part of a forest is situated, as well as on the magistrate of that district. Any person who wishes to object to the proposed demarcation may within 30 days lodge his objection in writing with the Minister setting out the grounds of his objection. After expiry of the 30 day period and after having considered any objections lodged, the Minister may, by notice in the *Gazette* declare the undemarcated forest or part of a forest to be demarcated.[423] The consequence of such a declaration is that the affected area may not be withdrawn from demarcation except with the approval, by resolution, of Parliament.[424]

No servitudes or any other rights of whatever nature may be acquired by prescription in respect of a State forest or any part thereof. However, the Minister may grant such rights with the approval, by resolution, of Parliament on such conditions as Parliament may determine.[425] On the other hand, and somewhat inconsistently, the Director-General may in the prescribed manner grant any right, whether of a permanent or temporary nature, to various government agencies, as well as temporary rights to any person for a wide variety of purposes, such as trading, grazing, cultivation of land, drilling, and the erection of factories, residences or camping facilities, or for utilisation of any part of a State forest for any other purpose whatsoever; provided that the exercise of such rights will not be detrimental to the forest or any forest produce occurring in it.[426] Prospecting and mining for precious metals, base minerals, precious stones, natural oil and source material within forests are permitted, save that no forest produce may be cut, damaged, taken or removed by the holder of such rights except on the authority of a licence or permit of the Director-General.[427] Servitudes, rights to

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[423]Section 10(1).

[424]Section 10(2).

[425]Section 11(1).

[426]Section 11(2)(a).

[427]Section 11(2)(b).

forest produce, rights of grazing, cultivation, residence or camping, rights to water, or any other rights in respect of State forests which existed at the commencement of the Act, remain in force, but may only be exercised in the prescribed manner. The Director-General is required to keep a register in which all such servitudes and rights are noted.[428] In his discretion, the Director-General may at any time temporarily or permanently close any road in a State forest, or prohibit access to it.[429]

9.2.6.3 *Protected trees on private land*

The Minister may by notice in the *Gazette* declare a particular tree, a particular group of trees, or trees belonging to a particular species, to be a protected tree or trees. Such a declaration may only be made for the attainment of certain specified objects, such as the preservation of the scenic beauty or of some natural scenic attraction, the prevention of soil erosion or sand drift, the maintenance of the natural diversity of species, the preservation of tree-dominated biomes, or the conservation and development of natural resources.[430] In respect of any such declaration, the Minister may establish consultative committees and local control committees.[431]

Unless acting in compliance with the provisions relating to fire belts or in terms of any applicable regulations, it is an offence to cut, damage, destroy, disturb or remove any tree protected in accordance with these provisions, except upon written authority or exemption from the Minister.[432] The Act also provides for compensation to be paid to the owners of land who are affected by these restrictions on private ownership. The Director-General is required to expropriate the private land affected where there is substantial interference with the beneficial occupation of the land, or the rendering of

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[428]Section 11(3) and (4).

[429]Section 12(1).

[430]Section 13(1) and (2).

[431]Section 13(4).

[432]Section 13(5).

a substantial part of it unavailable for the purpose for which it is being used before the relevant notice was issued.[433]

In theory at least, the Minister could use these provisions to protect wilderness on private land.

9.2.6.4 *Nature Reserves and Wilderness Areas*

The provisions of the Forest Act relating to the establishment and protection of nature reserves and wilderness areas within State forests are dealt with in Chapter 8.

9.2.6.5 *National Botanic Gardens*

Ten existing national botanic gardens are listed in the first schedule[434] to the Act. The Minister may by notice in the *Gazette* declare procured or reserved State land, or any land made available by the owner by agreement with the Minister of Public Works, for the purposes of a national botanic garden for such period and on such conditions as the Minister of Environment Affairs, after consultation with the Board for National Botanic Gardens may approve, to be a national botanic garden.[435] State land which forms part of a national botanic garden may not be alienated or employed for any other purpose except with the approval, by resolution, of Parliament.[436] The Board may, with the concurrence of the Minister of Environment Affairs, make by-laws relating, *inter alia,* to public access, the protection or conservation of any animal, plant or property, and any other matter which in the opinion of the Board is necessary for the control and management of a national botanic garden. Such by-laws may prescribe penalties not

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[433]Section 14.

[434]Schedule 1.

[435]Section 66(2)(a).

[436]Section 66(3).

exceeding R1 000,00 or imprisonment not exceeding three months, or both such fine and such imprisonment.[437]

9.2.7 National Monuments Act 28 of 1969

The first Act passed in South Africa to protect objects of historical interest was the Bushmen-Relics Protection Act 22 of 1911 which, together with the Natural Historical and Monuments Act 6 of 1923, was repealed by the Natural and Historical Monuments, Relics and Antiques Act 4 of 1934. Under the 1923 Act the Commission for the Preservation of Natural and Historical Monuments of the Union was appointed. This body has continued in existence under the 1934 Act, but under the title 'The Commission for the Preservation of Natural and Historical Monuments, Relics and Antiques'. The War Graves Act 34 of 1967 provided for the repair and maintenance of graves of persons who died in the Republic in certain wars, and for the establishment of gardens of remembrance and for the erection of memorials. This Act was repealed by the National Monuments Amendment Act 13 of 1981.

The current legislation is the National Monuments Act 28 of 1969 (as amended), which consolidates and replaces all of the above. It provides for the preservation of certain property, both immovable and movable, as national monuments,[438] and establishes a National Monuments Council.[439] The Act is not only concerned with architectural conservation or the preservation of buildings for their historical or heritage values; natural areas and features may also be declared national monuments. Certain oak and baobab trees, and modjadji palms, for example, have been declared national monuments, as have certain areas, such as Table Mountain, some urban parks, and a nature reserve at the University of the Western Cape.[440]

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[437]Section 72.

[438]Section 10(1).

[439]Section 2.

[440]Hall & Rabie 177.

9.2.7.1 *National Monuments*

The National Monuments Council has the power, *inter alia*, by notice in the *Government Gazette*, to declare any immovable property in respect of which it is investigating the desirabilty of recommending as a national monument, provisionally to be a national monument.[441] However it may not do so in respect of any property belonging to the State, unless the Minister of National Education consents, or any property belonging to any other person, without the consent of such person, unless the Council has at least a month before the date of such notice served upon the owner of such property a written notice advising him of the proposed declaration and calling upon him to lodge objections within one month of the date of service of such notice.[442]

Whenever the Minister considers it to be in the national interest that any immovable or movable property of aesthetic, historical or scientific interest be preserved, protected and maintained, he may on the recommendation of the Council by notice in the *Government Gazette* declare such property to be a national monument.[443] However, he may not do so in relation to any property belonging to a person other than the State or the Council, without the consent of such person, unless the Minister is satisfied that the Council has at least one month before making its recommendation, served upon the owner a written notice advising him of the proposed recommendation and calling upon him to lodge objections with the Council within one month of such service. The Council has to submit to the Minister all objections lodged with it by the owner.[444]

Any person who sells, exchanges, or otherwise alienates, or pledges or lets any monument shall forthwith inform the Council of the name and address of the person to

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[441]Section 5(1)(c).

[442]Section 5(5).

[443]Section 10(1).

[444]Section 10(3).

whom it has been alienated, pledged or let.[445] No person may destroy, damage, excavate or alter any monument except under the authority of and in accordance with a permit issued by the Council subject to the directions of the Minister.[446] Whenever the Council refuses an application for such a permit, or has granted the application subject to any terms, conditions, restrictions or directions, the applicant for the permit may appeal against the decision of the Council to the Minister, who may confirm such decision or direct the Council to grant the application subject to such terms, conditions, restrictions or directions as he may determine.[447] Failure to comply with these provisions constitutes an offence. Upon conviction of such offence, the Council may, in writing, direct the offender to put right the result of the Act of which he was found guilty and, upon failure to comply, the Council may put right or cause to put right the result of the act constituting the offence, and recover the cost of doing so from such person.[448]

Whenever any area of land has been declared or provisionally declared to be, or has been recommended to be declared or has been included in, a national monument, or whenever the Council is investigating the desirability of having any area of land so declared or included, the Council must furnish the relevant registrar of deeds with a copy of the relevant notice and particulars of any survey and diagram, and the registrar is required to endorse upon the title deeds of the land in question reference to such notice and particulars.[449]

The penalty prescribed for the offence of failing to comply with the above provisions is a fine not exceeding R10 000,00 or to imprisonment for a period not exceeding ten years

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[445]Section 12(1).

[446]Section 12(a) and (4).

[447]Section 12(5).

[448]Section 12(6).

[449]Section 13.

or to both such fine and such imprisonment.[450] The Minister may make regulations, *inter alia*, in relation to all matters which he considers to be necessary or expedient for achieving the objects of the Act.[451]

9.2.7.2 *Conservation Areas*

The Council is empowered to compile and maintain a register of immovable property which it regards as worthy of conservation on the ground of its historic, cultural or aesthetic interest and to supplement, amend or delete any entry in the register from time to time by notice in the *Government Gazette*; provided that an entry shall not be made until such time as it has consulted with the local authority in whose area of jurisdiction such immovable property is situated.[452] The Council may also, after consultation with the relevant authority, by notice in the *Government Gazette*, designate any area of land to be a conservation area on the ground of its historic, aesthetic or scientific interest; provided that in the absence of any agreement the relevant authority may appeal to the Minister who may, after consultation with the Council, revoke such designation by notice in the *Government Gazette*.[453] Any planning authority and the owner of immovable property appearing in such register, or of a conservation area, are required to consult with the Council in respect of planning which affects such immovable property or such a conservation area.[454]

The Council may, with the approval of the Minister, make by-laws regulating, *inter alia*, admission of members of the public to monuments under its control; the safe-guarding of monuments and conservation areas from damage, disfigurement, alteration, destruction, or defilement; and the conditions of use by any person of any area of land

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[450]Section 16.

[451]Section 17.

[452]Section 5(1)(cC), inserted by s4(b) of the War Graves and National Monuments Amendment Act 11 of 1986.

[453]Section 5(9).

[454]Section 12(1A).

which has been declared to be a monument and which is under the control of the Council, as well as of conservation areas.[455] Similarly, any local authority may with the approval of the Minister and of the Council make such by-laws in respect of monuments under its control, as well as conservation areas.[456] Such by-laws made by the Council or a local authority may prescribe fines not exceeding R100,00 for any contravention.[457]

9.2.8 Defence Act 44 of 1957

9.2.8.1 *Defence Areas*

The Minister of Defence is granted extensive powers to do or cause to be done all things which in his opinion are necessary for the efficient defence and protection of the Republic or any part of the Republic.[458] He may prohibit or restrict access to land which is subject to military control.[459] The Defence Force controls 55 areas totaling 55 294 ha.[460] These areas are used primarily for training and testing purposes. However, it is declared policy that the areas be managed scientifically with a view to nature conservation as a secondary objective. Environmental conservation has always been part of the military tradition, and from 1978 the Defence Force has approached conservation in a more scientific and organised manner. With effect from the 1982/83 financial year, funds have been made available for nature conservation purposes.[461]

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[455]Section 18(1).

[456]Section 18(2).

[457]Section 18(3).

[458]Section 76.

[459]Section 89.

[460]Register of Protected Areas (1988) 2 and 72-5.

[461]President's Council Report (1984) 29. In the context of nature conservation and military activities, Salm & Clark 16 make the point that '(m)ultiple objectives can allow simultaneous conservation and nonconservation activities' - restricting access to a military area in Queensland, Australia, for example, has resulted in the protection of a large population of endangered dugong (*Dugong dugon*), which are not threatened by the military activities. On the role of the South African Defence Force in nature conservation generally, see Cooper 290-1, and on the conservation compatability of its establishment of a missile guidance testing range

9.2.9 Sea Fishery Act 12 of 1988

9.2.9.1 *Marine Reserves*

The Sea Fishery Act 12 of 1988 authorises the Minister of Environment Affairs by notice in the *Government Gazette* to set aside an area as a marine reserve for the protection, within such reserve, of fish in general or of fish belonging to a particular species or any aquatic plant.[462] 'Fish' is defined as every species of sea animal, whether vertebrate or invertebrate, including the spawn or larvae of such sea animal, but excluding any seal or sea bird.[463] Fish and marine organisms are protected by means of prohibitions against their catching, disturbance or possession.[464]

9.2.10 Seashore Act 21 of 1935

9.2.10.1 *Seashore*

Control over the use of the seashore, which is the water and land between the low-water mark and the high-water mark, is exercised by the Minister of Community Development,

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in the De Hoop Provincial Nature Reserve, see Hey 288-293 and 296-8.

[462]Section 34(1)(a).

[463]Section 1 - seals and seabirds are conserved under the Sea Birds and Seals Protection Act 46 of 1973. Marine reserves that were established under the previous Sea Fisheries Act 58 of 1973, and administered by the Marine Development Branch of the Department of Environment Affairs (formerly of Sea Fisheries), include rock lobster sanctuaries at Melkbos, Hout Bay, Saldanha Bay and St. Helena Bay (established in 1940), a perlemoen reserve at Dyers Island (1983) and the following general marine sanctuaries: H F Verwoerd Coastal Reserve at Betty's Bay (1973), Robberg and Walker's Point, Knysna (1948/1073), Sardinia Bay Sea Reserve, Port Elizabeth (1974), False Bay Sea Reserve (1979), Langebaan Lagoon (1979), Trafalgar Marine Reserve (1979) and two St. Lucia Marine Reserves (1979). All species of fish are protected in Sardinia Bay, False Bay, Langebaan and one of the St. Lucia Reserves, whilst marine life is protected to a greater or lesser degree in the other reserves (see Rabie (1985) 73). Portion of the sea 0,8 kilometre to seaward of the low-water mark of the sea is included in the Tsitsikamma Forest and Coastal National Park (see Schedule 1 of the National Parks Act 57 of 1976). Because 'animal' is defined in s1 of Act 57 of 1976 as including any member of the animal kingdom, this means that the extensive conservation provisions of the National Parks Act apply to marine animals in this particular area. Provincial nature reserves that border on the sea do not extend to seaward of the high-water mark; but there is some control of marine life in other areas by virtue of control over the seashore having been devolved upon the Cape and Natal provincial administrations.

[464]Regulations 3, 4 and 5 of the schedule to GN R1810 of 27 July 1990.

who delegated[465] some of his powers in 1977 and 1980 respectively to the executive committees of the Cape and Natal Provincial Administrations. The Minister may also authorise local authorities to make regulations relating to the use of the seashore,[466] and several Cape local authorities have published such regulations, whilst Natal has a uniform set of seashore regulations.[467] 'Local authority' is defined so as to include the National Parks Board of Trustees, and the Natal Parks Board.[468] Although strictly speaking not a conservation area, conservation principles may, to some extent, be applied to the seashore which extends for over 3 000 km along the South African coastline.

9.2.11 Sea Birds and Seals Protection Act 46 of 1973

9.2.11.1 *Islands*

Most islands around the South African coast are in effect legally protected areas. The Sea Birds and Seals Protection Act lists 36 islands which are controlled by the Marine Development Branch of the Department of Environment Affairs.[469] The Minister may by notice in the *Government Gazette* add to or remove from the schedule the name or description of any island.[470] They are controlled as sanctuaries and breeding stations for sea birds. It is an offence for anyone to set foot on or remain on an island, or to disturb, capture or kill any sea bird or seal or to damage the eggs of any sea bird or to collect or remove any such eggs or feathers or guano, unless in the performance of duties under the Act or under the authority and subject to the conditions of an

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[465]Pursuant to s11(2).

[466]Section 10(1).

[467]GN R168 of 2 February 1962, GN R2235 of 28 October 1977.

[468]Section 1.

[469]Schedule 1.

[470]Section 14.

exemption or a permit.[471] The Act also makes provision for further control through regulations.[472]

9.2.12 Provincial Nature Reserves

The conservation of flora and fauna is the responsibility of the provincial administrations.[473] In discharging that responsibility, the provinces either extended the system of reserves that were extant at the time of Union, or started new reserves. Although the terminology employed differs to some extent in the four relevant Ordinances, the concepts are similar and the term 'provincial nature reserve' is used as a convenient generic descriptive term. Such reserves are established in terms of the following ordinances:

- Nature Conservation Ordinance 19 of 1974 (Cape)
- Nature Conservation Ordinance 15 of 1974 (Natal)
- Nature Conservation Ordinance 8 of 1969 (Orange Free State)
- Nature Conservation Ordinance 17 of 1967 (Transvaal).

9.2.12.1 *Cape Province*

Chapter II of the Cape ordinance makes provision for the establishment of three classes of nature reserves: provincial, local and private.

The Administrator may by proclamation establish provincial nature reserves on any land under his control or management and, after consultation and conclusion of an agreement

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[471]Section 3.

[472]Section 11. St Croix, Brenton Rock and Jahleel Islands (Algoa Bay) have since 1979 been controlled as reserves, mainly for research on penguins, by the Cape Provincial Department of Nature and Environment Conservation. Robben Island has been controlled by the Ministry of Justice (Prisons Service), and Marion and Prince Edward Islands by the Ministry of Transport Affairs - Rabie (1985) 75.

[473]Pursuant to s(11)(1)(a) read with Schedule 2 Paras 2 and 2A of the Financial Relations Act 65 of 1976. The provisions of the four ordinances relating to the conservation of wildlife are dealt with more fully in the first part of this Chapter.

with any State department, on land which is under the control or management of such State department. He may by agreement or expropriation acquire any land which he considers necessary and suitable for the purpose of establishing a provincial nature reserve, and is given wide-ranging powers to make regulations relating to such reserves.[474]

Any local authority may, with the approval of the Administrator and subject to such conditions as he may specify, establish a local nature reserve on land vested in it or under its control or management, and it may, for that purpose, acquire land by agreement or expropriation.[475] If the Administrator is of the opinion that any action taken or proposed to be taken by a local authority in the course of management, control or development of a local nature reserve established by it will be detrimental to the reserve or the purposes for which it was established, he may, after consultation with the local authority by order in writing prohibit such action or the continuance thereof, or allow it to continue subject to conditions. If adequate steps to comply have not been taken by the local authority, the Administrator is authorised to abolish the local nature reserve concerned.[476] There is also provision for the payment of an annual subsidy to every local authority which has established a local nature reserve out of monies appropriated for that purpose by the Provincial Council.[477]

Subject to the approval of the Administrator and any conditions he may specify, any owner of land may establish a private nature reserve on his land and give it a name. With the approval of the Administrator, he may alter the boundaries or the name of the reserve, or abolish it. Any alteration or abolition must be notified in the *Provincial Gazette*.[478] Subject to any conditions imposed by the Administrator, any person who

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[474]Section 6.

[475]Section 7(1).

[476]Section 10.

[477]Section 11.

[478]Section 12.

has established a private nature reserve must manage, control and develop it with a view to the propagation, protection and preservation of fauna and flora.

9.2.12.2 *Natal*

The Natal Ordinance defines no fewer than seven different types of protected area:

- commercial game-reserve
- game park
- game reserve
- national park
- nature reserve
- private nature reserve
- private wild-life (*sic*) reserve.[479]

National parks, game reserves and nature reserves are established by the Administrator by proclamation in the *Provincial Gazette*. He may also, by subsequent proclamation, increase or decrease the area of any such place or alter the boundaries thereof; provided that the area of any game reserve or nature reserve established on State land may not be increased or its boundaries altered except with the prior approval of the Minister of Agriculture.[480] The Ordinance contains detailed provisions relating to restriction of entry into such areas, and the prohibition of certain acts therein. For example, it is unlawful to enter such an area without the permission of the Board, or to kill, injure or disturb any animal, or cause a veld fire or injure a tree, or be in possession of a snare within such an area.[481]

The Administrator may also, upon the recommendation of the Natal Parks Board and after application by an owner of land wishing to have any area of his land proclaimed

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[479]Section 1.

[480]Section 2.

[481]Section 15(1).

a private nature reserve or a private wild-life reserve, by proclamation in the *Provincial Gazette* establish such areas.[482] The gathering of indigenous plants and the hunting of wild birds within such private reserves without permit issued by the Board are prohibited.[483] A limiting provision relating to private nature reserves requires that no area may be declared as such unless or until it is, in the opinion of the Board, effectively enclosed within a fence kept in sound order and good repair or otherwise suitably demarcated. The fence must conform to minimum prescribed standards.[484] There are areas of land in private or local authority ownership which are eminently suitable for proclamation as private nature reserves, but the cost of fencing is prohibitive. Any area proposed as a private wildlife reserve must be effectively enclosed with the fence kept in sound order and good repair and conforming to minimum prescribed standards.[485] The owner is also obliged to undertake, in writing, that he will properly and adequately maintain the reserve and the fencing.[486]

9.2.12.3 *Orange Free State*

Chapter V of the Orange Free State ordinance makes provision for the establishment of two classes of nature reserves: provincial nature reserves and private nature reserves.

The Administrator may establish, maintain and manage a nature reserve and may for this purpose also establish a transport service and provide accommodation and camping and other facilities for visitors to such reserve. He may, by notice in the *Provincial Gazette*, declare a nature reserve established by him to be a provincial nature reserve. No person

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[482]Sections 59.

[483]Section 60.

[484]Section 62.

[485]Section 64.

[486]Section 67(a)(i).

may hunt a wild animal or pick an indigenous plant in a provincial nature reserve without his permission.[487]

The Administrator may also, on the application of the owner of land and on such conditions as may be prescribed or as the Administrator may determine, declare such land or any portion thereof, by notice in the *Provincial Gazette*, to be a private nature reserve. He may, by similar notice, amend or withdraw such a declaration. No person may hunt a wild animal or pick an indigenous plant in a private nature reserve except with the permission of the owner or of a person authorised by the owner in writing to give such permission.[488]

9.2.12.4 *Transvaal*

The Transvaal Ordinance makes provision for the declaration of nature reserves. The Administrator may, by notice in the *Provincial Gazette*, declare an area defined in the notice to be a nature reserve and he may at any time by like notice amend the definition of such an area or withdraw the declaration of such an area to be a nature reserve.[489]

No person may hunt game in a nature reserve, provided that upon written application by the owner of land within such reserve, a permit may be issued to him or to any other person indicated by him in the application, authorising the holder to hunt the species, number and sex of game referred to in the permit on the land of the owner.[490] Where the Administrator is of the opinion that land is fenced in such a way that game cannot readily gain access to it or escape from it, he may, on written application from the owner of the land, exempt the owner or any other person indicated by the owner in his

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[487]Section 35.

[488]Section 36.

[489]Section 14.

[490]Section 19(1)(a).

application, from all or any of the provisions of the ordinance applicable to hunting, catching or sale of game on such land.[491]

A system of private nature reserves has been applied extensively in the Transvaal. Private nature reserves are in effect exempt from hunting restrictions, as indicated above, and this may be the reason for the number of such reserves in this province.[492]

No person may establish or operate a game park, zoological garden, bird sanctuary, reptile park, snake park or similar institution, unless he is the holder of a permit which authorises him to do so.[493]

9.2.13 Other Protected Areas

9.2.13.1 *Conservancies*

The conservancy system was developed in Natal. The Natal Parks Board defines a conservancy as 'a group of farms whose owners have combined resources for improved conservation and well-being of wildlife inhabiting the area. The term wildlife in this instance encompasses mammals, birds, fish, natural vegetation and all desirable natural life forms.'[494] The Board assists land owners in a conservancy by training of staff, provision of animals at reasonable prices for re-stocking, and technical advice on management planning. The conservancies are, however, run and financed entirely by the farmers themselves. Conservancies do not have any legal nature conservation status. The system has rapidly gained in popularity. The first conservancy was established at Balgowan in 1978, consisting of 31 members, one game guard, and a total area of 1 859

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[491]Section 47(1).

[492]President's Council Report (1984) 33 - 4. There are 84 private nature reserves totalling 71 187 ha in the Cape, 8 totalling 1 866 ha in Natal, 7 totalling 10 975 ha in the Orange Free State, and 544 totalling 1 309 850 ha in the Transvaal - Register of Protected Areas (1988) 2.

[493]Section 50(1). This section does not apply to an institution which is subject to the provisions of the Cultural Institutions Act 29 of 1969 - s50(2).

[494]*Natal Parks Board Information Pamphlet*, cited in President's Council Report (1984) 35.

ha. By 1988, 90 conservancies had been established in Natal, with a total number of 1 077 members and 242 guards, and comprising a total area of 701 324 ha. There is one conservancy in the Transvaal of 10 000 ha.[495]

9.2.13.2 *Biosphere Reserves*

The concept of biosphere reserves has also been introduced in Natal. Two recent examples of such reserves are the Ingwagwanae Biosphere Reserve which is based on the Coleford Nature Reserve and was inaugurated on 3 March 1990, and the Polela Biosphere Reserve which is based on the Cobham State Forest and was inaugurated on 2 June 1990. Biosphere reserves are founded on the co-operative management of natural resources by an authority, in these two cases the Natal Parks Board, and the neighbours of a reserve. Man is regarded as an integral part of the process, and the importance of the concept is the notion of consolidating established conservation areas with local community involvement.[496] Although the concept of biosphere reserve as applied in Natal is not quite the same as the UNESCO Man and The Biosphere Programme[497] in that the areas do not enjoy full legal protection and, because of South Africa's isolation from the international community, the local programme has not been incorporated in the international programme, the local initiative holds great conservation potential and should be encouraged, developed and introduced in the other provinces.

9.2.13.3 *Public Resorts*

Although many public resorts are sufficiently large to give protection to flora and fauna, they cannot strictly be regarded as conservation areas because their primary purpose is the provision of recreational and entertainment facilities to the public. Such resorts are established, in the case of three provinces, in terms of provincial ordinances, namely the Transvaal Public Resorts Ordinance 18 of 1969, the Cape Public Resorts Ordinance 20

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[495]Register of Protected Areas (1988) 2 and 44-8.

[496]*Natal Parks Board News* 14 (1990) 2.

[497]See Chapter 7 for a discussion of the international Man and Biosphere Programme.

of 1971, the Natal Recreational Facilities Ordinance 24 of 1972, and the Natal Nature Conservation Ordinance 15 of 1974. In the Orange Free State public resorts are established by virtue of the provisions of the Financial Relations Act 65 of 1976[498] which transferred to provinces the power to legislate, *inter alia*, for the establishment of such resorts. They may also be established in terms of municipal by-laws.

9.2.13.4 *Local Nature Reserves*

In the Cape, as indicated above, the Nature and Environmental Conservation Ordinance 19 of 1974 makes provision for the establishment of local nature reserves by local authorities. In the other provinces, local authorities have established such reserves in terms of local by-laws. In some cases areas of zoned public open space are administered as local nature reserves, for example the Palmiet and Roosfontein Nature Reserves in Westville, Natal.[499]

9.2.14 Administration of protected areas

As will appear from the above review, several administrative authorities at all three existing tiers of Government are involved with the control, management and administration of protected areas, as well as private organisations and individuals.[500]

9.2.15 The need for national policy

In terms of the Environment Conservation Act 73 of 1989, the Minister of Environment Affairs may determine the policy to be applied, *inter alia*, for 'the protection of ecological processes, natural systems and the natural beauty as well as the preservation of biotic

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[498]Schedule 2 Para 23.

[499]Zoned as 'public open space' in terms of the local authority's Town Planning Scheme in Course of Preparation, but managed administratively as local nature reserves.

[500]For a listing of the controlling authorities of the different protected areas, see Register of Protected Areas (1988).

diversity in the natural environment.'[501] When a national policy on nature conservation is determined, it should take into account modern international concepts of protected areas, and point the way toward a more rational, holistic and co-ordinated national strategy and legal and administrative dispensation than the current *ad hoc*, fragmented and complex prescriptions for the establishment, status, designation, management and control of protected areas.

9.3 CONCLUSON

Wildlife law is designed to protect wildlife. The purpose of protection of habitat is the conservation of its wildlife species. There are many different categories of protected areas, each having different purposes and management requirements. All of them, apart from 'special nature reserves' established (on State land only) under the Environment Conservation Act, and wilderness areas established (in State forests only) under the Forest Act, may legally be subjected to substantial intrusion and manipulation. None of them comes close to being a 'wilderness equivalent', and none of them, including 'special nature reserves' and wilderness areas in State forests, is able to secure protection of wilderness values in their totality; nor are they able to do so cumulatively. Wilderness is an essential and distinct component in South Africa's system and spatial planning, and in the Recreation Opportunity Spectrum.[502] South Africa clearly has need of a discrete Wilderness Act.

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[501]Section 2(1)(a).

[502]The importance of wilderness as a component of a country's Recreation Opportunity Spectrum (ROS) is discussed in Chapter 3 para 3.1.7.4.

CHAPTER TEN

SUMMATION AND LEGAL PRAXIS FOR SUSTAINABLE PROTECTION: A MODEL WILDERNESS ACT

10.1 SUMMATION

The main conclusions of this work are, first, that the remnants of South African wilderness merit protection and, secondly, that they need effective legal protection if they are to endure in our landscape. Such protection can only be provided by legislation; administrative zoning is not enough. In this section, therefore, a summary will be presented of those conclusions derived from the discussion in the previous chapters which are relevant to statutory prescription. In the next section the different threads of argument and theoretical debate about the meaning and significance of wilderness will be drawn together into a practical pattern of effective protection in the form of a model Wilderness Act, with brief commentary where this is necessary or appropriate.[1]

10.1.1 Definition

The question of wilderness definition was addressed in Chapter 1. There is no universally accepted or applicable definition of wilderness. Notwithstanding the difficulty of definition, a clear and comprehensive statutory definition is essential if meaningful and effectual protection of wilderness is to be achieved. Not only will such definition be a formal statement of the value of wilderness to society, it will also serve as an authoritative guide to administrators of the way in which wilderness should be protected and the purpose of such protection. The wording of the definition must relate to the purpose of definition. For the purpose of statutory protection, there are two important implications and determinants: the wording must be precise and it must be legally enforceable. It will therefore be a definition of *legal* wilderness, but must take into account the perceived nature and values of *sociological* wilderness.

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[1]The full text of the draft Wilderness Act, without commentary, is provided in Appendix D.

The question whether legal wilderness should include marine wilderness was also considered in this chapter, and it was concluded that wilderness legislation is appropriate for the terrestrial realm and for components of the coastal realm, but not for other parts of the latter, nor the ocean. A National Wilderness System should be but one constituent of a planned national network of protected area systems.

10.1.2 The purpose of protection

Chapter 2 presented historical perspectives of:

(a) human impacts on wilderness and other natural areas, and

(b) the evolution of human attitudes toward wilderness and wildlife.

The overview clearly demonstrated the urgent need in South Africa for a newly conceived plan of legal protection, the need for re-assessment of the legal dispensation for their protection consistent with current perceptions of their values. The effective legal protection of wilderness is a logical culmination of this evolution.

The trend in modern thinking towards deep ecology and biocentricism was also discussed in this chapter. There is a growing body of opinion that nature and its components have intrinsic value and are therefore deserving of respect for reasons other than human utility. The preservation of wilderness is increasingly being regarded as part of the moral obligation owed to future generations and to non-human entities. Any legal disposition or prescription relating to wilderness should accommodate these trends.

In legal prescription for the protection of wilderness, it is important that the purpose of its protection be identified in a formal policy statement which incorporates reference to its values.

10.1.3 Socio-economic considerations

In Chapter 3, the socio-economic and political principles and realities which should be taken into account by the legal draftsperson concerned with protected areas legislation were considered, the most pertinent of which were the following:

- For economic and other utilitarian reasons, wilderness is deserving of strict and comprehensive legislative protection.

- Sustainable development cannot be achieved without conservation of living resources, and living resources cannot be conserved without protection of the natural areas in which they occur.

- Wilderness is a living resource itself, and an important reservoir of living resources, a diversity of genetic material, and natural evolutionary and ecological processes.

- The conditions for sustainable agriculture include the maintenance of adequate habitat for wildlife and the conservation of genetic resources.

- The unfortunate history of colonial and post-colonial conservation and land use planning efforts has demonstrated that a 'top-down' approach does not work in Africa - for conservation and land use policies and programmes to be sustainable, the people themselves must be involved in their formulation and implementation.

- In Africa conservation must be seen to have a human face - its benefits must be made part of the regional economies of rural communities, and must be real, tangible and not long delayed.

- Wilderness preservation is an attainable form of conservation in developing countries because it is the least demanding in terms of high technology, financial resources and manpower.

- National planning must provide a mosaic of protected areas with varying degrees of access by indigenous people - wilderness should be the benchmark and core component of such planning.

- Local communities need to be re-introduced to the responsibilities as well as the benefits of their natural resources.

- There should be centralised control - to avoid divergent conservation programmes, conservation and land use policies and programmes should be formulated at national government level.

- Ecotourism is important for economic development in South Africa, and wilderness is important for ecotourism.

10.1.4 Aboriginal tenure and harvesting rights

Two chapters were devoted to the discussion of aboriginal tenure and harvesting rights because access to the land and to natural resources will undoubtedly be a major item on the political agenda of the emerging 'new' South Africa. In Chapter 4, the international trend toward recognition and accommodation of tribal cultures and their aboriginal natural resource harvesting rights within national legal and political systems was discussed. In Chapter 5, aboriginal rights to the land and wilderness in South Africa were considered. The main points from these two chapters to be borne in mind in the drafting of wilderness legislation are the following:

- Because of their historical background and the traditional values and wisdom that reside within them, tribal cultures are deserving of protection and accommodation within our national legal and political system.

- Effective protection of the wilderness resource, on which tribal cultures depend for their continued existence, is essential.

- Local communities within or adjacent to wilderness must be permitted such controlled access to formally declared wilderness areas as is consistent with their traditional 'rights', the protection of the area, and the reasonable rights of others. They should also be allowed to participate in the determination of the boundaries of, the preparation and implementation of the management plans for, and any income that may be derived from, 'their' wilderness.

- The use of modern technology and weaponry in the exercise of traditional harvesting rights should be prohibited.

- The practical and political consequences of recognising ancient land tenure claims, or of according tribes the status of foreign independent nations, must be carefully considered - there is little, if any, environmental advantage in doing either.

- Policy without proper legal prescription can be unpredictable, ineffective and unjust. However, the legal prescription of tribal and state jurisdictions must aim for a proper balance of competing development, conservation and community interests, without being overly complex.

- There should be national rather than regional control, but regional and local participation.

Above all, it is vital that the above propositions be elevated from the status of mere policy to law by inclusion in the relevant legislation dealing with natural and agricultural resources, so as to ensure effective, enduring and consistent application.

10.1.5 Lessons from abroad

Chapter 6 dealt with the birth and growth of the wilderness movement in the United States. The National Wilderness Preservation System founded in its Wilderness Act represents an entirely new paradigm of protection for wilderness - a transition from

administrative to statutory wilderness. A key lesson to be learnt from the United States experience, which was gained over decades of agonising debate and conflict between resource managers, lumber, mining, power, irrigation and other interests, is that the essential resource of *wilderness cannot adequately be protected other than by specific legislative enactment*.

As in South Africa, statutory wilderness commenced in the United States in State forests under the jurisdiction of the National Forest Service. The other major wilderness agencies are the Bureau of Land Management and the National Parks Service which include wilderness areas on lands under their jurisdiction in the Federal National Wilderness Preservation System. There are also wilderness areas in the National Wildlife Refuge System. Comparative perspective thus indicates that it is by no means impractical to spread *a single umbrella of legislative protection across several administrative agencies*.

The specific lessons to bear in mind when drafting appropriate wilderness legislation are the following:

- The evolutionary pattern of protection, from unrestrained use of wilderness to its preservation, that emerges from an overview of developments in the United States suggests a compelling and inevitable logic in the transition to statutory wilderness and a formal national wilderness system. An *ad hoc*, reactive approach to wilderness protection is not effective; nor is unco-ordinated management of wilderness areas. An holistic, national treatment is essential.

- Wilderness policy should be formulated at national level. Definition, general direction, advice and co-ordination are also national functions. Executive and administrative functions can and should be exercised at regional level (because of closer association with regional and local conditions, and the need for local participation).

- The mere setting aside of wilderness areas is not enough. The law must make provision for appropriate mechanisms for management of the areas set aside and for their continuing protection.

- Public participation in the dedication and administration of wilderness areas is essential.

- In cases of conflict, the courts should be the final arbiter.

- An holistic approach is essential. For a wilderness system to be sustainable, complementary and supplementary systems and protected areas must be established in order to provide for the needs of all our people.

10.1.6 International responsibility

The perspective in Chapter 7 was international. The pattern of environmental treaties that has emerged in recent years clearly demonstrates a shift from species protection to habitat and ecosystem protection. The values of wilderness to humankind are increasingly being recognised and protected in treaties and national legal systems. There *is* an international wilderness movement, and it is growing. Ultimately there will be a world wilderness inventory and global wilderness network. Wilderness could serve as a benchmark, a cornerstone or foundation on which a new age of environmental integrity may be constructed. It is increasingly being perceived as a global, and no longer just national, patrimony.

Quite apart from the diplomatic and other advantages which would be gained from international co-operation and recognition, South Africa could derive a great deal of practical benefit from participation in such programmes as the United Nations Man and Biosphere programme, in which wilderness areas play a key role in that they represent the core area around which a biosphere reserve is designed. It is, however, more than simply a matter of advantage. South Africa has an obligation to recognise and accommodate these international trends and developments.

Many of the ecological and social values of wilderness secured in America through wilderness designation are protected in other countries through other types of land use classifications. Socio-economic and cultural differences require a reorientation from the more purist American concept of wilderness to a new paradigm: wilderness management linked to economic planning and rural development.

In virtually all the countries in which the legal system makes some provision for protection of wilderness, there is recognition of the need for public participation in the wilderness identification and planning processes. Another important lesson for South Africa is the trend toward protection of wilderness on all the public lands on which it occurs, and on private land by means of covenants or other suitable arrangements with the owners. But perhaps the most important lesson to be learnt from the overview of the international wilderness movement is that South Africa should acknowledge the international trend towards wilderness preservation, recognise that its wilderness is a global heritage, and accept that it has an obligation to protect what remains of its wild country, not only in the interests of its present and future generations, but also in the interests of the world community.

10.1.7 The protection of wilderness areas in South Africa

The overview of the history of the reduction and protection of wilderness in South Africa presented in Chapter 8 suggests that what little remains must be effectively protected if we are to retain some of our wilderness heritage.

The history of early efforts in South Africa to protect natural areas, and the chequered history of the Cape's protected areas in particular, clearly demonstrate:

- the need for public support for, and participation in, the setting aside of such areas and the determination of their boundaries;

- the desirability of their protection being entrenched by appropriate legislation;

- the pattern of changing attitudes and purposes of protection: a shift of the focus of protection from species to habitat, and then to landscapes and natural systems.

In the formulation of laws appropriate for the protection of wilderness and wildlife, it must be borne in mind that the events relating to the slaughter of wildlife during the *nagana* campaign, described in this Chapter, are within living memory, and have undoubtedly influenced attitudes towards conservation.

There is little doubt that the way in which government developed politically in South Africa has resulted in reduction of wilderness and severe land degradation in many areas of the country.

Legislative recognition and protection of wilderness in South Africa is restricted to declared wilderness areas in state forests. There is need for extension of the national wilderness system to include wilderness areas on other state land, and on private land.

Effective legal protection of wilderness will make an important contribution to the maintenance of the biotic complexity and diversity which are essential to human survival. Wilderness legislation could be the cornerstone of a national environmental land use policy and planning programme, in terms of which land use is graded according to the quality and quantity of permissible human impact. Wilderness areas should, therefore, be sacrosanct and protected from any development which is incompatible with wilderness values.

Wilderness legislation, therefore, should make provision for:

- a statement of wilderness policy as a matter of substantive law, clearly articulating the national will and purpose in protecting wilderness, as opposed to a mere indication of intent in a preamble which is not an organic part of the statute or an administrative declaration of policy in a White Paper;

- a comprehensive definition of wilderness areas, so as clearly to indicate their purpose and importance and as an authoritative guide in interpretation and implementation of declared national policy;

- the elevation to the status of statutory wilderness of all areas at present administratively zoned or managed as wilderness;

- the establishment of wilderness areas on all public lands, not just within State forests, and on privately owned land (subject to prior notice to affected owners and financial compensation where appropriate);

- the deproclamation of a wilderness area, or the alteration of its boundaries, to be subject to the prior approval, by resolution, of Parliament;

- prior notice of and public participation in the declaration, deproclamation and alteration of boundaries of, and any significant intrusion into, wilderness areas, and also in respect of the adoption and implementation of their management plans;

- the establishment of a National Wilderness Council, with prescribed objects and functions, to promote the preservation and good management of wilderness areas;

- no prospecting contracts, mining leases, servitudes, or any other rights resulting in significant intrusion into wilderness areas, being granted in wilderness areas except by the Minister with Parliamentary approval, and then only after furnishment to the National Wilderness Council of an environmental impact statement and upon its advice and recommendations.

10.1.8 The incidental protection of wilderness values in South Africa

Many of the ecological and social values of wilderness secured in America through wilderness designation are protected in South Africa under wildlife law and in terms of

protected areas legislation. In Chapter 9 the laws relating to the protection of wildlife species and natural areas were identified and discussed with a view to determining their efficacy in protecting the totality of wilderness values.

Wildlife law is designed to protect wildlife. The purpose of protection of habitat is the conservation of its wildlife species. There are many different categories of protected areas, each having different purposes and management requirements. All of them, apart from 'special nature reserves' established (on State land only) under the Environment Conservation Act, and wilderness areas established (in State forests only) under the Forest Act, may legally be subjected to substantial intrusion and manipulation. None of them comes close to being a 'wilderness equivalent', and none of them, including 'special nature reserves' and wilderness areas in State forests, is able to secure protection of wilderness values in their totality; nor are they able to do so cumulatively. Wilderness is an essential and distinct component in South Africa's system and spatial planning, and in the Recreation Opportunity Spectrum. South Africa clearly has need of discrete wilderness legislation.

The next section, therefore, suggests a legal praxis for the sustainable protection and use of wilderness in the form of a draft Wilderness Act.

10.2 LEGAL PRAXIS: A MODEL WILDERNESS ACT

WILDERNESS ACT

NO. * OF 199*

ACT

To provide for the establishment of a National Wilderness System, for the protection and management of wilderness areas, and matters connected therewith.

A preamble is a brief statement of intention or purpose. The preamble to the United States Act is: 'To establish a National Wilderness Preservation System for the permanent good of the whole people, and for other purposes.' Although the 1984 Forest Act makes provision for the establishment[2] and protection[3] of wilderness areas, which are regarded as being of sufficient value to warrant no degradation (apart from mining operations[4] and certain servitudes[5]) except with Parliamentary approval,[6] the preamble does not even refer to wilderness areas. It refers to such matters as the regulation of trade in forest produce, the combating of forest and mountain fires, and the control and management of a national hiking way system, but not to wilderness protection which is surely at least as important as these matters. In any event, in South African law a preamble does not constitute an organic part of the statute and is only invoked as an aid in construction where there is ambiguity in the statute itself.[7] It is suggested hereunder that there should be a clear statement of policy in the Act itself, as is done in the United

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[2]Section 15(1)(a)(ii).

[3]Section 15(3)(a)(i).

[4]Section 11(2)(b) as read with s15(4)(a).

[5]Section 15(4).

[6]Ibid.

[7]*S v Kola* 1966 4 SA 322 at 326 (A).

States Act,[8] so that an expanded preamble to indicate purpose more clearly and to aid interpretation is not required in any event.

ARRANGEMENT OF SECTIONS

Section

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[8]Section 2(a).

SCHEDULE 1
EXISTING WILDERNESS AREAS

SCHEDULE 2
LAWS REPEALED AND EXTENT OF REPEAL

1. Interpretation. - In this Act, unless the context indicates otherwise -

'**administrative body**' means a Minister, Administrator, local authority, tribal authority, government institution, or a person who makes a decision in terms of the provisions of this Act;

'**buffer zone**' means a buffer zone established in terms of section 49;

'**chief executive officer**' means the officer in charge of the relevant local authority or government institution;

'**candidate wilderness area**' means an area declared as such in terms of section 15;

'**conservation authority**' means the national conservation authority and a provincial conservation authority as defined in this section;

'**council**' means the National Wilderness Council established under section 16;

'**department**' means the Department of Environment Affairs;

'**director-general**' means the Director-General: Environment Affairs;

'**ecological process**' means the process relating to the interaction between plants, animals and humans and the elements in their environment;

This is the same as the definition of 'ecological process' in section 1 of the Environment Act 73 of 1989.

'**ecosystem**' means any self-sustaining and self-regulating community of organisms and the interaction between such organisms with one another and with their environment;

This is the same as the definition of 'ecosystem' in section 1 of the Environment Act 73 of 1989.

'**environment**' means the aggregate of surrounding objects, conditions and influences that influence the life and habits of humans or any other organism or collection of organisms;

This is the same as the definition of 'environment' in section 1 of the Environment Act 73 of 1989, save that the word 'humans' has been substituted for 'man'.

'**environmental impact report**' means a report referred to in section 36(1)(c);

'**fund**' means the National Wilderness Fund established by section 23;

'**government institution**' means any -

(a) body, company or close corporation established by or under any law; or

(b) other institution or body recognised by the Minister by notice in the *Gazette*;

'**honorary wilderness officer**' means a person appointed as such in terms of section 31;

'**local authority**' means any institution or body contemplated in section 84(1)(f) of the Provincial Government Act, 1961 (Act No.32 of 1961), and includes -

(a) a board of management or board referred to in section 1 of the Rural Areas Act (House of Representatives), 1987 (Act No. 9 of 1987);

(b) a regional services council established under section 3 of the Regional Services Councils Act, 1985 (Act No. 109 of 1985);

(c) a local authority as defined in section 1 of the Black Local Authorities Act, 1982 (Act No. 102 of 1982);

(d) a local government body established by virtue of the provisions of section 30(2)(a) of the Black Administration Act, 1927 (Act No. 38 of 1927); or

(e) a local council as defined in section 1 of the Local Councils Act (House of Assembly), 1987 (Act 94 of 1987), and also the Minister as defined in the said section, acting in terms of section 7 of the said Act;

This is the same as the definition of 'local authority' in section 1 of the Environment Conservation Act 73 of 1989, as subbstituted by section 1 of Act 98 of 1991.

'management advisory committee' means a committee under section 33;

'management plan' means a management plan prepared in terms of section 50;

'Minister' means the Minister of National Education and Environment Affairs;

'national conservation authority' means the National Parks Board of Trustees established in terms of section 5(1) of the National Parks Act, No. 57 of 1976;

'owner' includes -

(a) the person who is, or persons who are, legally competent to exercise control over the land in question;

(b) in the case of land under the control or management of a local or tribal authority, the local or tribal authority concerned;

(c) in the case of State land not under the control or management of a local or tribal authority, the Minister of the Department of State or the Administrator having control or management thereof or any officer designated by such Minister or Administrator for the purpose;

'police officer' means any member of any police force in the Republic established by law;

'prescribe' means prescribe by regulation;

'private land' means -

(a) land held under separate grant, deed or transfer or certificate of title; or

(b) land held under a lease, licence or allotment from the State with an option to purchase, provided that such lease, licence or allotment is registered in the office of a registrar of deeds or a surveyor-general's office;

'**provincial conservation authority**' means -

(a) in Natal, the Natal Parks Board constituted in terms of section 4(1) of the Nature Conservation Ordinance, No. 15 of 1974 (Natal);

(b) in the Cape Province, the Department of Nature and Environmental Conservation established in terms of section 3(1) of the Nature and Environmental Conservation Ordinance, No. 19 of 1974 (Cape);

(c) in the Transvaal, the Nature Conservation Division referred to in section 2 of the Nature Conservation Ordinance, No. 12 of 1983 (Transvaal);

(d) in the Orange Free State, the Administrator acting in terms of the Nature Conservation Ordinance, No. 8 of 1969 (Orange Free State);

'**regulation**' means a regulation made or deemed to have been made under this Act;

'**Republic**' means the Republic of South Africa;

'**state land**' means land other than private land;

'**this Act**' includes the regulations;

'**traditional access and harvesting rights**' means those rights determined as such by the Minister in terms of section 44;

'**tribal authority**' means any tribal or community government functioning in accordance with the law and customs observed by the tribe or community concerned, including any tribal authority identified as such in terms of section 44;

'**tribal community**' means any tribal community identified as such in terms of section 44;

'**wilderness area**' means an area set aside as such in terms of sections 6 or 7;

'**wilderness officer**' means the incumbent of a post designated under section 30;

'**wilderness produce**' means anything which occurs, is grown or grows in a wilderness area, including anything which is produced by any vertebrate or invertebrate member of the animal kingdom or any member of the plant kingdom in a wilderness area;

PART I

ESTABLISHMENT OF NATIONAL WILDERNESS SYSTEM

AND STATEMENT OF POLICY

2. Establishment of National Wilderness System. -

There is hereby established a national wilderness system for the protection and preservation of certain areas of land in their natural condition, which areas are to be designated as 'wilderness areas' and administered in such manner as will leave them unimpaired for future use and enjoyment as wilderness; and so as to provide for the protection of their wilderness character and natural communities, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness.

3. Policy for protection of wilderness areas. -

It is hereby declared to be national policy that the Republic's wilderness areas be effectively protected so as to secure for all the people of the Republic of present and future generations the benefits of an enduring resource of wilderness and, more particularly, within such areas to provide for -

(a) the functioning of natural ecological processes, the protection of natural ecosystems and the natural beauty, and the preservation of biotic diversity;

(b) protection of the environment against disturbance, deterioration of their wilderness character, defacement, poisoning or destruction as a result of artificial structures, installations, processes or products of human activities;

Subsections (a) and (b) are similar to subsections 2(1)(a) and (c) of the Environment Conservation Act 73 of 1989, which relate to the purpose of the general policy for environmental conservation which the Minister of Environment Affairs is authorised by section 2(1) to determine, but which he has not as yet done.

The policy goal is clearly stated - to secure for present and future generations the benefits of an enduring resource of wilderness. The reference to future generations is an acceptance of the principle of stewardship, an acceptance that we hold this non-renewable resource in trust for those who come after us. The objective is that wilderness must endure, and to achieve this objective the system is established and wilderness areas are to be administered so as to leave them unimpaired for future use and enjoyment. There are, therefore, in effect two purposes: preservation without impairment and compatible public enjoyment. The intention is that wilderness should be utilised as a resource, but nonetheless retain its identity as wilderness. It is not usual in South African legislative drafting practice to include a statement of purpose as an

organic part of the statute. However, it is not without precedent,[9] and there are good reasons why this should be done in a conservation statute - not only does it assist in establishing a conservation ethic, it also serves as a guide to interpretation and implementation.

4. Compliance with policy. -

Every person, minister, conservation authority, administrator, local authority, tribal authority and government institution upon whom or upon which any power has been conferred or to whom or which any duty has been assigned under this Act or in connection with the environment by or under any other law, shall exercise such power and perform such duty in accordance with the policy referred to in section 3.

The wording of section 4 is similar to the wording of section 3 of the Environment Conservation Act 73 of 1989, which requires compliance with the general policy of environmental conservation once it has been determined by the Minister of Environment Affairs.

PART II

DEFINITION AND DECLARATION OF WILDERNESS AREAS

5. Definition of wilderness area. -

For the purposes of this Act, a wilderness area is a predominantly natural and unmodified area upon which the impact of modern humans has been minimal, retaining its primitive, wild character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and natural communities in unmodified form, and which:

(a) generally appears to have been affected primarily by the forces of nature, with the imprint of human work substantially unnoticeable;

(b) has outstanding opportunities for solitude or a primitive and unconfined type of recreation;

(c) is of sufficient size to make practicable its preservation and use in an unimpaired condition;

(d) may also contain ecological, geological, or other features of scientific, educational, scenic, historical or cultural value;

or which is capable of rehabilitation to such wilderness condition.

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[9]Section 4 of the National Parks Act 57 of 1976 provides that the object of a national park is, *inter alia*, the preservation therein of wild animal, marine and plant life and objects of geological, archaeological, historical, ethnological, oceanographic, educational and other scientific interest, and that it be retained in its natural state as far as may be and for the benefit and enjoyment of visitors.

This is similar to the wording of the definition in the American Act[10] which, however, commences with the words 'A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognised as an area where the earth and its community of life are untrammelled[11] by man, where man himself is a visitor who does not remain.' These words have not been included partly because the sentiments that they express are implicit in the rest of the draft, but also because they are to some extent inconsistent with the rest of the definition. They postulate areas that are entirely pristine and virginal, whilst the rest of the definition is less purist and more practical in its references to minimal impact, general appearance, and substantially unnoticeable impact. This duality of definition has in fact produced problems of interpretation and management application in the United States.[12] The stipulation in the American Act that a wilderness area should have at least 5 000 acres of land has also not been included as geographical size seems to be irrelevant - it should be large enough to give visitors a feeling of solitude, but its extent may vary according to its morphology and environment.[13] The word 'modern' has also been added to the proposed definition because wilderness areas and candidate wilderness areas in South Africa bear some imprint of the past activities of indigenous communities.

6. Declaration of wilderness areas on State land. -

(1) Each area defined in Schedule 1 is a wilderness area under the name assigned to it in that Schedule.

(2) On the recommendation of the council the Minister may set aside and declare any other area of State land to be a wilderness area.

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[10]Section 2(c).

[11]The word 'untrammeled' is taken to mean 'not subject to human controls and manipulations that hamper the free play of natural forces' by Hendee, Stankey & Lucas at 68. It is given a similar meaning in the US Forest Service Manual (1969) quoted by Foote at 258-9.

[12]See Environment LR (1975) 509, Rickart 873, and Haight at 288 and 299. One of the problems has been the so-called purist controversy. The Forest Service stressed the first part of the statutory definiton, arguing that an area could only qualify as wilderness if it had never been significantly affected by humans. Critics of the Forest Service argued that this was far too narrow and inhibiting a construction.

[13]Zunino 64.

The reference is to *land* only, and not to South Africa's territorial waters.[14] One of the conclusions reached in Chapter 1 was that ocean or marine wilderness would more appropriately be protected as marine reserves under a new coastal zone dispensation.

7. Declaration of wilderness areas on private land. -

(1) Upon the recommendation of the council the Minister may declare any private land or portion thereof made available by the owner thereof, and the holders of real rights therein, for the purposes of a wilderness area to be a wildernes area or part of a wilderness area.

The precedent for this subsection is section 2(2) of Forest Act, which provides that the Minister may, upon the written request of the owner of a private forest, by notice in the *Gazette* declare any provision of Forest Act which is applicable only in respect of State forests, to be applicable in respect of that private forest, if in his opinion it will contribute to the more effective conservation of that private forest.

(2) The Minister may declare any other private land or portion thereof to be a wilderness area or part of a wilderness area; Provided that he may only do so upon the recommendation of the council and after consultation with the owners of, and the holders of real rights in, such private land.

(3) Where any of the owners or holders of real rights referred to in subsection (2) cannot readily be located, the Minister shall give notice in the *Gazette* and in a newspaper circulating within the district where the land is situated of his intention to declare such land to be a wilderness area or part of a wilderness area and invite such owners and holders of real rights to lodge any objections they may have to the intended declaration with the council within 60 days from the date of the notice.

Subsections (2) and (3) are based on section 16(1) of the Environment Conservation Act 73 of 1989, which provide that the Administrator may declare any area to be a protected natural environment; provided that he may only do so -
(a) if in his opinion there are adequate grounds to presume that the declaration will substantially promote the preservation of specific ecological processes, natural systems, natural beauty or species of indigenous wildlife or the preservation of biotic diversity in general; and

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[14]As defined in s2 of the Territorial Waters Act 87 of 1963.

(b) after consultation with the owners of, and the holders of real rights in, land situated within the area; provided that where such owners and holder cannot readily be located, he must give prior notice of his intention in the *Gazette* and in newspapers circulating in the district and invite them to lodge complaints within 30 days.

(4) After the expiry of the period of 60 days referred to in subsection (3), after having considered any representations and objections lodged with the council and after having consulted with the council thereon and having received its recommendations, the Minister may proceed with the declaration of the area in question as a wilderness area or part of a wilderness area, or he may decline to do so.

(5) The Minister may, upon the recommendation of the council, by purchase or otherwise, including exchange for State land situated outside a wilderness area, or, failing agreement with the owner, by expropriation, acquire any land or any mineral right in land for the purposes of a wilderness area, and any land so acquired shall forthwith be set aside as a wilderness area or part of a wilderness area.

8. Public notice. -

The Minister shall forthwith give notice in the *Gazette* of the setting aside of any land in terms of this Act as a wilderness area or part thereof, which notice shall state the name assigned to the wilderness area in question and define the area set aside with the aid of a map or a description of the boundaries thereof, and Schedule 1 shall be amended by the addition thereto of such name and definition.

9. Public participation. -

(1) Prior to the declaration of any land as a wilderness area or part of a wilderness area in terms of sections 6 or 7, the Minister shall -

(a) give notice in the *Gazette*, and in a newspaper circulating in the area in which the wilderness area in question is located, of his intention to make such declaration;

(b) cause a copy of that notice to be served on the owner of every piece of land abutting the proposed wilderness area, on every neighbouring local or tribal authority, on the body which in his opinion represents organised agriculture in the district in which the proposed wilderness area is situated, as well as on the magistrate of that district, and invite interested persons to participate in the final determination of the boundaries of the proposed wilderness area or part of a wilderness area;

(c) take all such steps as may be necessary to ensure that the true representatives of all local communities affected or likely to be affected by the proposed declaration are given proper notice of his intention to make the proposed declaration.

(2) Any person who wishes to make any representations or to object to the proposed declaration, shall within 60 days of the publication of the notice in the *Gazette*, lodge his representations or objections in writing with the council, setting out the reasons therefor.

(3) After the expiry of the said period of 60 days, after having considered any representations and objections lodged with the council and after having consulted with the council thereon and having received its recommendations, the Minister may proceed with the declaration of the area in question as a wilderness area or part of a wilderness area, or he may decline to do so.

The principle of public participation is consistent with the modern approach to conservation, namely that conservation must have a 'human face', failing which it will not succeed. This is particularly true in third world conditions for socio-economic reasons, and even more so in South Africa's post-apartheid era which compels involvement by indigenous people, as part of the body politic, in any conservation programme to ensure credibility and efficacy. Ultimately the allocation of natural resources is a political issue, and it is therefore fitting and practical that the Minister, as elected representative of the people, should have the final say, but within clearly defined parameters, set by the Act and thus determined by the people through their Parliament. A future government is more likely to allow such an Act to remain on the statute books if it is demonstrably consistent with this approach.

10. Deproclamation or alteration of wilderness status. -

(1) No land set aside as a wilderness area or any part thereof shall be withdrawn from such setting aside or be alienated or employed for any other purpose or the boundaries thereof altered except upon the recommendation of the council and with the approval by resolution of Parliament, and the Minister must by notice in the *Gazette* give notice of any such alteration in the status or integrity of the wilderness area in question.

This subsection is based on the existing section 15(2) of the Forest Act 122 of 1984, which is similarly worded in respect of nature reserves and wilderness areas in State forests. Section 10(2) requires Parliamentary approval for withdrawal of demarcated State forests. Section 18(3) of the Environment Conservation Act 73 of 1989 also requires a resolution of Parliament for deproclamation of, or the altering of the boundaries of, special nature reserves established in terms of section 18(1) of that Act.

The principle of Parliamentary approval for deproclamation or alteration of important protected areas is therefore already well established.

(2) The council shall not make the recommendation referred to in section (1) without:

(a) first giving public notice, in the *Gazette* and in a newspaper circulating in the area in which the wilderness area in question is located, of the proposed action, and holding a public hearing to ascertain the views of persons living near such wilderness area and of other interested persons; and

(b) obtaining, considering and assessing an environmental impact report on the proposed action, which report and assessment shall be included in its recommendation.

11. Amendment of description or name of wilderness areas. -

Notwithstanding the provisions of section 10, the Minister may by notice in the *Gazette* amend Schedule 1 in order to -

(a) amend the description of a wilderness area if after a survey or resurvey its definition is found to be incorrect; or

(b) amend the name assigned to a wilderness area or assign a new name thereto.

Section 10(3) of the Forest Act, which relates to demarcated State forests, and section 66, which relates to botanic gardens, are in similar terms.

Because of its constitution and expertise the council will be the most appropriate body to make the recommendations. Although there is already a proliferation of boards and councils in South Africa - the 1984 Forest Act alone makes provision for three: the National Hiking Way Board, the Forestry Council and the Board for National Botanic Gardens (now the National Botanical Institute[15]) - it would be advisable to establish a separate National Wilderness Council so as to ensure an holistic, consistent and national definition and prescription for statutory wilderness. As suggested below, it is also desirable that there should be regional administration so as to ensure retention of the benefits of local knowledge, experience and expertise for application to local conditions. A criticism which may be levelled at the current position under the Forest Act in terms of which control and management of wilderness areas rest with the Directorate of

[15]In terms of s4 of Act 53 of 1991.

Forestry, albeit with regional delegation, is that it is anomalous that the department which is involved in the cultivation and sale of forest produce[16] should also control its preservation. The concept of public hearings is consistent with the modern trend away from representative democracy towards participatory democracy, which allows the people affected by decisions to have a direct voice in those decisions.[17] The American Act requires public hearings before recommendations are made to the President in regard to suitability of areas for preservation[18] and modification or adjustment of boundaries of wilderness areas.[19] It is suggested that the same principle be applied in South Africa to the deproclamation of a wilderness area or a part thereof, which would include modification or alteration of boundaries having the effect of reducing area. The council will be well qualified to assess and report on environmental impact so that the decision-makers will be made aware of all the implications of the proposed withdrawal.

12. Approval of local and tribal authorities. -

(1) No land in the area of jurisdiction of a local or tribal authority shall be included in a wilderness area or a buffer zone without the approval of such authority.

This is similar to section 18(2) of Forest Act 122 of 1984, which requires the approval of local authorities for inclusion of land in their jurisdiction in fire control areas.

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[16]For example, s11(2)(a) of the 1984 Forest Act provides that the Director-General may in respect of any part of a state forest grant a temporary right to any person for the purpose, *inter alia*, of trading or cultivating land, and s 17(1) gives him the right to determine prices when parties to a contract for the supply of timber in the round are unable to agree on a price in terms of the price review provisions of the contract.

[17]Social forecaster J Naisbitt in *Megatrends*, referred to by J Hendee in Martin & Inglis 97, identifies this as a major trend in the United States.

[18]Section 3(d)(1)(B).

[19]Section 3(e). In New Zealand there is also public participation in that the Minister of Forests may make public any management plan for wilderness areas, and invite written submissions thereon (s 63 E(5) of the 1949 Forests Act as inserted by s 19 of the 1976 Forests Amendment Act - referred to Williams at 192). A degree of public participation is also allowed in Australia - wilderness areas are created by Proclamation of the Governor-General under the 1975 Federal National Parks and Wildlife Conservation Act, a plan of management is prepared by the Director of National Parks and Wildlife, which is made available for public comment and is then submitted to the minister for approval, but can be disallowed by either house of the Federal Parliament - see Fisher 116.

(2) It shall be the function and duty of the council to determine whether or not a proposed wilderness area falls within or partially within the area of a tribal authority, to identify such tribal authority, and to determine the manner in which its approval be sought and obtained; Provided that the council shall be obliged to ensure that the true representatives of the tribal communities likely to be affected by the declaration of the wilderness area concerned are consulted in the seeking and obtaining of such approval.

(3) Any person affected by any decision made or approval granted or withheld under subsections (1) and (2) shall have the right and standing to appeal from such decision to the Supreme Court.

13. Registration of wilderness areas against title deeds. -

(1) Every owner of, and every holder of a real right in, land set aside as a wilderness area or situated in a wilderness area, and the successors in title of such owner and holder of a real right, shall be subject to the provisions of this Act.

This is similar to section 16(3) of the Environment Conservation Act 73 of 1989 relating to directions issued in respect of protected natural environments.

(2) The Minister shall in writing direct the registrar of deeds of the deeds registry in which the title deed of land referred to in subsection (1) is registered to cause a note to be made in his registers and on the office copy of such title deed of the setting aside of the wilderness area in question.

(3) A registrar of deeds must cause a note of the particulars mentioned in subsection (2) to be made on the original title deed of the land in question when it is lodged in his office for any purpose, and no fees shall be payable in respect of the making of such note.

Similar provisions are contained in section 16(4) of the Environment Conservation Act 73 of 1989 (directions issued in respect of protected natural environments), and section 9(2) of the Forest Act (afforestation rights).

14. Prejudice as a result of declaration of a wilderness area on private land. -

(1) An owner of land on which a wilderness area or part of a wilderness area has been declared may recover compensation for any patrimonial loss that he suffers as a direct result of such declaration from the State, and if the owner and the director-general fail to agree upon the amount of such compensation, it shall be determined by a competent court in terms of section 14 of the Expropriation Act, 1975 (Act No. 63 of 1975), and the provisions of that section and section 15 of that Act shall apply *mutatis mutandis* in the determination of the amount of such compensation.

(2) If the owner of land on which a wilderness area or part of a wilderness area has been declared, satisfies the director-general that such declaration has resulted or will result in a substantial interference with the beneficial occupation of his land, or the rendering of a substantial part thereof unavailable for the purpose for which it was being used prior to such declaration, he shall cause that land to be expropriated in terms of the Expropriation Act, 1975 (Act No. 63 of 1975), as if it were required for other public purposes.

(3) With the concurrence of the council, the compensation determined in terms of subsections (1) or (2) may be paid out of the fund.

It is equitable that owners of private land should be compensated for patrimonial loss suffered as a result of such intrusions into their common law ownership rights, and it is a principle accepted in most legislation. Section 34 of the Environment Act 73 of 1989, for example, provides for compensation for actual loss suffered as a result of limitations imposed on owners or holders of real rights in terms of the Act. The amount of compensation is required to be determined by agreement, failing which, by arbitration in terms of the Expropriation Act 63 of 1975.

It is desirable that provision be made for tax incentives to private landowners who dedicate their land, or part of it, to wilderness; but this would more appropriately be done in the Income Tax Act. It would also be possible to provide for loans for the establishment and protection of wilderness areas on private land, in the same way that the Forest Act encourages the planting or replanting of trees to produce timber for commercial or industrial purposes.[20] However, it is difficult to conceive of circumstances under which a private landowner could incur legitimate and necessary expense in establishing or protecting wilderness on his land. It is extremely unlikely that fencing of a wilderness area would ever be practical or indeed advisable, except perhaps in unusual situations to restrict entry by humans, domestic animals or stock, or the movement of wildlife, in which event the council would be able to draw on the fund to provide the necessary finance. Similarly, it would also be possible to provide that the 'Minister may with the concurrence of the Minister of Finance out of money appropriated by Parliament for that purpose and subject to such conditions that he may

[20]Section 9A.

determine, or with the concurrence with the council out of the fund, render financial aid by way of grants or otherwise to the owner of, and the holder of a real right in, land situated within the wilderness area in question in respect of expenses incurred by the owner or holder of the right in compliance with the provisions of this Act', along the lines of section 16(5) of the Environment Conservation Act 73 of 1989 in relation to the declaration of protected natural environments. Again, it is difficult to visualise circumstances under which a private landowner is likely to incur *expenses*, as opposed to financial loss as a result of deprivation of his agricultural or other harvesting rights, pursuant to dedication of wilderness on his land. In any event, the proposed subsection refers to *any* patrimonial loss he may suffer, similar to the provisions of section 14 of the Forest Act relating to prejudice as a result of the protection of trees on private land. The difficult question of prospecting rights is referred to below under proposed section 45.

15. Interim protection of candidate wilderness areas. -

(1) The Minister may, upon the recommendation of the council, by notice in the *Gazette* declare any area defined by him to be a candidate wilderness area.

(2) A declaration under subsection (1) shall only be made for the purpose of protection of the area in question pending investigation into the desirability of its declaration as a wilderness area in terms of sections 6 or 7.

(3) The council shall forthwith undertake the investigation referred to in subsection (2), and shall within sixty days of publication of the notice referred to in subsection (1) recommend in writing to the Minister whether or not the area in question should be set aside as a wilderness area in terms of this Act.

(4) The provisions of this Act relating to wilderness areas shall apply *mutatis mutandis* to candidate areas.

The purpose of interim preservation orders is to protect a candidate area to the fullest extent possible in the case of imminent threat, for example by agricultural activity or development which would not be in the interests of the greater community, and pending formal dedication.

PART III
NATIONAL WILDERNESS COUNCIL

16. Establishment of a National Wilderness Council. -

There is hereby established a juristic person called the National Wilderness Council.

17. Object of council. - The object of the council is to promote by means of the national wilderness system the protection of wilderness areas in the Republic.

18. Constitution of council. -

(1) The council shall consist of the following members appointed by the Minister, namely:

(a) one person nominated by the Director-General;

(b) one person nominated by each of the following institutions, namely:

(i) the national conservation authority;

(ii) the provincial conservation authorities;

(iii) the Council for Scientific and Industrial Research referred to in section 2 of the Scientific Research Council Act, 1988 (Act No. 46 of 1988);

(iv) the Human Sciences Research Council established by section 2 of the Human Sciences Research Act, 1968 (Act No. 23 of 1968);

(v) the National Monuments Council established by section 2 of the National Monuments Act, 1969 (Act No. 28 of 1969);

(c) one person nominated by each of the following organisations, namely:

(i) the Habitat Council of South Africa;

(ii) the Mountain Club of South Africa;

(iii) the Wildlife Society of Southern Africa; and

(d) as many other persons, but not exceeding four, as the Minister may, upon the recommendation of the Council for the Environment, established in terms of section 4 of the Environment Conservation Act, 1989 (Act No. 73 of 1989), determine, and who must be persons whom or nominees of organisations which in the opinion of the Minister can assist the council to achieve its objects.

(2) The Minister shall designate one member of the council as chairperson and another member as vice-chairperson to act as chairperson in the absence of the chairperson.

(3) The Minister may appoint any other person as a member of the council in the place of the person or persons contemplated in subsection (1) if the organisation in question fails to submit to the director-general the name or names of a person or persons nominated by it within three months from the date on which it is requested in writing by the director-general to do so.

(4) Subject to the provisions of subsections (1) and (3), the Minister may appoint an alternate member for any member of the council.

This draft section draws on both section 31 (relating to appointment of members of the national Hiking Way Board) of the Forest Act, and sections 6 (relating to the constitution of the Council for the Environment) and 14 (relating to the constitution of the Committee for Environmental management) of the Environment Conservation Act 73 of 1989. 'Chairperson' has been used in place of the gender specific and therefore objectionable 'chairman'. In terms of section 6 of the 1989 Act, the Minister (of Environment Affairs) appoints all 22 members of the Council for the Environment (previously 25 members under the Environment Conservation Act 100 of 1982), after consultation with the provincial Administrators. They must be persons who, in the opinion of the Minister, 'have knowledge of and are able to make a contribution towards the protection and utilization of the environment.' A criticism of this method of appointment is that it contains the potential for political nepotism. It is unfortunate that the opportunity was not taken in the new Act to avoid the possibility of such a perception and threat to the credibility of the Council for the Environment which is an important and influential body. However, a positive feature of these provisions is that the members to be appointed need not be state officials - they may be appointed from the private sector as well. Two important principles are thus to an extent recognised, namely regional representation and involvement by the private sector in environmental administration. However, it would have been preferable for it to have been spelt out in the Act that a specified number of members must be appointed from the private sector, and this is what is proposed in the above draft section.

Section 14 of the 1989 Environment Conservation Act deals with the constitution of the Committee for Environmental Management and provides for nomination by the various directors general, and of one person each by the National Parks Board of Trustees, Board for National Botanic Gardens (now National Botanical Institute[21]), Council for Scientific and Industrial Research, Human Sciences Research Council, National

[21]In terms of s4 of Act 53 of 1991.

Monuments Council (which incidentally is not entirely consistent with section 41(1) which provides that the Act shall not apply to any matter to which the provisions of the National Monuments Act apply), and any other institution involved at national level with environmental conservation which, in the opinion of the Minister can make a contribution of the activities of the committee. The same institutions, at least,should also have been allowed in the new Act to nominate members of the Council for the Environment. All of these institutions have sufficient expertise and credibility to nominate suitably qualified members for both bodies.

Section 15 of the 1989 Environment Act provides that the 'the Minister shall from time to time appoint a Board of Investigation to assist him in the evaluation of any matter or any appeal in terms of the provisions of this Act.' This is a new and important development; but a negative feature is that the Board merely 'assists' the Minister in both 'evaluation' and 'appeal' matters - final decisions remain with the Minister himself.

To avoid these mistakes, it is therefore proposed that there be both public and private sector representation, both national and regional representation, involvement by the conservation bodies most likely to have some interest and understanding of wilderness, and a prescription for appropriate expertise. The council has not been given any appeal or review functions, or even an advisory function in this context. This is the function of the courts, and it would be inappropriate to have the Minister or the council involved as judge in the same issues in which the may be administratively involved.

19. Term of office and vacating of office by members of council. -

(1) A member or alternate member of council holds office for such period, but not exceeding three years, as the Minister may determine at the time of his appointment, but may be reappointed at the expiry of his term of office.

(2) A member or alternate member of the council shall vacate his office if he -

(a) is declared insolvent or assigns his estate in favour of his creditors;

(b) becomes of unsound mind;

(c) is convicted of an offence and sentenced to imprisonment without the option of a fine;

(d) resigns by written notice to the Minister;

(e) is absent from three consecutive meetings of the council without leave of the chairperson;

(f) is removed from office under subsection (3).

(3) The Minister may at any time remove a member or alternate member of the council from office upon good cause being shown that such member is incompetent or has misconducted himself;

(4) If a member or alternate member of the council dies or vacates his office in terms of subsection (2) or (3), the Minister may, subject to the provisions of subsections 17 (2) and (4), appoint another person in his place for the unexpired period of his term of office, or for such shorter term as the Minister may determine.

This section has been drafted with section 32 of the Forest Act (which deals with members of the Hiking Way Board) and section 6 of the 1989 Environment Conservation Act as precedents.

20. Meetings and procedure of council. -

(1) The council shall meet at the times and places determined by the chairperson, but at least once per year.

(2) The Minister shall determine the manner of the calling of, the quorum for and procedure at meetings of the council.

(3) If both the chairperson and the vice-chairperson are absent from any meeting of the council, the members present thereat may elect one of their number to preside at such meeting.

(4) A resolution of the council is not invalid only by reason of the fact that a vacancy existed on the council when the resolution was adopted.

Section 9 of the 1989 Environment Conservation Act and section 33 of the Forest Act are the precedents for the above section.

21. Allowances to members of council and of management advisory committees. -

A member or alternate member of the council or a member of the management advisory committee who is not in the full-time employment of the State may be paid from the fund or, with the concurrence of the Minister of Finance, from money appropriated by Parliament for that purpose such remuneration and allowances as the Minister may determine either in general or in respect of a particular member or alternate member.

This is along the lines of section 8 of the 1989 Environment Conservation Act and section 34 of the Forest Act.

22. Functions of council. -

(1) The council shall with the means at its disposal do what it considers necessary to achieve the object for which it was established, and to that end it may -

(a) investigate and advise the Minister on any matter relating to the policy referred to in section 2, or affecting the national wilderness preservation system, or which the Minister refers to the council, or which the council deems necessary, so as to ensure the co-ordination and promotion of the implementation of the provisions of this Act;

(b) cause a survey to be undertaken of all areas in the Republic which may be suitable for inclusion in the national wilderness preservation system and, on such conditions as the Minister may approve, grant financial assistance in connection with such survey;

(c) investigate the desirability of setting aside land, whether State land or private land, as a wilderness area or part of a wilderness area, and recommend to the Minister that areas identified by it be included in the national wilderness preservation system;

(d) advise the Minister, conservation authorities, management advisory committees, and the owners of land as defined in section 49(2) on the establishment or extension of buffer zones;

(e) advise the Director-General, the national and regional conservation authorities, management advisory committees, and any other persons or bodies involved in the protection, management, use or promotion of wilderness areas or buffer zones, on any matter which may affect or influence such protection, management, use or promotion;

(f) monitor the activities of management advisory committees;

(g) collate, process and disseminate information relating to, and promote public appreciation of, wilderness areas;

(h) by itself, or in co-operation with any department of State or person or organisation, undertake and promote such education, research, research development and training which, in the opinion of the council, will serve to implement the national policy referred to in section 3;

(i) utilise monies in the fund for the purpose of making loans for the establishment or management of a wilderness area or a buffer zone;

(j) with the concurrence of the Minister and on such conditions as he may approve, grant financial assistance to any person or organisation in order to achieve the objects of this Act;

(k) with the concurrence of the Minister and the Minister of Finance borrow monies for the performance of its functions;

(l) accept unconditional donations and, with the concurrence of the Minister conditional donations, of money or movable or immovable property;

(m) hear representations by or on behalf of any person relating to matters affecting wilderness areas if, after a memorandum on such matters has been submitted to it, the council is of the opinion that such representations will be in the interest of the protection of any wilderness area;

(n) acquire property, invest monies, and take all such other steps and perform all such other acts as may be legally competent and which the council may consider necessary for the protection of any wilderness area or wilderness produce.

Reference was made to sections 5 and 13 of the 1989 Environment Conservation Act and section 30 the Forest Act in drafting the above section.

(2) The council may establish committees and working groups and appoint as members thereof members of the council or any other person who in the opinion of the council can make a contribution to enable it to perform its functions and may, with the concurrence of the Minister, engage such expert advisors, contractors or employees as it may deem necessary to assist the council in the carrying out of its duties and the exercise of its powers.

(3) The council may assign the carrying out of any of its duties or delegate the exercise of any of its powers to a committee established under subsection (2) or to a member of the council.

Parts of section 35 (which deals with the functions of the National Hiking Way Board) of the Forest Act were used as a precedent for the above.

23. National Wilderness Fund. -

(1) There is hereby established a fund called the National Wilderness Fund into which must be paid -

(a) loans to the council from monies appropriated by Parliament for that purpose, on such conditions as the Minister, with the concurrence of the Minister of Finance, may determine;

(b) annual grants-in-aid from monies appropriated by Parliament for that purpose, which the Minister may pay to the council in such amounts, for such purposes and on such conditions as he may determine;

(c) interest on investments;

(d) monies received by way of donations, grants or from any other source, for the attainment of the objects of this Act.

(2) The council shall administer the fund in accordance with instructions approved by the Minister on the recommendation of the council, and monies in the fund shall, subject to the provisions of subsection

(4), be utilised to defray expenses incurred by the council in the carrying out of its functions and the exercise of its powers.

(3) Once in its financial year, which is to end on 31 March, the council shall before a date determined by the Minister submit to him for his approval an estimate of the revenue and expenditure of the council for the next financial year, and the council may during the course of a financial year submit supplementary or revised estimates of revenue and expenditure for that year to the Minister for his approval.

(4) The council shall not incur any expenditure except in accordance of an estimate of expenditure approved by the Minister in term of subsection (3).

(5) The council may invest monies in the fund not required for immediate use in such manner as the Minister, with the concurrence of the Treasury, may approve.

(6) Any unexpended balance in the fund at the end of a financial year shall be carried forward as a credit in the fund to the next financial year.

(7) Monies or assets donated or bequeathed to the council conditionally shall be utilised only in accordance with the conditions of that donation or bequest.

(8) The council may, with the concurrence of the Minister and on such conditions as he may determine, establish and administer a wilderness land acquisition fund and a reserve fund.

The above section is similar to section 36 relating to the National Hiking Way Fund, section 53 relating to the Forestry Industry Fund, and section 64 relating to the National Botanic Gardens Fund, all of the Forest Act 122 of 1984.

24. Records and accounts of council. -

(1) The council shall cause a record to be kept of monies received by, and disbursements from, the fund, and of the assets, liabilities and financial transactions of the council, and shall as soon as practicable after the end of each financial year cause accounts and a balance sheet to be drawn up which shall reflect, with appropriate particulars, monies received and expenditure incurred by it during, and its assets and liabilities at the beginning and end of, that financial year, and such records, accounts and balance sheet shall be audited annually by the Auditor-General at a fee to be agreed upon by the council, or, failing agreement, at a fee determined by the Minister of Finance.

(2) (a) The administrative and clerical work of the council and the accounting services connected with the fund shall be performed by officers of the department, and the cost thereof, as

determined annually by the director-general, shall be paid by the council to the State from the fund.

(b) Notwithstanding the provisions of paragraph (a) the council may, with the approval of the Minister, on the conditions determined by him and with the concurrence of the Treasury, cause the work and services contemplated in paragraph (a) to be performed by any other person.

(3) The chairperson of the council is the accounting officer charged with the responsibility of accounting for monies received by, and disbursements made from, the fund.

The above section is similar to sections 37, 54 and 65 of the Forest Act 122 of 1984, relating to the records and accounts of the National Hiking Way Board, Forestry Council and the National Botanical Institute respectively. The section is largely self-explanatory. The accounting principles and hierarchy of responsibility are already accepted by the State, and the principles of publicity and the ultimate responsibility of Parliament as the trustee of wilderness areas as part of the public trust or public domain is consistent with a public trust doctrine. For practical purposes it is desirable that officers of the Department of Environment Affairs be responsible for the administrative and clerical work relating to the establishment and maintenance of the national wilderness preservation system, in the same way that the Department is required in terms of section 10 of the Environment Conservation Act to assist the Council for the Environment with its administrative work.

25. Registration of land and immovable property donated to council. -

(1) Donations of land or other immovable property to the council must be registered in the name of the State.

(2) Land, other than private land made available by the owner thereof for the purposes of a wilderness area in terms of section 7, declared to be a wilderness area and not registered in the name of the State, is deemed to be so registered, and the registrar of deeds of the deeds registry where the land in question is registered must at the request of the Minister cause the necessary note to be made on the title deeds in question and in his registers, and no fees are payable in respect of the making of such a note.

Ideally all dedicated wilderness areas should be part of the public domain and therefore in State ownership and under State control as trustee on behalf of the people.

26. Making land and buildings available to council. -

The Minister of Public Works may on such basis and conditions as he may determine, make any land or building available to the council to enable the council to perform its functions, and may provide for works and services in respect of that land and or the maintenance of that building.

The above two sections are similar to sections 67 and 68 of the Forest Act 122 of 1984, relating to national botanic gardens.

27. Reports by council. -

(1) As soon as practical after the end of each financial year the council shall from information to be supplied to it by the Director-General and management advisory committees, compile a report on all activities during that financial year with regard to the national wilderness preservation system and to:

(a) its activities relative to wilderness areas during that financial year;

(b) its recommendations with respect to the suitability of any area for preservation as wilderness; and

(c) any other matter which the Minister may request the council to deal with in that report.

(2) The report referred to in subsection (1), together with the audited balance sheet and accounts pertaining to the fund, shall be submitted to the Minister, and he must lay it upon the Table in Parliament within 14 days after he has received it, if Parliament is then in session or, if Parliament is not in session, within 14 days of the beginning of the next session.

This is similar to the existing provisions of the 1984 Forest Act relative to the reports required by the National Hiking Way Board,[22] the Forestry Council,[23] and the National Botanical Institute,[24] except that it is also suggested that the council should

[22]Section 46.

[23]Section 56.

[24]Section 70.

make recommendations in regard to any new areas suitable for preservation as wilderness.[25]

PART IV

ADMINISTRATION OF ACT

28. Management of wilderness areas. -

(1) The national conservation authority shall administer, manage and maintain wilderness areas set aside within national parks established in terms of the National Parks Act, 1976 (Act No. 57 of 1976).

(2) Each provincial conservation authority shall administer, manage and maintain wilderness areas set aside within the province within which such authority has jurisdiction.

(3) The national and provincial conservation authorities shall administer, manage and maintain wilderness areas in accordance with management plans prepared in terms of Part VII of this Act, and shall act upon the advice of the council.

29. Delegation of powers. -

(1) The Minister may under such conditions as he may deem fit delegate to any officer of the department any power conferred upon him by this Act excluding the power to make regulations.

(2) The Director-General may on such conditions as he may deem fit delegate to any officer of the department any power conferred upon him by or in terms of this Act.

The above two subsections are the same as section 4 of Forest Act 122 of 1984.

(3) The Minister or Director-General is not divested of any power which he has delegated under subsection (1) or (2), as the case may be, and may rescind or amend any decision of the officer concerned.

The above subsection is similar to section 71 of the Forest Act relating to the delegation of powers relating to the National Botanical Institute.

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[25]Subsections 3(b), (c) and (d) of the United States Act refer to similar recommendations required to be made by the Secretaries of Agriculture and the Interior to the President of the United States.

30. Designation of wilderness officers. -

A conservation authority may designate posts within its organisation the incumbents of which are wilderness officers for the purposes of this Act.

This is similar to section 5 of Forest Act 122 of 1984, which authorises the Director-General to designate posts in his department the incumbents of which are forest officers for the purposes of that Act.

31. Appointment of honorary wilderness officers. -

(1) A conservation authority may appoint any person as an honorary wilderness officer.

(2) An honorary wilderness officer has in respect of wilderness areas the same powers as a wilderness officer, excluding the powers mentioned in sections 57 and 58; Provided that the the powers of an honorary wilderness officer may at its discretion be further restricted by the conservation authority concerned.

(3) A conservation authority may at any time, without any obligation to furnish reasons, withdraw the appointment of an honorary wilderness officer if it considers it desirable to do so.

This is similar to the provisions of section 6 of Forest Act 122 of 1984 relating to honorary forest officers.

32. Granting of powers to persons in control in control of wilderness areas on private land. -

(1) A conservation authority may confer upon a person placed in control of a wilderness area on private land by the owner thereof any or all of the powers vested in a wilderness officer.

(2) Such a person may exercise that power or those powers only in respect of the wilderness area in question and only for as long as he is in control of that wilderness area.

This is similar to section 3 of the Forest Act 122 of 1984, which relates to the granting of powers to persons in control of private forests.

33. Management advisory committees. -

(1) The council shall establish a management advisory committee in respect of every wilderness area.

(2) (a) Each such committee shall consist of not fewer than five members of whom one must be an officer of the conservation authority having jurisdiction over the wilderness area in question and the other persons who in the opinion of the council represent the local or tribal authority, any other body or organisation, the inhabitants of any area, and the owners of private land, who have some special interest in the wilderness area in question; Provided that if the council is unable to find a sufficient number of persons who are willing to serve on the committee, it may appoint officers of such conservation authority to fill the vacancies.

(b) The members must be persons who in the opinion of the council have special knowledge of or relationship with the wilderness area in question by virtue of their training, experience or association with it, or who are otherwise suitable to serve as members of the committee, and the council may designate an alternate member for any member thereof.

(c) A member of the council may be appointed as a member of a management advisory committee.

(d) A member holds office for such period, but not exceeding three years, as the council may determine at the time of his appointment, and at the expiry of his term of office he may be appointed again.

(e) The council must convene the first meeting of a management advisory committee, at which the members shall elect one of their number as chairperson.

(f) With the permission of the chairperson of the council, the chairperson of a management advisory committee may attend meetings of the council and participate in its proceedings, but shall not be entitled to vote.

(3) The functions of a management advisory committee are to:

(a) give advice on the preparation and content of management plans;

(b) advise the council on any matters affecting the management and administration of the wilderness area in respect of which it has been established and of that part of its buffer zone, if any, designated by the council; and

(c) perform such other functions as may be prescribed.

(4) A management advisory committee meets at the times and places determined by the chairperson, but at least once per year, and the chairperson shall determine the manner of the calling of, the quorum for and procedure at its meetings.

(5) If the chairperson is absent from any meeting of the committee, the members present thereat may elect one of their number to preside at such meeting.

(6) A resolution of the committee is not invalid only by reason of the fact that a vacancy existed on the committee when the resolution was adopted.

(7) A management advisory committee shall cause a true record of all its resolutions and financial transactions to be kept.

The purpose of management advisory committees is to ensure the contribution of local experience, wisdom, expertise, and participation to wilderness management. Experience in other countries suggests that it is neither practical nor desirable that local communities be directly involved in the actual management of their wilderness area. To attempt to do so may lead to delay, conflict and confusion. Management should be left in the hands of professional trained managers. However, it is essential that there be local community involvement in an advisory and policy making capacity.

The principle of having local committees is already well established. Section 13(4) of the Forest Act 122 of 1984, for example, makes provision for consultative and local control committees in relation to protected trees on private land. Sections 40 and 41 of the Forest Act relate to advisory committees and managing committees to develop and administer the National Hiking Way System. Section 17 of the Environment Conservation Act 73 of 1989 makes provision for management advisory committees in respect of protected natural environments.

34. Financial assistance to management advisory committees. -

(1) The Minister may, from monies appropriated by Parliament for that purpose and on such conditions as he may determine, render assistance by way of grants or otherwise to management advisory committees.

This is similar to section 21 of the Forest Act 122 of 1984, which makes provision for financial assistance to fire control committees and regional fire control committees.

(2) The council may make monies from the fund available to management advisory committees to assist them in defraying the costs involved in the performance of their functions.

This subsection is similar to subsection 35(5), as read with subsection 42(1) of the Forest Act, in terms of which the National Hiking Way Board may make money available to committees established by it to control and maintain hiking trails or walks on its behalf.

PART V

USE OF WILDERNESS AREAS

35. Permitted uses. -

(1) Except as otherwise provided in this Act, the use of wilderness areas shall be compatible with the policy stated in section 3, and shall be restricted to the public purposes of:

(a) outdoor recreation and provision of the wilderness experience;

(b) the promotion of environmental education and research; and

(c) environmental monitoring, historical and interpretative services.

The equivalent provision in the United States Act relating to use is: 'Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation and historical use'.[26] This wording ('devoted to ... use') suggests that *use* is the main purpose of wilderness. The suggested wording seeks to retain the perspective of a dual purpose - preservation plus use compatible with preservation. What is proposed, therefore, is essentially a form of multiple-use management of wilderness so as to achieve maximum benefit for the greatest number of uses - present restricted use for recreation and the other purposes specified, but preservation for the future. Ideally there should be no use of wilderness which results in any human impact on its pristine or near-pristine condition. Human impact and the concept of wilderness are essentially incompatible. But the idea of effectively 'locking up' wilderness areas for future generations is unlikely to meet with acceptance at the present time. However, there is no reason why management plans should not provide for varying degrees of accessibility, with minimal use core areas surrounded by more accessible transitional zones which may, in turn, lead from more active buffer zones, parks or nature areas, where this is practically possible, thereby providing a recreation opportunity spectrum or continuum catering for all types of use.

(2) A conservation authority may perform any act and take any measure in a wilderness area which is not inconsistent with the provisions of subsection (1) or the management plan for the area in question and, in particular, may perform acts or take measures which are aimed at -

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[26]This is the concluding sentence of s4(b).

(a) the restoration of ecologically disturbed habitats;

(b) the prevention and combating of soil erosion;

(c) the implementation of a prescribed burning programme, and the prevention and combating of other veld, forest and mountain fires;

(d) the maintenance of the natural genetic and species diversity;

(e) the exercise of control over undesirable, alien and invasive plants and animals;

(f) the making available of wilderness trails to members of the public;

This is similar to sections 15(3)(a)(ii) and 15(3)(b) of the Forest Act, the only significant deviation being the reference to management plans and the exclusion of the (Director-General's) right to remove and market 'forest' produce from wilderness areas. This has been excluded as a specific provision because it is inherent in the concept of wilderness that natural forces should play themselves out with minimal human interference. This right may exist in any event in terms of the general power to perform acts not inconsistent with the primary purposes enumerated in the section, but the right would have to be exercised within the context of those primary purposes and not as a specified particular power which could become an end in itself. The purist would argue that wilderness management is a contradiction in terms, and that the measures contemplated in (a) to (f) are inconsistent with the free play of natural forces - nature has its own restorative processes, its own fire regimes and controls over intrusion of exotic species and over-population of protected species. However, common sense suggests that some controls are desirable.[27] The nature and extent of control are management problems, and the conservation authorities have qualified personnel and access to the advice of other experts in the field. The law must make provision for such measures to be taken as and when necessary.

36. Limitation of rights in respect of wilderness areas. -

[27]Mountain catchment areas for example, which are so essential to South Africa's water needs, have particularly fragile ecosystems and can, without proper management, become degraded to the point of permanent impairment - Bainbridge 122. Another writer comments: 'The quality of wilderness is an ephemeral thing best nurtured in neglect. But this is impossible if the area is to be used with adequate provision for human safety and enjoyment. Some management is essential but with so light a touch that it makes hardly a mark on the unblemished canvas of the wild' - I Cowan 'Wilderness - Concept, Function and Management' (1968) 28-29, cited in Environment LR (1975) 509.

(1) (a) The Minister may grant a servitude or other right of any nature in respect of any wilderness area or any part thereof with the approval, by resolution of Parliament, and on such conditions as Parliament may determine.

(b) If the Minister is satisfied that national security necessitates it, he may grant a servitude or other right of a temporary nature to any person, subject to the approval thereof, by resolution of Parliament as soon as practicable after the granting thereof and subject to such conditions as Parliament may then determine.

(c) In submitting the request for the granting of the servitude or other right referred to in paragraphs (a) and (b) to Parliament, he shall at the same time table therewith an environmental impact report, prepared in accordance with the requirements of the council, of the proposal for consideration.

(2) Every servitude over or existing right in a wilderness area or part of a wilderness area which is in force on the date that the area in question is set aside as a wilderness area or part thereof shall remain in force, but shall only be exercised in such manner as may be prescribed and so as not materially to prejudice the achievement of the objects for which the area in question was set aside.

There are three essential departures from the similar existing provisions in the 1984 Forest Act.[28] At present Ministerial authority and Parliamentary approval are not required in the case of prospecting, and mining rights under the mining laws are preserved,[29] save only that no forest produce may be cut, damaged, taken or removed except on the authority of a licence or permit of the Director-General.[30] Secondly, renewal of temporary rights in wilderness areas are at present left in the discretion of the Director-General[31] and, thirdly, environmental impact reports are not required. The question of prospecting and mining is dealt with hereunder. As far as the second issue is concerned, there is an inherent inconsistency in requiring Parliamentary approval

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[28]Section 15(4)(a) and (b), and (5).

[29]Section 15 (4)(a) of the 1984 Forest Act is made subject to s11(2)(b) which excludes prohibition of the granting under any law of a right in connection with the prospecting for, and mining of, precious metals, base minerals, precious stones, natural oil and source material as defined in the Precious Stones Act 73 of 1964, the Mining Rights Act 20 of 1967, and the Nuclear Energy Act 92 of 1982 respectively.

[30]Section 11(2)(b) of the 1984 Forest Act.

[31]In terms of sl5(5) and (6), subject, however, to the proviso that he is satisfied that the continued exercise of the rights will not materially prejudice the achievement of the objects for which the wilderness area in question was set aside.

for servitudes and other rights, and then leaving the renewal of rights in the hands of a government official. Nor is there any practical necessity for such an anomaly. When the right is granted in the first place, the conditions to which it is made subject could quite simply include renewal provisions. Even if renewal is then made subject to the Director-General's discretion, it will have been considered by Parliament and enjoy the sanction of Parliament. The requirement of environmental impact reports for any proposed threat to or incursion into wilderness is postulated on the notion that wilderness is part of our national heritage and that, therefore, Parliament on behalf of all the people should be fully informed of the likely impacts of the proposals before making a decision.

(3) No person shall gain admittance to a wilderness area or perform any activity in or on a wilderness area except as authorised in terms of this Act.

(4) Notwithstanding the provisions of subsection (3), a conservation authority may in writing grant exemption from the provisions of subsection (3), subject to conditions determined by it, to -

(a) any scientist occupied with any specific project; or

(b) any officer charged with specific official duties in terms of this Act.

(5) For the purposes of subsection (3) a wilderness area shall include the airspace to a level of 500 metres above the ground level of that wilderness area and no hang-gliders, para-gliders, gliders, helicopters, fixed wing aircraft, or any other aircraft of whatever nature may enter such airspace except in cases of emergency involving the health and safety of persons in the area, or unless authorised to do so in terms of this Act.

In terms of section 18(8) of the Environment Conservation Act 73 of 1989, a special nature reserve includes the air space to a level of 500 metres above the ground level of the reserve - save for exemptions which may be granted to scientists with specific projects and officers charged with specific official duties, access to, and activities in or on, such reserves are prohibited.

(6) Any servitude, traditional access and harvesting right, or any other right in respect of a wilderness area or a part thereof which exists at the commencement of this Act or as at the date of the declaration of the wilderness area in question, shall remain in force, but shall only be exercised in the prescribed manner.

(7) Each conservation authority shall cause a public register to be kept in which all servitudes and rights of any nature whatsoever in respect of wilderness areas within its jurisdiction must be noted, and which must reflect in respect of each such servitude or right -

(a) the nature thereof;

(b) the manner in which it came into existence;

(c) the name of the holder thereof or of the beneficiary in the case of a personal servitude;

(d) in the case of a praedial servitude, a description of a dominant tenement.

Section 11 of the Forest Act contains similar provisions relating to the limitation of rights in respect of State forests and the powers of the Director-General and his obligation to maintain a register of servitudes and rights in respect of State forests.

37. National security. -

If the Minister is satisfied that the national security necessitates it, he may grant a servitude or other right of a temporary nature to any person, subject to the approval thereof, by resolution, of Parliament as soon as practicable after the granting thereof and subject to such conditions as Parliament may then determine.

This is identical to the existing section 15(4)(b) of the Forest Act 122 of 1984.

38. Renewal of rights within wilderness areas. -

Every servitude or right which remains in force in respect of a wilderness area, as well as any temporary rights lawfully exercised in respect thereof, may be renewed by the Director-General; Provided that he shall not do so without first consulting the council and obtaining its recommendation, and he may only do so if the continued exercise of that right will not, in the opinion of the council, prejudice the achievement of the objects for which the wilderness area in question was set aside.

This is similar to section 15(5) of the Forest Act 122 of 1984, with the additional requirement of consultation with and the recommendation of the council.

39. Wilderness trails. -

(1) Wilderness trails may be established in any wilderness area; provided that such establishment is in accordance with the management plan for the wilderness area in question.

(2) Where it is necessary or desirable to enter upon, traverse or occupy private land in order to establish a wilderness trail, the conservation authority concerned must obtain the required rights by way of written agreement with the owner of that land.

(3) An agreement contemplated in subsection (2) must contain stipulations to the following effect:

(a) the rights to the wilderness trail shall be permanent or for such period as may be agreed upon and shall bind every successor in title of the owner and every lessee or occupier of the private land in question;

(b) the route of the wilderness trail shall not be surveyed but shall be indicated, where considered necessary by the conservation authority concerned on a map which shall form part of the agreement in question;

(c) the conservation authority concerned shall accept liability for any loss or damage suffered by the owner wilfully or negligently caused by a trailist, and shall indemnify the owner against any claim which a trailist may institute him;

(d) such other terms as the Minister may determine after consultation with the council.

(4) The conservation authority concerned shall, as soon as practicable after entering into an agreement contemplated in this section send a copy thereof to the registrar of deeds of the deeds registry in which the title deed of the private land in question is registered, and the registrar must cause a note relating to the agreement to be made in his registers and on the office copy of the title deed in question, and must cause a similar note to be made on the original title deed if it is at any time lodged in his office, and no fees are payable in respect of the making of such notes.

(5) An owner of private land who has entered into an agreement contemplated in this section shall at all reasonable times permit any member of the council, the management advisory committee for the wilderness area in question, an officer of a conservation authority performing any function in terms of this Act, or a contractor engaged in the management of the wilderness area in question or a buffer zone surrounding it, to enter upon his land with the necessary workmen and equipment in order to conduct any investigation or inspection or perform any act which is necessary for the performance of any function in terms this Act.

(6) The provisions of subsection (4) apply *mutatis mutandis* in respect of any amendment of a wilderness trail or agreement contemplated in this section.

The above section is similar to sections 38 and 39 of the Forest Act relating to hiking trails and walks in State forests and on State land and private land, suitably amended so as to exclude reference to the incompatible provisions, for example the requirement that a hiking trail or walk must be indicated by painted footprints or other suitable route indicators, and the provision for the location of shelters, quarters and essential amenities, all of which are inconsistent with the concept of wilderness.

40. Fees for use of wilderness areas. -

The tariff of the fees for any use of wilderness areas permitted in terms of this Act, including research, educational purposes, entry permits, hiking and overnight shelter in caves or otherwise, shall be determined by the conservation authority concerned, after consultation with the council, and income derived from the collection of those fees shall accrue to the fund or to such conservation authority or the management advisory committee for the wilderness area in question, or be divided between them, as may be agreed between the council and such conservation authority or, failing such agreement, as determined by the Minister; Provided that such percentage as may be determined by the council of all fees and income derived from the use of wilderness areas shall accrue and be paid as a first charge to such tribal communities and in such manner as shall be determined by the council.

The above section is similar to section 43 of the Forest Act relating to fees for use of the National Hiking Way System, apart from the reference to a proportion of income being payable to tribal communities. As discussed in Chapters 2 and 4, it is essential that tribal communities derive direct, immediate and continuing benefit from the setting aside of protected natural areas if there is to be any hope for survival of the remnants of South African wilderness.

41. Temporary closing of wilderness areas. -

A wilderness area or any part thereof may at any time temporarily be closed to the public by the conservation authority concerned.

The above section is similar to section 44 of the Forest Act relating to temporary closing or diversion of hiking trails and walks.

42. Code of conduct. -

Every person who uses a wilderness area shall obey every provision of a code of conduct prescribed by the council and which applies in respect of that wilderness trail.

43. Liability for damage. -

(1) No person who suffers any loss or damage as a result of his use of a wilderness area has any claim in respect thereof against the council, a conservation authority, or any other person performing any function in terms of this Act.

(2) Any person who by his use of a wilderness area causes loss or damage to any other person is liable therefor to such person.

The above section is similar to section 45 of the Forest Act relating to use of the National Hiking Way System.

44. Traditional access and harvesting rights of tribal communities. -

(1) Upon the recommendation of the council, the Minister shall, by notice in the *Gazette* and in a newspaper circulating in the area of the wilderness area or buffer zone in question, determine and prescribe the existence, nature and extent of any traditional rights of access to and harvesting of wilderness produce within such wilderness area or buffer zone, and identify the tribal community or communities concerned and the manner in which such rights may continue to be exercised, and all management plans relating to such wilderness area or buffer zone shall make provision for such access and harvesting rights.

(2) For the purposes of subsection (1) -

(a) traditional access and harvesting rights mean those aboriginal, ancestral, historic, established, customary or traditional rights or practices which, in the opinion of the Minister, have been exercised by tribal communities in, over or in relation to a wilderness area or buffer zone for the hunting or gathering of wilderness produce, or natural resources in buffer zones, primarily for subsistence, medicinal, ceremonial or religious purposes;

(b) such harvesting rights may include the sale of the nonedible byproducts of the harvested produce if, in the opinion of the Minister, such produce is employed for the creation of authentic traditional articles of handicrafts or clothing without the use of mass copying methods or devices; and

(c) the Minister may restrict, limit or suspend the exercise of traditional access and harvesting rights for such period as he may deem necessary if the continuation of such rights is, in his opinion -

(i) in conflict with the policy stated in section 3, or

(ii) likely to proceed in a wasteful manner or by means other than the use of traditional weapons and methods of harvesting.

(3) In forming an opinion in terms of subsection (2) the Minister shall rely and act upon the advice and recommendation of the council.

The precedents for recognition of aboriginal harvesting rights for subsistence and religious purposes as an exemption from statutory restrictions on the taking of endangered species, marine mammals, and eagles, subject to similar controls to those suggested above, are the treaties and United States federal statutes discussed in Chapter 3.

PART VI

PROHIBITED USES

45. Prohibition of mining. -

(1) Notwithstanding the provisions contained in any other law, no prospecting or mining of any nature shall be undertaken in any wilderness area.

(2) Unless otherwise determined by resolution of Parliament, any prospecting or mining rights existing within an area at the time that it is set aside as a wilderness area or part of a wilderness area in terms of this Act shall terminate forthwith, and no compensation shall be payable for such termination except and to the extent otherwise resolved by Parliament.

Wilderness and mining activities are incompatible. Prospecting and mining in wilderness areas in the United States were allowed to continue until midnight on 31 December 1983, after which date mining could only continue on valid claims existing prior to that date and no claims could be filed after that date.[32] There may be deposits of oil or rare minerals in designated wilderness areas, but nothwithstanding that the United States was not self-sufficient in the oil and minerals that it required, it was successfully argued that these areas are and should be closed to mining for the sole purpose of achieving wilderness objectives.[33] Although many nations are struggling desperately to provide the basic needs of food, fuel, clothing and shelter, a key consideration in acceptance of wilderness is that it is an enduring resource, so that if such demands become overwhelming wilderness will still be there as a last resort. Let us leave some of our natural resources to the next generation, and endeavour to develop and manage our other resources more efficiently. In South Africa, because of the principle of parliamentary sovereignty, the total ban on mining is revocable if this should ever become necessary because of social necessity or political expediency. Government has

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[32]Section 4(d)(3).

[33]Block 76. Although closed to mining, wilderness areas are still open to 'prospecting, for the purpose of gathering information' in terms of s4(d)2 of the United States Act, the rationale probably being that if environmental impact assessment is desirable for development, it makes as much sense to know what resources are foregone by a non-development decision. However, in practical terms, it is unlikely that the substantial costs involved in exploration will be incurred without the ability to develop what may be discovered. For discussion of this issue, and of mining activities in wilderness areas generally, see Hammond 512, Pardo 16, and Haight 296.

accepted that there shall be no prospecting or mining in national parks.[34] In the interests of consistency of approach and principle, the same protection must be extended to wilderness areas. In any event, the socio-economic and political implications of continued mining within ecologically sensitive natural areas are so great as to justify political resolution. This is well illustrated by the public outcry and continuing dispute over the threatened dune mining on the Eastern Shores of Lake St Lucia in northern Natal.[35]

46. Other prohibited activities. -

Notwithstanding the provisions contained in any other law, and except in accordance with a management plan or as otherwise provided in this Act, there shall be no human habitation, grazing of livestock, commercial enterprise, or permanent road within any wilderness area and, except as necessary to meet minimum requirements for the administration of the area for the purposes of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorised equipment or motorboats, no landing of any type of aircraft, no other form of mechanical transport, and no structure or installation of any nature whatsoever within any wilderness area.

This is similar to section 4(c) of the United States Act. The whole concept of wilderness requires that it be roadless and there be no commercial enterprise within it; but some management is necessary to preserve wilderness, and for this purpose there may be temporary incursion. It may also be necessary to rescue an injured mountaineer, for example, and for this purpose a helicopter is permitted to land. Otherwise there should be no landing of aircraft for purposes such as day trips for holiday makers from nearby hotels. The administrators and the courts will have to interpret what the 'minimum requirements' are 'for the purposes of this Act' from time to time. It is therefore important that these purposes be clearly and specifically stated in the Act. Only human use which is compatible with preservation of wilderness as near as possible to its pristine

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[34]Section 20 of the National Parks Act 57 of 1976 prohibits prospecting or mining of any nature on land in a national park, except land in respect of which the Minister of Community Development, with the concurrence of the National Parks Board of Trustees, has decided not to acquire the mineral rights (s 2(2)(a)(i)), or land made available by a private owner for a national park in terms of an agreement which reserves mineral rights (s2(2)(a)(ii)).

[35]For some of the arguments for and against the dune mining, see Ridl (Feb 1990), Ridl (April 1990), MacPherson, and Forbes, generally.

condition is permissible. Thus bridges and shelters would be convenient but not necessary, and therefore not permissible. Section 12 of Forest Act restricts the use of roads in state forests. The words 'except in accordance with a management plan' (prepared in accordance with the provisions of section 50 below), do allow for the possibility of appropriate intrusions, such as temporary roads in and vehicular access to large desert wilderness areas, for example.

47. Protection of wilderness produce. -

(1) No person shall take, collect, cut, damage, destroy, disturb, remove, transport, export, purchase, sell, donate, or in any other manner acquire, dispose of, or deal with any wilderness produce, except -

(a) in accordance with a management plan; or

(b) in accordance with a permit issued by the Minister and subject to such conditions as he may determine; Provided that, if any such activity is likely in any way whatsoever to affect the wilderness quality of the area in question, the Minister shall not be entitled to authorise the same without the prior approval, by resolution, of Parliament.

(2) A wilderness officer, honorary wilderness officer, nature conservation officer in the service of a conservation authority, and a police officer, may at any reasonable time enter upon privately owned land in order to determine whether the provisions of subsection (1) are being contravened, and such an officer may search any vehicle or premises in order to determine whether any wilderness produce is being transported in the vehicle or is being sold or displayed or offered for sale or is any other manner disposed of in or upon those premises.

This is similar to subsections 13(5) and (6) of the Forest Act.

48. Prohibition of acquisition by prescription. -

Notwithstanding anything contained in any other law to the contrary, no servitude or other right of any nature whatsoever shall be acquired by prescription in respect of a wilderness area.

This is similar to section 11(1) of the Forest Act which precludes prescription in respect of State forests unless authorised by Parliament.

PART VII
BUFFER ZONES AND MANAGEMENT PLANS

49. Establishment and maintenance of buffer zones around wilderness areas. -

(1) Within such time and as may be prescribed by regulation, every owner of land in and abutting a wilderness area shall enter into an agreement relating to the management and maintenance of a buffer zone around such area.

(2) For the purposes of this section 'owner', in relation to State land or other land under the control of the State, means the officer in charge of the department of State or provincial administration exercising control over that State land or other land, or a person authorised by him. The 'owner', in relation to tribal land and local indigenous populations affected by the setting aside of the wilderness area and establishment of the buffer zone in question, means the tribal authority identified as such by the council.

(3) The dimensions and boundaries of buffer zones shall be determined -

(a) by the owners of land referred to in subsections (1) and (2), acting upon the advice and recommendations of the council;

(b) with regard to local circumstances, so as to be reasonably sufficient to afford adequate protection to the wilderness areas surrounded by them.

(4) An agreement referred to in this section must -

(a) fix the dimensions of the buffer zone in question and indicate the boundaries thereof by means of a sketch plan;

(b) describe the manner in which the buffer zone in question shall be managed and maintained;

(c) indicate the ways in which the owners concerned shall be involved in such management and maintenance; Provided that whenever a tribal authority has been identified as an owner in terms of subsection (2), that tribal authority shall be represented on any management advisory committee that is established for the wilderness area or buffer zone in question;

(d) stipulate how the costs of such management and maintenance shall be shared or otherwise provided;

(e) record any servitudal or other rights the owners concerned have agreed upon relating to the access to and protection of the wilderness area in question, and to the use and protection of the buffer zone in question;

(e) enumerate the particulars relating to the exercise of the traditional access and harvesting rights which may be exercised in respect of natural resources within the buffer zone in question; and

(f) indicate the manner in which any income derived from the buffer zone in question shall be used; Provided that in all cases such percentage as may be determined by the council of all fees and income derived from the use of wilderness areas and buffer zones shall accrue to the tribal authorities which may be within such buffer zones or on land contiguous to them on a *pro rata* basis as determined by the council.

(5) Negotiations by the owners contemplated in this section with a view to the entering into of an agreement or the amendment of an existing agreement, shall be commenced within the prescribed time and conducted in the prescribed manner.

(6) The negotiations contemplated in subsection (5) shall be conducted in collaboration with the conservation authority concerned and such other persons as may be determined by the council.

(7) Upon conclusion of negotiations and the agreement contemplated in this section, a formal management plan shall be prepared by the conservation authority concerned for the buffer zone in question, which management plan shall include the relevant provisions of such agreement, and the provisions of section 50 shall apply *mutatis mutandis* to such management plan.

(8) Where an owner cannot be traced, despite such diligent search as may be expected in the circumstances, with a view to his entering into an agreement or the amendment of an existing agreement as contemplated in this section, his agreement may be dispensed with, but it shall the function and duty of the council to ensure that his interests are protected as best as they may be in the circumstances.

(9) An owner of land in respect of which an agreement as contemplated in this section is applicable, and who is of the opinion that its provisions are, or a provision thereof is, excessively burdensome in relation to his legitimate interests, may after 30 days' notice in writing to every other owner concerned, to the conservation authority concerned, and to the council, apply to the Supreme Court for an order amending the agreement, and the Court may, after such investigation as it may consider necessary, issue such order as it may deem equitable.

(10) Agreements and orders made in terms of or pursuant to the provisions of this section shall be binding on every owner of and holder of a real right in land affected by such agreements and orders, and on their successors in title.

The binding of successors in title is clearly necessary, and is not without precedent. Section 16(3) of the Environment Conservation Act 73 of 1989 binds them to the provisions of directions issued in respect of protected natural environments.

(11) The Minister shall in writing direct the registrar of deeds of the deeds registry in which the title deed of land referred to in subsection (10) is registered to cause a note to be made in his registers and on the office copy of such title deed of the relevant provisions of the agreement or order in question.

(12) A registrar of deeds must cause a note of the particulars mentioned in subsection (11) to be made on the original title deed of the land in question when it is lodged in his office for any purpose, and no fees shall be payable in respect of the making of such note.

A similar requirement of the registrar of deeds is provided for in section 16(4) of the Environment Conservation Act 73 of 1989 in relation to directions issued for protected natural environments, and in sections 9 and 20 of the Forest Act 122 of 1984 in relation to afforestation rights and fire protection schemes respectively.

50. Management plans. -

(1) A management plan shall be prepared by the conservation authority concerned for each wilderness area and buffer zone, and shall make provision for -

(a) the regulation therein of all activities and uses permitted in terms of this Act;

(b) a tariff of fees for such permitted activities and uses;

(c) the manner in which any income derived therefrom shall be applied;

(d) such other particulars as may be prescribed.

(2) The conservation authority concerned shall take all such steps as may be necessary to ensure that the true representatives of all local communities affected or likely to be affected by the proposed management plan are given proper notice of and opportunity to participate in its preparation.

(3) The proposed management plan shall be published by the conservation authority concerned in the *Gazette* and in a newspaper circulating in the area or areas within which the wilderness area or buffer zone in question is situated, together with a notice calling for any objections to such proposed plan to be lodged with such conservation agency within 30 days of such publication.

(4) Within 60 days after the publication referred to in subsection (3) the conservation authority concerned shall lodge all the relevant documents, together with any objections and its comments on and responses to such objections, with the council. Within 30 days of receipt of such documents, the council shall either approve the proposed management plan, or return it to the conservation authority concerned for amendment or redrafting in such manner and within such period as may be determined by the council.

(5) Public notice of the management plan as finally approved by the council shall be given by the conservation authority concerned by publication of the same in the *Gazette* and in a newspaper circulating in the area concerned within 30 days of such approval. Any interested person shall have

the right and standing to appeal to the Supreme Court against any decision made in terms of this section, or against any of the provisions of the management plan as finally approved.

(6) The conservation agency concerned and the council shall each keep a register and details of all management plans, which shall be available for public inspection during office hours, and copies of which plans shall be available to the public upon payment of the prescribed fee.

(7) All management plans shall be reviewed annually, and may be amended in accordance with the provisions of this section, *mutatis mutandis*.

PART VIII
REGULATIONS AND BY-LAWS

51. Regulations regarding permitted uses in wilderness areas and environmental impact reports. - The Minister may make regulations with regard to any permitted use or activity in or on or likely to affect any wilderness area or buffer zone, and may prescribe the scope, content and manner of preparation of environmental impact reports.

52. Regulations regarding buffer zones. -

(1) The Minister may make regulations with regard to buffer zones concerning -

(a) the imposition of restrictions on the nature and extent of development or activities in such zones;

(b) the procedure to be followed for obtaining permission for development or activities in such zones; and

(c) the repair of damage to the environment in such zones by unauthorised development or activities.

(2) Any regulations made under subsection (1) may relate to buffer zones in general or to any buffer zone in particular.

53. Regulations regarding management plans. -

The Minister may make regulations with regard to the preparation, publication, content, and amendment of management plans.

54. General regulatory powers. -

(1) The Minister may make regulations relating to -

(a) the management of wilderness areas;

(b) access to and use of wilderness areas;

(c) the acts to be performed and measures taken by conservation authorities;

(d) the exercise of any servitude or other right granted or permitted in terms of this Act;

(e) the exercise of customary or ancestral access and harvesting rights of indigenous people by traditional means for subsistence or religious purposes;

(f) the granting of rights in or over and the exercise of control over wilderness produce, the collection, removal, transport, export, purchase, sale, or donation or the acquisition or disposal in any other manner thereof, and the procedure in connection therewith;

(g) the control or destruction of animals or plants where this is necessary to achieve the objects of this Act;

(h) the issue of licences, permits or other authorizations in respect of rights in or over wilderness areas or buffer zones or in respect of wilderness produce;

(i) the kinds of wilderness produce and the quantities thereof which may be cut, taken or removed, and the season in which or the times when it may be cut, taken or removed;

(j) the control or prohibition generally or in relation to any particular wilderness area of the creation or sale of articles manufactured or derived from wilderness produce or the byproducts thereof;

(k) the areas in which and the periods during which camping may be exercised;

(l) the cultivation and grazing of land in a buffer zone, the granting of financial assistance for the erection of stock-proof fences, and the clearing and maintenance of fire belts for the protection of a wilderness area;

(m) the objects and scope of management plans, the framing of such plans and the application of any provision thereof in respect of any owner, occupier or lessee of land affected thereby;

(n) stipulations which an agreement contemplated in section 49 must contain;

(o) the issue of permits or other authorizations in connection with the use of any wilderness trail;

(p) any other matter which in terms of any other provision of this Act is required to be or may be prescribed or otherwise dealt with by regulation; and

(q) any of the provisions or objects of this Act generally for their better implementation or attainment.

(2) Different regulations may be made under subsection (1) in respect of different wilderness areas or different buffer zones or parts thereof.

(3) Regulations under subsection (1) may provide for penalties for any contravention of, or any failure to comply with, the provisions thereof not exceeding the penalties prescribed in Part IX.

(4) The Minister may determine a tariff of fees, which may vary according to circumstances, relating to access to and use of wilderness areas.

The 1984 Forest Act makes provision for promulgation of regulations covering most of the above.[36] Ultimately, wilderness preservation will depend in large measure on administrative regulation and enlightened management practices. The law can provide the vehicle, but the manpower, expertise and dedication must come from the administrative arm of government. The regulations will undoubtedly change with the passage of time and with the gaining of further knowledge and experience. But it is not enough that wilderness areas be properly managed, the basis on which this is done should be made public, not only for political reasons but also to increase public participation and awareness and, by so doing, promote a conservation or wilderness ethic. The publication of regulations by the Minister will assist in obtaining these objectives.

55. By-laws of conservation authorities. -

(1) A conservation authority may, with concurrence of the Minister, make by-laws relating to -

(a) the powers and duties of its officers with respect to -

(i) the exclusion of members of the public from certain parts of a wilderness area;

(ii) the disposal of wilderness produce or acquisition of any indigenous plant or animal for a wilderness area;

(b) the conditions on which, and the times when, a wilderness area may be entered by the public;

(c) the protection or conservation of any wilderness produce or property belonging to the council;

(d) the protection of any tree, plant, rock, fence, or other object in a wilderness area against defacement by writing or any other manner;

(e) any other matter which may or must be prescribed by by-law or which, in the opinion of a conservation authority, is necessary for the management or protection of a wilderness area.

(2) Different by-laws may be made in respect of different wilderness areas.

(3) A by-law may provide for penalties for any contravention of, or any failure to comply with, the provisions thereof not exceeding the penalties prescribed in Part IX.

The above section is similar to Section 72 of the Forest Act relating to the power of the National Botanical Institute to make by-laws.

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[36]In ss 73 and 74.

PART IX
OFFENCES, PENALTIES, FORFEITURE, JURISDICTION, POWERS OF WILDERNESS OFFICERS, AND RELATED MATTERS

56. Offences. -

Any person who without lawful authority granted in terms of this Act in a wilderness area -

(a) cuts, damages, destroys, collects, takes or removes any wilderness produce;

(b) damages, alters, shifts, removes or interferes with any beacon, boundary mark, fence, notice board or other structure within or on the perimeter of a wilderness area;

(c) wilfully or negligently starts or uses a fire, or adds fuel to a fire, or fails to extinguish or leaves unattended a fire which he has started or used or to which he has added fuel;

(d) is in possession of any firearm, explosive, fuel or other inflammable substance;

(e) clears, ploughs or cultivates land;

(f) in any manner hunts or kills any game, birds or other animals, or catches or kills any fish or insects;

(g) dumps or scatters litter;

(h) allows his dog or stock to be present;

(i) contravenes or fails to comply with a condition of an entry permit, licence or other authorization issued in terms of this Act;

(j) hinders or obstructs a wilderness officer, police officer or other person in the performance of his duties or the exercise of his powers in terms of this Act;

(k) uses a motor vehicle or motorized equipment or motorboat or any other form of mechanical transport, or lands an aircraft;

(l) builds any structure or installation;

is guilty of an offence and liable on conviction to a fine not exceeding R10 000 or to imprisonment for a period not exceeding two years or to both such fine and such imprisonment.

57. Powers of arrest of wilderness and police officers. -

A wilderness or police officer may without warrant arrest any person -

(a) who is found in possession of any wilderness produce in respect of which there is reasonable suspicion that it was obtained unlawfully from a wilderness area and who is unable to give a satisfactory account of his possession;

(b) whom he suspects on reasonable grounds of having committed any offence mentioned in this Act or of having taken part in the commission of such an offence.

58. Powers of seizure of wilderness and police officers. -

A wilderness officer or police officer may seize any wilderness produce, weapon, vehicle, equipment or animal in respect of which he suspects on reasonable grounds an offence has been committed in terms of this Act. As soon as practicable after such seizure he shall report the relevant facts to a magistrate within whose area

of jurisdiction the seizure took place, and the magistrate may make such order as to the retention or disposal of the wilderness produce, property or animal in question, as he may, with due regard to the facts reported to him, consider equitable or expedient.

59. Production of documents. -

Any person who in terms of this Act is required to be in possession of a licence, permit or other authorization shall produce it on demand of a magistrate, justice of the peace, wilderness officer, police officer or other person authorized in terms of this Act.

60. Other powers of wilderness officers. -

A wilderness officer -

(a) may in the performance of any function in terms of this Act -

(i) after reasonable notice to the owner or occupier of land in a buffer zone, enter upon that land and conduct thereon any investigation or inspection or perform any act which is necessary for the performance of that function;

(ii) has in respect of any offence under this Act all the powers vested by law in a police officer.

61. Illegal squatting, camping or cultivation in wilderness areas. -

When a wilderness officer lodges an affidavit to the effect that as far as he can ascertain a person is without authority squatting, camping, residing, building a structure, or clearing or cultivating land, in a wilderness area, with the clerk of the magistrate's court within whose area of jurisdiction the wilderness area in question is situated, the clerk shall summon that person to appear before the court to show cause why he should not be ordered to leave the wilderness area or to remove the structure or planted crop in question, as the case may be, and if that person fails so to appear or fails to prove that he has the necessary authority, the court may order that he shall, within a period fixed by the court, leave the wilderness area and not return thereto, or that he shall remove therefrom that structure or crop, and the court may also authorize the wilderness officer or any other officer designated by the court, to remove, destroy or otherwise dispose of that structure or crop if that person fails to do so within the period fixed by the court.

62. Forfeiture and reparation. -

(1) Notwithstanding anything to the contrary in any law contained, a court convicting any person of an offence under this Act may declare any wilderness produce, animal, vehicle or other thing involved in or by means whereof the offence concerned was committed or which was used in the commission of such offence, or the rights of the convicted person to such vehicle or other thing, to be forfeited to the State.

(2) A declaration of forfeiture under subsection (1) shall not affect the rights which any person other than the convicted person may have to the vehicle or other thing concerned, if it is proved that he did not

know that the vehicle or other thing was used or would be used for the purpose of or in connection with the commission of the offence concerned or that he could not prevent such use.

(3) The provisions of section 35 (3) and (4) of the Criminal Procedure Act, 1977 (Act No. 51 of 1977), shall *mutatis mutandis* apply to any declaration of forfeiture under this section.

This is similar to section 30 of the Environment Conservation Act 73 of 1989.

(4) In the event of a conviction in terms of this Act the court may order that any damage to a wilderness area resulting from the offence be repaired by the person so convicted, to the satisfaction of the council.

(5) If within a period of 30 days after a conviction or such longer period as the court may determine at the time of the conviction, an order in terms of subsection (4) is not being complied with, the council may itself take or cause to be taken the necessary steps to repair the damage and recover the cost thereof from the person so convicted.

This is similar to subsections 29 (7) and (8) of the Environment Conservation Act 73 of 1989.

63. Award of part of fine to informant. -

A court which imposes a fine for an offence in terms of this Act may order that a sum not exceeding one-fourth of the fine recovered be paid to any person, not being an officer in the service of the State, upon whose information the conviction for that offence was obtained or who assisted materially in bringing the offender to justice.

64. Presumptions. -

(1) When in a prosecution for an offence in terms of this Act it is alleged in the charge that any wilderness produce is the property of the State, it is presumed until the contrary is proved that such wilderness produce is the property of the State.

(2) When in any action by virtue of the provisions of this Act or the common law the question of negligence arises in respect of any matter dealt with in this Act, negligence is presumed until the contrary is proved.

65. Jurisdiction of magistrate's court. -

Notwithstanding anything to the contrary in any law contained, a magistrate's court shall be competent to impose any penalty provided for in this Act.

This is the same as subsection 29 (9) of the Environment Conservation Act 73 of 1989.

Most of the above provisions are taken from the relevant sections of the 1984 Forest Act.[37] It has already been pointed out[38] that section 75 of that Act contains a curious inconsistency in providing for a maximum fine of R2 500 for, *inter alia*, collecting or removing forest produce[39] (defined so as to include anything which occurs in a forest[40]), but only R500 for clearing land in a forest.[41] The lesser harm, for example picking a flower or gathering a handful of moss, can thus theoretically attract a greater penalty. It is therefore suggested that there be no attempted distinction, for purposes of penalty, dependent upon degrees of harm or degradation. The suggested penalty is a maximum, and it is hoped that the courts will have regard to the clear purposes stated in the statute and in practice make the penalty suit the crime. The questions of law enforcement and the use of criminal sanctions in conservation are difficult to resolve. The areas requiring protection are often remote, and there is usually a shortage of manpower. Unfortunately conservation is still low down on the national scale of political priorities, which results in an inadequate allocation of funds for this purpose. The customary practices and requirements of people in remote areas have also to be considered - the removal of bark for medicinal purposes, for example. Perhaps the criminal sanction as a tool in conservation will remain a doubtful deterrent[42] until such time as there is general acceptance of a conservation ethic, through education and increased public awareness of the issues involved. In the meantime, however, the law must do what it can. Thus, the award of part of the fine to an informant should assist in convicting offenders. The shifting of the burden of proof and the presumption of

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[37]Sections 75, 76, 78, 82, 83 and 84.

[38]See Glavovic (1985) 170.

[39]Section 75(2)(a)(i).

[40]Section 1(xvii).

[41]Section 75(3)(a)(i).

[42]For discussion of some of the problems of securing environmental conservation through criminal law see Rabie (1972) 259-267 and Rabie & Erasmus 43-47.

negligence should assist in proving the commission of the offence. These inroads into the traditional rights of an accused are perceived as being justified because of the peculiar problems of law enforcement in this context and the vital need for protection of wilderness. To increase the deterrent effect of the proposal it is suggested above, in sub-paragraph (5), that any property involved in the commission of an offence should be subject to forfeiture. This provision does not appear in the 1984 Forest Act.

PART X

GENERAL PROVISIONS

66. Operation of Act with regard to other laws. -

The provisions of this Act supersede, and apply in substitution for, the provisions of any other laws which are in conflict with or inconsistent with the provisions of this Act.

The objective is to protect wilderness. To make the proposed Wilderness Act subordinate to any other laws would detract from that purpose. The Forest Act contains, and the now repealed Environment Conservation Act 100 of 1982 contained, contrary provisions,[43] and this was regarded as being a major weakness of the latter.[44]

67. Powers of Minister and council in case of default by authorities or committees. -

(1) If in the opinion of the council any conservation, local or tribal authority, management advisory committee or any other person fails to perform any function assigned to it or him by or under this Act, the Minister shall, upon the request of the council and after affording the authority, committee or person in question an opportunity of making representations to him, in writing direct such authority, committee or person to perform such function within a period specified in the direction, and if that authority, committee or person fails to comply with such direction, the Minister may perform such function, or authorise the council to do so, as if he or it were that authority, committee or person, and he or it may authorise any other person to take all steps required for that purpose.

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[43]Section 18 of the repealed Environment Conservation Act (replaced by Act 73 of 1989, which does not contain a similar provision), and s88 of the Forest Act which reads as follows: 'The provisions of this Act apply in addition to, and not in substitution for, the provisions of any other law which are not in conflict with or inconsistent with the provisions of this Act.'

[44]Rabie & Erasmus 38.

(2) Any expenditure incurred by the Minister or the council in the performance of any function by virtue of the provisions of subsection (1) may be recovered from the authority, committee or person concerned.

This is similar to section 31 of the Environment Conservation Act 73 of 1989 which grants such powers to the Minister and Administrators in cases of default by local authorities to perform any functions assigned to them under that Act.

68. Publication for comment. -

(1) If the Minister, the council, a conservation authority, or any other person or authority, as the case may be, intends to make a declaration or issue a regulation or direction in terms of the provisions of this Act, a draft notice shall first be published in the *Gazette*.

(2) The draft notice referred to in subsection (1) shall include -

(a) the text of the proposed declaration, regulation or direction;

(b) a request that interested parties shall submit comments in connection with the proposed declaration, regulation or direction within the period stated in the notice, which period shall not be less than 30 days after the date of publication of the notice; and

(c) the address to which such comments shall be submitted.

(3) If the Minister thereafter determines on any alteration of the draft notice published as aforesaid, it shall not be necessary to publish such alteration before finally issuing the notice.

Section 32 of the Environment Conservation Act 73 of 1989 makes similar provision for prior publication of notices.

69. Delegation. -

Subject to the approval of the council, a conservation, tribal or local authority, or a management advisory committee, may on such conditions as the council may impose delegate or assign any power or duty conferred upon or assigned to it by or under this Act to, respectively, any officer or employee of the authority or committee concerned.

70. Appeal to Minister. -

(1) Any person who feels aggrieved at any decision made in terms of this Act, whether by an officer or employee enforcing a provision of the Act in respect of a wilderness area or buffer zone, or an officer or employee exercising any power delegated in terms of this Act or conferred upon him by regulation,

or by any other person pursuant to the provisions of this Act or any regulations made thereunder, may appeal against such decision to the Minister in the prescribed manner, within the prescribed period, and upon payment of the prescribed fee.

(2) The Minister may, after considering such an appeal, confirm, set aside or vary the decision of the officer, employee or person concerned, or make such order as he may deem fit, including an order that the prescribed fee paid by the appellant or such part thereof as the Minister may determine be refunded to the appellant.

This is similar to section 35 of the Environment Conservation Act 73 of 1989 which provides for such appeals to a Minister or an Administrator.

71. Review by Court. -

(1) Notwithstanding the provisions of section 70, any interested person may within 30 days after having become aware of a decision of an administrative body under this Act request such body in writing to furnish reasons for such decision within 30 days after receiving the request.

(2) Within 30 days after having been furnished with reasons in terms of subsection (1), or after the expiration of the period within which reasons had to be so furnished by the administrative body, the person in question may apply to a division of the Supreme Court having jurisdiction to review the decision.

This is in effect identical to section 36 of the Environment Conservation Act 73 of 1989.

72. Appeal to Court. -

Notwithstanding the provisions of section 70, in the event of a dispute or disagreement arising between the Director-General, a conservation authority, the council, a management advisory committee, a wilderness officer, honorary wilderness officer, tribal authority, any other person or body exercising any right or discharging any duty referred to in this Act, or any member of the public or organisation having any interest in a wilderness area, such dispute or disagreement shall be referred to the Minister for resolution. In the event of any person being dissatisfied with the Minister's decision, whether or not any rights of that person have been infringed, such dissatisfied person shall have the right and standing to take the matter on appeal to the Supreme Court for final decision.

73. Restriction of liability. -

No person, including the State, conservation authorities and the council, shall be liable in respect of anything done in good faith in the exercise of a power or the performance of a duty conferred or imposed in terms of this Act.

This is identical to section 37 of the Environment Conservation Act 73 of 1989.

74. Entering into and ratification of conventions, treaties and agreements. -

(1) The State President may by proclamation in the *Gazette* add to this Act any Schedule containing the provisions of an international convention, treaty or agreement relating to wilderness areas which has been entered into or ratified by the Government of the Republic.

(2) The State President may by proclamation in the *Gazette* amend the Schedule to give affect to any amendment of or addition to any convention, treaty or agreement referred to in subsection (1) which may from time to time be effected and is ratified by the Government of the Republic.

(3) The Minister shall lay a copy of any proclamation issued under subsection (1) or (2), on the Table in Parliament within 14 days after publication thereof in the *Gazette* if Parliament is then in ordinary session or, if Parliament is not then in ordinary session, within 14 days after the commencement of its next ensuing ordinary session.

This is identical to section 38 of the Environment Conservation Act 73 of 1989, save that in subsection (1) the reference is to 'protection of the environment' instead of 'wilderness areas'.

75. Agreements with self-governing territories. -

The Minister may enter into an agreement with the government of a self-governing territory as defined in section 38 of the National States Constitution Act, 1971 (Act No. 21 of 1971), in order to promote the objects of this Act.

This is identical to section 39 of the Environment Conservation Act 73 of 1989 (and may well change under a new South African Constitution).

76. State bound. -

The provisions of this Act shall bind the State, including any provincial administration, except in so far as criminal liability is concerned.

This is identical to section 40 of the Environment Conservation Act 73 of 1989.

77. Repeal of laws and savings. -

(1) Subject to the provisions of subsection (2), the laws mentioned in Schedule 2 are hereby repealed to the extent set out in the third column thereof.

(2) Anything done under a power conferred by or in terms of a provision of a law repealed by subsection (1) is deemed to have been done under a power conferred by or in terms of a provision of this Act.

This is similar to section 42 of the Environment Conservation Act 73 of 1989. The Wilderness Act will replace those sections of the 1984 Forest Act which relate to wilderness areas. The savings clause will maintain the status and ensure uninterrupted protection of existing wilderness areas.

78. Short title. -

This Act shall be called the Wilderness Act, 199*.

The 1984 Forest Act was published on 29 August 1984,[45] and provided that it 'comes into operation on a date determined by the State President by proclamation in the *Gazette*.'[46] The date of commencement of the Act was 27 March 1986. To avoid similar delay and to ensure that the Wilderness Act will come into effect immediately upon its promulgation,[47] no effective date is stated in the draft.

SCHEDULE 1
EXISTING WILDERNESS AREAS

(see Appendix C)

SCHEDULE 2
LAWS REPEALED AND EXTENT OF REPEAL

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[45]GG 9380.

[46]Section 90.

[47]In terms of sl3(l) of the Intepretation Act 33 of l957.

(It is theoretically possible to excise the relevant provisions of the Forest Act 122 of 1984 under this schedule; but they do not relate exclusively to wilderness areas. Section 15 of that Act, for example, refers to both nature reserves and wilderness areas in State forests. It would be unnecessarily complex to repeal specified subsections or parts of subsections. It would be far simpler, and more elegant, to enact an appropriate Forest Amendment Act simultaneously with the Wilderness Act.)

10.3 CONCLUSION

Wilderness may be regarded as a symbol of nature values and a new social paradigm. It mirrors the broader environmental movement. It is useful as a cultural filter, and may be used as representative of the alternative lifestyle and alternative communities that will be required in the future. But its value extends beyond symbolism. The earth environment is deteriorating. Continuing reduction of wilderness will lead to further loss of biotic diversity and impoverishment of our planet. A key component of the movement toward enlightened environmentalism is the necessity for affording the highest protection that the law will allow to the few remaining wild places containing genetic diversity and natural integrity.

Wilderness could be the foundation upon which a new age of environmental integrity may be constructed in South Africa. The inclusion of an appropriate wilderness statute as an essential component of a planned national network of protected areas legislation will materially assist in achieving a comprehensive, co-ordinated, and holistic approach to the serious environmental challenges which face our country. Not only will the establishment of a formal National Wilderness System be an indication of political maturity, it will also be an important contribution by South Africa to international environmental security.

Time is of the essence. There is an urgent and compelling need for effective legislation. If we do not act expeditiously, there will be no tomorrow for wilderness. This is Africa, not Europe, not the North American continent nor the Antipodes. There is effectively no wilderness left in Europe, and the remnants of wilderness on other continents are different from our African wilderness. We have a unique contribution to make to the international community. A South African Wilderness Act would be a priceless and timeless gift of African wilderness to the world.

APPENDIX A

UNITED STATES WILDERNESS ACT OF 1964

Public Law 88-577
88th Congress, S.4
September 3, 1964

AN ACT

To establish a National Wilderness Preservation System for the permanent good of the whole people, and for other purposes.

SHORT TITLE

1. This Act may be cited as the "Wilderness Act".

WILDERNESS SYSTEM ESTABLISHED - STATEMENT OF POLICY

2. (a) In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as "wilderness areas," and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness; and no Federal lands shall be designated as "wilderness areas" except as provided for in this Act or by a subsequent Act.

(b) The inclusion of an area in the National Wilderness Preservation System notwithstanding, the area shall continue to be managed by the Department and agency having jurisdiction thereover immediately before its inclusion in the National Wilderness Preservation System unless otherwise provided by Act of Congress. No appropriation shall be available for the payment of expenses or salaries for the administration of the National Wilderness Preservation System as a separate unit nor shall any

appropriations be available for additional personnel stated as being required solely for the purpose of managing or administered areas solely because they are included within the National Wilderness Preservation System.

DEFINITION OF WILDERNESS

(c) A wilderness in contrast with those areas where man and his own works dominate the landscape, is hereby recognised as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

NATIONAL WILDERNESS PRESERVATION SYSTEM - EXTENT OF SYSTEM

3. (a) All areas within the national forests classified at least 30 days before the effective date of this Act by the Secretary of Agriculture or the Chief of the Forest Service as "wilderness," "wild," or "canoe" are hereby designated as wilderness areas. The Secretary of Agriculture shall -

(1) Within one year after the effective date of this Act, file a map and legal description of each wilderness area with the Interior and Insular Affairs Committees of the United States Senate and the House of Representatives, and such descriptions shall have the same force and effect as if included in this Act: **provided, however,** That correction of clerical and typographical errors in such legal descriptions and maps may be made.

(2) Maintain, available to the public, records pertaining to said wilderness areas, including maps and legal descriptions, copies of regulations governing them, copies of public notices of, and reports submitted to Congress regarding pending additions, eliminations, or modifications. Maps, legal descriptions, and regulations pertaining to wilderness areas within their respective jurisdictions also shall be available to the public in the offices of regional foresters, national forest supervisors, and forest rangers.

CLASSIFICATION

(b) The Secretary of Agriculture shall, within ten years after the enactment of this Act, review, as to its suitability or nonsuitability for preservation as wilderness, each area in the national forests classified on the effective date of this Act by the Secretary of Agriculture or the Chief of the Forest Service as "primitive" and report his findings to the President.

PRESIDENTIAL RECOMMENDATION TO CONGRESS

The President shall advise the United States Senate and House of Representatives of his recommendations with respect to the designation as "wilderness" or other reclassification of each area on which review has been completed, together with maps and a definition of boundaries. Such advice shall be given with respect to not less than one-third of all the areas now classified as "primitive" within three years after the enactment of this Act, not less than two-thirds within seven years after the enactment of this Act, and the remaining areas within ten years after the enactment of this Act.

CONGRESSIONAL APPROVAL

Each recommendation of the President for designation as "wilderness" shall become effective only if so provided by an Act of Congress. Areas classified as "primitive" on the effective date of this Act shall continue to be administered under the rules and regulations affecting such areas on the effective date of this Act until Congress has determined otherwise. Any such area may be increased in size by the President at the time he submits his recommendations to the Congress by not more than five thousand acres with no more than one thousand two hundred and eighty acres of such increase in any one compact unit; if it is proposed to increase the size of any such area by more than five thousand acres or by more than one thousand two hundred and eighty acres in any compact unit the increase in size shall not become effective until acted upon by Congress. Nothing herein contained shall limit the President in proposing, as part of his recommendations to Congress, the alteration of existing boundaries of primitive areas or recommending the addition of any contiguous area of national forest lands predominantly of wilderness value. Notwithstanding any other provisions of this Act, the Secretary of Agriculture may complete his review and delete such area as may be necessary, but not to exceed seven thousand acres, from the southern tip of the Gore Range-Eagles Nest Primitive Area, Colorado, if the Secretary determines that such action is in the public interest.

REPORT TO PRESIDENT

(c) Within ten years after effective date of this Act the Secretary of the Interior shall review every roadless area of five thousand contiguous acres or more in the national parks, monuments and other units of the National Park System and every such area of, and every roadless island within, the national wildlife refuges and game ranges, under his jurisdiction on the effective date of this Act and shall report to the President his recommendation as to the suitability of each area or island for preservation as wilderness.

PRESIDENTIAL RECOMMENDATION TO CONGRESS

The President shall advise the President of the Senate and the Speaker of the House of Representatives of his recommendation with respect to the designation as wilderness of each such area or island on which review has been completed, together with a map thereof and a definition of its boundaries. Such advice shall be given with respect to not less than one-third of the areas and islands to be reviewed under this subsection within three years after enactment of this Act, not less than two-thirds within seven years of enactment of this Act, and the remainder within ten years of enactment of this Act.

CONGRESSIONAL APPROVAL

A recommendation of the President for designation as wilderness shall become effective only if so provided by an Act of Congress. Nothing contained herein shall, be implication or otherwise, be constructed to lessen the present statutory authority of the Secretary of the Interior with respect to the maintenance of roadless areas within units of the National Park System.

SUITABILITY

(d) (1) The Secretary of Agriculture and the Secretary of the Interior shall, prior to submitting any recommendations to the President with respect to the suitability of any area for preservation as wilderness-

PUBLICATION IN FEDERAL REGISTER

(A) give such public notice of the proposed action as they deem appropriate, including publication in the Federal Register and in a newspaper having general circulation in the area or areas in the vicinity of the affected land;

HEARINGS

(B) hold a public hearing or hearings at a location or locations convenient to the area affected. The hearings shall be announced through such means as the respective Secretaries involved deem appropriate, including notices in the Federal Register and in newspapers of general circulation in the area: Provided that if the lands involved are located in more than one State, at least one hearing shall be held in each State in which a portion of the land lies;

(C) at least thirty days before the date of a hearing advise the Governor of each State and the governing board of each country, or in Alaska the borough, in which the lands are located, and Federal departments and agencies concerned, and invite such officials and Federal agencies to submit their views on the proposed action at the hearing or by no later than thirty days following the date of the hearing.

(2) Any view submitted to the appropriate Secretary under the provisions of (1) of this subsection with respect to any area shall be included with any recommendations to the President and to the Congress with respect to such areas.

PROPOSED MODIFICATION

(e) Any modification or adjustment of boundaries of any wilderness area shall be recommended by the appropriate Secretary after public notice of such proposal and public hearing or hearings as provided in sub-section (d) of this section. The proposed modification or adjustment shall then be recommended with map an description thereof to the President. The President shall advise the United States Senate and the House of Representatives of his recommendations with respect to such modification of adjustment and such recommendations shall become effective only in the same manner as provided for in subsection (b) and (c) of this section.

USE OF WILDERNESS AREAS

4. (a) The purpose of this Act are hereby declared to be within and supplemental to the purposes for which national forests and units of the national park and wildlife refuge systems are established and administered and -

(1) Nothing in this Act shall be deemed to be in interference with the purpose for which national forests are established as set forth in the Act of June 4, 1897 (30 Stat.11), and the Multiple-Use Sustained-Yield Act of June 12, 1960 (74 Stat.215).

(2) Nothing in this Act shall modify the restrictions and provisions of the Shipstead-Nolan Act (Public Law 539, Seventy-first Congress, July 10, 1930; 46 Stat. 1020), the Thye-Blatnik Act (Public Law 733, Eightieth Congress, June 22, 1948; 62 Stat. 568), and the Humphrey-Thye-Blatnik-Andresen Act (Public Law 607, Eighty-fourth Congress, June 22, 1956; 70 Stat. 326), as applying to the Superior National Forest or the regulations of the Secretary of Agriculture.

(3) Nothing in this Act shall modify the statutory authority under which units of the National Park System are created. Further, the designation of any area of any park, monument, or other unit of the national park system as a wilderness area pursuant to this Act shall in no manner lower the standards evolved for the use and preservation of such park, monument, or other unit of the national park system in accordance with the Act of August 25, 1916, the statutory authority under which the area was created, or any other Act of Congress which might pertain to or affect such area, including, but not limited to, the Act of June 8, 1906 (34 Stat. 225; 16 U.S.C. 432 et. seq.); section 3 (2) of the Federal Power Act (16 U.S.C. 796 (2); and the Act of August 21, 1935 (49 Stat. 666; U.S.C. 461 et seq.).

(b) Except as otherwise provided in this Act, each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also the preserve its wilderness character. Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.

PROHIBITION OF CERTAIN USES

(c) Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

SPECIAL PROVISIONS

(d) The following special provisions are hereby made:

(1) Within wilderness areas designated by this Act the use of aircraft or motorboats, where these uses have already become established, may be permitted to continue subject to such restrictions as the Secretary of Agriculture deems desirable. In addition, such measures may be taken as may be necessary in the control of fire, insects, and diseases, subject to such conditions as the Secretary deems desirable.

(2) Nothing in this Act shall prevent within national forest wilderness areas any activity, including prospecting, for the purpose of gathering information about mineral or other resources, if such activity is carried on in a manner compatible with the preservation of the wilderness environment. Furthermore, in accordance with such program as the Secretary of the Interior shall develop and conduct in consultation with the Secretary of Agriculture, such areas shall be surveyed on a planned, recurring basis consistent with the concept of wilderness preservation by the Geological Survey and the Bureau of Mines to determine the mineral values, if any, that may be present; and the results of such surveys shall be made available to the public and submitted to the President and Congress.

MINERAL LEASES, CLAIMS, ETC

(3) Notwithstanding any other provisions of this Act, until midnight December 31, 1983, the United States mining laws and all laws pertaining to mineral leasing shall, to the same extent as applicable prior to the effective date of this Act, extend to those national forest lands designated by this Act as "wilderness areas"; subject, however, to such reasonable regulations governing ingress and egress as may be prescribed by the Secretary of Agriculture consistent with the use of the land for mineral location and development and exploration, drilling, and production, and use of land for transmission lines, waterlines, telephone lines, or facilities necessary in exploring, drilling, producing, mining, and processing operations, including where essential the use of mechanized ground or air equipment and restoration as near as practicable of the surface of the land disturbed in performing prospecting, location, and, in oil and gas leasing, discovery work, exploration, drilling, and production, as soon as they have served their purpose. Mining locations lying within the boundaries of said wilderness areas shall be held and used solely for mining or processing operations and uses reasonably incident thereto; and hereafter, subject to valid existing rights, all patents issued under the mining laws of the United States affecting national forest lands designated by this Act as wilderness areas shall convey title to the mineral deposits within the claim, together with the right to cut and use so much of the mature timber therefrom as may be needed in the extraction, removal, and beneficiation of the mineral deposits, and if the timber is cut under sound principles of forest management as defined by the national forest rules and regulations, but each such patent shall reserve to the United States all title in or to the surface

of the lands and products thereof, and no use of the surface of the claim or the resources therefrom not reasonably required for carrying on mining or prospecting shall be allowed except as otherwise expressly provided in this act: PROVIDED THAT, unless hereafter specifically authorized, no patent within wilderness areas designated by this Act shall issue after December 31, 1983, except for the valid claims existing on or before December 31, 1983. Mining claims located after the effective date of this Act within the boundaries of wilderness areas designated by this Act shall create no rights in excess of those rights which may be patented under the provisions of the subsection. Mineral leases, permits, and licenses covering lands within national forest wilderness areas designated by this Act shall contain such reasonable stipulations as may be prescribed by the Secretary of Agriculture for the protection of the wilderness character of the land consistent withe the use of the land for the purposes for which they are leased, permitted, or licensed. Subject to valid rights them existing, effective January 1, 1984, the minerals in lands designated by this Act as wilderness areas are withdrawn from all forms of appropriation under the mining laws and from disposition under all laws pertaining to mineral leasing and all amendments thereto.

WATER RESOURCES

(4) Within wilderness areas in the national forests designated by this Act, (1) the President may, within a specific area in accordance with such regulations as he may deem desirable, authorise prospecting for water resources, the establishment and maintenance of reservoirs, water-conservation works, power projects, transmission lines, and other facilities needed in the public interest, including the road construction and maintenance essential to development and use thereof, upon his determination that such use or uses in the specific area will better serve the interests of the United States and the people thereof than will its denial; and (2) the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed by the Secretary of Agriculture.

(5) Other provisions of this Act to the contrary notwithstanding, the management of the Boundary Waters Canoe Area, formerly designated as the Superior, Little Indian Sioux, and Caribou Roadless Areas, in the Superior National Forest, Minnesota, shall be in accordance with regulations established by the Secretary of Agriculture in accordance with the general purpose of maintaining, without unnecessary restrictions on other uses, including that of timber, the primitive character of the area, particularly in the vicinity of lakes, streams, and portages: Provided, That nothing in this Act shall preclude the continuance within the area of any already established use of motorboats.

(6) Commercial service may be performed within the wilderness ares designated by this Act to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas.

(7) Nothing in this Act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws.

(8) Nothing in this Act shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish in the national forests.

STATE AND PRIVATE LANDS WITHIN WILDERNESS AREAS

5. (a) In any case where State-owned or privately owned land is completely surrounded by national forest lands within areas designated by this Act as wilderness, such State or private owner shall be given such rights as may be necessary to assure adequate access to such State-owned or privately owned land by such state or private owner and their successors and interest, or the State owned land or privately owned land shall be exchanged for federally owned land in the same State of approximately equal value under authorities available to the Secretary of Agriculture; PROVIDED, HOWEVER, that the United States shall not transfer to a State or private owner any mineral interest unless the State or private owner relinquishes or causes to be relinquished to the United States the mineral interest in the surrounded land.

(b) In any case where valid mining claims or other valid occupancies are wholly within a designated national forest wilderness area, the Secretary of Agriculture shall, by reasonable regulations consist with the preservation of the area as wilderness, permit ingress and egress to such surrounded areas by means which have been or are being customarily enjoyed with respect to other such areas similarly situated.

ACQUISITION

(c) Subject to the appropriation of funds by Congress, the Secretary of Agriculture is authorized to acquire privately owned land within the perimeter of any area designated by this Act as wilderness if (1) the owner concurs in such acquisition or (2) the acquisition is specifically authorized by Congress.

GIFTS, BEQUESTS, AND CONTRIBUTIONS

6. (a) The Secretary of Agriculture may accept gifts or bequests of land within wilderness areas designated by this Act for preservation as wilderness. The Secretary of Agriculture may also accept gifts

or bequests of land adjacent to wilderness areas designated by this Act for preservation as wilderness if he has given sixty days advance notice thereof to the President of the Senate and the Speaker of the House of Representatives. Land accepted by the Secretary of Agriculture under this section shall become part of the wilderness area involved. Regulations with regard to any such land may be in accordance with such agreements, consistent with the policy of this Act, as are made at the time of such gift, or such conditions, consistent with such policy, as may be included in, and accepted with, such bequest.

(b) The Secretary of Agriculture or the Secretary of the Interior is authorized to accept private contributions and gifts to be used to further the purposes of this Act.

ANNUAL REPORTS

7. At the opening of each session of Congress, the Secretaries of Agriculture and Interior shall jointly report to the President for transmission to Congress on the status of the wilderness system, including a list and descriptions of the areas in the system, regulations in effect, and other pertinent information, together with any recommendations they may care to make.

APPENDIX B

NEW SOUTH WALES WILDERNESS ACT 196 OF 1987

An Act to provide for the identification of wilderness and the protection and management of wilderness areas in the State; and for other purposes.

[Assented to 4 December 1987]

TABLE OF PROVISIONS

The Legislature of New South Wales enacts:

PART 1 - PRELIMINARY

Short title

1. This Act may be cited as the Wilderness Act 1987.

Definitions

2. (1) In this Act -

"conservation agreement" has the same meaning as it has in the National Parks and Wildlife Act 1974;

"conservation area" has the same meaning as it has in the National Parks and Wildlife Act 1974;

"Council" means the National Parks and Wildlife Advisory Council constituted under the National Parks and Wildlife Act 1974;

"development", in relation to a wilderness area, means -

(a) the erection of a building in that area;

(b) the carrying out of a work in, on, over or under that area;

(c) the use of that area or of a building or work in that area;

(d) the subdivision of that area; and

(e) the clearing of vegetation in that area;

"Director" means the Director of National Parks and Wildlife;

"statutory authority" means -

(a) a Government Department;

(b) an Administrative Office within the meaning of the Public Service Act 1979;

(c) a city, municipal, shire or county; and

(d) any other body constituted by or under an Act;

"wilderness area" means lands declared to be a wilderness area under this Act or the National Parks and Wildlife Act 1974;

"wilderness protection agreement" means an agreement entered into under section 10.

(2) A reference in this section -

(a) to the erection of a building includes a reference to the rebuilding of, the making of structural alterations to, or the enlargement or extension of a building or the placing or relocating of a building on land'

(b) to the carrying out of a work includes a reference to the rebuilding of, the making of alterations to, or the enlargement or extension of, a work; and

(c) to the subdivision of land within a wilderness area is a reference to -

(i) (without limiting the following provisions of this paragraph) the subdivision of the land within the meaning of the Local Government Act 1919;

(ii) any other division of the land into 2 or more parts which, after the division, would be obviously adapted for separate occupation, use or disposition;or

(iii) the redivision of the land into different parts which, after the redivision would be obviously adapted for separate occupation, use or disposition,

and includes a reference to a subdivision of the land effected under the State Titles Act 1973.

(3) In this Act -

(a) a reference to a function includes a reference to a power, authority and duty; and

(b) a reference to the exercise of a function includes, where the function is a duty, a reference to the performances of the duty.

Objects of Act

3. The objects of this Act are -

(a) to provide for the permanent protection of wilderness areas;

(b) to provide for the proper management of wilderness areas; and

(c) to promote the education of the public in the appreciation, protection and management of wilderness.

Act binds Crown

4. (1) This act binds the Crown in right of New South Wales and, in so far as the legislative power of Parliament permits, the Crown in all its other capacities.

(2) Nothing in this Act renders the Crown liable to be prosecuted for an offence.

PART 2 - FUNCTIONS OF DIRECTOR ETC. RELATING TO WILDERNESS

Functions of Director and Service

5. (1) The Director has the following functions:

(a) to investigate and identify areas of land that are wilderness or are suitable to be declared as wilderness areas or for addition to existing wilderness areas;

(b) to consider and assess proposals made to the Director under this Act relating to wilderness, wilderness areas or possible wilderness areas;

(c) to promote such educational activities as the Director considers necessary in respect of wilderness or wilderness areas;

(d) in the case of each wilderness area, but subject to the terms of any wilderness protection agreement or conservation agreement relating to the area - to arrange for the carrying out of such works as the Director considers necessary in connection with the protection, management and maintenance of the area;

(e) to undertake such scientific research as the Director considers necessary in connection with the protection, management and use of wilderness areas;

(f) to enter into negotiations on behalf of the Minister in connection with the protection, management, use or declaration of existing or proposed wilderness areas;

(g) to take such other action as the Director considers necessary in connection with the carrying out of directions by the Minister relating to existing or proposed wilderness areas.

(2) The National Parks and Wildlife Service shall carry out such works and activities as the Minister may direct either generally or in any particular case in connection with wilderness areas.

Identification of wilderness

6. (1) An area of land shall not be identified as wilderness by the Director unless the Director is of the opinion that -

(a) the area is, together with its plant and animal communities, in a state that has not been substantially modified by humans and their works or is capable of being restored to such a state;

(b) the area is of a sufficient size to make its maintenance in such a state feasible; and

(c) the area is capable of providing opportunities for solitude and appropriate self-reliant recreation.

(2) In forming an opinion under subsection (1) the Director may consider any relevant circumstances, including -

(a) the period of time within which the area of land could reasonable be restored to a substantially unmodified state;

(b) whether, despite development which would otherwise render it unsuitable, the area of land is needed for the management of an existing or proposed wilderness area; and

(c) any written representations received by the Director from any person (including a statutory authority) as to whether the area of land should be identified as wilderness.

Wilderness proposals

7. (1) Any person, body or organisation (including a statutory authority) may submit to the Director a written proposal that an area of land be identified as wilderness, declared to be a wilderness area or added to an existing wilderness area.

(2) A proposal may be made by a person, body or organisation even though it is not the owner of the area of land concerned.

(3) On receipt of any such proposal that is not made by the owner of the area of land concerned, the Director shall notify the owner of the area.

(4) The Director shall, not later than 2 years after receiving any such proposal consider the proposal and advise the Minister in relation to the proposal.

PART 3 - WILDERNESS AREAS

Division 1 - General provisions

Declaration of wilderness areas

8. (1) The minister shall, by notification published in the Gazette, declare an area of land -

(a) subject to a wilderness protection agreement; or

(b) subject to a conservation agreement referred to in section 16;

to be a wilderness area.

(2) A notification shall be published not later than 28 days after the agreement takes effect or at such later time as may be provided by the agreement.

(3) A declaration relating to an area of land subject to a wilderness protection agreement may be varied by a further notification published in the Gazette but shall not be revoked except by an Act of Parliament.

(4) A declaration relating to a conservation area may be varied or revoked by a further notification published in the Gazette and a copy of any notification revoking such a declaration shall be laid before each House of Parliament within the prescribed time after its publication.

(5) A declaration under this section or section 59 of the National Parks and Wildlife Act 1974 does not, except as otherwise provided by any agreement under this Act or that Act, affect any existing interest in the area of land subject to the declaration.

(6) In this section -

"interest" means any authority, authorization, permit, lease, licence or occupancy, whether or not arising under an Act.

Management principles for wilderness areas

9. A wilderness area shall be managed so as -

(a) to restore (if applicable) and to protect the unmodified state of the area and its plant and animal communities;

(b) to preserve the capacity of the area to evolve in the absence of significant human interference; and

(c) to permit opportunities for solitude and appropriate self-reliant recreation.

Division 2 - Wilderness protection agreements and conservation agreements

Wilderness protection agreements

10. (1) The Minister may enter into a wilderness protection agreement relating to land identified by the Director as wilderness -

(a) if the land is owned by, or (being land owned by the Crown) is under the control of, a statutory authority (not being a Government Department or Administrative Office) - with the statutory authority; or

(b) if the land is owned by the Crown and is under the control of a Government Department or Administrative Office - with the responsible Minister.

(2) The Minister shall not enter into a wilderness protection agreement relating to land or an agreement varying such an agreement unless -

(a) where the land is subject to a residential tenancy agreement or other lease, the tenant or the lessee has the consented in writing to the agreement; and

(b) where the land is subject to a mortgage, charge or positive covenant, the mortgagee, chargee or person entitled to the benefit of the covenant has consented in writing to the agreement.

(3) A statutory authority or Minister responsible for a statutory authority may enter into a wilderness protection agreement, and may carry out any functions under the agreement, despite the provisions of any Act whether enacted before or after the commencement of this Act.

(4) A reference in this section to land owned by the Crown does not include a reference to land held under the Crown Lands Consolidation Act 1913, the Closer Settlement Acts or the Western Lands Act 1901 or any Act replacing them, other than land so held by a statutory authority.

Exhibition of proposed agreements

11. (1) When a draft wilderness protection agreement has been prepared, the Minister shall, before entering into the agreement -

(a) give public notice, in a form and manner determined by the Director, of the places at which, the dated on which, and the times during which, the draft agreement may be inspected by the public;

(b) publicly exhibit the draft agreement at the places, on the dates and during the times set out in the notice; and

(c) specify, in the notice, the period during which submissions may be made to the Minister.

(2) The Minister shall cause a copy of the draft wilderness protection agreement to be forwarded to the Council

(3) Any person may, during the period referred to in subsection (1) (c), make written submissions to the Minister about the draft agreement.

(4) The Minister shall, before entering into the agreement, consider any submissions made under subsection (3) or by the Council.

Purpose and content of agreements

12. (1) A wilderness protection agreement may contain terms, binding on a statutory authority and, if the statutory authority is a Government Department or an Administrative Office, on the Crown -

(a) restricting the use of the area;

(b) requiring the statutory authority or Crown to refrain from or not to permit specified activities in the area;

(c) requiring the statutory authority or a person representing the Crown to carry out specified activities or to do specified things;

(d) requiring the statutory authority or Crown to permit access to the area by specified persons;

(e) without affecting the generality of paragraph (a), (b), (c) or (d), prohibiting, except where necessary for health or safety or essential management reasons or in emergencies, access to the area by motor vehicles, motor boats or other forms of transport;

(f) requiring the statutory authority or Crown to contribute towards costs incurred which relate to the area or the carrying out of functions under the agreement;

(g) specifying the manner in which any money provided to the statutory authority or Crown under the agreement shall be applied;

(h) requiring the statutory authority or Crown to repay money paid to it under the agreement if a specified breach of the agreement occurs; or

(i) providing for any other matter relating to the protection of the area, including the implementation of any plan of management for the area.

(2) A wilderness protection agreement may contain terms, binding on the Minister -

(a) requiring the Minister to provide financial assistance;

(b) requiring the Minister to provide technical advice;

(c) requiring the Minister to provide other assistance;

(d) requiring the Minister to carry out specified activities or do specified things; or

(e) providing for any other matter relating to the protection of the area, including the implementation of any plan of management for the area.

(3) The terms of a wilderness protection agreement shall not be consistent with the principles set out in section 9 for the management of wilderness areas.

Duration and variation of agreements

13. (1) The Director shall keep a register continuing copies of wilderness protection agreements as in force from time to time.

(2) The register shall be open for public inspection during ordinary business hours, and copies of or extracts from the register shall be available, for payment of the fee fixed by the Director.

Register of agreements

14. (1) The Director shall keep a register containing copies of wilderness protection agreements as in force from time to time.

(2) The register shall be open for public inspection during ordinary business hours, and copies of or extracts from the register shall be available, payment of the fee fixed by the Director.

Proposals by statutory authorities affecting certain wilderness areas

15. (1) A statutory authority shall not carry out development in a wilderness area subject to a wilderness protection agreement or a conservation agreement unless -

(a) it has given written notice of the proposed development to the Minister, any other party to the agreement, any statutory authority on behalf of which the agreement was entered into and, in the case of a conservation agreement, any successor in title to the owner who entered into the conservation agreement; and

(b) it has received written notice from the Minister consenting to the development.

(2) The Minister may consent to the development only if -

(a) the Minister is of the opinion that the proposed development will not adversely affect the area; and

(b) in the case of an area subject to a wilderness protection agreement - the Minister responsible for the statutory authority which entered into the agreement, or on behalf of which the agreement was entered into, has consented to the development.

(3) In subsection (1), "statutory authority" does not include the Soil Conservation Service or a statutory authority carrying out development in accordance with the terms of a wilderness protection agreement.

Additional provisions relating to conservation agreements

16. (1) A conservation agreement may be entered into under the National Parks and Wildlife Act 1974 in relation to an area of land identified by the Director as wilderness.

(2) In addition to any other terms it may contain, a conservation agreement relating to such an area of land may -

(a) prohibit, except where necessary for health or safety or essential management reasons or in emergencies, access to the area by motor vehicles, motor boats or other forms of transport; or

(b) provide for any other matter relating to the protection of the area.

(3) The terms of such a conservation agreement shall not be inconsistent with the principles set out in section 9 for the management of wilderness areas

Division 3 - Plans of management for wilderness areas

Plans of management for land subject to wilderness protection agreements

17. (1) The Director shall from time to time cause a plan of management to be prepared for an area of land subject to or proposed to be made subject to a wilderness protection agreement.

(2) A plan of management shall not be inconsistent with the principles set out in section 9 for the management of wilderness areas.

Adoption etc. of plan of management for land subject to wilderness protection agreement

18. (1) When a plan of management for an area of land subject to a wilderness protection agreement has been prepared, the Director shall refer the plan of management to the Council for its consideration and advice.

(2) The Director shall submit the plan of management to the Minister together with any comments or suggestions of the Council.

(3) The Minister shall, before adopting the plan of management, consider any comments or suggestions of the Council.

(4) The Minister may, with the consent of the other party to the agreement adopt the plan of management without alteration or with such alterations as the Minister thinks fit or may refer it back to the Director and Council for further consideration.

(5) The Minister may, on the recommendation of the Director and with the consent of the other party to the agreement -

(a) alter or amend the plan of management from time to time;

(b) cancel the plan; or

(c) cancel the plan and substitute a new plan.

(6) The provisions of section 17 (2) apply to an alteration or amendment of any such plan of management.

(7) If the Minister has adopted a plan of management for an area of land subject to a wilderness protection agreement, it shall be carried out and given effect to by the Director and the other party to the agreement and (if applicable) the statutory authority on behalf of which the agreement was entered into.

Plans of management for other wilderness areas

19. A plan of management for a wilderness area that is prepared under the National Parks and Wildlife Act 1974 shall not be inconsistent with he principles set out in section 9 for the management of wilderness areas.

PART 4 - MISCELLANEOUS

Provisions relating to the Crown land leases

20. (1) This section applies to land leased under the Crown Lands Consolidation Act 1913, the Closer Settlement Acts or the Western Lands Act 1901 or any Act replacing them where the land has been identified by the Director as wilderness and notice of that identification has given by the Minister to the Minister administering the Act under which the land is leased.

(2) The Minister administering the Act under which the land is leased shall not under that Act -

(a) approve any change in use; or

(b) approve the conversion, sale or disposal, of land to which this section applies, without consulting the Minister administering this Act.

Resolution of certain disputes

21. (1) If a dispute arises between the Minister and a statutory authority or the Minister responsible for a statutory in relation to -

(a) a wilderness protection agreement or a proposed wilderness protection agreement;

(b) land leased under the Crown Lands Consolidation Act 1913, the Closer Settlement Acts or the Western Lands Act 1901 or any Act replacing them;

(c) a proposal to carry out development in a wilderness area; or

(d) any other matter arising out of this Act,

a party to the dispute may submit that dispute to the Premier for settlement.

(2) On the submission of a dispute to the Premier, the Premier may -

(a) appoint a Commissioner of Inquiry to hold an inquiry and make a report to the Premier; or

(b) hold an inquiry into the dispute.

(3) After the completion of the inquiry, and after considering any report, the Premier may make order with respect to the dispute, having regard to the public interest and to circumstances of the case, as the Premier thinks fit.

(4) An order made by the Premier may direct the payment of any costs or expenses of or incidental to the holding of an inquiry.

(5) A Minister or statutory authority shall comply with an order given under this section and shall, despite the provisions of any Act, be empowered to comply with any such order.

Delegation

22. (1) The Minister may delegate to a person any of the Minister's functions under this Act, other than this power of delegation.

(2) The Director may delegate to a person-

(a) any of the Director's functions under this Act, other than this power of delegation; and

(b) any of the functions delegated to the Director by the Minister under this Act, subject to any conditions to which the delegation to the Director is subject.

Wilderness fund

23. (1) There shall be established in the Special Deposits Account in the Treasury a Wilderness Fund.

(2) There shall be paid into the Fund-

(a) all money provided by Parliament for the purposed of this Act;

(b) any money received in connection with wilderness areas, including gifts for wilderness purposes received under section 148 of the National Parks and Wildlife Act 1974; and

(c) any other money received in connection with the execution of the Act or authorised by the regulations to be paid into the Fund.

(3) There shall be paid out of the Fund-

(a) All amounts required to meet expenditure incurred in the execution of this Act;

(b) amounts required to be paid in accordance with a gift for wilderness purposes; and

(c) amounts authorised by the regulations to be paid out of the Fund.

Wilderness matters to be included in report

24. In preparing the annual report for the National Parks and Wildlife Service, the Director shall report on the status of areas identified as wilderness and on matters relating to wilderness areas.

Relationship of Act to National Parks and Wildlife Act 1974

25. Except as otherwise provided by this Act, nothing in this Act affects the operation of any of the provisions of the National Parks and Wildlife Act 1974 in relation to land within a wilderness area.

Effect of Crown lands legislation

26. Nothing in the Crown Lands Consolidation Act 1913, the Closer Settlement Acts, the Western Lands Act 1901 or any Act replacing them, affects-

(a) the operation of section 20; or

(b) the terms of a wilderness protection agreement relating to land held under any of those Acts.

Restraint etc. of breaches of this Act

27. (1) Any person may bring proceedings in the Land and Environment Court for an order to remedy or restrain a breach of this Act, whether or not any right of that person has been or may be infringed by or as a consequence of that breach.

(2) Proceedings under this section may be brought by a person on the person's own behalf or on behalf of the person and other persons (with their consent), or a body corporate or unincorporated (with the consent of its committee or other controlling or governing body), having like or common interests in those proceedings.

(3) Any person on whose behalf proceedings are brought is entitled to contribute to or provide for the payment of the legal costs and expenses incurred by the person bringing the proceedings.

Evidence of agreements

28. (1) In any legal proceedings, a certificate purporting to be signed by the Director or an officer of the National Parks and Wildlife Service authorised by the Director and certifying that at a time, or during a period, specified in the certificate -

(a) a wilderness protection agreement relating to land specified in the certificate was in force; and

(b) the agreement contained the terms specified in the certificate, is prima facie evidence of the matter or matters so certified.

(2) In any legal proceedings, a document purporting to be certified by the Director as a copy of a wilderness protection agreement is prima facie evidence of the agreement.

Regulations

29. (1) The Governor may make regulations, not inconsistent with this Act, for or with respect to any matter that by this Act is required or permitted bo be prescribed or that is necessary or convenient to be prescribed for carrying out or giving effect to this Act.

(2) In particular, the regulations may make provision for or with respect to wilderness areas.

(3) A regulation may create an offence punishable by a penalty not exceeding 5 penalty units.

(4) A regulation made under this Act applying -

(a) to a wilderness area under the National Parks and Wildlife Act 1974 - shall have no effect to the extent to which it is inconsistent with a regulation under that Act applying to that area; or

(b) to an area subject to a wilderness protection agreement or conservation agreement - shall have no effect to the extent to which it is inconsistent with the terms of that agreement.

APPENDIX C

WILDERNESS AREAS IN SOUTH AFRICA

Name	*Area (ha)*	*Province*
Statutory wilderness		
Mdedelelo	27 000	Natal
Mkhomazi	48 000	Natal
Ntendeka	5 200	Natal
Mlambonja	14 000	Natal
Mzimkulu	28 300	Natal
Wolkberg	17 400	Transvaal
Cedarberg	64 400	Cape
Groendal	21 800	Cape
Boosmansbos	14 200	Cape
Grootwinterhoek	23 600	Cape
Baviaanskloof	66 000	Cape
Doringrivier	11 000	Cape
Total	**340 900**	
Wilderness zones		
Umfolozi Game Reserve	25 000	Natal
Lake St Lucia	17 700	Natal
Kruger National Park (18 zones)	672 200	Transvaal
Candidate areas		
Tewate	20 500	Natal
Kammanassi	50 000	Cape

Kogelberg	16 000	Cape [1]

[1]Source: WR Bainbridge, Natal Parks Board.

APPENDIX D

DRAFT WILDERNESS ACT FOR SOUTH AFRICA

ACT

To provide for the establishment of a National Wilderness System, for the protection and management of wilderness areas, and matters connected therewith.

ARRANGEMENT OF SECTIONS

NATIONAL WILDERNESS COUNCIL

PART IV

ADMINISTRATION OF ACT

PART V

USE OF WILDERNESS AREAS

PART X
GENERAL PROVISIONS

SCHEDULE 1
EXISTING WILDERNESS AREAS

SCHEDULE 2
LAWS REPEALED AND EXTENT OF REPEAL

1. Interpretation. - In this Act, unless the context indicates otherwise -

'**administrative body**' means a Minister, Administrator, local authority, tribal authority, government institution, or a person who makes a decision in terms of the provisions of this Act;

'**buffer zone**' means a buffer zone established in terms of section 49;

'**chief executive officer**' means the officer in charge of the relevant local authority or government institution;

'**candidate wilderness area**' means an area declared as such in terms of section 15;

'**conservation authority**' means the national conservation authority and a provincial conservation authority as defined in this section;

'**council**' means the National Wilderness Council established under section 16;

'**department**' means the Department of Environment Affairs;

'**director-general**' means the Director-General: Environment Affairs;

'**ecological process**' means the process relating to the interaction between plants, animals and humans and the elements in their environment;

'**ecosystem**' means any self-sustaining and self-regulating community of organisms and the interaction between such organisms with one another and with their environment;

'**environment**' means the aggregate of surrounding objects, conditions and influences that influence the life and habits of humans or any other organism or collection of organisms;

'**environmental impact report**' means a report referred to in section 36(1)(c);

'**fund**' means the National Wilderness Fund established by section 23;

'**government institution**' means any -

(a) body, company or close corporation established by or under any law; or

(b) other institution or body recognised by the Minister by notice in the *Gazette*;

'**honorary wilderness officer**' means a person appointed as such in terms of section 31;

'**local authority**' means any institution or body contemplated in section 84(1)(f) of the Provincial Government Act, 1961 (Act No.32 of 1961), and includes -

(a) a board of management or board referred to in section 1 of the Rural Areas Act (House of Representatives), 1987 (Act No. 9 of 1987);

(b) a regional services council established under section 3 of the Regional Services Councils Act, 1985 (Act No. 109 of 1985);

(c) a local authority as defined in section 1 of the Black Local Authorities Act, 1982 (Act No. 102 of 1982);

(d) a local government body established by virtue of the provisions of section 30(2)(a) of the Black Administration Act, 1927 (Act No. 38 of 1927); or

(e) a local council as defined in section 1 of the Local Councils Act (House of Assembly), 1987 (Act 94 of 1987), and also the Minister as defined in the said section, acting in terms of section 7 of the said Act;

'management advisory committee' means a committee under section 33;

'management plan' means a management plan prepared in terms of section 50;

'Minister' means the Minister of National Education and Environment Affairs;

'national conservation authority' means the National Parks Board of Trustees established in terms of section 5(1) of the National Parks Act, No. 57 of 1976;

'owner' includes -

(a) the person who is, or persons who are, legally competent to exercise control over the land in question;

(b) in the case of land under the control or management of a local or tribal authority, the local or tribal authority concerned;

(c) in the case of State land not under the control or management of a local or tribal authority, the Minister of the Department of State or the Administrator having control or management thereof or any officer designated by such Minister or Administrator for the purpose;

'police officer' means any member of any police force in the Republic established by law;

'prescribe' means prescribe by regulation;

'private land' means -

(a) land held under separate grant, deed or transfer or certificate of title; or

(b) land held under a lease, licence or allotment from the State with an option to purchase, provided that such lease, licence or allotment is registered in the office of a registrar of deeds or a surveyor-general's office;

'**provincial conservation authority**' means -

(a) in Natal, the Natal Parks Board constituted in terms of section 4(1) of the Nature Conservation Ordinance, No. 15 of 1974 (Natal);

(b) in the Cape Province, the Department of Nature and Environmental Conservation established in terms of section 3(1) of the Nature and Environmental Conservation Ordinance, No. 19 of 1974 (Cape);

(c) in the Transvaal, the Nature Conservation Division referred to in section 2 of the Nature Conservation Ordinance, No. 12 of 1983 (Transvaal);

(d) in the Orange Free State, the Administrator acting in terms of the Nature Conservation Ordinance, No. 8 of 1969 (Orange Free State);

'**regulation**' means a regulation made or deemed to have been made under this Act;

'**Republic**' means the Republic of South Africa;

'**state land**' means land other than private land;

'**this Act**' includes the regulations;

'**traditional access and harvesting rights**' means those rights determined as such by the Minister in terms of section 44;

'**tribal authority**' means any tribal or community government functioning in accordance with the law and customs observed by the tribe or community concerned, including any tribal authority identified as such in terms of section 44;

'**tribal community**' means any tribal community identified as such in terms of section 44;

'**wilderness area**' means an area set aside as such in terms of sections 6 or 7;

'**wilderness officer**' means the incumbent of a post designated under section 30;

'**wilderness produce**' means anything which occurs, is grown or grows in a wilderness area, including anything which is produced by any vertebrate or invertebrate member of the animal kingdom or any member of the plant kingdom in a wilderness area;

ESTABLISHMENT OF NATIONAL WILDERNESS SYSTEM AND STATEMENT OF POLICY

2. Establishment of National Wilderness System. -

There is hereby established a national wilderness system for the protection and preservation of certain areas of land in their natural condition, which areas are to be designated as 'wilderness areas' and administered in such manner as will leave them unimpaired for future use and enjoyment as wilderness; and so as to provide for the protection of their wilderness character and natural communities, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness.

3. Policy for protection of wilderness areas. -

It is hereby declared to be national policy that the Republic's wilderness areas be effectively protected so as to secure for all the people of the Republic of present and future generations the benefits of an enduring resource of wilderness and, more particularly, within such areas to provide for -

(a) the functioning of natural ecological processes, the protection of natural ecosystems and the natural beauty, and the preservation of biotic diversity;

(b) protection of the environment against disturbance, deterioration of their wilderness character, defacement, poisoning or destruction as a result of artificial structures, installations, processes or products of human activities;

4. Compliance with policy. -

Every person, minister, conservation authority, administrator, local authority, tribal authority and government institution upon whom or upon which any power has been conferred or to whom or which any duty has been assigned under this Act or in connection with the environment by or under any other law, shall exercise such power and perform such duty in accordance with the policy referred to in section 3.

PART II
DEFINITION AND DECLARATION OF WILDERNESS AREAS

5. Definition of wilderness area. -

For the purposes of this Act, a wilderness area is a predominantly natural and unmodified area upon which the impact of modern humans has been minimal, retaining its primitive, wild character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and natural communities in unmodified form, and which:

(a) generally appears to have been affected primarily by the forces of nature, with the imprint of human work substantially unnoticeable;

(b) has outstanding opportunities for solitude or a primitive and unconfined type of recreation;

(c) is of sufficient size to make practicable its preservation and use in an unimpaired condition;

(d) may also contain ecological, geological, or other features of scientific, educational, scenic, historical or cultural value;

or which is capable of rehabilitation to such wilderness condition.

6. Declaration of wilderness areas on State land. -

(1) Each area defined in Schedule 1 is a wilderness area under the name assigned to it in that Schedule.

(2) On the recommendation of the council the Minister may set aside and declare any other area of State land to be a wilderness area.

7. Declaration of wilderness areas on private land. -

(1) Upon the recommendation of the council the Minister may declare any private land or portion thereof made available by the owner thereof, and the holders of real rights therein, for the purposes of a wilderness area to be a wildernes area or part of a wilderness area.

(2) The Minister may declare any other private land or portion thereof to be a wilderness area or part of a wilderness area; Provided that he may only do so upon the recommendation of the council and after consultation with the owners of, and the holders of real rights in, such private land.

(3) Where any of the owners or holders of real rights referred to in subsection (2) cannot readily be located, the Minister shall give notice in the *Gazette* and in a newspaper circulating within the district where the land is situated of his intention to declare such land to be a wilderness area or part of a wilderness area and invite such owners and holders of real rights to lodge any objections they may have to the intended declaration with the council within 60 days from the date of the notice.

(4) After the expiry of the period of 60 days referred to in subsection (3), after having considered any representations and objections lodged with the council and after having consulted with the council thereon and having received its recommendations, the Minister may proceed with the declaration of the area in question as a wilderness area or part of a wilderness area, or he may decline to do so.

(5) The Minister may, upon the recommendation of the council, by purchase or otherwise, including exchange for State land situated outside a wilderness area, or, failing agreement with the owner, by expropriation, acquire any land or any mineral right in land for the purposes of a wilderness area, and any land so acquired shall forthwith be set aside as a wilderness area or part of a wilderness area.

8. Public notice. -

The Minister shall forthwith give notice in the *Gazette* of the setting aside of any land in terms of this Act as a wilderness area or part thereof, which notice shall state the name assigned to the wilderness area in question and define the area set aside with the aid of a map or a description of the boundaries thereof, and Schedule 1 shall be amended by the addition thereto of such name and definition.

9. Public participation. -

(1) Prior to the declaration of any land as a wilderness area or part of a wilderness area in terms of sections 6 or 7, the Minister shall -

(a) give notice in the *Gazette*, and in a newspaper circulating in the area in which the wilderness area in question is located, of his intention to make such declaration;

(b) cause a copy of that notice to be served on the owner of every piece of land abutting the proposed wilderness area, on every neighbouring local or tribal authority, on the body which in his opinion represents organised agriculture in the district in which the proposed wilderness area is situated, as well as on the magistrate of that district, and invite interested persons to participate in the final determination of the boundaries of the proposed wilderness area or part of a wilderness area;

(c) take all such steps as may be necessary to ensure that the true representatives of all local communities affected or likely to be affected by the proposed declaration are given proper notice of his intention to make the proposed declaration.

(2) Any person who wishes to make any representations or to object to the proposed declaration, shall within 60 days of the publication of the notice in the *Gazette*, lodge his representations or objections in writing with the council, setting out the reasons therefor.

(3) After the expiry of the said period of 60 days, after having considered any representations and objections lodged with the council and after having consulted with the council thereon and having received its recommendations, the Minister may proceed with the declaration of the area in question as a wilderness area or part of a wilderness area, or he may decline to do so.

10. Deproclamation or alteration of wilderness status. -

(1) No land set aside as a wilderness area or any part thereof shall be withdrawn from such setting aside or be alienated or employed for any other purpose or the boundaries thereof altered except upon the recommendation of the council and with the approval by resolution of Parliament, and the Minister must by notice in the *Gazette* give notice of any such alteration in the status or integrity of the wilderness area in question.

(2) The council shall not make the recommendation referred to in section (1) without:

(a) first giving public notice, in the *Gazette* and in a newspaper circulating in the area in which the wilderness area in question is located, of the proposed action, and holding a public hearing to ascertain the views of persons living near such wilderness area and of other interested persons; and

(b) obtaining, considering and assessing an environmental impact report on the proposed action, which report and assessment shall be included in its recommendation.

11. Amendment of description or name of wilderness areas. -

Notwithstanding the provisions of section 10, the Minister may by notice in the *Gazette* amend Schedule 1 in order to -

(a) amend the description of a wilderness area if after a survey or resurvey its definition is found to be incorrect; or

(b) amend the name assigned to a wilderness area or assign a new name thereto.

12. Approval of local and tribal authorities. -

(1) No land in the area of jurisdiction of a local or tribal authority shall be included in a wilderness area or a buffer zone without the approval of such authority.

(2) It shall be the function and duty of the council to determine whether or not a proposed wilderness area falls within or partially within the area of a tribal authority, to identify such tribal authority, and to determine the manner in which its approval be sought and obtained; Provided that the council shall be obliged to ensure that the true representatives of the tribal communities likely to be affected by the declaration of the wilderness area concerned are consulted in the seeking and obtaining of such approval.

(3) Any person affected by any decision made or approval granted or withheld under subsections (1) and (2) shall have the right and standing to appeal from such decision to the Supreme Court.

13. Registration of wilderness areas against title deeds. -

(1) Every owner of, and every holder of a real right in, land set aside as a wilderness area or situated in a wilderness area, and the successors in title of such owner and holder of a real right, shall be subject to the provisions of this Act.

(2) The Minister shall in writing direct the registrar of deeds of the deeds registry in which the title deed of land referred to in subsection (1) is registered to cause a note to be made in his registers and on the office copy of such title deed of the setting aside of the wilderness area in question.

(3) A registrar of deeds must cause a note of the particulars mentioned in subsection (2) to be made on the original title deed of the land in question when it is lodged in his office for any purpose, and no fees shall be payable in respect of the making of such note.

14. Prejudice as a result of declaration of a wilderness area on private land. -

(1) An owner of land on which a wilderness area or part of a wilderness area has been declared may recover compensation for any patrimonial loss that he suffers as a direct result of such declaration from the State, and if the owner and the director-general fail to agree upon the amount of such compensation, it shall be determined by a competent court in terms of section 14 of the Expropriation Act, 1975 (Act No. 63 of 1975), and the provisions of that section and section 15 of that Act shall apply *mutatis mutandis* in the determination of the amount of such compensation.

(2) If the owner of land on which a wilderness area or part of a wilderness area has been declared, satisfies the director-general that such declaration has resulted or will result in a substantial interference with the beneficial occupation of his land, or the rendering of a substantial part thereof unavailable for the purpose for which it was being used prior to such declaration, he shall cause that land to be expropriated in terms of the Expropriation Act, 1975 (Act No. 63 of 1975), as if it were required for other public purposes.

(3) With the concurrence of the council, the compensation determined in terms of subsections (1) or (2) may be paid out of the fund.

15. Interim protection of candidate wilderness areas. -

(1) The Minister may, upon the recommendation of the council, by notice in the *Gazette* declare any area defined by him to be a candidate wilderness area.

(2) A declaration under subsection (1) shall only be made for the purpose of protection of the area in question pending investigation into the desirability of its declaration as a wilderness area in terms of sections 6 or 7.

(3) The council shall forthwith undertake the investigation referred to in subsection (2), and shall within sixty days of publication of the notice referred to in subsection (1) recommend in writing to the Minister whether or not the area in question should be set aside as a wilderness area in terms of this Act.

(4) The provisions of this Act relating to wilderness areas shall apply *mutatis mutandis* to candidate areas.

PART III
NATIONAL WILDERNESS COUNCIL

16. Establishment of a National Wilderness Council. -
There is hereby established a juristic person called the National Wilderness Council.

17. Object of council. - The object of the council is to promote by means of the national wilderness system the protection of wilderness areas in the Republic.

18. Constitution of council. -

(1) The council shall consist of the following members appointed by the Minister, namely:

(a) one person nominated by the Director-General;

(b) one person nominated by each of the following institutions, namely:

(i) the national conservation authority;

(ii) the provincial conservation authorities;

(iii) the Council for Scientific and Industrial Research referred to in section 2 of the Scientific Research Council Act, 1988 (Act No. 46 of 1988);

(iv) the Human Sciences Research Council established by section 2 of the Human Sciences Research Act, 1968 (Act No. 23 of 1968);

(v) the National Monuments Council established by section 2 of the National Monuments Act, 1969 (Act No. 28 of 1969);

(c) one person nominated by each of the following organisations, namely:

(i) the Habitat Council of South Africa;

(ii) the Mountain Club of South Africa;

(iii) the Wildlife Society of Southern Africa; and

(d) as many other persons, but not exceeding four, as the Minister may, upon the recommendation of the Council for the Environment, established in terms of section 4 of the Environment Conservation Act, 1989 (Act No. 73 of 1989), determine, and who

must be persons whom or nominees of organisations which in the opinion of the Minister can assist the council to achieve its objects.

(2) The Minister shall designate one member of the council as chairperson and another member as vice-chairperson to act as chairperson in the absence of the chairperson.

(3) The Minister may appoint any other person as a member of the council in the place of the person or persons contemplated in subsection (1) if the organisation in question fails to submit to the director-general the name or names of a person or persons nominated by it within three months from the date on which it is requested in writing by the director-general to do so.

(4) Subject to the provisions of subsections (1) and (3), the Minister may appoint an alternate member for any member of the council.

19. Term of office and vacating of office by members of council. -

(1) A member or alternate member of council holds office for such period, but not exceeding three years, as the Minister may determine at the time of his appointment, but may be reappointed at the expiry of his term of office.

(2) A member or alternate member of the council shall vacate his office if he -

(a) is declared insolvent or assigns his estate in favour of his creditors;

(b) becomes of unsound mind;

(c) is convicted of an offence and sentenced to imprisonment without the option of a fine;

(d) resigns by written notice to the Minister;

(e) is absent from three consecutive meetings of the council without leave of the chairperson;

(f) is removed from office under subsection (3).

(3) The Minister may at any time remove a member or alternate member of the council from office upon good cause being shown that such member is incompetent or has misconducted himself;

(4) If a member or alternate member of the council dies or vacates his office in terms of subsection (2) or (3), the Minister may, subject to the provisions of subsections 17 (2) and (4), appoint another person in his place for the unexpired period of his term of office, or for such shorter term as the Minister may determine.

20. Meetings and procedure of council. -

(1) The council shall meet at the times and places determined by the chairperson, but at least once per year.

(2) The Minister shall determine the manner of the calling of, the quorum for and procedure at meetings of the council.

(3) If both the chairperson and the vice-chairperson are absent from any meeting of the council, the members present thereat may elect one of their number to preside at such meeting.

(4) A resolution of the council is not invalid only by reason of the fact that a vacancy existed on the council when the resolution was adopted.

21. Allowances to members of council and of management advisory committees. -

A member or alternate member of the council or a member of the management advisory committee who is not in the full-time employment of the State may be paid from the fund or, with the concurrence of the Minister of Finance, from money appropriated by Parliament for that purpose such remuneration and allowances as the Minister may determine either in general or in respect of a particular member or alternate member.

22. Functions of council. -

(1) The council shall with the means at its disposal do what it considers necessary to achieve the object for which it was established, and to that end it may -

(a) investigate and advise the Minister on any matter relating to the policy referred to in section 2, or affecting the national wilderness preservation system, or which the Minister refers to the council, or which the council deems necessary, so as to ensure the co-ordination and promotion of the implementation of the provisions of this Act;

(b) cause a survey to be undertaken of all areas in the Republic which may be suitable for inclusion in the national wilderness preservation system and, on such conditions as the Minister may approve, grant financial assistance in connection with such survey;

(c) investigate the desirability of setting aside land, whether State land or private land, as a wilderness area or part of a wilderness area, and recommend to the Minister that areas identified by it be included in the national wilderness preservation system;

(d) advise the Minister, conservation authorities, management advisory committees, and the owners of land as defined in section 49(2) on the establishment or extension of buffer zones;

(e) advise the Director-General, the national and regional conservation authorities, management advisory committees, and any other persons or bodies involved in the

protection, management, use or promotion of wilderness areas or buffer zones, on any matter which may affect or influence such protection, management, use or promotion;

(f) monitor the activities of management advisory committees;

(g) collate, process and disseminate information relating to, and promote public appreciation of, wilderness areas;

(h) by itself, or in co-operation with any department of State or person or organisation, undertake and promote such education, research, research development and training which, in the opinion of the council, will serve to implement the national policy referred to in section 3;

(i) utilise monies in the fund for the purpose of making loans for the establishment or management of a wilderness area or a buffer zone;

(j) with the concurrence of the Minister and on such conditions as he may approve, grant financial assistance to any person or organisation in order to achieve the objects of this Act;

(k) with the concurrence of the Minister and the Minister of Finance borrow monies for the performance of its functions;

(l) accept unconditional donations and, with the concurrence of the Minister conditional donations, of money or movable or immovable property;

(m) hear representations by or on behalf of any person relating to matters affecting wilderness areas if, after a memorandum on such matters has been submitted to it, the council is of the opinion that such representations will be in the interest of the protection of any wilderness area;

(n) acquire property, invest monies, and take all such other steps and perform all such other acts as may be legally competent and which the council may consider necessary for the protection of any wilderness area or wilderness produce.

(2) The council may establish committees and working groups and appoint as members thereof members of the council or any other person who in the opinion of the council can make a contribution to enable it to perform its functions and may, with the concurrence of the Minister, engage such expert advisors, contractors or employees as it may deem necessary to assist the council in the carrying out of its duties and the exercise of its powers.

(3) The council may assign the carrying out of any of its duties or delegate the exercise of any of its powers to a committee established under subsection (2) or to a member of the council.

23. National Wilderness Fund. -

(1) There is hereby established a fund called the National Wilderness Fund into which must be paid -

(a) loans to the council from monies appropriated by Parliament for that purpose, on such conditions as the Minister, with the concurrence of the Minister of Finance, may determine;

(b) annual grants-in-aid from monies appropriated by Parliament for that purpose, which the Minister may pay to the council in such amounts, for such purposes and on such conditions as he may determine;

(c) interest on investments;

(d) monies received by way of donations, grants or from any other source, for the attainment of the objects of this Act.

(2) The council shall administer the fund in accordance with instructions approved by the Minister on the recommendation of the council, and monies in the fund shall, subject to the provisions of subsection (4), be utilised to defray expenses incurred by the council in the carrying out of its functions and the exercise of its powers.

(3) Once in its financial year, which is to end on 31 March, the council shall before a date determined by the Minister submit to him for his approval an estimate of the revenue and expenditure of the council for the next financial year, and the council may during the course of a financial year submit supplementary or revised estimates of revenue and expenditure for that year to the Minister for his approval.

(4) The council shall not incur any expenditure except in accordance of an estimate of expenditure approved by the Minister in term of subsection (3).

(5) The council may invest monies in the fund not required for immediate use in such manner as the Minister, with the concurrence of the Treasury, may approve.

(6) Any unexpended balance in the fund at the end of a financial year shall be carried forward as a credit in the fund to the next financial year.

(7) Monies or assets donated or bequeathed to the council conditionally shall be utilised only in accordance with the conditions of that donation or bequest.

(8) The council may, with the concurrence of the Minister and on such conditions as he may determine, establish and administer a wilderness land acquisition fund and a reserve fund.

24. Records and accounts of council. -

(1) The council shall cause a record to be kept of monies received by, and disbursements from, the fund, and of the assets, liabilities and financial transactions of the council, and shall as soon as practicable after the end of each financial year cause accounts and a balance sheet to be drawn up which shall reflect, with appropriate particulars, monies received and expenditure incurred by it during, and its assets and liabilities at the beginning and end of, that financial year, and such records, accounts and balance sheet shall be audited annually by the Auditor-General at a fee to be agreed upon by the council, or, failing agreement, at a fee determined by the Minister of Finance.

(2) (a) The administrative and clerical work of the council and the accounting services connected with the fund shall be performed by officers of the department, and the cost thereof, as determined annually by the director-general, shall be paid by the council to the State from the fund.

(b) Notwithstanding the provisions of paragraph (a) the council may, with the approval of the Minister, on the conditions determined by him and with the concurrence of the Treasury, cause the work and services contemplated in paragraph (a) to be performed by any other person.

(3) The chairperson of the council is the accounting officer charged with the responsibility of accounting for monies received by, and disbursements made from, the fund.

25. Registration of land and immovable property donated to council. -

(1) Donations of land or other immovable property to the council must be registered in the name of the State.

(2) Land, other than private land made available by the owner thereof for the purposes of a wilderness area in terms of section 7, declared to be a wilderness area and not registered in the name of the State, is deemed to be so registered, and the registrar of deeds of the deeds registry where the land in question is registered must at the request of the Minister cause the necessary note to be made on the title deeds in question and in his registers, and no fees are payable in respect of the making of such a note.

26. Making land and buildings available to council. -

The Minister of Public Works may on such basis and conditions as he may determine, make any land or building available to the council to enable the council to perform its functions, and may provide for works and services in respect of that land and or the maintenance of that building.

27. Reports by council. -

(1) As soon as practical after the end of each financial year the council shall from information to be supplied to it by the Director-General and management advisory committees, compile a report on all activities during that financial year with regard to the national wilderness preservation system and to:

(a) its activities relative to wilderness areas during that financial year;

(b) its recommendations with respect to the suitability of any area for preservation as wilderness; and

(c) any other matter which the Minister may request the council to deal with in that report.

(2) The report referred to in subsection (1), together with the audited balance sheet and accounts pertaining to the fund, shall be submitted to the Minister, and he must lay it upon the Table in Parliament within 14 days after he has received it, if Parliament is then in session or, if Parliament is not in session, within 14 days of the beginning of the next session.

PART IV
ADMINISTRATION OF ACT

28. Management of wilderness areas. -

(1) The national conservation authority shall administer, manage and maintain wilderness areas set aside within national parks established in terms of the National Parks Act, 1976 (Act No. 57 of 1976).

(2) Each provincial conservation authority shall administer, manage and maintain wilderness areas set aside within the province within which such authority has jurisdiction.

(3) The national and provincial conservation authorities shall administer, manage and maintain wilderness areas in accordance with management plans prepared in terms of Part VII of this Act, and shall act upon the advice of the council.

29. Delegation of powers. -

(1) The Minister may under such conditions as he may deem fit delegate to any officer of the department any power conferred upon him by this Act excluding the power to make regulations.

(2) The Director-General may on such conditions as he may deem fit delegate to any officer of the department any power conferred upon him by or in terms of this Act.

(3) The Minister or Director-General is not divested of any power which he has delegated under subsection (1) or (2), as the case may be, and may rescind or amend any decision of the officer concerned.

30. Designation of wilderness officers. -

A conservation authority may designate posts within its organisation the incumbents of which are wilderness officers for the purposes of this Act.

31. Appointment of honorary wilderness officers. -

(1) A conservation authority may appoint any person as an honorary wilderness officer.

(2) An honorary wilderness officer has in respect of wilderness areas the same powers as a wilderness officer, excluding the powers mentioned in sections 57 and 58; Provided that the the powers of an honorary wilderness officer may at its discretion be further restricted by the conservation authority concerned.

(3) A conservation authority may at any time, without any obligation to furnish reasons, withdraw the appointment of an honorary wilderness officer if it considers it desirable to do so.

32. Granting of powers to persons in control in control of wilderness areas on private land. -

(1) A conservation authority may confer upon a person placed in control of a wilderness area on private land by the owner thereof any or all of the powers vested in a wilderness officer.

(2) Such a person may exercise that power or those powers only in respect of the wilderness area in question and only for as long as he is in control of that wilderness area.

33. Management advisory committees. -

(1) The council shall establish a management advisory committee in respect of every wilderness area.

(2) (a) Each such committee shall consist of not fewer than five members of whom one must be an officer of the conservation authority having jurisdiction over the wilderness area in question and the other persons who in the opinion of the council represent the local or tribal authority, any other body or organisation, the inhabitants of any area, and the owners of private land, who have some special interest in the wilderness area in question; Provided that if the council is unable to find a sufficient number of persons who are willing to serve on the committee, it may appoint officers of such conservation authority to fill the vacancies.

(b) The members must be persons who in the opinion of the council have special knowledge of or relationship with the wilderness area in question by virtue of their training, experience or association with it, or who are otherwise suitable to serve as members of the committee, and the council may designate an alternate member for any member thereof.

(c) A member of the council may be appointed as a member of a management advisory committee.

(d) A member holds office for such period, but not exceeding three years, as the council may determine at the time of his appointment, and at the expiry of his term of office he may be appointed again.

(e) The council must convene the first meeting of a management advisory committee, at which the members shall elect one of their number as chairperson.

(f) With the permission of the chairperson of the council, the chairperson of a management advisory committee may attend meetings of the council and participate in its proceedings, but shall not be entitled to vote.

(3) The functions of a management advisory committee are to:

(a) give advice on the preparation and content of management plans;

(b) advise the council on any matters affecting the management and administration of the wilderness area in respect of which it has been established and of that part of its buffer zone, if any, designated by the council; and

(c) perform such other functions as may be prescribed.

(4) A management advisory committee meets at the times and places determined by the chairperson, but at least once per year, and the chairperson shall determine the manner of the calling of, the quorum for and procedure at its meetings.

(5) If the chairperson is absent from any meeting of the committee, the members present thereat may elect one of their number to preside at such meeting.

(6) A resolution of the committee is not invalid only by reason of the fact that a vacancy existed on the committee when the resolution was adopted.

(7) A management advisory committee shall cause a true record of all its resolutions and financial transactions to be kept.

34. Financial assistance to management advisory committees. -

(1) The Minister may, from monies appropriated by Parliament for that purpose and on such conditions as he may determine, render assistance by way of grants or otherwise to management advisory committees.

(2) The council may make monies from the fund available to management advisory committees to assist them in defraying the costs involved in the performance of their functions.

PART V
USE OF WILDERNESS AREAS

35. Permitted uses. -

(1) Except as otherwise provided in this Act, the use of wilderness areas shall be compatible with the policy stated in section 3, and shall be restricted to the public purposes of:

(a) outdoor recreation and provision of the wilderness experience;

(b) the promotion of environmental education and research; and

(c) environmental monitoring, historical and interpretative services.

(2) A conservation authority may perform any act and take any measure in a wilderness area which is not inconsistent with the provisions of subsection (1) or the management plan for the area in question and, in particular, may perform acts or take measures which are aimed at -

(a) the restoration of ecologically disturbed habitats;

(b) the prevention and combating of soil erosion;

(c) the implementation of a prescribed burning programme, and the prevention and combating of other veld, forest and mountain fires;

(d) the maintenance of the natural genetic and species diversity;

(e) the exercise of control over undesirable, alien and invasive plants and animals;

(f) the making available of wilderness trails to members of the public;

36. Limitation of rights in respect of wilderness areas. -

(1) (a) The Minister may grant a servitude or other right of any nature in respect of any wilderness area or any part thereof with the approval, by resolution of Parliament, and on such conditions as Parliament may determine.

(b) If the Minister is satisfied that national security necessitates it, he may grant a servitude or other right of a temporary nature to any person, subject to the approval thereof, by resolution of Parliament as soon as practicable after the granting thereof and subject to such conditions as Parliament may then determine.

(c) In submitting the request for the granting of the servitude or other right referred to in paragraphs (a) and (b) to Parliament, he shall at the same time table therewith an environmental impact report, prepared in accordance with the requirements of the council, of the proposal for consideration.

(2) Every servitude over or existing right in a wilderness area or part of a wilderness area which is in force on the date that the area in question is set aside as a wilderness area or part thereof shall remain in force, but shall only be exercised in such manner as may be prescribed and so as not materially to prejudice the achievement of the objects for which the area in question was set aside.

(3) No person shall gain admittance to a wilderness area or perform any activity in or on a wilderness area except as authorised in terms of this Act.

(4) Notwithstanding the provisions of subsection (3), a conservation authority may in writing grant exemption from the provisions of subsection (3), subject to conditions determined by it, to -

(a) any scientist occupied with any specific project; or

(b) any officer charged with specific official duties in terms of this Act.

(5) For the purposes of subsection (3) a wilderness area shall include the airspace to a level of 500 metres above the ground level of that wilderness area and no hang-gliders, para-gliders, gliders, helicopters, fixed wing aircraft, or any other aircraft of whatever nature may enter such airspace except in cases of emergency involving the health and safety of persons in the area, or unless authorised to do so in terms of this Act.

(6) Any servitude, traditional access and harvesting right, or any other right in respect of a wilderness area or a part thereof which exists at the commencement of this Act or as at the date of the declaration of the wilderness area in question, shall remain in force, but shall only be exercised in the prescribed manner.

(7) Each conservation authority shall cause a public register to be kept in which all servitudes and rights of any nature whatsoever in respect of wilderness areas within its jurisdiction must be noted, and which must reflect in respect of each such servitude or right -

(a) the nature thereof;

(b) the manner in which it came into existence;

(c) the name of the holder thereof or of the beneficiary in the case of a personal servitude;

(d) in the case of a praedial servitude, a description of a dominant tenement.

37. National security. -

If the Minister is satisfied that the national security necessitates it, he may grant a servitude or other right of a temporary nature to any person, subject to the approval thereof, by resolution, of Parliament as soon as practicable after the granting thereof and subject to such conditions as Parliament may then determine.

38. Renewal of rights within wilderness areas. -

Every servitude or right which remains in force in respect of a wilderness area, as well as any temporary rights lawfully exercised in respect thereof, may be renewed by the Director-General; Provided that he shall not do so without first consulting the council and obtaining its recommendation, and he may only do so if the continued exercise of that right will not, in the opinion of the council, prejudice the achievement of the objects for which the wilderness area in question was set aside.

39. Wilderness trails. -

(1) Wilderness trails may be established in any wilderness area; provided that such establishment is in accordance with the management plan for the wilderness area in question.

(2) Where it is necessary or desirable to enter upon, traverse or occupy private land in order to establish a wilderness trail, the conservation authority concerned must obtain the required rights by way of written agreement with the owner of that land.

(3) An agreement contemplated in subsection (2) must contain stipulations to the following effect:

(a) the rights to the wilderness trail shall be permanent or for such period as may be agreed upon and shall bind every successor in title of the owner and every lessee or occupier of the private land in question;

(b) the route of the wilderness trail shall not be surveyed but shall be indicated, where considered necessary by the conservation authority concerned on a map which shall form part of the agreement in question;

(c) the conservation authority concerned shall accept liability for any loss or damage suffered by the owner wilfully or negligently caused by a trailist, and shall indemnify the owner against any claim which a trailist may institute him;

(d) such other terms as the Minister may determine after consultation with the council.

(4) The conservation authority concerned shall, as soon as practicable after entering into an agreement contemplated in this section send a copy thereof to the registrar of deeds of the deeds registry in which the title deed of the private land in question is registered, and the registrar must cause a note relating to the agreement to be made in his registers and on the office copy of the

title deed in question, and must cause a similar note to be made on the original title deed if it is at any time lodged in his office, and no fees are payable in respect of the making of such notes.

(5) An owner of private land who has entered into an agreement contemplated in this section shall at all reasonable times permit any member of the council, the management advisory committee for the wilderness area in question, an officer of a conservation authority performing any function in terms of this Act, or a contractor engaged in the management of the wilderness area in question or a buffer zone surrounding it, to enter upon his land with the necessary workmen and equipment in order to conduct any investigation or inspection or perform any act which is necessary for the performance of any function in terms this Act.

(6) The provisions of subsection (4) apply *mutatis mutandis* in respect of any amendment of a wilderness trail or agreement contemplated in this section.

40. Fees for use of wilderness areas. -

The tariff of the fees for any use of wilderness areas permitted in terms of this Act, including research, educational purposes, entry permits, hiking and overnight shelter in caves or otherwise, shall be determined by the conservation authority concerned, after consultation with the council, and income derived from the collection of those fees shall accrue to the fund or to such conservation authority or the management advisory committee for the wilderness area in question, or be divided between them, as may be agreed between the council and such conservation authority or, failing such agreement, as determined by the Minister; Provided that such percentage as may be determined by the council of all fees and income derived from the use of wilderness areas shall accrue and be paid as a first charge to such tribal communities and in such manner as shall be determined by the council.

41. Temporary closing of wilderness areas. -

A wilderness area or any part thereof may at any time temporarily be closed to the public by the conservation authority concerned.

42. Code of conduct. -

Every person who uses a wilderness area shall obey every provision of a code of conduct prescribed by the council and which applies in respect of that wilderness trail.

43. Liability for damage. -

(1) No person who suffers any loss or damage as a result of his use of a wilderness area has any claim in respect thereof against the council, a conservation authority, or any other person performing any function in terms of this Act.

(2) Any person who by his use of a wilderness area causes loss or damage to any other person is liable therefor to such person.

44. Traditional access and harvesting rights of tribal communities. -

(1) Upon the recommendation of the council, the Minister shall, by notice in the *Gazette* and in a newspaper circulating in the area of the wilderness area or buffer zone in question, determine and prescribe the existence, nature and extent of any traditional rights of access to and harvesting of wilderness produce within such wilderness area or buffer zone, and identify the tribal community or communities concerned and the manner in which such rights may continue to be exercised, and all management plans relating to such wilderness area or buffer zone shall make provision for such access and harvesting rights.

(2) For the purposes of subsection (1) -

(a) traditional access and harvesting rights mean those aboriginal, ancestral, historic, established, customary or traditional rights or practices which, in the opinion of the Minister, have been exercised by tribal communities in, over or in relation to a wilderness area or buffer zone for the hunting or gathering of wilderness produce, or natural resources in buffer zones, primarily for subsistence, medicinal, ceremonial or religious purposes;

(b) such harvesting rights may include the sale of the nonedible byproducts of the harvested produce if, in the opinion of the Minister, such produce is employed for the creation of authentic traditional articles of handicrafts or clothing without the use of mass copying methods or devices; and

(c) the Minister may restrict, limit or suspend the exercise of traditional access and harvesting rights for such period as he may deem necessary if the continuation of such rights is, in his opinion -

(i) in conflict with the policy stated in section 3, or

(ii) likely to proceed in a wasteful manner or by means other than the use of traditional weapons and methods of harvesting.

(3) In forming an opinion in terms of subsection (2) the Minister shall rely and act upon the advice and recommendation of the council.

PART VI
PROHIBITED USES

45. Prohibition of mining. -

(1) Notwithstanding the provisions contained in any other law, no prospecting or mining of any nature shall be undertaken in any wilderness area.

(2) Unless otherwise determined by resolution of Parliament, any prospecting or mining rights existing within an area at the time that it is set aside as a wilderness area or part of a wilderness area in terms of this Act shall terminate forthwith, and no compensation shall be payable for such termination except and to the extent otherwise resolved by Parliament.

46. Other prohibited activities. -

Notwithstanding the provisions contained in any other law, and except in accordance with a management plan or as otherwise provided in this Act, there shall be no human habitation, grazing of livestock, commercial enterprise, or permanent road within any wilderness area and, except as necessary to meet minimum requirements for the administration of the area for the purposes of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorised equipment or motorboats, no landing of any type of aircraft, no other form of mechanical transport, and no structure or installation of any nature whatsoever within any wilderness area.

47. Protection of wilderness produce. -

(1) No person shall take, collect, cut, damage, destroy, disturb, remove, transport, export, purchase, sell, donate, or in any other manner acquire, dispose of, or deal with any wilderness produce, except -

(a) in accordance with a management plan; or

(b) in accordance with a permit issued by the Minister and subject to such conditions as he may determine; Provided that, if any such activity is likely in any way whatsoever to affect the wilderness quality of the area in question, the Minister shall not be entitled to authorise the same without the prior approval, by resolution, of Parliament.

(2) A wilderness officer, honorary wilderness officer, nature conservation officer in the service of a conservation authority, and a police officer, may at any reasonable time enter upon privately owned land in order to determine whether the provisions of subsection (1) are being contravened, and such an officer may search any vehicle or premises in order to determine whether any wilderness produce is being transported in the vehicle or is being sold or displayed or offered for sale or is any other manner disposed of in or upon those premises.

48. Prohibition of acquisition by prescription. -

Notwithstanding anything contained in any other law to the contrary, no servitude or other right of any nature whatsoever shall be acquired by prescription in respect of a wilderness area.

PART VII
BUFFER ZONES AND MANAGEMENT PLANS

49. Establishment and maintenance of buffer zones around wilderness areas. -

(1) Within such time and as may be prescribed by regulation, every owner of land in and abutting a wilderness area shall enter into an agreement relating to the management and maintenance of a buffer zone around such area.

(2) For the purposes of this section 'owner', in relation to State land or other land under the control of the State, means the officer in charge of the department of State or provincial administration exercising control over that State land or other land, or a person authorised by him. The 'owner', in relation to tribal land and local indigenous populations affected by the setting aside of the wilderness area and establishment of the buffer zone in question, means the tribal authority identified as such by the council.

(3) The dimensions and boundaries of buffer zones shall be determined -

(a) by the owners of land referred to in subsections (1) and (2), acting upon the advice and recommendations of the council;

(b) with regard to local circumstances, so as to be reasonably sufficient to afford adequate protection to the wilderness areas surrounded by them.

(4) An agreement referred to in this section must -

(a) fix the dimensions of the buffer zone in question and indicate the boundaries thereof by means of a sketch plan;

(b) describe the manner in which the buffer zone in question shall be managed and maintained;

(c) indicate the ways in which the owners concerned shall be involved in such management and maintenance; Provided that whenever a tribal authority has been identified as an owner in terms of subsection (2), that tribal authority shall be represented on any management advisory committee that is established for the wilderness area or buffer zone in question;

(d) stipulate how the costs of such management and maintenance shall be shared or otherwise provided;

(e) record any servitudal or other rights the owners concerned have agreed upon relating to the access to and protection of the wilderness area in question, and to the use and protection of the buffer zone in question;

(e) enumerate the particulars relating to the exercise of the traditional access and harvesting rights which may be exercised in respect of natural resources within the buffer zone in question; and

(f) indicate the manner in which any income derived from the buffer zone in question shall be used; Provided that in all cases such percentage as may be determined by the council of all fees and income derived from the use of wilderness areas and buffer zones shall accrue to the tribal authorities which may be within such buffer zones or on land contiguous to them on a *pro rata* basis as determined by the council.

(5) Negotiations by the owners contemplated in this section with a view to the entering into of an agreement or the amendment of an existing agreement, shall be commenced within the prescribed time and conducted in the prescribed manner.

(6) The negotiations contemplated in subsection (5) shall be conducted in collaboration with the conservation authority concerned and such other persons as may be determined by the council.

(7) Upon conclusion of negotiations and the agreement contemplated in this section, a formal management plan shall be prepared by the conservation authority concerned for the buffer zone in question, which management plan shall include the relevant provisions of such agreement, and the provisions of section 50 shall apply *mutatis mutandis* to such management plan.

(8) Where an owner cannot be traced, despite such diligent search as may be expected in the circumstances, with a view to his entering into an agreement or the amendment of an existing agreement as contemplated in this section, his agreement may be dispensed with, but it shall the function and duty of the council to ensure that his interests are protected as best as they may be in the circumstances.

(9) An owner of land in respect of which an agreement as contemplated in this section is applicable, and who is of the opinion that its provisions are, or a provision thereof is, excessively burdensome in relation to his legitimate interests, may after 30 days' notice in writing to every other owner concerned, to the conservation authority concerned, and to the council, apply to the Supreme Court for an order amending the agreement, and the Court may, after such investigation as it may consider necessary, issue such order as it may deem equitable.

(10) Agreements and orders made in terms of or pursuant to the provisions of this section shall be binding on every owner of and holder of a real right in land affected by such agreements and orders, and on their successors in title.

(11) The Minister shall in writing direct the registrar of deeds of the deeds registry in which the title deed of land referred to in subsection (10) is registered to cause a note to be made in his registers and on the office copy of such title deed of the relevant provisions of the agreement or order in question.

(12) A registrar of deeds must cause a note of the particulars mentioned in subsection (11) to be made on the original title deed of the land in question when it is lodged in his office for any purpose, and no fees shall be payable in respect of the making of such note.

50. Management plans. -

(1) A management plan shall be prepared by the conservation authority concerned for each wilderness area and buffer zone, and shall make provision for -

(a) the regulation therein of all activities and uses permitted in terms of this Act;

(b) a tariff of fees for such permitted activities and uses;

(c) the manner in which any income derived therefrom shall be applied;

(d) such other particulars as may be prescribed.

(2) The conservation authority concerned shall take all such steps as may be necessary to ensure that the true representatives of all local communities affected or likely to be affected by the proposed management plan are given proper notice of and opportunity to participate in its preparation.

(3) The proposed management plan shall be published by the conservation authority concerned in the *Gazette* and in a newspaper circulating in the area or areas within which the wilderness area or buffer zone in question is situated, together with a notice calling for any objections to such proposed plan to be lodged with such conservation agency within 30 days of such publication.

(4) Within 60 days after the publication referred to in subsection (3) the conservation authority concerned shall lodge all the relevant documents, together with any objections and its comments on and responses to such objections, with the council. Within 30 days of receipt of such documents, the council shall either approve the proposed management plan, or return it to the conservation authority concerned for amendment or redrafting in such manner and within such period as may be determined by the council.

(5) Public notice of the management plan as finally approved by the council shall be given by the conservation authority concerned by publication of the same in the *Gazette* and in a newspaper circulating in the area concerned within 30 days of such approval. Any interested person shall have the right and standing to appeal to the Supreme Court against any decision made in terms of this section, or against any of the provisions of the management plan as finally approved.

(6) The conservation agency concerned and the council shall each keep a register and details of all management plans, which shall be available for public inspection during office hours, and copies of which plans shall be available to the public upon payment of the prescribed fee.

(7) All management plans shall be reviewed annually, and may be amended in accordance with the provisions of this section, *mutatis mutandis*.

PART VIII
REGULATIONS AND BY-LAWS

51. Regulations regarding permitted uses in wilderness areas and environmental impact reports. -

The Minister may make regulations with regard to any permitted use or activity in or on or likely to affect any wilderness area or buffer zone, and may prescribe the scope, content and manner of preparation of environmental impact reports.

52. Regulations regarding buffer zones. -

(1) The Minister may make regulations with regard to buffer zones concerning -

(a) the imposition of restrictions on the nature and extent of development or activities in such zones;

(b) the procedure to be followed for obtaining permission for development or activities in such zones; and

(c) the repair of damage to the environment in such zones by unauthorised development or activities.

(2) Any regulations made under subsection (1) may relate to buffer zones in general or to any buffer zone in particular.

53. Regulations regarding management plans. -

The Minister may make regulations with regard to the preparation, publication, content, and amendment of management plans.

54. General regulatory powers. -

(1) The Minister may make regulations relating to -

(a) the management of wilderness areas;

(b) access to and use of wilderness areas;

(c) the acts to be performed and measures taken by conservation authorities;

(d) the exercise of any servitude or other right granted or permitted in terms of this Act;

(e) the exercise of customary or ancestral access and harvesting rights of indigenous people by traditional means for subsistence or religious purposes;

(f) the granting of rights in or over and the exercise of control over wilderness produce, the collection, removal, transport, export, purchase, sale, or donation or the acquisition or disposal in any other manner thereof, and the procedure in connection therewith;

(g) the control or destruction of animals or plants where this is necessary to achieve the objects of this Act;

(h) the issue of licences, permits or other authorizations in respect of rights in or over wilderness areas or buffer zones or in respect of wilderness produce;

(i) the kinds of wilderness produce and the quantities thereof which may be cut, taken or removed, and the season in which or the times when it may be cut, taken or removed;

(j) the control or prohibition generally or in relation to any particular wilderness area of the creation or sale of articles manufactured or derived from wilderness produce or the byproducts thereof;

(k) the areas in which and the periods during which camping may be exercised;

(l) the cultivation and grazing of land in a buffer zone, the granting of financial assistance for the erection of stock-proof fences, and the clearing and maintenance of fire belts for the protection of a wilderness area;

(m) the objects and scope of management plans, the framing of such plans and the application of any provision thereof in respect of any owner, occupier or lessee of land affected thereby;

(n) stipulations which an agreement contemplated in section 49 must contain;

(o) the issue of permits or other authorizations in connection with the use of any wilderness trail;

(p) any other matter which in terms of any other provision of this Act is required to be or may be prescribed or otherwise dealt with by regulation; and

(q) any of the provisions or objects of this Act generally for their better implementation or attainment.

(2) Different regulations may be made under subsection (1) in respect of different wilderness areas or different buffer zones or parts thereof.

(3) Regulations under subsection (1) may provide for penalties for any contravention of, or any failure to comply with, the provisions thereof not exceeding the penalties prescribed in Part IX.

(4) The Minister may determine a tariff of fees, which may vary according to circumstances, relating to access to and use of wilderness areas.

55. By-laws of conservation authorities. -

(1) A conservation authority may, with concurrence of the Minister, make by-laws relating to -

(a) the powers and duties of its officers with respect to -

(i) the exclusion of members of the public from certain parts of a wilderness area;

(ii) the disposal of wilderness produce or acquisition of any indigenous plant or animal for a wilderness area;

(b) the conditions on which, and the times when, a wilderness area may be entered by the public;

(c) the protection or conservation of any wilderness produce or property belonging to the council;

(d) the protection of any tree, plant, rock, fence, or other object in a wilderness area against defacement by writing or any other manner;

(e) any other matter which may or must be prescribed by by-law or which, in the opinion of a conservation authority, is necessary for the management or protection of a wilderness area.

(2) Different by-laws may be made in respect of different wilderness areas.

(3) A by-law may provide for penalties for any contravention of, or any failure to comply with, the provisions thereof not exceeding the penalties prescribed in Part IX.

PART IX
OFFENCES, PENALTIES, FORFEITURE, JURISDICTION, POWERS OF WILDERNESS OFFICERS, AND RELATED MATTERS

56. Offences. -

Any person who without lawful authority granted in terms of this Act in a wilderness area -

(a) cuts, damages, destroys, collects, takes or removes any wilderness produce;

(b) damages, alters, shifts, removes or interferes with any beacon, boundary mark, fence, notice board or other structure within or on the perimeter of a wilderness area;

(c) wilfully or negligently starts or uses a fire, or adds fuel to a fire, or fails to extinguish or leaves unattended a fire which he has started or used or to which he has added fuel;

(d) is in possession of any firearm, explosive, fuel or other inflammable substance;

(e) clears, ploughs or cultivates land;

(f) in any manner hunts or kills any game, birds or other animals, or catches or kills any fish or insects;

(g) dumps or scatters litter;

(h) allows his dog or stock to be present;

(i) contravenes or fails to comply with a condition of an entry permit, licence or other authorization issued in terms of this Act;

(j) hinders or obstructs a wilderness officer, police officer or other person in the performance of his duties or the exercise of his powers in terms of this Act;

(k) uses a motor vehicle or motorized equipment or motorboat or any other form of mechanical transport, or lands an aircraft;

(l) builds any structure or installation;

is guilty of an offence and liable on conviction to a fine not exceeding R10 000 or to imprisonment for a period not exceeding two years or to both such fine and such imprisonment.

57. Powers of arrest of wilderness and police officers. -

A wilderness or police officer may without warrant arrest any person -

(a) who is found in possession of any wilderness produce in respect of which there is reasonable suspicion that it was obtained unlawfully from a wilderness area and who is unable to give a satisfactory account of his possession;

(b) whom he suspects on reasonable grounds of having committed any offence mentioned in this Act or of having taken part in the commission of such an offence.

58. Powers of seizure of wilderness and police officers. -

A wilderness officer or police officer may seize any wilderness produce, weapon, vehicle, equipment or animal in respect of which he suspects on reasonable grounds an offence has been committed in terms of this Act. As soon as practicable after such seizure he shall report the relevant facts to a magistrate within whose area of jurisdiction the seizure took place, and the magistrate may make such order as to the retention or disposal of the wilderness produce, property or animal in question, as he may, with due regard to the facts reported to him, consider equitable or expedient.

59. Production of documents. -

Any person who in terms of this Act is required to be in possession of a licence, permit or other authorization shall produce it on demand of a magistrate, justice of the peace, wilderness officer, police officer or other person authorized in terms of this Act.

60. Other powers of wilderness officers. -

A wilderness officer -

(a) may in the performance of any function in terms of this Act -

(i) after reasonable notice to the owner or occupier of land in a buffer zone, enter upon that land and conduct thereon any investigation or inspection or perform any act which is necessary for the performance of that function;

(ii) has in respect of any offence under this Act all the powers vested by law in a police officer.

61. Illegal squatting, camping or cultivation in wilderness areas. -

When a wilderness officer lodges an affidavit to the effect that as far as he can ascertain a person is without authority squatting, camping, residing, building a structure, or clearing or cultivating land, in a wilderness area, with the clerk of the magistrate's court within whose area of jurisdiction the wilderness area in question is situated, the clerk shall summon that person to appear before the court to show cause why he should not be ordered to leave the wilderness area or to remove the structure or planted crop in question, as the case may be, and if that person fails so to appear or fails to prove that he has the necessary authority, the court may order that he shall, within a period fixed by the court, leave the wilderness area and not return thereto, or that he shall remove therefrom that structure or crop, and the court may also authorize the wilderness officer or any other officer designated by the court, to remove, destroy or otherwise dispose of that structure or crop if that person fails to do so within the period fixed by the court.

62. Forfeiture and reparation. -

(1) Notwithstanding anything to the contrary in any law contained, a court convicting any person of an offence under this Act may declare any wilderness produce, animal, vehicle or other thing involved in or by means whereof the offence concerned was committed or which was used in the commission of such offence, or the rights of the convicted person to such vehicle or other thing, to be forfeited to the State.

(2) A declaration of forfeiture under subsection (1) shall not affect the rights which any person other than the convicted person may have to the vehicle or other thing concerned, if it is proved that he did not know that the vehicle or other thing was used or would be used for the purpose of or

in connection with the commission of the offence concerned or that he could not prevent such use.

(3) The provisions of section 35 (3) and (4) of the Criminal Procedure Act, 1977 (Act No. 51 of 1977), shall *mutatis mutandis* apply to any declaration of forfeiture under this section.

(4) In the event of a conviction in terms of this Act the court may order that any damage to a wilderness area resulting from the offence be repaired by the person so convicted, to the satisfaction of the council.

(5) If within a period of 30 days after a conviction or such longer period as the court may determine at the time of the conviction, an order in terms of subsection (4) is not being complied with, the council may itself take or cause to be taken the necessary steps to repair the damage and recover the cost thereof from the person so convicted.

63. Award of part of fine to informant. -

A court which imposes a fine for an offence in terms of this Act may order that a sum not exceeding one-fourth of the fine recovered be paid to any person, not being an officer in the service of the State, upon whose information the conviction for that offence was obtained or who assisted materially in bringing the offender to justice.

64. Presumptions. -

(1) When in a prosecution for an offence in terms of this Act it is alleged in the charge that any wilderness produce is the property of the State, it is presumed until the contrary is proved that such wilderness produce is the property of the State.

(2) When in any action by virtue of the provisions of this Act or the common law the question of negligence arises in respect of any matter dealt with in this Act, negligence is presumed until the contrary is proved.

65. Jurisdiction of magistrate's court. -

Notwithstanding anything to the contrary in any law contained, a magistrate's court shall be competent to impose any penalty provided for in this Act.

PART X
GENERAL PROVISIONS

66. Operation of Act with regard to other laws. -

The provisions of this Act supersede, and apply in substitution for, the provisions of any other laws which are in conflict with or inconsistent with the provisions of this Act.

67. Powers of Minister and council in case of default by authorities or committees. -

(1) If in the opinion of the council any conservation, local or tribal authority, management advisory committee or any other person fails to perform any function assigned to it or him by or under this Act, the Minister shall, upon the request of the council and after affording the authority, committee or person in question an opportunity of making representations to him, in writing direct such authority, committee or person to perform such function within a period specified in the direction, and if that authority, committee or person fails to comply with such direction, the Minister may perform such function, or authorise the council to do so, as if he or it were that authority, committee or person, and he or it may authorise any other person to take all steps required for that purpose.

(2) Any expenditure incurred by the Minister or the council in the performance of any function by virtue of the provisions of subsection (1) may be recovered from the authority, committee or person concerned.

68. Publication for comment. -

(1) If the Minister, the council, a conservation authority, or any other person or authority, as the case may be, intends to make a declaration or issue a regulation or direction in terms of the provisions of this Act, a draft notice shall first be published in the *Gazette*.

(2) The draft notice referred to in subsection (1) shall include -

(a) the text of the proposed declaration, regulation or direction;

(b) a request that interested parties shall submit comments in connection with the proposed declaration, regulation or direction within the period stated in the notice, which period shall not be less than 30 days after the date of publication of the notice; and

(c) the address to which such comments shall be submitted.

(3) If the Minister thereafter determines on any alteration of the draft notice published as aforesaid, it shall not be necessary to publish such alteration before finally issuing the notice.

69. Delegation. -

Subject to the approval of the council, a conservation, tribal or local authority, or a management advisory committee, may on such conditions as the council may impose delegate or assign any power or duty

conferred upon or assigned to it by or under this Act to, respectively, any officer or employee of the authority or committee concerned.

70. Appeal to Minister. -

(1) Any person who feels aggrieved at any decision made in terms of this Act, whether by an officer or employee enforcing a provision of the Act in respect of a wilderness area or buffer zone, or an officer or employee exercising any power delegated in terms of this Act or conferred upon him by regulation, or by any other person pursuant to the provisions of this Act or any regulations made thereunder, may appeal against such decision to the Minister in the prescribed manner, within the prescribed period, and upon payment of the prescribed fee.

(2) The Minister may, after considering such an appeal, confirm, set aside or vary the decision of the officer, employee or person concerned, or make such order as he may deem fit, including an order that the prescribed fee paid by the appellant or such part thereof as the Minister may determine be refunded to the appellant.

71. Review by Court. -

(1) Notwithstanding the provisions of section 70, any interested person may within 30 days after having become aware of a decision of an administrative body under this Act request such body in writing to furnish reasons for such decision within 30 days after receiving the request.

(2) Within 30 days after having been furnished with reasons in terms of subsection (1), or after the expiration of the period within which reasons had to be so furnished by the administrative body, the person in question may apply to a division of the Supreme Court having jurisdiction to review the decision.

72. Appeal to Court. -

Notwithstanding the provisions of section 70, in the event of a dispute or disagreement arising between the Director-General, a conservation authority, the council, a management advisory committee, a wilderness officer, honorary wilderness officer, tribal authority, any other person or body exercising any right or discharging any duty referred to in this Act, or any member of the public or organisation having any interest in a wilderness area, such dispute or disagreement shall be referred to the Minister for resolution. In the event of any person being dissatisfied with the Minister's decision, whether or not any rights of that person have been infringed, such dissatisfied person shall have the right and standing to take the matter on appeal to the Supreme Court for final decision.

73. Restriction of liability. -

No person, including the State, conservation authorities and the council, shall be liable in respect of anything done in good faith in the exercise of a power or the performance of a duty conferred or imposed in terms of this Act.

74. Entering into and ratification of conventions, treaties and agreements. -

(1) The State President may by proclamation in the *Gazette* add to this Act any Schedule containing the provisions of an international convention, treaty or agreement relating to wilderness areas which has been entered into or ratified by the Government of the Republic.

(2) The State President may by proclamation in the *Gazette* amend the Schedule to give affect to any amendment of or addition to any convention, treaty or agreement referred to in subsection (1) which may from time to time be effected and is ratified by the Government of the Republic.

(3) The Minister shall lay a copy of any proclamation issued under subsection (1) or (2), on the Table in Parliament within 14 days after publication thereof in the *Gazette* if Parliament is then in ordinary session or, if Parliament is not then in ordinary session, within 14 days after the commencement of its next ensuing ordinary session.

75. Agreements with self-governing territories. -

The Minister may enter into an agreement with the government of a self-governing territory as defined in section 38 of the National States Constitution Act, 1971 (Act No. 21 of 1971), in order to promote the objects of this Act.

76. State bound. -

The provisions of this Act shall bind the State, including any provincial administration, except in so far as criminal liability is concerned.

77. Repeal of laws and savings. -

(1) Subject to the provisions of subsection (2), the laws mentioned in Schedule 2 are hereby repealed to the extent set out in the third column thereof.

(2) Anything done under a power conferred by or in terms of a provision of a law repealed by subsection (1) is deemed to have been done under a power conferred by or in terms of a provision of this Act.

78. Short title. -

This Act shall be called the Wilderness Act, 199*.

SCHEDULE 1
EXISTING WILDERNESS AREAS

(see Appendix C)

SCHEDULE 2
LAWS REPEALED AND EXTENT OF REPEAL

(The relevant provisions of the Forest Act 122 of 1984)