

**PROTECTED AREA MANAGEMENT AND  
ENVIRONMENTAL DECISION-MAKING:**

**THE CASE OF DLINZA FOREST NATURE RESERVE,  
KWAZULU-NATAL**

**By**

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## **Abstract**

Colonial conservation emerged as colonial conservationists perceived the threat of deforestation, climatic change and famine. The sense that there were limits to nature's capacity to meet human demands, led to colonial conservationism which portrayed nature as separated from human life. Protected areas (PA's), both forest and game reserves, were created that excluded local people in terms of both access and management. In South Africa the National Forests Act 84 of 1998 has created new conditions in which there is a greater opportunity for communities to benefit from indigenous forests, which apart from their other uses are a valuable resource from the point of view of ecotourism. This study thus seeks to assess moves from exclusivist to community based forms of environmental decision-making (EDM) at Dlinza Forest Nature Reserve.

This study provides an example of an ecotourism project started during the democratic period in South Africa and at the height of the global move to community conservation. First however it traces the management history of the forest in order to assess change in the management style over time. The study investigates rural people's attitudes towards the forest and it was found that although the forest was preserved for many years, the rural people still feel much attached to it as a result of the beliefs they have about it. The study contrasts different visions of the forest in terms of competing use and non-use values, and demonstrates that each group exercised its will and attempted to display "ownership" of the forest through a number of activities undertaken at the forest. An analysis of the public participation followed in terms of the ecotourism project was undertaken to determine the extent to which the rural community was involved. Theoretical models of environmental decision-making were applied in order to identify the mode of decision-making used historically and in the present.

The results of the study show that poor rural people are still marginalized in EDM despite the new philosophies of PA management and the democratising shifts taking place in the country. Resistance to the policies and regulations of the reserve has been observed and this may lead to severe degradation of the resources that the reserve is meant to protect. The study thus recommends strengthening locally based EDM via partnerships as partnerships do not only provide relief for the consequences of conflict, they also strive for a win-win situation. The study concluded that greater involvement of the rural community requires a change in the mindset of conservation authorities, in particular with regard to the issue of representivity in EDM.

## **PREFACE**

The experimental work described in this dissertation was carried out in the School of Life and Environmental Sciences, University of Natal, Durban, from January 2002 to September 2003, under the supervision of Dr. Shirley Brooks.

These studies represent original work by the author and have not otherwise been submitted in any form for any degree or diploma to any tertiary institution. Where use has been made of the work of others, it is duly acknowledged in the text.

## **DEDICATION**

To My Mother, Intfombi Yase Nkhaba.  
Hlubi Lomuhle!

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It was a long bumpy road; I thank God the Almighty for seeing me through.

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## **Acronyms**

CBC	Community Based Conservation
CBE	Community Based Ecotourism
CBNRM	Community Based Natural Resource Management
Cllr.	Councillor
CNC	Chief Native Commissioner
DNC	District Native Commissioner
DWAF	Department of Water Affairs and Tourism
EDM	Environmental Decision-Making
EKZNW	Ezemvelo - KwaZulu Natal Wildlife
NEMA	National Environmental Management Act
NFA	National Forests Act
NTFPs	Non-Timber Forest Products
PA(s)	Protected Area (s)
SNA	Secretary for Native Affairs
TAS	Time-Allocation Studies
WWF	World Wildlife Fund
ZBR	Zululand Birding Route

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## CHAPTER ONE INTRODUCTION

In the nineteenth and twentieth centuries, colonial conservationists realised that the world's forests were depleted at an alarming rate, consequently; national parks, nature sanctuaries and forest reserves were created in an attempt to save these forests. In South Africa, indigenous forests constitute the smallest biome covering only about 0.33% of the surface area (South African National Land Cover Database Project; Thompson, 1999 cited in Von Maltitz and Fleming, 2000). Although the country does not have large forests as they cover less than one percent of the country, they nevertheless contain some 650 tree species and many more shrub, herb, mammal, reptile, bird and insect species. Many of these are not found outside South Africa i.e. they are endemic to the country (DWAF, 1996). As described later in the chapter, it is unclear exactly how much of South Africa's forests have been lost, but logging, clearing for agricultural crops and clearing for commercial forestry have all had an impact on the extent of forests in the past (Mather, 1990; Myers, 1996). Consequently, the total area occupied by indigenous forests in the country remains unknown as the recent literature fails to reach consensus on its estimation. This is shown in Table 1.1 below.

Table 1.1. Estimates of the Size of Indigenous Forest Areas within South Africa

Source	Area in ha	Notes
Low and Rebelo, 1996	717700 (total) 402 580 (not transformed)	Excludes thicket
South African National Land Cover Database Project, Thompson 1999	400 845	Based on satellite imagery. Does not include some known forests and includes some thicket and dense woodland. Excludes forest patches <25 ha in extent.
FRD (Anonymous) 1987	344 100	A compilation of a number of detailed studies including Cooper 1985
Van der Zel	335 868	Source not clear, but probably largely from the FRD sources and DWAF statistics

Source: Von Maltitz and Fleming, 2000

Colonial conservationism portrayed nature as separated from human life. In general it is true to say that Protected Areas (PA's) were set up exclusively to protect nature (species, habitats, ecosystems) often at the expense of local people who were living on the land

and dependent on local natural resources. Vandergeest (1996) states that the theory behind the creation of PA's was that natural resources needed a habitat undisturbed by human activities. Consequently, the 'fences and fines' approach to conservation was adopted (Wells and Brandon, 1992). The policies that were in effect during the colonial era aimed to render the forests 'untouchable'. This in turn led to conflict between forest officials/conservationists and the communities, because poverty and a lack of resources compelled people to encroach into PA's. Thus the declaration of PA's often led ironically to a further depletion of the natural resources they meant to protect, as local people did not support their existence. A key reason for local opposition to the state's control of forests is the fact that people were and still are dependent on the many resources that forests provide (Table 1.2).

Table 1.2. Uses of Forest Resources

<b>Consumptive Use</b>	Fodder Food Medicines Fibres Building Material Fuelwood
<b>Non-consumptive Use</b>	Recreation Climate Regulation Soil Protection Waterflow Regulation Biodiversity Protection
<b>Industrial Use</b>	Pulpwood Sawlogs Charcoal Furniture

Source: Mather, 1990

In South Africa, PA's exist in numerous forms (national/provincial parks and reserves) and enjoy various levels of protection (Wells, 1996; Hanks and Glavovic, 1992). These areas include national and provincial conservation areas, joint ventures between the state and private owners as well as communally and privately owned areas (Wells, 1996). Laws regarding the ownership of natural resources vary in each province and responsibility or jurisdiction is vested in the relevant provincial conservation bodies except in the case of national parks (Cowling and Olivier, 1992; Bothma and Glavovic, 1992). Few statutory reserves permit direct resource use of natural resources within PA's.



It is however becoming more accepted that local inhabitants should also be involved in the establishment, management, and utilisation of the protected areas, and that local community participation is in fact essential for the survival of protected areas and for achieving sustainable development (Wells, 1996; Tooley 1996). Many natural resources that have significant cultural, subsistence and/or commercial value, have become unavailable either due to overexploitation or by being locked up in PA's. Allowing some form of utilisation of natural resources in protected areas does not advocate that these areas be mined of their resources, but rather that the local people benefit from the conservation of the area (Tooley, 1996). Benefits from a PA may come either indirectly through money generated through ecotourism or directly through the sustainable use of resources found within the reserve. Wells (1996) argues that this shift from the preservationist approach to conservation is a result of the realisation that it is neither politically feasible nor ethically justifiable to exclude poor people with limited access to resources from parks and reserves without providing them with an alternative means of livelihood.

In South Africa this move away from the 'fences and fines' approach to conservation has also been motivated by the democratising shifts occurring in the country (Wells and Brandon, 1992). Wells (1996) noted that the government of South Africa faces a challenge on how to reconcile the extensive land and financial resources required by the protected area network, with the acute social and economic development needs of poor rural people whose access to any kind of resources is very limited. The urgency of this problem is intensified by the high expectations among South Africa's black population for a more equitable distribution of resources and opportunities under the current government. The practice of setting aside large natural areas that are surrounded by poor rural people for the enjoyment of an affluent minority, has been strongly challenged as inconsistent with the new democratic goals of the country (Wells, 1996). In the case of forests, the National Forests Act 84 of 1998 was enacted in an attempt to promote negotiations among stakeholders to allow some form of natural resource use by local people in PA's.

## **1.2 Rationale for Undertaking Study**

Recognition has grown that the successful long-term management of PA's depends on the cooperation and support of local people. This has led to increasing efforts by PA managers and conservation organizations to obtain local co-operation and the introduction of community-based conservation strategy. In South Africa various formal or informal permit systems have historically been in operation in all categories of forests, namely, indigenous, community and commercial forests. They allowed limited access to forest resources such as timber for firewood. However, the National Forests Act of 1998 has created new conditions in which there is a greater opportunity for communities to benefit from indigenous forests, which apart from their other uses are a valuable resource from the point of view of ecotourism.

South Africa has already lost much of its indigenous forests. There is some disagreement about the extent of the indigenous forest left in the country (see Table 1.2 above). Despite the discrepancies in the figures, it is clear that indigenous forests are a valuable resource and there is not much of it left. Experience from other countries suggests that indigenous forests have possibly been further depleted as people expressed their anger and opposition to the exclusivist conservation approach. It is thus clear that the militaristic emphasis on nature conservation and state control must change if indigenous forests are to survive in the twenty-first century. Natural resource management in South Africa must seek to redress the environmental legacy of the colonial and apartheid eras by promoting an inclusive environmental decision making process.

This thesis presents a study of a South African indigenous forest. It traces the main turning points in the environmental history of management and decision making associated with Dlinza Forest, and tries to provide recommendations that would help achieve conservation goals while alleviating poverty. There are two main reasons for choosing the Dlinza forest as a case study. The first is the management history of the forest. The forest falls within the boundaries of a South African town, Eshowe, which is often referred to as "a town with a wooden heart" given that the forest lies in the middle of a busy commercial centre (See Appendix 1, Article 1). The forest has been continuously managed as a PA for about a hundred years. Inevitably this management

history reflects a history of segregation common to many South African towns. The forest has had two management authorities. Up to 1952 it was controlled locally by the Eshowe town board, at which point the forest was handed over to the Natal Parks Board, the provincial conservation authority (see Appendix 2 for the relevant proclamation). Ascertaining whether or not, despite this history, the forest continues to have significance to local African people, is an important objective of the study.

The second reason for choosing the Dlinza forest is that a community-based ecotourism project has recently (November 2001) been started at the forest reserve (see Appendix 3). This is the Dlinza Forest Aerial Boardwalk. This project is promoted as a venture that aims to establish community-based tourism developments and provides a lifeline to poor and marginalized rural people (see Appendix 3). The study aims to ascertain the extent to which poor local people living in and around Eshowe, are participating in the planning, implementation and management of the ecotourism project, and to what extent a previous history of disempowerment and exclusion is continuing to undermine attempts to create a more participatory form of management. This is an appropriate project to assess because it came into effect during the post-apartheid era and after the National Forests Act of 1998, which allows for controlled human consumption of resources in PA's was passed. It is hoped that undertaking such a study when the ecotourism project is at the initiation stage will be useful in providing an analysis of the problems associated with forest conservation in the 'new South Africa'. The analysis aims to contribute to better practices of inclusive or community-based forest management which will ultimately result in continued conservation of indigenous forests like Dlinza.

### **1.3. Aim and Objectives**

The overall aim of the study is to assess moves from exclusivist to community based forms of environmental decision-making in forest reserves, with particular reference to Dlinza Forest.

**Objectives:**

- To determine the main turning points in the history of decision-making and management control of Dlinza forest.
- To determine the current significance of the forest (if any) to poor rural communities near Eshowe. This objective includes (1) cultural and (2) material significance (i.e. local stories and legends about the forest as well as resource use). Women are a particular focus as their everyday lives are most affected.
- To assess new participatory forest management initiatives and the implementation of community-based conservation ideals, with particular reference to the boardwalk ecotourism project.

**1.4. Structure of Thesis**

This thesis has been organised into eight chapters. Chapter Two presents the literature reviewed for the study. Firstly, the history of the origin of forest conservation is presented. This will help put the study into context and give information and understanding of the present situation. The broad theory on the relationship between the state and people over the management of forests is then discussed. It provides information such as the tools used by the state to control access to forests and the forms of resistance used by people to demonstrate their dissatisfaction to the state and its agencies. This is followed by a discussion of the new conservation philosophies of protected area management that are attempting to shift protected area management towards “post-colonial” conservation practices. This is done by looking specifically at the issues and debates surrounding community-based conservation (CBC), community-based ecotourism (CBE) and co-management. Lastly, a model showing how EDM could be undertaken is presented. The model is adapted from Tonn *et al* (2000) and it serves as a diagnostic tool showing how decision-making happens. It can be used to address a number of environmental problems and a number of decision-making settings.

Chapter Three describes the study area. It begins by providing the geographical location of Eshowe within KwaZulu-Natal. The socio-economic characteristics (demography, employment and income levels and literacy) of its community and the land-use practices are presented. It also gives an explanation of the biophysical characteristics of the area, (geology,

soils, topography, climate, vegetation). Lastly, a background to Dlinza forest is presented. This provides a synopsis of its social and biophysical characteristics, and a description of the contemporary ecotourism venture that is currently operational at the forest.

Chapter Four gives details of the methods used to carry out the research. It gives an outline and justification of the research methods used in this study. It gives a thorough description of the range of research methods (key informant interviews, direct observations and focus group interviews). Open-ended questions were used in the study as such questions allowed the interviewer to make a truer assessment of what the respondent really believed as they offered the possibility of modifying the line of enquiry and investigating underlying motives. In addition, the limitations of the study are discussed. The chapter ends by describing how the data analysis process was carried out. It explains that qualitative methods of analysis have been used to analyze and interpret the data gathered in this study.

Chapter Five traces the main phases or “turning points” in the management history of Dlinza Forest. Firstly, it mentions the management of the forest during the pre-colonial era, which was generally based on customary laws which originated from people’s beliefs and practices. Secondly, it provides an analysis of the management of the forest during the colonial era. It shows that during the colonial era, several institutions were set up to control forests. These include the Forestry Department and forest legislation. The forest became a protected area managed by the Natal Parks Board in 1952. Finally, in 2001 the management of Dlinza Forest changed a third time as a result of the establishment of an ecotourism project in the forest. An analysis of the management of the forest at this era is then provided.

Chapter Six outlines the results of the fieldwork carried out during this research. This chapter is concerned with the perceptions of the rural community with regards to the management and functioning of Dlinza forest. It commences by providing general information about the respondents. It shows that none of them had a permanent job as most of them were involved in seasonal type of jobs. The cultural and material significance of Dlinza to the respondents is then presented. This is followed by an evaluation of the effectiveness of public participation when decisions about the forest are made. This is done by looking specifically at how the rural community was involved in the planning and implementation of the Dlinza Forest Aerial Boardwalk. The impact of the ecotourism project as perceived by the rural

community is also discussed. Lastly, an analysis based on the data collected on whether the rural community perceives the forest as important to them or not is provided.

Chapter Seven discusses the findings, drawing on the literature to give a critical analysis. It begins by discussing the contested significance of the forest to the various local communities. This is followed by a discussion of the various perceptions of the contemporary ecotourism project at Dlinza. This section contrasts the views and understandings of the rural people with those of the key actors in the ecotourism project at Dlinza. Lastly, a theoretical framework for understanding the way environmental decision making works in different contexts is presented. The characteristic management style used at each of the three main “turning points” in the history of the management of the forest is identified using Tonn *et al*'s model. This is done to find out if the EDM process has changed over time at the forest. This is followed by a theoretical explanation of the Dlinza case. It shows that although actors in an EDM process appear to be acting individually, alliances are developed in order to maintain mutual interests. Finally, a discussion of the possible solution to sustain conservation in the post-colonial era is presented.

Chapter Eight concludes the study. A number of recommendations have been formulated through the course of this research in an attempt to provide some guidelines and strategies that would lead to the sustainable management of Dlinza Forest Nature Reserve.

## CHAPTER TWO

### LITERATURE REVIEW AND THEORETICAL FRAMEWORK

#### 2.1 Introduction

This chapter discusses the literature and theory needed to answer the research questions posed in this study. This literature is concerned primarily with environmental decision-making in the context of protected areas (PA's), forest reserves in particular. The chapter begins by giving a general outline of historical research on protected areas, as history provides an understanding of the present situation – in this case why forest reserves were created.<sup>1</sup> Social science literature on the relationship between people and the state over the management of forests is then discussed. This literature illuminates the structures used by the state to control people's access to forest resources in Third World contexts, and people's strategies to resist state control. Particular attention is paid to how the protection of forests by the state affected women, as well as to the cultural and material significance of forests for indigenous people. This literature also includes theoretical perspectives on peasant resistance and facilitates interpretation of the history, current significance and social impacts of the management of the particular forest studied here, Dlinza forest. It thus assisted in formulating the first and second research objectives for this study.

New conservation philosophies have emerged with the realization that without the cooperation of local people, protection of natural resources would be ruined. The normative theory of community conservation originated as a result of the paradigm shift from fortress to community conservation. Within community conservation, literature on community based conservation (CBC), community-based ecotourism (CBE), and co-management is of particular relevance for this study. These philosophies are based on the notion that conservation goals should be pursued through strategies that emphasize the role of local residents in decision-making about natural resources. These philosophies give particular attention to people who were not given the opportunity to make decisions on environmental issues affecting them during the era of fortress conservation. These include poor, mainly rural, people and women. Conservation according to these models now requires the full participation of such people in local-level environmental decision-making (EDM). These philosophies recognise the interdependency that exists between humans and nature. As such,

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<sup>1</sup> Note that the terms national park, game reserve and protected area (PA) are often used synonymously in the literature. They are used with reference to game parks, forest sanctuaries and reserves. Where they are mentioned in this study, they refer to forest nature reserves.

they insist that people's needs and concerns should be incorporated and integrated into biodiversity conservation policies and programmes.

Lastly, a theoretical framework for understanding the way environmental decision making actually works in different contexts, is presented. The theory allows the researcher to determine what type of environmental decision-making has occurred at Dlinza forest to date, and also to suggest ways in which environmental decision makers could improve the inclusion of ordinary people in the decision-making process. The model thus emphasizes the once neglected social dimension in EDM.

## **2.2 The Origins of Forest Conservation**

Concerns about the loss of forests go back as early as the 1500s. They were triggered by theories being put forward about the effects of artificially induced climate change. The environmental historian Richard Grove has written on the origins of modern environmentalism and shows how closely these concerns were related to fears about the effects of the loss of forests (Grove, 1997). Today, such concepts have become part of our popular culture, and part of a widespread and "possibly justifiable environmental neurosis" (Grove, 1997: 5). Fears of forest loss provide the justification for new plans to prevent deforestation and reduce outputs of carbon dioxide into the atmosphere. It is hoped that by controlling the effects of deforestation, soil erosion and widespread environmental disruption, the effects of climate change (e.g. global warming) will be mitigated.

Grove (1997) shows that these ideas developed initially on the small island colonies of the Portuguese and the Spanish at the Canary Islands of Madeira, and were developed later by the British on their island colonies (e.g. Mauritius). The ideas were influenced by the writings of the ancient Greek naturalist, Theophrastus in his essays on deforestation and climate change. His work was translated and widely published during the Renaissance (Grove, 1997). By 1571 these ideas were more popular. Fernandez Oviedo in Costa Rica soon followed by Francis Bacon and Edmund Halley in England began to theorize about the connections between rainfall, vegetation and the hydrological cycle.

However, Grove (1997) argues that the early conservation methods and local environmental thinking developed before 1750 on these islands were purely empirically based, localized and often unsuccessful in application. They were not based on any coherent body of climatic theory. From 1760, empirical observations of deforestation were being linked to desiccationist theory (the theory that links deforestation to rainfall reduction) by institutions such as the Society of Arts in Britain. The linking of deforestation to rainfall reduction laid the basis for



the initiation of colonial forest protection systems after the Peace of Paris in 1763 particularly in the West Indies. It was believed that climatic change threatened not only the economic well-being of colonies but posed hazards to the integrity and health of the settler population of the Caribbean and the Indian Ocean.

By the late eighteenth century, the importance of forest protection and tree-planting had been recognized more in colonies than it had in contemporary Europe. The message was spread by the work of for example Duhamel du Monceau, a French meteorologist who did popular work on tree planting which was published in 1760 (Grove, 1997). This work developed the connections between trees and climate at length. Du Monceau's ideas were discussed in meetings by institutions such as the Society of Arts in Britain. The Lords Commissioners for Trade in the Colonies (the body responsible for planning land-use in the West Indies) became aware of desiccation in the early 1760s. They then made provision for the gazetting of large areas of mountain lands as forest reserves for the "protection of the rains" (Grove, 1997: 10). These were the first reserves ever to be established with a view to prevent climate change. In 1769 some very similar reserves, based on the same theory were established in Mauritius (Grove, 1997).

### **2.2.1 The Origins of Forest Conservation in South Africa**

The literature on the environmental history of South Africa goes back to the late seventeenth century (Grove 1997; Anderson and Grove 1987). Early conservation laws in the country were mainly directed towards controlling the effects of settler agriculture. State conservationism as it developed in the Cape was related to the spread of a new idea, "that the environment and man were threatened by climatic change operating on a continental scale" (Grove 1997: 87). Grove (1995) argued that the origin of conservationism in South Africa was a result of the threat of climatic change coupled with the way in which the priorities of the colonial state became connected to the prescriptions of science.

A key factor promoting conservation in the country during the nineteenth century was the work of Dr. John Croumbie Brown (Beinart and Coates, 1995; Grove, 1997). The conservationist message that Brown promoted was quickly adapted to suit the priorities of the colonial state, "partly in order to justify the blaming of Africans for the environmental deterioration of the country and partly to legitimate powerful new instruments of discriminatory land-use control" (Grove, 1997: 7). Through his very wide network of scientific contacts and through his creative output of publications, Brown stimulated the emergence of a conservationist movement and state policies in the colonies as well as

bringing about the first moves towards “a centralized imperial interest in environmental problems” (Grove, 1997: 8).

In the nineteenth century, serious droughts affected the whole of southern Africa (1821-1823, 1845-1848 and 1862-1863). The drought devastated the economies of both indigenous people and colonial societies. It brought along lasting social changes and led to significant new ways in which colonial scientists began to interpret relationships between environmental change and human activity. This period saw the emergence of a desiccationist theory in Southern Africa which linked the removal of vegetation to rainfall decline and then regional and global climatic desiccation. The droughts of the 1820s stimulated a kind of environmental interpretation that sought both to relate man-induced vegetation change to rainfall and also assign blame for these changes to Africans (Beinart and Coates, 1995; Grove 1997). In Addition, evangelical missionaries such as Robert Moffat, tended to scorn indigenous systems of knowledge and land-use practice which further diminished respect for traditional practises..

Anderson and Grove (1987: 25) noted that during the 1850s many members of the Cape Government adopted a ‘hostile attitude to the private ownership of the larger forests’ as the private owners had to be compensated if they lost rights to forest resources. Consequently, an initial arrangement that private owners should be compensated for loss of forest rights was condemned. Despite opposition by the private owners, the Forest Herbage Preservation Act 18 of 1859 and the Forestry Act 22 of 1888 were passed to institutionalize and justify the government’s actions. These Acts led to the creation of what Anderson and Grove (1987:27) called “the first ‘state’ game reserves in Africa, in the Knysna and Tsitsikamme [sic] Forest”. The creation of these reserves was characterized by the exclusion of people as residents, the prevention of consumptive use and the minimization of other human impacts. This is a common pattern for protected areas created in the colonial period (Adams and Hulme, 2001).

### **2.3. People and Forests: Perspectives on State Control and Peasant Resistance**

“In the olden days small landholders who could not subsist on cultivation alone used to eat wild fruits like figs and jamun and sell the leaves and flowers of the flame of the forest and the mahua tree. They could also depend on the village grazing ground to maintain one or two cows and two or four goats, thereby living happily in their own ancestral villages. However, the cunning European employees of our motherly government have used their foreign brains to erect a great superstructure called the forest department. With all the hills and undulating lands as also the fallow lands and grazing grounds brought under the control of the forest department, the

livestock of the poor farmers does not even have place to breathe anywhere on the surface of the earth” (Guha and Gadgil, 1993: 146).

This section reviews literature on the political ecology of forests and peasant resistance in Third World contexts. A lot of work has been done by the scholars writing in the South Asian (Indian) context, and also by North American-based geographers in the field of political ecology. A key example is Nancy Peluso’s work on state forests in Java, Indonesia. The focus in this literature is on peasant land-use and the way in which this is disrupted by state interventions. Much of this work has focused on people and forests. The following is a general discussion about the actions of Third World states, many of which were initially colonial states.

Peluso (1992) noted that state forestry is expected to be a profitable state enterprise, to preserve the resource for future generations, to prevent environmental degradation, and help alleviate poverty in forest villages. However, the state generally denies legitimacy to prior systems of land rights (see above quote). In fact, the state has effectively removed indigenous institutions that used to regulate how and where the forests could be cleared (Adams and Mulligan, 2003). As a result, communities living in and around forests tend to have lost more than they gained from centralized state control of reserved forests (Peluso, 1992).

The affirmation of state control of forests and the associated erosion of customary rights had an unfortunate effect with the loss of control contributing to a growing alienation of people from forests (Guha, 1985). The state and its agencies usually believed that forests could be saved only if managed in an authoritarian manner. They believed that forests should be protected against people as opposed to being exploited. Arnold and Hardiman (1994) noted that the state believed that they had to police the forest to protect it from the ‘primitives’ who lived there. This attitude hindered them from seeing the need to work with local people. Consequently, their relationship with those dwelling in and around the forests was antagonistic rather than cooperative.

Guha (1985) pointed out that in India the demarcation of reserved forests, which meant that the state would control/own other forested areas and remove them from local control, led to a situation whereby villagers would actually contribute to deforestation. However, in cases where ownership was still vested in them (indigenous inhabitants), forests continued to be well looked after (Guha 1985). Ghimire (1994) supports this argument as he states that the demarcation of PA’s led to a continued environmental deterioration including higher rates of

deforestation. State control of forests thus failed to protect the forests and aggravated rural poverty.

It is argued that this is in part due to the colonial style, legal and organizational structures that dominate forest management departments (Adams and Mulligan, 2003; Peluso, 1992; Scott, 1995; Guha and Gadgil, 1993). This might be a result of colonial ideas of nature which portrayed it as separated from human life and not engaged with it. Nature was seen as 'out there' and not 'in here' (Adams and Mulligan, 2003: 42). This was exacerbated by the fact the colonial state rarely considered the possibility of human engagement with nature (Adams and Mulligan, 2003).

It is rather ironic that the state denied people access to the forests. The literature shows that the use of forest resources by the state was more destructive than that of the local people (Immelman, 1973 in the case of South Africa; Guha, 1985; Guha and Gadgil, 1993 in the case of India; and Peluso, 1992 in the case of Indonesia). State use of forest resources included commercial timber, boat/ship making and the construction of railway lines. In cases where the rulers used the forest area for agricultural purposes, large areas were cleared as opposed to limited clearing by local people. The state consumed more timber than the people who mostly used the forest for their subsistence needs. This is partly because the state employed people to do the work and partly because the state had access to machinery. Through its destructive use of forest resources, the state did not only deny people access to forest resources, it also depleted (at an alarming rate) the forests on which they depended for survival (Mapedza and Mandondo, 2002).

Scott (1995) argues that the state viewed the forest primarily through the lens of revenue needs. The state was thoughtless of the fact that some of the trees they required were needed by the majority of the people for survival. These are the people who were denied access to the forests so that the state could engage in commercial timber production. Indigenous inhabitants did not cut and sell timber because they were not able to transport them to the markets. In the case of Makacoulibantang (Senegal, West Africa), they did not have access to markets (Ribot, 2000). As reserved forests were controlled and used by the state, outsiders were brought in to manage the forests, as local people could not fill most of the jobs created by the PA's. These jobs required skills they did not have. Ribot (2000) argues that this led to an increase in the population (putting more pressure on forest resources) and the immigrants' culture had an impact on the social fabric of the indigenous inhabitants. The state tended to be inconsiderate of such issues because "nearly everything touching on human interaction with the forest was missing from the state's tunnel vision" (Scott, 1995: 83). The perception of the state of forests

as revenue bearing counteracted that of the indigenous people as for them “forests were a way of life and spiritual home, not mere timber with a capital value” (Poffenberger and McGean, 1996: 109).

The relationship between the state and people living in and around forested areas was often confrontational. In many cases people were forcefully removed from areas they had inhabited for a very long time. In addition, they were not compensated. In cases where compensation was available, it was inadequate mainly because it was not negotiated with the people. Ghimire (1994) notes that the creation of PA's resulted in an increasing displacement of people and a disruption of their livelihoods. This is because the state designed PA's solely to protect natural resources without any attempt to offer sustainable livelihood alternatives to local people. This is shown by the fact that people were not consulted during the planning process and the benefits derived from the reserves were (and are) not directed to the local people. This process naturally increased economic insecurity for rural people and generated extreme hostility towards conservation. Ghimire (1994) argues that the main cause for this hostility was the rising demand by local people for land and forest products while the PA authorities attempted to maintain effective control over the reserves using different measures.

Adams and Mulligan (2003: 42-43) identify several reasons why the state and the people have such a hostile relationship over forest management. These factors are linked to colonial ideas of conservation, which:

- Favoured modern techno-scientific knowledge over folk knowledge, and privileged centralized and formalized ways of knowing nature over informal ways.
- Viewed nature as a resource to be plundered or preserved, wilderness to be researched or protected from the ravages of human demands.
- Carried standardized models of landscape management and social administration that were applied wholesale.
- Approached its engagement with nature through regulation and coercion.
- Involved a deliberate engagement with the aim of increasing productivity through drastic restructuring (e.g. new species, new systems of production and new forms of social relations).

### **2.3.1 The Material and Cultural Significance of Forests**

Forest products are essential for the survival of rural people. In Southern Africa forests and woodlands are regarded as the poor people's safety net or a subsidy from nature and in some

instances provide as much as 35% of rural household cash income (Lawes, *et al*, in press). Poffenberger and McGean (1998: 275) support this as they note that “in remote communities, where cash is scarce and markets distant, forests function much as shops do in urban areas by meeting diverse rural household needs for food, fuelwood, toys, utensils etc”. This is not only the case in Southern Africa. In India for instance, researchers have estimated the value of the household’s consumption of Non Timber Forest Products (NTFPs) at \$80-87 per year representing approximately 20% of all family income (Poffenberger and McGean, 1998). Forests also have a non-consumptive use such as reducing soil erosion, maintaining water quality, protecting biodiversity, climate regulation and water flow regulation. This section discusses the material and cultural significance of forests to rural people.

There are many values attached to forests. Scholars divide these into direct-use value which is the value for consumption or sale; indirect-use value which is mostly environmental functions; and passive or non-use value which is the cultural, religious and existence value. Non-use values and direct use values are discussed in the next section.

### **2.3.1.1 The Material Significance of Forests**

Forest resources that have a direct-use value fall into two broad categories, namely non-timber forest products (NTFPs) and timber products. According to Lawes *et al* (in press) non-timber forest products include “...all biological materials other than timber which are extracted from natural forests for human use”. They include the following:

#### Fuelwood

Cunningham *et al* (1988, cited in Tooley, 1996) note that fuelwood gathered from closed canopy indigenous forests and woodlands accounts for 51% of domestic energy used in South Africa with rates varying between 0,27 and 1,12 tonnes per capita per annum and represents the highest volume of forest products used by rural people. In addition to this, Cunningham *et al* estimate that 6.6 million people in rural areas use wood as an energy source. In South Africa, the heavy reliance of rural people on wood as an energy source resulted from the fact that the supply of electricity was historically biased towards urban centres and white settlements (Tooley, 1996). The majority of the population residing outside the grid used alternative energy sources such as wood, candles, paraffin and gas. Tooley (1996) argues that despite the major electrification schemes that are now being implemented in South Africa, many rural areas will be without electricity for many years to come and will continue to depend as they have done in the past, on indigenous wood as a source of fuel. This is mainly because it is (theoretically) free of charge and also that rural people are mainly poor and thus cannot afford to buy firewood or pay for electricity.

Women are the principal collectors of fuelwood for domestic use and are highly selective in their choice of species used (Nomtshongwana, 1999). Hardwoods producing little smoke are favoured for instance, *Cleistanthus schlechteri* (False Tamboti/umZithi), *Dialium schlechteri* (Sherbet Tree/umThiba), *Hymenocardia ulmoides* (Red-heart Tree/umDlamahlathi), *Newtonia hildebrandtii* (Lebombo Wattle/umFomothi).

#### Building and Fencing Material

Forests have long been a source of building material to African people. Live wood is cut for poles and laths. Poffenberger and McGean (1998) note that rural households find it more difficult to find construction timber than fuelwood. This is because the type and quality of timber used for building is specific and in most cases poles that are favoured for construction are those that are durable and termite resistant (Poffenberger and McGean, 1998; Tooley, 1996; Croll and Parkin, 1992). Lawes *et al* (in press) state that there are preferred indigenous species harvested for fencing poles because of the scarcity of other straight and more durable tree species. For example at KwaYili and Gxalingenwa forests in the Southern Drakensberg, people prefer to use *Podocarpus falcatus* (Outeniqua Yellowwood/uNompumelelo), *Podocarpus latifolius* (Real Yellowwod/uMsonti), *Ptaeroxylon obliquum* (Sneezewood/umThathi), and *Maesa lanceolata* (False Assegai/iNdwendwe) are favoured as poles because they grow up straight (Nomtshongwana, 1999). Lawes *et al* (in press) warn that the heavy reliance on certain species may lead to the direct decline of those species.

There is a division of labour in the construction of houses. The men perform the tougher tasks requiring greater physical strength such as the actual harvesting of the poles and the laths and, the construction of the frames for dwellings. The women carry the poles to their homesteads and fill in the walls (Krige, 1965, cited in Tooley, 1996). However, it is noteworthy that the division of labour varies within cultural groups.

#### Woodcarving and Furniture

Indigenous forests provide favoured woods for a variety of handcrafts and household items such as spoons, meat trays, thatching needles, sticks and knobkerries, bracelets and pipes. Woodcarvers are highly selective with the species since specific attributes are required of the wood for each express purpose. The most favoured characteristics are durability, strength, flexibility and resistance to splitting (Tooley, 1996). At least in KwaZulu-Natal, it seems that the woodcarving is done exclusively by men (Krige, 1967 cited in Tooley, 1996).

### Indigenous Medicine

Indigenous medicine is a very important part of South Africa's health care system and is professionally administered by specialist healers, the sangomas and the inyangas. This system depends on the availability of indigenous plant species and is important to rural communities for medicinal, psychosomatic and economic reasons (Tooley, 1996). This system is also very important in rural areas where modern medical facilities are either unavailable or inadequate. In such cases, even if a patient required a medical doctor, there may be no choice but to visit a traditional practitioner. Savage (1985 cited in Cunningham, 1992) reported that the 1982 medical doctor: total population ratio in KwaZulu was 1: 17 500, which is minimal compared to the traditional practitioner: total population ratios given by Jackson (1919, cited in Cunningham, 1992). In 1919, the ratio was estimated at 1: 360 in Zululand and 1: 1 050 in Natal. There is no evidence of a decline in traditional practitioners. Lawes *et al* (in press) point out that there are over 700 plant species used for indigenous medicines and actively traded in South Africa.

Animal parts are also used in traditional medicines. Many of the parts of animals used in medicines relate to the politics of control over supernatural powers derived from animals with powerful symbolism (Lawes *et al*, in press). The use of animals as traditional medicines is in many instances subject to cultural controls. For example, the use of spotted predator skins (e.g., mainly leopard and cheetah) is restricted to traditional leaders (Lawes *et al*, in press).

### Wild Fruits and Food

Many studies have emphasised the importance of fruit in terms of the diet and nutrition of many indigenous people (Mather, 1990; Immelman *et al*, 1973; Tooley, 1996). For instance, Poffenberger and McGean (1998) states that a common snack for village children in India (*Zizyphus jujuba*) contains nearly twenty times the vitamin C available from the same quantity of oranges. The sweet, chewy gum substance that is produced from stem wounds is collected and eaten by children as a candy substitute (Mather, 1990). Poffenberger and McGean (1998: 275) noted that "although foods from the forest are often viewed by urban-based researchers and development specialists as 'famine foods', they can be nutritious, flavourful and a major source of sustenance through much of the year for millions of forest families". It has been documented in the literature that indigenous fruits constitute an important source of dietary minerals and vitamins, and in periods of stress, a significant supply of proteins, carbohydrates and fats (Mather, 1990; Tooley, 1996; Poffenberger and McGean 1998). Mather (1990) stated that the reliance on wild fruits tends to be more common during drought in remote parts of South Africa where relief could not be assured, and amongst households with limited access to other sources of income besides agriculture.



This is also supported by Pooley (1993) as she notes that plant species such as *Ficus sycomorus* (umKhiwane) are useful to people as food because their fruits may be dried and consumed as soup in times of drought.

Tooley (1996) points out that not only is the fruit of trees eaten whole, but wine and other fermented drinks are also produced from certain species such as the *Sclerocarya birrea* (umGanu). This product is not only enjoyed by the household, but also used to attract the help of neighbours and passers-by in the construction of houses (Tooley, 1996). Even more significantly, it can be sold to generate income (Felgate, 1982, cited in Tooley, 1996). Mushrooms are among the most common forest products collected by people. It is said that they have significant protein content (Mather, 1990). They are mainly used as relish, which is consumed with other foods. One important advantage is that they can be dried and consumed out of season.

It is also shown that a single tree species can have multiple uses, for instance, in central and western India the mahua (*Madhuca latifolia*) is revered due to its importance as a source of food, fodder, oil and fuel. Its flowers are eaten fresh, distilled for liquor, and collected, dried, and made into powder for preparing unleavened bread (Poffenberger and McGean 1998). In southern Africa, wild honey is a valuable resource and is widely collected from forests (Lawes *et al*, in press). Like wild fruits, wild honey provides important dietary supplements to rural people.

Wild meat is important too. In many rural areas wild meat represents the only viable source of meat protein, with domestic meat being prohibitively expensive and largely unavailable ([www.traffic.org](http://www.traffic.org)). In many rural areas, for instance the Eastern Cape, forests are the only refuges for wild and free-ranging game (Lawes *et al*, in press). Forests provide habitat for animal species, which are valued for communal hunting. These animal species range from rodents and birds, to buffalo, elephants, and impalas. Hunting has been and still is a male activity. More importantly, wild meat is relied upon to an even greater extent during times of economic hardship, droughts and famine. In areas such as the Serengeti in Tanzania, wild meat serves as the sole source of income for rural people who sell it in urban areas ([www.traffic.org](http://www.traffic.org)).

Finally, human societies throughout the world have made use of insects as an everyday dietary supplement, occasional delicacies and replacements for more common foods in times of shortages ([www.fao.org](http://www.fao.org)). A number of rural and urban people throughout southern Africa consume edible insects such as mopane worms. They are rich in protein. Like mushrooms, the

insects are also dried and consumed when out of season. Poffenberger and McGean (1998) note that insect larvae are extremely high in protein. Other edible insects are different species of grasshopper. Edible insects thus play a significant role in food security among rural people.

#### Other Resources

Van Wyk *et al* (1997) mentioned that a number of forest trees are also used as perfumes and skin lighteners. For instance the Common Onionwood (*Cassipourea malosana*, uMemezi-obomvu). In addition, other indigenous plants are used by communities as dyes (Van Wyk *et al*, 1997). Many species of lichens have been used as dyestuffs. Among the best known of dyes of lichen origin is orchil, which produces a range of vivid purple or magenta shades. ([www.fao.org](http://www.fao.org)).

#### **2.3.1.2 The Cultural Significance of Forests**

Indigenous forests also have considerable non-consumptive or non-extractive values or potentials. These are innate values. They are mainly concerned with the cultural importance of forests. These include providing for grazing land, agricultural land, shade and musical instruments. Various hiking trails, forests lodges and eco-tourism ventures are evidence to the recreational value of forests largely to urban visitors. Forests also provide burial sites, as is the case at Dlinza. In such cases forests are regarded as sacred groves and protected by customary laws (Eeley *et al*, in press).

The use of parts of trees (bark, roots or leaves) for medicinal purposes is of importance to Africans. Croll and Parkin (1992) note that with the Dogon culture (Tireli village, Burkina Faso) every tree has a medicinal use as long as one knows what part of the tree to use and for what purpose. As such the Dogon respect trees for they believe if they are not respected, trees would bring bad luck to them. To show their respect, the Dogon do not burn wooden articles when they get old, they are left to decay out of respect for the trees. To the Dogon people, “using trees for medicinal purposes implies a ritual conversation with the tree”, thus they give trees a particular kind of respect (Croll and Parkin, 1992: 70).

As this example shows, the cultural and the material are closely linked. Indigenous knowledge is important for the survival of people’s cultures. Regarding building materials, in South Africa people continue to need houses built according to traditional methods: traditional housing does suit the conditions of Africans and the way they arrange their houses. Cunningham *et al* (1988, cited in Tooley, 1996) pointed out that the use of plants for building materials is thought to have four main advantages:

- Plants are a renewable resource.
- The harvesting, use and sale for this purpose generates income and *preserves traditional building skills*
- Plant products are often available at low cost.
- Traditional forms of thatched construction result in insulated housing suited to African climatic conditions.

Another example is hunting. Communal hunting is an important cultural event among African people. Among the San people, for example, in addition to subsistence, the other important functions of hunting included:

- Its role in the development of life and survival skills in a harsh environment. In other words hunting is an exercise or a process of informal learning.
- As a means whereby essential survival skills were passed from one generation to another.
- As a means whereby parents helped to prepare their children for the challenges and responsibilities of adult life.
- As a way in which leadership could be identified. Future community leaders were identified according to the skills, courage, strength, wisdom, perceptivity in the service of others and the wider community, demonstrated during hunting.  
<http://www.wcc-coe.org/wcc/what/jpc/echoes-16-05.html>

In other African communities hunting is purely a sporting ritual enjoyed by those who, while often not wealthy, at least possess the time and resources to make capture of edible game unnecessary for subsistence. In such a context, hunting is an important cultural activity.

Many societies have developed cultural taboos and other means of protecting their environmental resources. The Dogon, for example, had a traditional means of controlling the use of trees. They had a social function called *puro* where young men would engage in a traditional event in the village. They would shout and dance and the main purpose of the function is to warn village women that they were over harvesting the *ponu* wood (*Detarium microcarpum*). Croll and Parkin (1992) report that the *ponu* provides good firewood and its fruit are favoured by men. During this event, women were fined if they were found to be abusing the resource. Their husbands had to pay their fines.

Other communities have sacred trees e.g. *Sclerocarea birrea* among the Rhonga ethnic group in Mozambique. They organise a feast to celebrate the first fruits of the trees, which indicates a good year in terms of crops. The elders perform this feast by pouring a libation of the fresh

juice over the tombs of their dead chiefs (<http://mocambique.gecp.virginia.edu>). Among the Swazi community the same tree plays a key role in the annual marula ceremony. This is held in one of the royal residences in Swaziland. In this event, Swazi women brew traditional marula beer. In last year's event about 25 drums of the buganu drink were delivered by women at the Hlane royal residence. This drink is made from the maganu fruit of the Marula/*Sclerocarea birrea* tree. (*The Swazi Observer*, April 2002).

Finally, the use of firewood for cooking may also have cultural importance. Tooley (1996) point out that, in South Africa, the perception of wood as a good fuel is also grounded in people's custom to use wood, as it suits the type of food cooked and the manner in which it is cooked. This suggests that people's use of firewood as an energy source will not be stopped by the introduction of other forms of energy because it is their custom to use firewood. This therefore reveals the need to involve such resource users in EDM in order to sustain this resource base in the long run.

It has thus been shown that forests are not only important to rural communities for material gain, for trading as well as subsistence. People also hold strong cultural values with regard to forests. With these multiple uses of forests by rural people, a "fortress conservation" approach to forest management therefore undermines rural life and food security.

### **2.3.2 Reserving the Forest: State Interventions**

The reservation and scientific management of forests by colonial and other states meant that mechanisms of enforcement had to be found. The state had a set of practices that worked to exclude people from forests. These ranged from legislative controls (with punishments imposed by the courts, such as fines) to exclusion by force through the agency of forest guards. Peluso (1992) pointed out that when social unrest appears potentially explosive, the state and its agents may temporarily work to fulfill the needs and demands of subordinate groups. By surrendering periodically, the state can maintain its power, continuing to control people, resources and land. The state wanting to remain in power can also employ military or police reaction in the name of order and control (Peluso, 1992).

#### **2.3.2.1 Scientific Forestry**

The principles of scientific forestry lie behind state interventions in forest management. Scientific forestry originated under colonialism and thus its principles were not always suitable for the Third World countries on which it was imposed. As Peluso explains:

"Foresters and gamekeepers had been employed on the lands of royalty, the gentry, and the clergy for centuries, but it was not until 1787 that the first university training

programme in forestry was established at the University of Freiburg...foresters from all over Europe and the United States attended these schools to learn their science. When they returned home or traveled to the European colonies in Africa, Asia and Latin America, they carried with them the philosophy and methods of state-controlled or centralized, forest management” (Feron, 1911, cited in Peluso, 1992: 7).

As already noted, naturalists had long realised that forests occupied a key place in the natural cycle. They observed that whenever there was a loss of forest cover, an environment was created in which rivers dried up during droughts and flooded badly when there was a heavy rain, carrying away topsoil (Peluso, 1992). This knowledge was given a scientific base and forests were seen to encourage rainfall, control surface run-off, prevent floods, and help water to percolate into the ground and be available all year round in perennial springs. This formed the basis for protection. Unfortunately this scientific understanding was inconsiderate of the way forests are used by people, hence the conflict between forest users and the state and its agencies. Adams and Mulligan (2003) point out that as it originated under colonialism, scientific forestry was seen a way to ‘improve’ and make barbarous people civilized. Furthermore, scientific knowledge was harnessed to production; it took no heed of people’s needs. As Guha and Gadgil (1993) show in the Indian context, the clash between scientific forestry and village management reflects fundamentally different conceptions of the forest (Guha, 1985). While the villagers protected the forest through folklore, religion and tradition, the use of science in forestry on the other hand threatened to disrupt people’s relationship with the forest.

#### **2.3.2.2 Control by Legislation**

The state’s law establishes the bounds of formal control. The rule of law has granted a monopoly to the state. The law defines and determines the bounds and criminality of people by setting the limits of action (Table 2.1). Peluso (1992) points out that forest laws are intended to protect great tracts of land and resources or reserve them for the exclusive use of certain individuals or groups. Unauthorized users are called poachers (Amin and Chakrabarty, 1996; Poffenberger and McGean, 1996). However, customary laws, practices and beliefs often frustrated the enforcement of state laws.

Peluso (1992) gives an example in her work on forest conflict in Java (a Dutch colony), of the kinds of restrictions that were imposed on people through legislation in order to protect and conserve forests. These laws were formulated in Dutch because “the Dutch planned to ‘order’ the forests for ‘proper’ management, to follow the principles of science in carrying out their

work, and to prosecute those who thwarted their efforts at orderliness according to a set of laws of their own making” (Peluso, 1992: 53). Anderson and Grove (1987) note that the policies and legislation passed in the colonies were fairly standard and they all criminalized most traditional forest uses by forest villagers. This is shown in table 2.1 below.

Table 2.1 Criminal Actions in the Javan Forest, Under 19<sup>th</sup> Century Dutch Laws

<b>Under 1860 Plans</b>	<b>Under 1875 Regulations</b>
Arson	—
Stealing wood	—
Forest theft	Forest theft
Forest damage	Forest damage
Grazing cattle in young stands	Grazing cattle in young stands
Setting fires in the forest	Setting fires in the forest
Travelling off the roads in the forest with horse carts, oxcarts, or cattle	Carrying cutting tools off the roads in the forest
Transporting wood without a permit	Transporting wood without a permit
Damaging border markers	—
Cutting without a permit	Transporting wood without prior payment
Selling wood from private lands without paying taxes	—
—	Encroaching on forest land

Source: Departemen Kehutanan 1986, I: 75 cited in Peluso, 1992.

Elwin (1964: 115) revealed the general effects of these laws by quoting a forest officer as saying “our laws are of such a kind that every villager breaks one forest law every day of his life”. While the occupation of forest and common land by the state was backed with disciplinary measures designed to prevent wrongdoing, most rural people had little choice but to become ‘criminals’ in the course of their daily existence. Adaptation to the rules set by the state led to an increase in poverty among indigenous people. Peluso (1992) states that confrontations between the state and the people emerged when the state pressurized people to adhere to the laws. This compulsion generally led to resistance by the people.

### **2.3.2.2 Structures of Access Control: The Fences and Fines Approach**

The imposition of heavy fines and imprisonment of people who were found using forest resources 'illegally' is among the first strategies employed by the state to control access to forests. This form of access control was made effective by the creation of forest boundaries to limit people's use of forests. The belief was that indigenous ways of forest resource use and management were pre-modern and unsuitable for the forests (Amin and Chakrabarty, 1996). As such, the forests were fenced and armed forest guards patrolled the fence because the "forest lands are closed to anyone who has no need to be on them" (Peluso, 1992: 132). The forest guards issued the fines. Consequently, the relationship between the forest guards and the forest resource users was hostile. Peluso (1992: 236) concludes that, in general, "foresters were not ignorant of the social and political storms brewing in the villages adjacent to the precious resources, but they have remained largely opposed to radical changes in the structures and processes of forest management unless the forest has been given up for lost. Foresters are thus constrained by their own laws, their own ideologies and their own history". The forests were perceived as "modern-day heroes of the state" (Peluso, 1992: 134), entitled to "protect this resource from ravages of the indigenous inhabitants" (Arnold and Hardiman, 1994: 117).

Some forest guards were aware that they were not supposed to ill-treat the poor people with whom they lived. This is shown in the case of Dangs forest (India) where forest guards were locally recruited and gave people access to forest produce by accepting bribes (Poffenberger and McGean, 1996). This perhaps supports Peluso's argument that the forest guards knew that they were doing wrong but were constrained by their laws. It is noteworthy that in such a case the government strategy did not only fail to protect the forest, it intensified its degradation.

### **2.3.3 Peasant Resistance**

As defined by Scott (1985: 290) resistance refers to "any act(s) by member(s) of a subordinate class that is or are intended either to mitigate or deny claims made on that class by superior classes or to advance its own claims concerning those of superior classes". Peluso (1992) argues that resistance is not always planned or premeditated, but is often a reaction to a violent response of a powerful group in society. In the case of forest resource control, resistance arose in response to the state's control of the forests, which criminalized the customary rights of forest access and use. The question of the criminal nature of the villagers' acts is controversial and disputed by peasants in terms of their moral economy. Resistance by the forest dwellers occurred at all the stages of forest history because they could not allow the

state to usurp the forests they owned for a long time. Resistance was thus a measure to bring to the attention of the authorities the sheer livelihood necessity of access.

The literature reveals that the unwillingness of the state to recognise peoples' rights to the forests and the policing of the forests to protect them from rural communities, led (not surprisingly) to a general ethos of alienation amongst villagers, who had to pit themselves against the forest authorities on a daily basis (Poffenberger and McGean, 1996; Guha and Gadgil, 1993; Peluso, 1992; Guha, 1985). Policy and legislation that did not officially acknowledge the biomass needs of rural communities thus impacted detrimentally on both the people and the forests. Mapedza and Mandondo (2002) stated that the state has powers to enforce its laws and policies on people, but that the people have their own strategies to resist such laws and policies. These strategies are termed by Scott (1985: 29) the "weapons of the weak".

Peluso notes that the kinds of change in forest cover that foresters negatively call degradation, reflect a specific interpretation and interest in what the forest should be, who it shall serve, and how it shall be used (Peluso, 1992). Yet the so-called "illegal" use of forests and forest resources by villagers did contribute to the degradation of forests. Perhaps the "weapons of the weak" should not be romanticized. As a form of resistance, this was done deliberately. In Java for example, the shrinking of forests "by increasing (commercial) deforestation by the state, coupled with the acceleration of the population in the newly independent state requiring subsistence, further intensified the burden on the forests" (Peluso 1992: 110). The effects of the violence were not felt only by the "contenders for control over the forest and the state, but also by the forest itself" (Peluso, 1992: 29).

### **2.3.3.1 Everyday Forms of Resistance**

This section outlines theoretical approaches to understanding peasant resistance and shows how these ideas have been used by scholars writing about conflicts between people and the state over forests. James Scott in particular suggested broadening the definition of peasant resistance to include everyday resistance, and others have subsequently taken up this idea.

Resistance by people is divided into the non-violent everyday forms of resistance and the open, organized and collective, often violent form of resistance. Non-violent resistance is not well documented in the literature but it is shown that the absence of an organized movement did not necessarily signify an approval of state forestry (Guha and Gadgil, 1993). Scott (1985: 29) points out that everyday forms of resistance refers to "the prosaic but constant struggle, usually individual acts that seek to assert local rights in a manner that evades confrontation



with a more powerful actor". This form of resistance requires little or no coordination or planning. It avoids any direct symbolic confrontation with the authorities (Peluso, 1992, Scott, 1985). It is informal, often covert, and concerned with immediate gains. Guha and Gadgil (1993: 177) refer to this form of resistance as "avoidance protest" because it is protest that minimizes the element of confrontation with the state.

Scott (1985: 29) states that the success of this form of resistance is directly proportional to the "symbolic conformity with which it is masked". Everyday forms of resistance seem to have been more effective than open resistance because they are pervasive and never venture to contest the formal definitions of hierarchy and power. The people engaged in everyday forms of resistance have realized that in most cases their resistance could succeed only to the extent that it hid behind "the mask of public compliance" (Scott, 1985).

Everyday resistance includes actions such as foot dragging, false compliance, migration, feigned ignorance, sabotage, pilfering, slander, arson and dissimulation (Poffenberger and McGean, 1996; Guha and Gadgil, 1993; Peluso, 1992; Scott, 1985). For example, Prussian peasants in the 1830s engaged in everyday resistance in response to lower wages they received from the state. They responded by emigrating and poaching. As a result, the rate of "forest crime rose as wages declined" (Scott, 1985: 35).

#### **2.3.3.2. Open Collective Resistance**

Open, collective resistance is the planned, often overt form of resistance. This is where people openly demonstrate their anger to the authorities. This form of resistance includes actions such as property destruction and in extreme cases death. It is often unsuccessful in rural contexts. Scott (1985) argues that it is not only that the circumstances that favour large-scale, collective uprisings are comparatively rare, but also that when they do appear the revolts that develop are always crushed.

Peluso (1992: 70) provides an example of how Surontiko Samin's followers demonstrated their anger against the Dutch leaders in Java:

"Samin's followers differed in the types or forms of resistance they practiced. They are most known for speaking in "riddles" or taking a literal interpretation of anything said, but this tactic was neither used everywhere, nor toward everyone. Foresters and other officials were key targets. Some Saminists lay down on their land when the Dutch surveyors came to reclassify communal and salary lands, crying out, "Kanggo" (I own it). Others cut teak despite Dutch efforts to guard the

forest. They refused to pay taxes, refused to pay fines, refused to accept wages, refused to leave rented or communal land when their leases expired, refused to participate in the rituals of village reciprocity and the ritual feasts (*slametan*) that accompanied them. Some piled stones in the roads they had been ordered to build. The variation in forms of resistance nevertheless expressed a common discontent with the changes in society”.

It is evident from the above quote that everyday forms of resistance preceded or ran concurrently with open resistance (Guha and Gadgil, 1993; Peluso, 1992). Open and organized action facilitated unorganized, individual, self-directed actions having similar cumulative environmental effects. At the same time, this “unorganized sector provided the organized action groups (political parties) with a source of indigenous ideology that facilitated their organizational capacity” (Peluso, 1992: 122). Therefore, the two forms of resistance were not only complementary but intertwined (Guha and Gadgil, 1993; Peluso, 1992). Whatever the form employed, the resistance was intended to mitigate or deny claims made by authorities (Scott, 1985).

The state may respond in a variety of ways. Policies may be adjusted to be in line with the expectations of the people. They may be retained but reinforced with positive incentives aimed at encouraging voluntary compliance. The state may also simply choose to employ more coercion. In such a case people may be imprisoned (Scott, 1985). For instance, in Java, when the state realized that the ideas of the Saminists (followers of Surontiko Samin protesting against the state’s usurpation of their land in Java) were spreading, they exiled the leaders and confiscated protesters’ land and other possessions to sell and pay their debts. Yet whatever the state’s response, the actions of the people do change and narrow the policy options available to the state. Basically, they do make their political presence felt, whatever the form of resistance they use.

#### **2.3.4 The Impact of Protected Areas on Women**

In reviewing literature on people and forests, it is important to point out the particular impact of the issues discussed above on women. The literature reveals that poor rural women have a much greater dependence on forest resources for meeting survival needs (Scheyvens, 2000; Poffenberger and McGean, 1996). This is a result of factors such as male migration, abandonment of women by their male partners, men taking second wives to beget sons, male unemployment or disability or women choosing to remain single (Poffenberger and McGean, 1996). However it has been observed that in many cases due to social, cultural and economic constraints their participation remains restricted (Scheyvens, 2000). Despite changes in

conservation philosophy (considered below), women usually play only a negligible role in the processes of planning and implementation of PA's. Godbole (2002: 5) noted that it is "uncommon to see examples of natural resource management programmes, whether implemented by governments or local communities, where concerns of women or their voices are heard in the decision-making processes. Equally uncommon is it to see examples where women receive direct benefits from these programmes".

Poffenberger and McGean (1996) note that gender equity is often actively avoided or cautioned against from the commencement of development projects on grounds of resistance from conservative, tradition-bound village men. However the poorer the family, the more it depends for its survival on the earnings of its female members, who are not allowed to participate on issues affecting them. It is thus imperative to recognise gender issues when developing PA's because gender roles define how women and men perform different tasks within the household, earn income in different ways, have different levels of control over their respective incomes, allocate time differently, have different legal and traditional rights and possess different types of knowledge (Godbole, 2002). In most cultures, while women have multiple, often disproportionate responsibilities and tasks, they have little ownership or control over resources such as land and property, education, technical skills and market information<sup>2</sup> (Table 2.2).

Table 2.2 Main Labour Divisions in Borana, Kenya

<b>Women</b>	<b>Men</b>	<b>Both</b>
Transportation of the harvest	Land preparation	Taking cattle to grass/water points
Planting	Ploughing	Weeding
Building pens for calves	Management/sale of cattle	Harvesting (this can also be done collectively with the neighbours)
Collecting grass and fodder for calves		Making charcoal
Milking cows		
Making butter (for household consumption and sale)		
Fetching water		
Gathering/selling fuel wood		
Basket and mat making (for household use)		

Source: Tapia and Flintan, 2002

A basic imbalance in the ownership and control over resources in relation to gendered responsibilities places women in a subordinate and disempowered position relative to men.

<sup>2</sup> It should however be noted that this labour division does not apply to all rural households, but it differs from village to village.

They are forever dependent and run a greater risk of being excluded from their homes and livelihoods. Due to their relatively different situations, women and men have different perceptions, priorities and goals and development interventions affect them differently (Sarin *et al*, 1996 cited in Godbole, 2002).

As far as forests are concerned, women's role as gatherers includes the collection of firewood for sale and self-consumption, fodder for livestock and non-timber forest products (NTFPs) including food, medicines, seeds, leaves, and building materials. With the imposition of PA's, poor women are compelled to switch to poorer quality fuels like leaves, husks, *lantana*, weeds and dung. These can be smokier and/or increase women's time spent on cooking besides being ecologically damaging.

Women in general pay a higher price as a result of the creation of PA's. They have to face severe hardships by walking long distances and facing assault or abuse for extraction of the woody biomass that they need. Women who have to spend more time in forests are less able to give attention to the family and children, which may then affect their physical and social health (Daniel and Hegde, 1993 cited in Godbole, 2002). In India a large number of families depend on forests to fulfil their subsistence and other livelihood needs. Furthermore, women do most of the work to keep the household alive as shown in Table 2.2. (Tapia and Flintan, 2002).

#### **2.3.4.1 Factors Affecting the Participation of Women in Environmental Decision Making**

The study conducted by Tapia and Flintan in Borana, revealed that women's participation in decision making at household level is limited to the areas socially assigned to them, while at community level their participation in the decision making processes is almost non-existent (Tapia and Flintan, 2002). This means that decisions that affect women's lives and that of their families are taken without their participation. Consequently, the experiences and knowledge which women have accumulated about forest management and the environment is rarely acknowledged or utilized (Tapia and Flintan, 2002). A number of factors lead to the non-participation of women in environmental decision-making:

- *A lack of information* - women are seldom informed about their roles and responsibilities, and the provisions of development projects.
- *Attitude of the developers* – government officers, consultants and researchers generally consider the involvement of women as a mere formality. Very rarely are special efforts taken to understand women's point of view and to seek their active participation. Women's 'participation' is desirable only as a mechanism for persuading or coaxing them into stopping resource extraction.

- *The notion that women's views are not worth considering* - frequently men feel that it is useless to spend time in understanding women's views on issues such as natural resource management as according to them women do not have any knowledge that would be of value.
- *Lack of wages* - women, especially those belonging to lower income groups or who are head of the household, may find it difficult to attend meetings as this means loss of wages.
- *Family responsibilities* - due to domestic and other chores women find it extremely difficult to find time for meetings, which are often organized at times and venues inconvenient to women.
- *Social and cultural restrictions* - in many communities women are not allowed to sit on the same platform as men and they are expected not to speak in front of men. In general unmarried daughters, women with two or three older children and the elderly can express their opinions more readily than younger married women who are restricted from speaking out because 'family honour' may be compromised. Generally non-tribal women face far more restrictions than tribal women.
- *Lack of confidence* - sometimes a few women are aware of their possible roles and opportunities and want to participate actively. However often they find themselves in the minority and feel inhibited in raising issues that concern women out of the fear of being ridiculed.
- *Lack of female staff among developers* - there is a general lack of female staff among developers and PA authorities, particularly at the field level. In addition, those that are employed tend not to be involved in the meetings. Generally, village women find it difficult to interact with the male staff who equally find it difficult to approach women or even to understand and incorporate their concerns  
(Godbole, 2002; Mapedza and Mandondo, 2002; Scheyvens, 2000; Poffenberger and McGean, 1996).

Godbole (2002) notes that women could play a significant role in the protection and conservation of natural resources. They use these resources more than their male counterparts and thus they are directly affected by decisions made with regard to the management of these resources. Yet social, cultural and economic factors hinder their participation in environmental decision-making.

## **2.4 New Philosophies of Protected Area Management and their Impact on Environmental Decision-Making**

This section reviews new philosophies of protected area management that are attempting to shift protected area management towards “post-colonial” conservation practices (Adams and Mulligan, 2002). These new philosophies and ideas have influenced recent management practices at Dlinza forest, as in most protected areas in South Africa. Fortress conservation is no longer hegemonic in Africa nor globally as a result of the rise of community conservation. Adams and Hulme (2001) define community conservation as those principles and practices in which conservation goals are pursued through strategies that emphasize the role of local residents in decision making about natural resources. It stresses the need to include local people either physically in PA’s or politically in the conservation policy process, and to ensure their participation (Adams and Hulme, 2001).

Community conservation originated in the mid-to-late 1980s (Hulme and Infield, 2001; Mohamed, 2000; Hackel, 1999; WWF, 1997) based on the efforts of the 1970s to develop a community-based, decentralized, multi-sectoral natural resource management strategy. It was developed in the context of successive World Congresses on national parks and PA’s, particularly the third in 1982 and the fourth in 1992 (Hulme and Marshall, 2001). Also important were the 1974 UNESCO Man and Biosphere Programme (Ghimire, 1994); the 1985 Wildlands and Human Needs Programme of the World Wildlife Fund for Nature (Wells and Brandon, 1992) and the 1987 World Commission on Environmental Development (Mehta and Kellert 1998), to mention but a few. As a result of the shift to community conservation, a number of community-oriented approaches were developed, namely: community-based wildlife management, community-based conservation (CBC), collaborative management, community-based natural resource management and integrated conservation and development programmes (Hulme and Marshall, 2001). Hulme and Marshall (2001) argue that these approaches are now a new orthodoxy, seeking to displace the colonial/fortress approaches of state-enforced environmental protection. All these notions emphasize the importance of integrating human dimensions into biodiversity conservation policies and programmes. For the purpose of this study, community-based conservation, co-management and participatory forest management will be studied.

### **2.4.1 Community Based Conservation (CBC)**

Community based conservation (CBC) approaches emphasize that local communities should play a pivotal role in decision making about natural resources. An examination of the

literature on CBC (Hackel, 1999; WWF, 1997; Hulme and Marshall, 2001) reveals that CBC seeks to achieve its goals in three main ways:

- Allowing people living near PA's to participate in land-use policy and management decisions.
- Giving local people proprietorship or ownership over (wildlife) resources.
- Giving local people economic benefit from (wildlife) conservation.

It is thus, according to Hedge and Enters (2000) a strategy directed at the integration of conservation and economic development, emphasizing community-based participation in decision making and tangible incentive systems favouring wildlife or forest conservation over exploitation.

It has been revealed in the literature (Hulme and Muphree, 2001; Alexander, 2000; Hackel, 1999; McNeely *et al*, 1990) that local people, who commonly were seen as a 'threat' (Hedge and Enters, 2000; Wells and Brandon, 1992; Peluso, 1992) or a 'problem' (McNeely *et al*, 1990) to conservation (especially in the field of wildlife conservation), had to be won over as supporters of PA's. This came after the realization that without the cooperation of local people, wildlife protection efforts would be doomed. CBC carries the notion that local communities must be actively involved, and their aspirations considered if biodiversity is to be conserved (Mehta and Kellert, 1998). CBC calls for a people-centred approach in conservation. Basically, the aim of CBC is to change the attitudes and perceptions of local people about PA's by making them an integral part of conservation efforts (Western and Right, 1994 cited in Hackel, 1999). Thus, argue Mehta and Kellert (1998:321) that, CBC emphasizes the "management of biodiversity by, for, and with the people".

#### **2.4.1.1 The Advantages of CBC and Problematic Issues**

CBC has a range of important advantages, including the following:

- It is an alternative approach to conventional state conservation measures, and can be effective, equitable and sustainable - economically, socially and ecologically;
- It helps to ensure that the community becomes the primary beneficiary of managed resource use;
- It promotes direct involvement which empowers the local community by:
  1. increasing self esteem
  2. increasing local responsibility for maintaining the quality of the environment
  3. increasing aesthetic appreciation of the environment;

- It promotes shared learning between local, traditional and so-called modern approaches;
- It is able to integrate all land and resource use sectors which impact on the environment;
- It links rights with responsibilities.

An important advantage of CBC is that it is able to use and harness indigenous or local knowledge systems. Indigenous/local knowledge refers to the knowledge, innovations and practices of indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, indigenous knowledge is transmitted orally from generation to generation (Brown and Wyckoff-Baird, 1995). It tends to be collectively owned and takes the form of stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local language, and agricultural practices, including the development of plant species and animal breeds (Biodiversity Support Program, 1993). Indigenous knowledge is mainly of a practical nature, particularly in such fields as agriculture, fisheries, health, horticulture, and forestry.

Indigenous knowledge can make a significant contribution to sustainable development. Chapter 26 of Agenda 21 specifies that in view of the interrelationship between the natural environment and its sustainable development and the cultural, social, economic, and physical well-being of indigenous people, national and international efforts to implement sustainable development should recognize and accommodate, promote and strengthen the role of indigenous people in conservation. Biologists are realising that most indigenous and local communities are situated in areas where the vast majority of the world's plant genetic resources are found. Many of them have cultivated and used biological diversity in a sustainable way for thousands of years (Brown and Wyckoff-Baird, 1995). Their skills and techniques provide valuable information to the global community and a useful model for biodiversity policies. With their extensive knowledge of local environments, local communities are most directly involved with conservation and sustainable use (Brown and Wyckoff-Baird, 1995; Biodiversity Support Program, 1993) and must thus be involved in conservation, an involvement facilitated by CBC projects.

Thus CBC supports and recognizes local resource rights where the management of PA's is based on a balance of scientific and indigenous knowledge (Alexander, 2000). This is derived from the argument that local people have devised sustainable, long-term land use practices that were ecologically sound and resulted in more equitable income distribution than other practices currently being imposed upon their lands (Hulme and Marshall, 2001; Mehta and



Kellert, 1998; Hough, 1988; McNeely *et al*, 1990). McNeely *et al* (1990) argue that “there are no other land use models for the tropical rain forest that preserve ecological stability or biological diversity as efficiently as those of the indigenous groups...” (McNeely *et al*, 1990:50).

There are some difficult issues, however. For example, the issue of property rights is often a problem in community-based conservation efforts. CBC addresses the issue of property rights based on the notion that “all land is ‘occupied’ in the sense that the local people living in and around the forest consider it as ‘theirs’” (McNeely *et al*, 1990:49). This is done in CBC through the devolvement of powers to manage land and the natural resources to the original owners of the land. However, although CBC calls for the conservation authorities to treat local communities as partners rather than opponents, experience from Senegal indicates that property rights alone do not guarantee land ownership to its owners (Ribot, 2000). In the Makacoulibantang case, prominent members of the society (chiefs in this case), developers and authorities were able to take decisions that suit them at the expense of the community that held communal property rights on the land. The issue of property rights in CBC has to be treated with caution.

#### **2.4.1.2 The Reality of Community-Based Conservation**

A major debate on the realities of CBC exists in the literature. It questions whether this kind of programme can be applied generally in Africa. Hackel (1999) argues that CBC is more realistic in areas that have big game such as Kenya’s Amboseli National Park. This is because areas without big game will not have the revenue-generating potential required for CBC projects that rely on revenue sharing because there will be insufficient financial reward (Hough, 1988, McNeely *et al*, 1990; Wells, 1996; Hedge and Enters, 2000). However, experience from Belize shows that revenue sharing does not necessarily mean that people should get money directly from PA’s (Alexander, 2000). In Belize, the PA authorities assisted people in securing loans to develop tourism related business enterprises such as guest rooms and canoes. In such a case, local people are given alternative opportunities, which are part of the bigger conservation programme by promoting small enterprise development.

It is also argued that the advocates of CBC seem to assume that rural people, because they receive benefit, will accept whatever level of environmental protection is needed as a by-product of the programme. However, there is the danger that communities may reject a CBC project should better opportunities be available (Hackel, 1999). The amount of revenue received by the community may eventually be considered too low. The problem arises because CBC puts a price on nature that can be compared to revenue that might be received

from other activities (Geist, 1988 cited in Hackel, 1999). Local people may eventually perceive that they have an opportunity cost because they are forgoing the possibility of greater economic gain in order to maintain natural resources. If this does happen, conservationists would face the same problem that produced the CBC approach in the first place: rural people may feel that the restrictions that they must bear to save the natural environment are costing them too much (Hackel, 1999).

CBC programmes require significant changes in the relationship between central governments and the local people. CBC programmes may entail reforms in land-use policy. This further questions the feasibility of CBC especially in Africa where:

- Central governments maintain policy-making power and allow only administrative authority to devolve to rural areas.
- Local participation is ineffective because it is said to be time consuming and difficult to administer.
- There is difficulty in recognizing the appropriate community members for programme participation. (The power of traditional structures such as chiefs is considerable, raising issues of representivity).
- Local conservation efforts cannot escape national or global politics.

Thus, the requirement by CBC, to change the relationship between rural areas and the outside world coupled with the already ambitious goal of linking conservation and development, makes the idea that CBC can be widely applied as a conservation model in Africa's rural areas problematic (Hackel, 1999).

Studies have found that knowledge about conservation is an important factor influencing attitudes (Harcourt *et al*, 1986 cited in Alexander, 2000). Some scholars argue that negative attitudes towards conservation efforts can stem from low knowledge levels about the idea of conservation itself (Alexander, 2000; Heinen, 1993, Steinberg, 1993). This may be a result of the fact that the idea to conserve in the first place is alien and a colonial imposition. The priorities of PA management might descend from some remote expert, backed by state bureaucracy (Adams and Mulligan, 2003). CBC should thus be coupled with educational programmes, which are aimed at alerting people to the general qualitative value of conservation.

#### **2.4.2 Co-Management and Forest Protection**

The shift from fortress conservation to community conservation has its roots in the emergence of discourses around sustainable development, local participation in public policy-making, the

introduction of market-based incentives for resource conservation and the need to extend conservation beyond PA's (Mohamed, 2000). Community-based natural resource management (CBNRM) is the umbrella term used for the discourses that seek to bring about the necessary shift in conservation thinking. According to Mohamed (2000:1) CBNRM signals the "increasing rapprochement between social justice and conservation management in southern Africa".

A key trend in CBNRM programmes has been the development of partnerships between local resource users and other stakeholders, which is broadly termed *co-management* (Isaacs and Mohamed, 2000; Mohamed, 2000; Taiepa, *et al*, 1997). This is evident in forest management as in other areas.

#### **2.4.2.1 Defining Co-Management**

There are many definitions of the term co-management, but what they all have in common is what Claridge (1997b: 19 cited in Colfer *et al*, 1999) has summarized in his definition of the term: "the active participation in management of a resource by the community of all individuals and groups having some connection with, or interest in that resource". The key elements of co-management therefore include:

- Power sharing
- Full participation and empowerment of local people
- Combining of scientific knowledge and indigenous environmental knowledge
- Organizational capacity building and
- Improved natural resource management (Isaacs and Mohamed 2000; Mohamed, 2000; Taiepa *et al*, 1997)

Like CBC, co-management seeks to promote the involvement of the once excluded local community in EDM. It however goes a step further by emphasizing power-sharing among those involved in EDM.

#### **2.4.2.2 Local Participation in Co-Management**

The normative theory of community conservation is underpinned by sustainable development (Adams and Hulme, 2001). It carries the notion that local people can and do manage their resources sustainably. It thus calls for a full participation of local people in making decisions that affect them. Nelson (1994) says that people should participate throughout the life cycle of a project, i.e. from the planning through implementation to the monitoring phase. According

to Mohamed (2000), in co-management it is the key issues of power and authority that determine the degree of local participation in decision-making achieved as well as the extent of devolution to the local level. Mohamed further points out that co-management arrangements are situated along a continuum, from coerced partnerships which are generally not motivated by local concerns, to an organic partnership where “the community has a sense of ownership of its resources, a clear vision and often has an idea of the type of partner and partnership it desires” (Katerere, 1999 cited in Mohamed, 2000). Furthermore, middle-range arrangements can be classified as co-operative arrangements where decision-making is shared by the state and local groups (Sen and Raakjaer Nielsen, 1996 cited in Mohamed, 2000). This is shown in Figure 2.1 below.

Mohamed (2000) argues that co-management varies in nature according to the degree of local participation and involvement. Figure 2.1 reveals that co-management is seen as ranging from instructive arrangements where government is the key decision maker, to informative co-management arrangements where the views and inputs of user groups play a more central role. However, for co-management to succeed, it has to include a considerable degree of *responsibility* for resource management by the users, not only token consultations with them by outsiders. Therefore, co-managed CBC projects should opt for co-operative arrangements, which allow for full participation and devolvement of power to the local resources users.

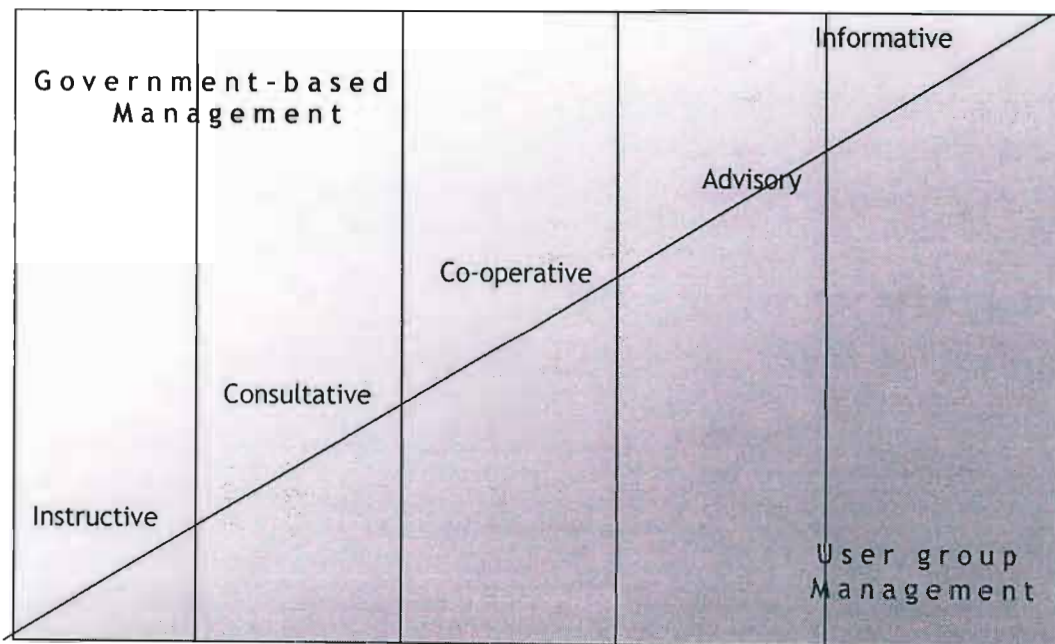


Figure 2.1. A spectrum of co-management arrangements

Source: McCay, 1993 and Berkes, 1994 in Sen and Raakjaer Nielsen, 1996 cited in Mohamed, 2000.

### 2.4.2.3 Local Leadership in Co-Management

In reality, not every member of the society can participate in the management of natural resources. Local institutions (organizations) are supposed to represent the masses. In addition, they are supposed to give feedback to both the authorities and the society. In areas where such institutions are already in place, PA authorities find it easier to work with them as they are already established. In most rural areas, particularly in South Africa, people are represented by amakhosi, the chiefs. However, the extent to which the chiefs actually represent the interests of the local people is questionable. Chiefs are not elected, they are hereditary rulers appointed for life (Ribot, 2000). That is also an indication that there is a problem because if one is in favour of his/her current chief that doesn't necessarily mean he/she will be in favour of his son as well.

Experience from a study of the co-management of forest resources in Zimbabwe (Mapedza and Mandondo, 2002) indicated that where people are elected to represent the local communities, the democratic nature of the elections is spoilt by a variety of factors including cases of manipulation and subversion by the authorities who oversee and endorse the election process. In Batanai (Zimbabwe) the Forestry Commission held elections with the people in order to elect Resource Management Committees with whom the Commission would co-manage the forest resources. The Forestry Commission limited candidacy to people with the ability to read and write and this had an impact among the Shangwes among whom literacy levels are generally low compared to the other ethnic groups. Furthermore, people were made to vote through a show of hands instead of secret ballots, with the Forestry Commission supervising the process. Voting by show of hands is highly vulnerable to manipulation as it may lead to intimidation, the communities would be seated haphazardly and can therefore vote more than once, and it can also lead to miscounting (Mapedza and Mandondo, 2002).

In another village called Chemwiro-Masawi the Forestry Commission ordered the village heads to nominate people who will serve in their village committees. Some people were nominated in absentia and consequently when they were supposed to serve on the committees, they didn't know what their role was. Mapedza and Mandondo (2002) did an analysis of the composition of the Resource Management Committees, which showed that most of the positions were given to members of the local political elite at the expense of other social groups. In addition, men filled almost all the posts. However, it is shown in the literature (Mapedza and Mandondo, 2002; Scheyvens, 2000) that women's participation in such committees is dependent on their men folk. If their husbands agree they do participate; if their husbands disagree, they do not. Scheyvens (2000:160) also pointed out that women have participation fatigue because they "feel that they are not taken seriously in meetings".

Some local leaders are corrupt and when working with unscrupulous authorities that intend to betray the local communities, bribery becomes the custom. In such a case, the co-management strategy will fail. In the case of Makacoulibantang, Eastern Senegal (Ribot, 2000) some chiefs allowed urban based woodfuel merchants and their migrant woodcutters to extract the forest resources on which the locals depended for their daily livelihood and yet the locals got no benefits from woodfuel production and commerce. Ribot (2000) pointed out that the chiefs' decision was based partly on payoffs from the merchants and partly on the social status of the merchants, which made it difficult for chiefs to turn them down despite the villagers' objections. This then raises the issue of accountability of representation in CBNRM. This case provides an example where resource "control is indeed local, but the results are still negative for the majority of the population since the chiefs make the decisions and reap most of the benefits, while the social and ecological costs of forest clearing are spread over the village as a whole - disproportionately affecting women and poorer households" (Ribot, 2000:134).

#### **2.4.2.4 The Time Factor in Co-Management**

It is argued in the literature that PA authorities need to have a thorough knowledge of the communities they are attempting to co-manage natural resources with (Colfer *et al*, 1999). Colfer *et al* (1999) notes that learning about local communities and their involvement with their resources may be useful for PA managers because managing co-operatively with local people requires access to them and communication with them. For PA managers to gain access to local people, it would be much easier if managers could plan new activities at times when people are not otherwise engaged, or in conjunction with ongoing activities. Colfer *et al* (1999) therefore recommend that Time-Allocation Studies (TAS) be undertaken before the co-management activities begin. TAS provide an ideal entry point for getting to know local people, establishing a good rapport with them and ensuring regular contact and communication (Colfer *et al*, 1999).

Experience from Danau Sentarum Wildlife Reserve (West Kalimantan, Indonesia) (Colfer *et al*, 1999) indicates that people's use of time differs along ethnic and gender lines. Thus knowledge of allocation of time by gender, season and activity can be very useful. Such knowledge can suggest areas of concern for conservation, as well as existing indigenous skills and knowledge that might enhance conservation goals and income generation (Colfer *et al*, 1999). It is not recommended to begin co-management activities in one community based on how it was done somewhere else because each community is unique, hence the need for a Time Allocation Study to be conducted in order to understand the lifestyle of the specific

community one is dealing with. Having such information about local people as early as during the planning stage of the co-management process helps to avoid conflicting time, energy and resource needs later on. Furthermore, when the process begins, the managers' ability to "speak knowledgeably about local patterns of resource use (including gender and ethnic differences, location of activity and kinds of plants and animals desired) help them in their relationship with local people" (Colfer *et al*, 1999: 49).

PA authorities need to understand the division of labour in local communities and where people spend their time. For instance, in cases where a manager organizes a meeting with the locals and is unaware that it is the weeding season, that meeting is likely to be dominated by men as weeding is usually done by women (Scheyvens, 2000; Colfer *et al* 1999). The PA manager will then assume that women do not want to participate and thus decisions should be made for them when in actual fact it is the timing of the meeting that hindered them from attending it. Therefore, understanding the division of labour in local communities helps to avoid unnecessary conflicts between local people's existing patterns and the suggested management strategies.

In cases where the local communities are of different ethnic groups it is important for PA authorities to understand the ethnic variation in the use of time because it can alert them to proposals that are unlikely to work or to new activities such as crafting that may bring about the development of new enterprises. A TAS was conducted in West Kalimantan (Colfer *et al* 1999) and the authorities noticed the abilities of the Iban women to weave beautiful baskets, blankets and mats. They thought of the possibilities of generating income for these women and helped them in organizing a market for their goods, thus easing pressure on the park. Expressions of interest and respect for local knowledge of the surroundings go a long way in enhancing co-management (Biodiversity Support Programme, 1993). PA authorities that want to be successful in co-managing the natural resources with the local users must recognize the different but equally important knowledge, experience and goals of the local people. Therefore, an attitude of acceptance and openness to local people's skills and ideas is essential (Colfer *et al*, 1999).

### **2.4.3 Community-Based Ecotourism and Environmental Decision Making**

#### **2.4.3.1 Defining Ecotourism**

As defined by Honey (1999: 25) ecotourism is "travel to fragile, pristine and usually protected areas that strives to be low impact and small scale. It helps to educate the traveller; provides funds for conservation; directly benefits economic development and political empowerment

of local communities; and fosters respect for different cultures and for human rights”. There are many definitions of ecotourism and they all seek to justify how it differs from mass tourism. These definitions agree that ecotourism:

- Seeks decision-making among all segments of the society, including the local populations so that tourism and other resource users can co-exist.
- Tries to avoid negative impacts that can damage or destroy the integrity or character of the natural or cultural environments being visited.
- Educates the traveller on the importance of conservation and also on local cultures.
- Ensures a fair distribution of benefits and costs.
- Brings economic benefits to local communities and directs revenues to local people living adjacent to protected areas.
- Incorporates planning and zoning which ensures that tourism development does not exceed the social and environmental carrying capacity.
- Retains a high percentage of revenues in the host country by stressing the use of locally owned facilities and services.
- Stimulates improvements to local transportation, communications and other basic community infrastructure (Duffy, 2002; Honey, 1999; Wearing and Neil, 1999; Muller, 1999; Lindberg *et al*, 1998; Nelson, 1994).

There are many terms that were invented to describe ecotourism and community-based ecotourism (CBE) in particular. They include green, alternative, nature based, simple, caring, low-impact, low density, small scale and environmentally sound tourism (Duffy, 2002; Belsky, 2000; Muller, 1999; Wearing and Neil, 1999). While these terms are not identical, they have one common characteristic, to “suggest an attitude of opposing the undesirable conventional mass tourism, and thus at least attempting to minimize the negative ecological and socio-cultural impacts of visitors at the recreational locations” (Muller, 1999). CBE arose from the debates about the impact of the tourism industry and it is intended to maximize local participation in decision making from a very early stage. It involves the extension of benefits to economically marginal groups. Figure 2.2 below shows the main elements of CBE, shown on the diagram as ‘alternative tourism’.



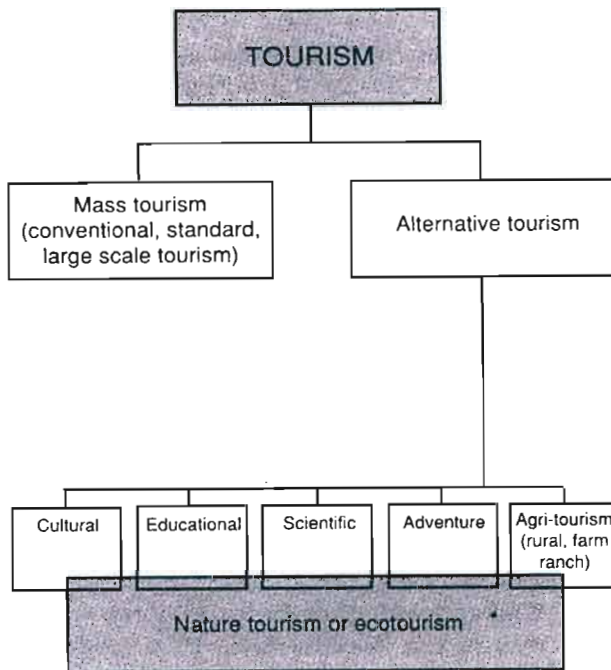


Figure 2.2. Alternative tourism

Source: Mieczkowski cited in Muller, 1999.

#### 2.4.3.2 The Reality of Community-based Ecotourism (CBE)

The main element of ecotourism is that it recognizes that local communities are stakeholders in the ecotourism process and its success or failure. However, as already discussed, in many countries PA's are created from lands belonging to the government. Often PA's were established on lands where people were forcefully removed off the land where they lived and where generations of their ancestors had been buried (see Scheyvens, 2000). Yet the government has the right to sell that land to foreign producers, to logging companies, or to create a reserve with it. Local people living in these areas may have no right to ownership of the land. Even when indigenous communities have been living there for generations, often the land is not titled to them and therefore belongs to the government.

It is thus evident that ecotourism often takes place in areas where an antagonistic relationship exists between the authorities of PA's and the locals. In order to sustain a reserve and its ecotourism, government, developers, and scientists must invest in these communities and recognize the rights of local people, who have for so long protected these natural resources (Yu *et al*, 1997; Scheyvens, 2000). Furthermore, Wearing and Neil (1999) argue that local

communities must be involved from the very beginning in planning a reserve, and be able to give their opinions and to be heard. They also have to be involved throughout the life cycle of the project (Nelson, 1994). This is because ecotourism can bring many changes to a society, and these communities must have a say in what they are willing to accept. Some of these changes can be very culturally disadvantageous (Duffy, 2002). Without the whole-hearted support of these local communities, ecotourism and the PA can fail as locals may actually start killing wildlife and destroying forests in vengeance (Yu *et al*, 1997). Thus, argues Duffy (2002) for ecotourism to succeed, there should be equal power relationships among all stakeholders and between hosts and guests. Figure 2.3 below shows that the main actors in the ecotourism industry should operate as partners because a balance in power relations leads to a genuine relationship among stakeholders and consequently the success of ecotourism. Basically, the benefits and the costs of ecotourism should be evenly distributed.

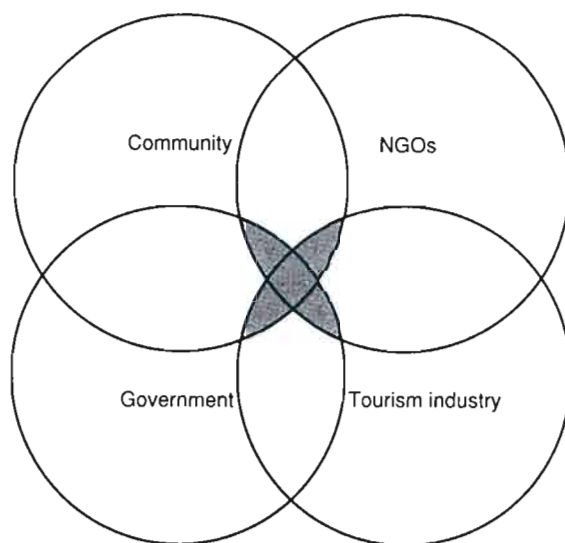


Figure 2.3. Stakeholders in Ecotourism

Source: Wearing and Neil, 1999

Demonstrating the economic benefits of conservation to the local population is clearly one key to the successful protection of an area. Ecotourism has the potential to combine conservation with development. Economic benefits from tourism must be distributed to the local people around a PA, as well as to government and park agencies. Through the generated income, ecotourism can provide improved health care and education to the local inhabitants, as well as employment in the tourism industry. In addition, development of ecotourism projects needs to be accompanied by sustainable development of the natural resources adjacent to PA's, to allow substitutes for previous practices of grazing, wood cutting, and

agriculture within the parks (Duffy, 2002). This type of programme takes pressure off park resources by alleviating the need for community members to enter the park to extract needed resources. For example, if an agroforestry programme is meeting a portion of the community's needs, they may demand of the tourism programme less immediate benefits. With less pressure on the tourism programme to produce the majority of the economic benefits, there is less pressure on park resources (Duffy, 2002). Local people should be assured some economic benefits from ecotourism, as well as continued necessities such as food, fuel and land tenure.

How ecotourism projects intend to work with local communities is still debated in the literature (Duffy, 2002; Wearing and Neil 1999; Yu *et al*, 1997; Nelson, 1994). This is because most plans for ecotourism development are foreign in origin. While they include community participation, planners tend to view involvement of local people from an inappropriate 'Western' mindset, not necessarily from the traditional cultural framework and cognition of the local residents (Adams and Mulligan, 2003). This is not to say that community involvement and local benefits in ecotourism development are not championed. They are. But community values and specific cultural beliefs are rarely integrated into development plans. Community involvement is discussed only in terms of achieving a kind of secondary benefit for local residents; the primary goal is either the conservation of natural resources, or for developers to make a profit. Participatory approaches that actually empower local people are not common (Duffy, 2002).

#### **2.4.3.3 Social Impacts of Ecotourism**

Ecotourism is often criticized for its negative social impacts. It has been shown in the literature that ecotourism may have the following negative effects:

- Introduce inappropriate Western values and encourage local people to mimic the consumption pattern of the tourists. This can lead to cultural decay.
- Promote begging among children and encourage prostitution.
- Lead to an increase in crime and the supply of drugs.
- Promote the packaging and commodification of culture to appeal to Western concepts of the exotic. The local people in the tourist destination feel forced to adapt their lifestyles to ensure that tourists are not disappointed.
- Social dualism.
- Incompatibility of local versus foreign culture, e.g. female visitors may dress inappropriately.

- Lead to displacement of people from their traditional lands and loss of access to resources (Duffy, 2002; Scheyvens, 2000; Wearing and Neil, 1999; Yu *et al*, 1997; Nelson, 1994).

It is shown that ecotourism needs to invest in local communities because of the impact it has on them. Thus, without proper planning and full participation of local people, the attitudes of the locals towards tourism can go from ecstasy to apathy to annoyance and even to antagonism (Duffy, 2002).

#### **2.4.3.4 Economic Impacts of Ecotourism**

Sale of animal species and their parts has long been a worthwhile way for local communities to benefit from wildlife. Sale of tropical hardwoods also brings in vast amounts of money to the locals. Increased demand for these products has reduced populations of many species, and made it necessary to find ways of protecting them for their continued survival. Even when areas are set aside to protect species, in many cases the value of the species on the black market is great enough to encourage poaching. Ecotourism and PA's often hinder this form of economic spin-off by local communities and thus need to look to another source of revenue that can rival the income from "poaching".

Its advocates argue that ecotourism makes a significant contribution to the lives of local people by creating employment opportunities across all sectors and all skill levels. However, it is been revealed that these opportunities are often seasonal and low paid, therefore cannot provide a regular and reliable income (Duffy, 2002; Wearing and Neil, 1999). Furthermore, experience from other countries shows that the majority of the posts in ecotourism projects require specialized university training. Consequently, 'outsiders' mainly occupy top positions. The locals then find themselves relegated to subordinate positions (Fortin and Gagnon, 1999). In addition, concerns may arise over inequity in terms of who gets employed in ecotourism projects: class, gender, age and political affiliation can play a major role (Scheyvens, 2000; Fortin and Gagnon, 1999). For instance, in the case of an ecotourism project in Belize (Belsky, 2000) research established that ten women ran Bed and Breakfast establishments (B&Bs), seven women joined the craft association and eight men provided services with the boat operator association. However, most of the men and women who participated in these enterprises belonged to the same five or so households and only the better off households could run the B&Bs.

#### 2.4.3.5 Ecotourism and Gender

Past development initiatives, including ecotourism have often seen women's voices sidelined as development consultants, government officers and researchers seek the opinions of headmen and chiefs, the vast majority of whom are men. As noted above, women and girls generally have greater interaction with the natural environment and thus their cooperation is needed in order to sustain the resource base. This is supported by the fact that 60-80% of food production in Africa is carried out by women (Scheyvens, 2000). Women are also typically responsible for the collection of water, fodder and fuelwood in southern Africa. They are also involved in income generating activities based on the sale of forest products and crafts made from reeds and grasses. While some men do have a close relationship with the environment through agricultural work, cattle grazing and more sporadic activities such as hunting, they also engage in paid employment and do not rely as heavily on the natural environment as women do. In addition, men (especially in rural South Africa) are migrant labourers in the cities.

Lindberg *et al* (1998) state that many communities and cultures have unspoken restrictions on what roles should be played by women in ecotourism ventures. As a result, women are often restricted from the most lucrative aspects of ecotourism, often working as cooks or cleaners. Scheyvens (2000) noted that considering gender issues for effective ecotourism helps to:

- Ensure that decisions about ecotourism are made by bodies reflecting the interest of the diverse groups of community members, and these groups genuinely share in the benefits of the development.
- Ensure good natural resource management which protects the key resource upon which ecotourism is based.
- Ensure that ecotourism develops benefits from the skills and knowledge of a broad range of community members.

Deriving from their different roles and responsibilities, women's interests in terms of utilization of natural resources are often different from those of men. For instance, land beside a forest which is not suited to cattle grazing or commercial agriculture may be identified by men as an ideal location to be leased for a tourist lodge although it may be highly valued by women who collect broom grass and pottery clay at the site (Scheyvens, 2000). It is thus evident that for ecotourism to be a success, men should not represent women in decision-making but agencies supporting community-based ecotourism should recognize that 'local community' and 'stakeholders' include women (Scheyvens, 2000). Finally, there is the

tendency to give too much power to traditional leaders through traditional and cultural belief systems, thus further marginalizing women.

#### 2.4.3.6 Ecotourism and Environmental Decision Making

Human decisions are at the core of most actions affecting the environment. According to the rational model of decision-making, decision-making is seen as a response to a condition whereby a problem or a need has been identified by a lead agency or a group (Sexton *et al*, 1999; Nelson, 1994; Chechile and Carlisle, 1991). Thereafter different approaches are considered to solve the problem or meet the need (Sexton *et al*, 1999; Nelson, 1994). The best alternative is then selected based on an explicit set of criteria, which include economic, social, and environmental considerations (Malaza, 2001). The chosen alternative is then implemented and monitored in terms of its effects. Each interested and affected party should participate in the decision-making process and agreements be made among them in every stage of the model (Malaza, 2001).

However, the rational model has been criticized as being unable to envision what the participation of all interested and affected parties means in practice at any of the steps or stages in the model (Nelson, 1994). Nelson further argues that with the rational model, even if decision makers achieve substantial agreement that participation should occur in a more complete way, people would still have difficulty envisioning what other processes need to be addressed in the decision-making. An alternative model, which does identify such processes, is the 'civics' model. In this model the key processes are spelled out in a more specific manner so that they be better understood and addressed by all participants (Nelson, 1994). Figure 2.4 below shows the seven basic processes involved in the civics model.

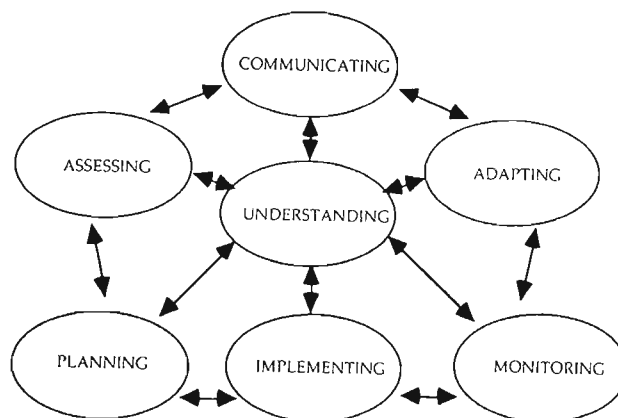


Figure 2.4. Civics Model of Decision Making

Source: Nelson, 1994

Nelson (1994) emphasizes that a basic principle for the civics model is the involvement of all interested and affected parties throughout the life cycle of an ecotourism project. The civics model is not envisioned to work in a hierarchical or step-by-step fashion but all the processes may be functional at any time in an interactive and iterative way. All participants should recognize the seven key processes (Figure 2.4) in decision-making in order to be prepared to participate effectively and efficiently (Nelson, 1994). In order to achieve full participation of all interested and affected parties with different backgrounds and education levels, raising the level of individual awareness through education is required in order to develop better environmental citizens.

Nelson (1994) identifies a lack of understanding of the processes involved in planning, management and decision-making, as one important reason for the widespread failure of government, business and people to become and remain involved in ecotourism. The 'civics' approach provides a set of guidelines on how planners could think about involving people in ecotourism or other development projects. Lindberg *et al* (1998) note that the issue of decision-making is a very tricky one as it is difficult to determine the individuals that should participate in the decision making process in ecotourism projects. Consequently, even where attempts are made to have an all-inclusive process, participation has sometimes been decided on the basis of political affiliation, land ownership, kinship or gender. Thus, people who do not meet the criteria when choosing participants are left out and the sustainability of the project is questioned. Kirkby *et al* (1995) argue that decision makers should represent the values of the entire community. Theories of environmental decision-making are discussed in more detail in the final section of the chapter.

#### **2.4.4. Public Participation and Participatory Forest Management**

A key element of the new conservation philosophies is the need for greater participation in decision-making. In terms of forests, there is a growing consensus amongst key decision-makers in Africa about what is needed to make the transition to a more sustainable forestry. Participatory Forest Management (PFM) emerged as a strategy that will ensure the security of forest resources and services at household, national and global levels. PFM requires that forestry decisions are not taken by governments alone, but also by the market and civil society as a whole. Thus PFM calls for changes in stakeholders' roles in forest resource utilisation and management.

The key element of PFM is the need for an inclusive public participation process. Within the context of the management of protected areas, PFM asserts that PA's should be managed with

substantial input from local communities, because giving the public an opportunity to influence decisions from the outset also defuses opposition to particular actions and builds broad-based consensus for environmental programs as a whole (Wells, 1996).

In South Africa, PFM provides a strategy not only to rectify the colonial PA management strategy related to forests, but also to improve on the management strategy of the apartheid regime. Therefore, PFM seek to redress the imbalances of past management strategies in the country by involving people residing in and around PA's in the decision-making process. This section therefore gives a description of an inclusive public participation process and how one would assess such a process in the context of forest management. The five key principles of public participation, described below, are used in Chapter 7 to assess the public participation process at the study area.

#### **2.4.4.1 Public Participation in PA Management**

Historically, the responsibility for decision making in public life has been vested in elected representatives (politicians) and government agencies. The shift towards public involvement in the decision making process is “essentially a change in emphasis - from substance (what should government do) to process (how should choices be made)” (Parks and Wildlife Commission of the Northern Territory, 2002: 2). Hulme and Marshall (2001) state that public participation underpins the normative theory of community conservation. Therefore, it is a crucial component of CBC, as CBC programmes are intended to address people's needs and aspirations through increased local participation (Wells, 1996).

All levels of government recognise the value of involving local communities in decision-making, enabling them to take a more active role in managing their local environments. Governments also realise that community capacity building and enhancement of social capital can have significant effects in improving a state's environmental, social and economic well-being (Parks and Wildlife Commission of the Northern Territory, 2002).

#### **2.4.4.2 The Benefits of Public Participation and Problematic Issues**

Ensuring successful public participation is a two way process, where both the agency and the public can learn and gain benefits. The benefits of robust public participation include the following:



- Improved understanding of client expectations and user group needs.
- Improved agency understanding of conservation issues.
- Improved agency understanding of the role and contribution of the community.
- Greater continuity in knowledge.
- The ability to build community support for a project and to improve stakeholder relationships.
- Improved public understanding of the agency's responsibilities.
- Improved staff and community technical knowledge.
- Improved agency credibility within the community.
- Improved quality of decision making by agencies.
- Enhancement of social capital and flow-on social and economic benefits.
- Enhanced and informed political process.
- Greater compliance through increased ownership of a solution.
- Greater community advocacy for biodiversity protection.
- Greater access to community skills and knowledge.
- Improved community understanding of conservation issues and responsibility for conservation outcomes (Parks and Wildlife Commission of the Northern Territory, 2002: 3).

However, public participation exercises can be time consuming and thus very expensive. This is a consequence of the fact that many people with different ideas and beliefs are brought on board and thus take time to reconcile their ideas and reach consensus. The Parks and Wildlife Commission of the Northern Territory (2002: 3) note that the delay originates from the “difficulties in obtaining constructive debate when interest groups are entrenched in their views”. Public participation also calls for staff training and capacity building within organisations to prepare the staff for the difficulties they are likely to face when undertaking the public participation process.

Wells (1996: 323) notes that with the management of PA's, authorities should be prepared to “give up some degree of control” to local resource users. This reveals that public participation in the management of PA's requires the full participation of all affected and interested parties. Unfortunately, however, Wells (1996) points out that many CBC programmes turn out to be relational rather than genuinely participatory. This often happens when PA authorities seek to devolve proprietorship of PA's to local people or to create proprietary units on the edge of PA's (Wells, 1996). As a result, local communities are either excluded or minimally involved in the management of PA's (Alexander, 2000; Khan, 1998; Hough, 1988).

Table 2.3 below shows the different forms that a public participation process could take. The table presents a typology of public participation in PA management (or any development project).

Table 2.3: How People Can Participate in Development Programmes

<b>Participation Typology</b>	<b>Roles Assigned to Local People</b>
Passive	Told what is going to happen or has already happened. Top-down, information belongs to external professionals.
Information giving	Answer questions from extractive researchers. People not able to influence analysis or use.
Consultative	Consulted. External agents listen to views. Usually externally define problems and solutions. People not involved in decision-making.
Functional	Form groups to meet predetermined objectives. Usually done after major project decisions made, therefore initially dependent on outsiders but may become self-dependent, and enabling.
Interactive	Joint analysis and actions. Use of local institutions. People have stake in maintaining or changing structures or practices.
Self-mobilization or empowerment	Takes decisions independent of external institutions. May challenge existing arrangements and structures.

Source: Adapted from Pimbert and Pretty (1994) and Oakley (1991) cited in Hulme and Marshall, 2001

It should be noted that passive participation does not refer only to minimal involvement of people. It can also occur through the use of inappropriate public participation techniques, which are used indiscriminately in poor communities. Such techniques include: ‘knock and drop’ questionnaires requiring respondents to return completed questionnaires by post, lengthy questionnaires, public documents written in academic or scientific jargon, public meetings held in inaccessible venues or at inconvenient times, and public meetings conducted in a language not commonly understood by local communities (Khan, 1998).

#### **2.4.4.3 Public Participation Principles**

Public participation can be viewed as a continuum, extending from full government control to full community control (Figure 2.5). The lowest level of participation is compliance: essentially, the imposition of a decision on the community. In such a situation, the community has no choices or involvement in the decision making process, the decisions have already been made and the community is made to comply. At the other end of the spectrum is self-directed action, where the community is given full responsibility for decision-making and

control of the process. Most public participation programs rest somewhere between these two extremes. (See Appendix 4 for a detailed example).

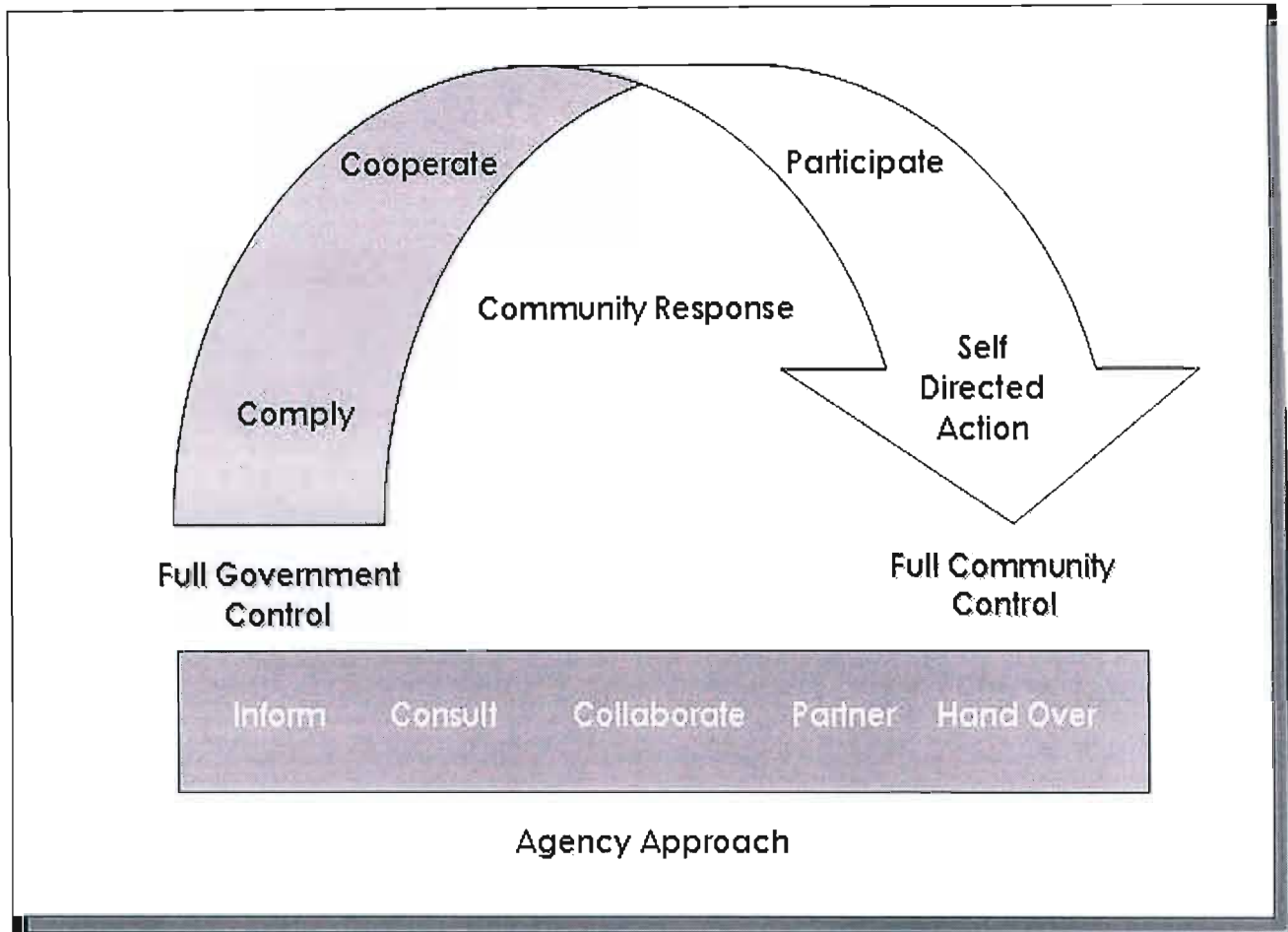


Figure 2.5: The Public Participation Continuum

Source: Parks and Wildlife Commission of the Northern Territory, Australia, 2002

Webler *et al* (2001) identify what they refer to as five main discourses<sup>2</sup> that guide public participation. In this study, these are viewed as key 'principles'.

*First Principle: The Process should be legitimate*

A public participation process would be seen as legitimate if it is totally open and focuses on evidence. It should be able to avoid conflict. Webler *et al* (2001) note that there are three attributes of a legitimate public participation process:

- Decisions should be made by consensus

<sup>2</sup> Perhaps the most suitable term for 'discourses' is 'principles' as discourses are shared, structured ways of speaking, thinking, interpreting and representing things in the world (Webler *et al*, 2001).

- A legitimate process ensures that evidence as opposed to elite preferences drives decisions.
- The process must be transparent i.e. the process should avoid conveying any sense of secrecy.

*Second Principle: The Process should Promote a Search for Common Values*

This principle asserts that the “process should promote a regional sense of awareness and a regional sense of place” (Webler *et al*, 2001: 442). A key feature of this principle is that the process needs to educate. It emphasizes that all parties should be prepared to learn from each other, thus acknowledging their differences and attempting to build consensus.

*Third Principle: The Process should Realize Democratic Principles of Fairness and Equality*

In this view a participatory decision-making process should be fair and unbiased. This factor emphasizes the participation of all people irrespective of their political affiliation, gender, race and age. It discourages the domination of certain groups in the process. Webler *et al* (2001) note that this discourse asserts that in order to attain fairness and equality, weaker members of society should not only participate in the process, they must be heard.

*Fourth Principle: The Process should Promote Equal Power among All Participants and Viewpoints*

This principle describes a participatory decision making process that is highly sensitive to issues of power. Webler *et al* (2001) note that an important element of this principle is that the process should not lead to the creation of decision-making institutions that take away the rights and power of local communities. The process should actually protect local interests by allocating power more equally among participants.

*Fifth Principle: The Process should Foster Responsible Leadership*

This view shows that a good public participation process leads to the formulation of a responsible decision-making body. This would be a legitimate body elected by and in the presence of all interested and affected parties.

Public participation is an integral component of PA management. However, the issue of public participation is complicated by the gap that exists from the lowest to the highest level of participation (see Figure 2.5). This gap leaves a space where the level of participation could fall between the two positions. This leads to a situation whereby the public participation process is undertaken yet full participation of resource users in EDM is not realised. As shown in the literature, this happens in cases where only certain individuals participated in the

EDM process. Therefore differing interests that exist on who should participate, for what purpose and on what terms, are all elements of the controversy. However, where it is done with good will, public participation in EDM is an important tool for PA management.

## **2.5 Theories of Environmental Decision Making and their Application to Protected-Area Management**

Decision-making is a primary human activity as people make different decisions everyday. However, the study of decision-making, i.e. decision sciences is a recent discipline that emerged to help us make better decisions (Sexton *et al*, 1999). Literature in the field of environmental decision-making emerged so as to ensure that decisions made on environmental issues are better decisions that promote the long-term health and integrity of the environment. It also enables us to solve complex problems related to the environment.

Environmental problems are complex and do not have a single solution, they are not made in a linear way nor do they offer a particular procedure to follow. The challenge arises as humans have to choose among different solutions, and ensure that they choose the ‘best’ alternative. Environmental decision-making is a detailed process that involves physical, chemical, biological, technological, psychological, ethical, legal and political factors (Sexton *et al*, 1999). All these factors should be tackled if people are to make better environmental decisions because omitting any of them is likely to oversimplify a problem and make the decision making process incomplete or unrealistic. Therefore, the examination of environmental decisions requires a holistic effort from many disciplines.

### **2.5.1 Tonn *et al*'s Model for Local Environmental Decision Making**

The move away from the law enforcement-based management strategies to strategies aimed at facilitating local community participation in the management of natural resources necessitated a change in local environmental decision-making, emphasizing full participation of local people in the decision-making process (Venter and Breen, 1998). Tonn *et al* (2000) present a model for local environmental decision-making (Figure 2.6). It serves as a diagnostic tool showing how decision-making happens. It can be used to address a number of environmental problems and a number of decision-making settings.

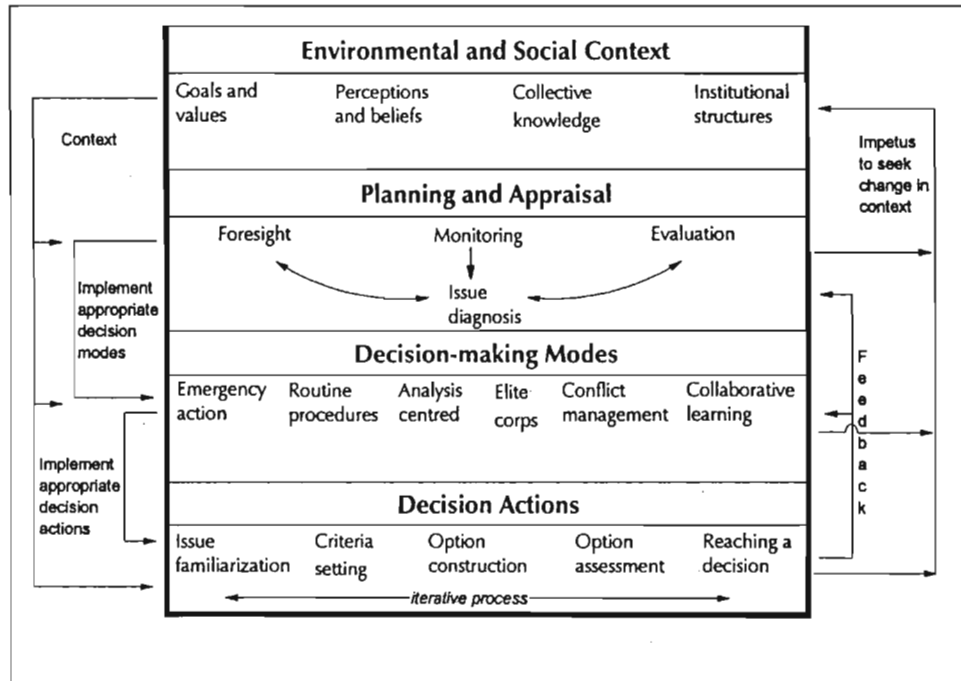


Figure 2.6 Model for Local Environmental Decision-Making

Source: Tonn *et al*, 2000

The main element of the model is that it provides a number of decision-making modes against which one could assess an EDM process. These decision-making modes reveal the path that an EDM process would have taken depending on how environmental decision-makers handled the early stages of the EDM process, i.e. who was included in the process and the extent to which one might have been included. Tonn *et al* (2000) point out that an EDM process is likely to incorporate aspects of more than one mode, simultaneously or over time. The model provides six typical decision-making modes.

### 2.5.1.1 Decision-Making Modes

#### *Mode 1: Emergency Action*

Emergency managers within the decision-making organisation make quick decisions concerning a crisis e.g. a natural disaster such as an earthquake. Knowledge of the situation is gathered at a faster rate and may be incomplete. Tonn *et al* (2000) note that although other people and organisations may participate in emergency preparations, only a few designated people participate in decisions concerning the emergency itself.

#### *Mode 2: Routine Procedures*

In this type of this decision mode, administrative or technical staff within the decision-making organisation follows predetermined procedures to make everyday decisions concerning

familiar, routine situations. Tonn *et al* (2000) note that in this decision mode environmental and socio-economic consequences of any given decisions are not likely to be significant. Also, other people within and outside the organisation might have participated in establishing the policies and procedures that led to these routine decision-making procedures, however, a few people other than the administrative or technical staff are involved in implementing the procedures (Tonn *et al*, 2000).

#### *Mode 3: Analysis Centred*

In this mode of decision making analysts within the decision-making organisation develop technical or policy recommendations for the ultimate environmental decision-maker, which might be a governor, mayor, etc. Tonn *et al* (2000) note that decisions made through the use of this mode may lead to social conflict (see Table 2.4 below). Furthermore, participation of other people within or outside the decision-making body takes place only through the provision of input on their goals and values (Tonn *et al*, 2000).

#### *Mode 4: Elite Corps*

In this mode of decision-making outsiders do not participate. Senior members within the decision-making body reach an agreement or a majority view of the issue at hand.

#### *Mode 5: Conflict Management*

Tonn *et al* (2000) points out that in conflict management as a decision mode, staff or leaders within EDM body seek to resolve an environmental issue using a decision process that is lengthy and open. People from within and outside the decision-making body participate to “represent the different sides of the conflict” (Tonn *et al*, 2000: 171). As a result, information that leads to the decision being taken is obtained from a variety of people followed by discussions and negotiations. As this may lead to more information being sought, this decision mode entails “repeated and protracted iterations” of the five decision action steps shown in Table 2.5 (Tonn *et al*, 2000: 171). A conflict management mode is needed in cases where knowledge about the problem is extensive but not necessarily shared, and where the consequences of the decisions affects different groups disproportionately (see Table 2.5).

#### *Mode 6: Collaborative Learning*

In this mode of decision making various people internal and external to the EDM body work together as *equals* to address an environmental problem that is neither well understood nor easily addressed (Tonn *et al*, 2000). As shown in Table 2.4 below the process is likely to be long and iterative. Tonn *et al* (2000: 171) note that this mode is often “anxiety provoking” as its goal is to encourage people to reconsider their values and accommodate new realities for

the benefit of both the society and the natural environment. This is however the best mode for “sustainable societies since it is a preferable means for evolving and improving our collective understanding of complex environmental problems” (Tonn *et al*, 2000: 171).

Table 2.4 summarises these decision-making modes and shows under what conditions they are implemented.

Table 2.4: Decision-Making Modes and Implementation

Decision-Making Modes						
	1	2	3	4	5	6
Implementation Criteria	<b>Emergency Actions</b>	<b>Routine Procedures</b>	<b>Analysis Centred</b>	<b>Elite Corps</b>	<b>Conflict Management</b>	<b>Collaborative Learning</b>
<b>Knowledge of Problem</b>	Very low to high	High to very high	Very low to medium	Medium to high	Medium to very high	Very low to low
<b>Potential for Conflict</b>	Very low to high	Very low to low	Medium to very high	Very low to medium	Medium to very high	High to very high
<b>Magnitude of Consequences</b>	Medium to very high	Very low to low	Medium to very high	High to very high	Medium to very high	High to very high
<b>Response Time</b>	Immediate to days	Immediate to days	Weeks to years	Days to months	Weeks to years	Months to years

Source: Tonn *et al*, 2000

### 2.5.1.2 Decision Actions

Decision actions are the actual activities that lead to environmental decisions. The five decision actions discussed below have been presented previously in the literature especially by Chechile and Carlisle (1991). The difference is that in the model suggested by Tonn *et al*, they are put within the broader framework of EDM whilst in other studies they appear as steps assuming “a methodical or analytical approach” for EDM (Tonn *et al*, 2000: 173).

#### *Issue familiarization*

This is the first step in EDM and is often referred to as problem identification. Tonn *et al* (2000) argue that identifying the problem is not enough because the problem requiring attention must be clearly and explicitly stated. The model shows that problem identification takes place during issue diagnosis (see Figure 2.6) and at this stage for it carries the notion that more people will be involved than were involved before. At this stage environmental decision makers should make sure that everyone is familiarised with the issue at hand. This model thus caters for a real world situation where people do come and go throughout the decision-making process. This is mainly because the model is equity oriented and thus



assumes the participation of many people in the EDM process as is required by the nature of environmental problems.

### *Criteria Setting*

This step involves specifying criteria to evaluate various options. As noted earlier on, the criterion that may arguably be used is the sustainability of the environmental systems (Tonn *et al*, 2000). This means that the criteria should seek to achieve equity and address concerns for both present and future generations. Tonn *et al* (2000) note that decision makers should consider identifying the relative weights of various criteria to enable more precise option assessment.

### *Option Construction*

This step involves identifying decision options. Tonn *et al* (2000) note that for familiar issues feasible options may already be somewhat well known whereas for less familiar issues they may be got from somewhat similar situations. In complex issues, brainstorming has provided the only effective way to generate options. Tonn *et al* (2000) suggest that in constructing options, preference should be given to options that are

1. Reversible
2. Robust and multi-pronged
3. Incrementally integrated

Actually, the chosen option should ensure and result in system sustainability.

### *Option assessment*

This step involves evaluating how well each option satisfies the established criteria. Options that do not meet thresholds established for the criteria should be modified or dropped from consideration. Tonn *et al* (2000: 174) argue that “options should be qualitatively or quantitatively explicit, not just about what is known, but also about uncertainties; it may be that ‘don’t know’ or ‘can’t know’ is an important part of the assessment”.

### *Reaching a Decision*

When all options have been assessed an environmental decision should be made. It has to be a compelling decision that leads to the desired outcome. Tonn *et al* (2000) note that an appropriate decision is dependent on the institutional context, the decision-making mode and the ultimate decision making authority. This is further explained in Table 2.5 below which shows the ways in which the decision actions might be carried out depending on the decision mode chosen.

Table 2.5 Decision Modes

Decision Modes						
	1	2	3	4	5	6
Decision Actions	<b>Emergency Actions</b>	<b>Routine Procedures</b>	<b>Analysis Centred</b>	<b>Elite Corps</b>	<b>Conflict Management</b>	<b>Collaborative Learning</b>
<b>Issue Familiarization</b>	In real-time, decision makers immerse themselves in the problem, assemble support staff	Technical staff assemble relevant information about the problem	Analysts collect existing information on the problem, immerse themselves in the viewpoints	Elite corps is briefed on problem; extended discussions ensue	Opposing parties discuss and agree to problem definition	Public is actively involved in discussing situation and forming consensus on problem statement
<b>Criteria Setting</b>	Use pre-set criteria (e.g. human safety)	Criteria are known; efficiency is important	Policy is used to guide criteria setting; maybe survey public	Organization mission and values used as guides	Substantive public participation used to set criteria; disagreement, confusion and iteration expected	
<b>Option Construction</b>	Follow emergency procedures	Use known alternatives, incremental change	Use brainstorming and other such techniques, iterate as necessary, construct in accordance to applicable laws and regulations; situation could dictate incremental, evolutionary or even revolutionary change; look for reversibility and flexibility in the alternatives.			
<b>Option Assessment</b>	Use experience, intuition and real models	Results of decisions already known with high certainty	Use available and applicable environmental, economic, social, transportation, etc. models; employ appropriate visualization techniques, consider uncertainty; with few exceptions, satisfying strategies take precedence over optimisation strategies.			
<b>Reaching a Decision</b>	Made by emergency team leader	Made by technicians	Made by administrator	Rendered by elite corps, using voting consensus or other means	Rendered according to agreement; arbitration, citizen fury	Rendered as community consensus (e.g. direct democracy; by a new group)

Source: Tonn *et al*, 2000

Two key features of the model need to be emphasised. One is that it supports the claims made by other authors such as Sexton *et al* (1999) that environmental problems are filled with uncertainty and thus the EDM process should be iterative. As a result, the model does not provide a sequential method that should be followed when making environmental decisions; the whole process is interconnected (see Figure 2.6). It suggests recognition of both the environmental and social contexts because EDM takes place within the context of social and environmental realities. Therefore, it is essential to consider “cultures, religions, political institutions, economic systems, communities and individuals as all may help to shape the social context within which an environmental decision-making is carried out” (Tonn *et al*, 2000: 166).

In addition, the model adopts sustainability as an overriding goal. It thus shows that oversight and guidance functions should be done at the planning and appraisal stage of the model. The functions include oversight, monitoring, evaluation and issue diagnosis and they are meant to project the issue at hand into the future.

## **2.6. Conclusion**

This chapter has reviewed the history of forest conservation, dating back to the colonial era. The idea to protect forests, which led to the creation of nature reserves, resulted from the perceived need to protect the rainfall. The creation of PA's was inconsiderate of the needs of people living in and around the forests: people were denied access to forest resources and PA boundaries were patrolled in order to keep people away. This was institutionalized through forest policies and laws. The conflict over access to forest lands and products exploded into open resistance movements and people's refusals to obey forest laws and policies. People's resistance of state control of forest resources was both covert and overt. It involved foot dragging, burning of forests, poisoning of animals and death from both parties. Most importantly, it failed to protect the intended resources.

The chapter then went on to discuss new philosophies of conservation. Community based conservation originated when conservationists realised that colonial conservation has failed to protect the intended resources. As a result of the shift to community conservation, a number of community-oriented approaches/strategies were developed, namely: community-based conservation (CBC), collaborative management, co-management, community-based natural resource management and integrated conservation and development programmes all of which see the success of conservation programmes only if local resource users are partners in them. Community conservation strategies emphasise the involvement of women in conservation

because women often use natural resources and should thus play a significant role in their protection and conservation. As such they are more likely to be directly affected by forest protection measures and/or the degradation of natural resources. The normative theory of community conservation stressed the idea that until environmental decisions are made with the people irrespective of gender, age, race, political affiliation and position/status in society, conservation efforts will not succeed.

Finally, the chapter presented a theoretical framework that may be used in understanding EDM. The model serves as a diagnostic tool to reveal how decision-making happens in a particular context. It provides six decision-making modes that may be used in reaching an environmental decision depending on the nature of the problem and the level of participation in the process.

## **CHAPTER THREE**

### **BACKGROUND TO THE STUDY AREA**

#### **3.1. Introduction**

This chapter describes the location of the study area. It starts off by describing the average socio-economic status of residents in the uMlalazi municipality (demography, employment and income levels). The biophysical characteristics of the study area are then presented. This includes its climate, geology, topography and vegetation. Lastly, the chapter gives a background to Dlinza Forest, in particular the physical characteristics of the forest. Information on the management history of the forest was collected as part of the data analysis and is presented in Chapter 5.

#### **3.2. Location of Dlinza Forest in the Region**

Dlinza Forest is situated within a town, Eshowe, which has been described in publicity material as “the town with a wooden heart” (Appendix 1, Article 1). It lies at 28° 53' S and 31° 26' E. The town of Eshowe is situated within the Zululand region of the KwaZulu-Natal Province (Figure 3.1). A strong sense of tradition at Eshowe keeps alive reminders of the old Zulu kingdom and its founder Shaka, and this history is used in attracting tourists to the town and to Dlinza Forest. The surrounding area consists of commercial sugar cane farms, forests and communal lands interspersed with freshwater lakes and wetlands. Eshowe falls within the jurisdiction of the uThungulu District Council. The uThungulu District is located in the north-eastern portion of KwaZulu-Natal (Figure 3.2). It stretches from just north of the uThukela River starting at the Amatikulu River, along the coastline up to the Mfolozi River, which forms the northern border of the district. uThungulu comprises of six Local Municipalities, namely:

- Mbonambi Local Municipality
- uMhlatuze Local Municipality
- Ntambanana Local Municipality
- uMlalazi Local Municipality
- Mtonjaneni Local Municipality
- Nkandla Local Municipality

Eshowe lies within the uMlalazi Local Municipality.

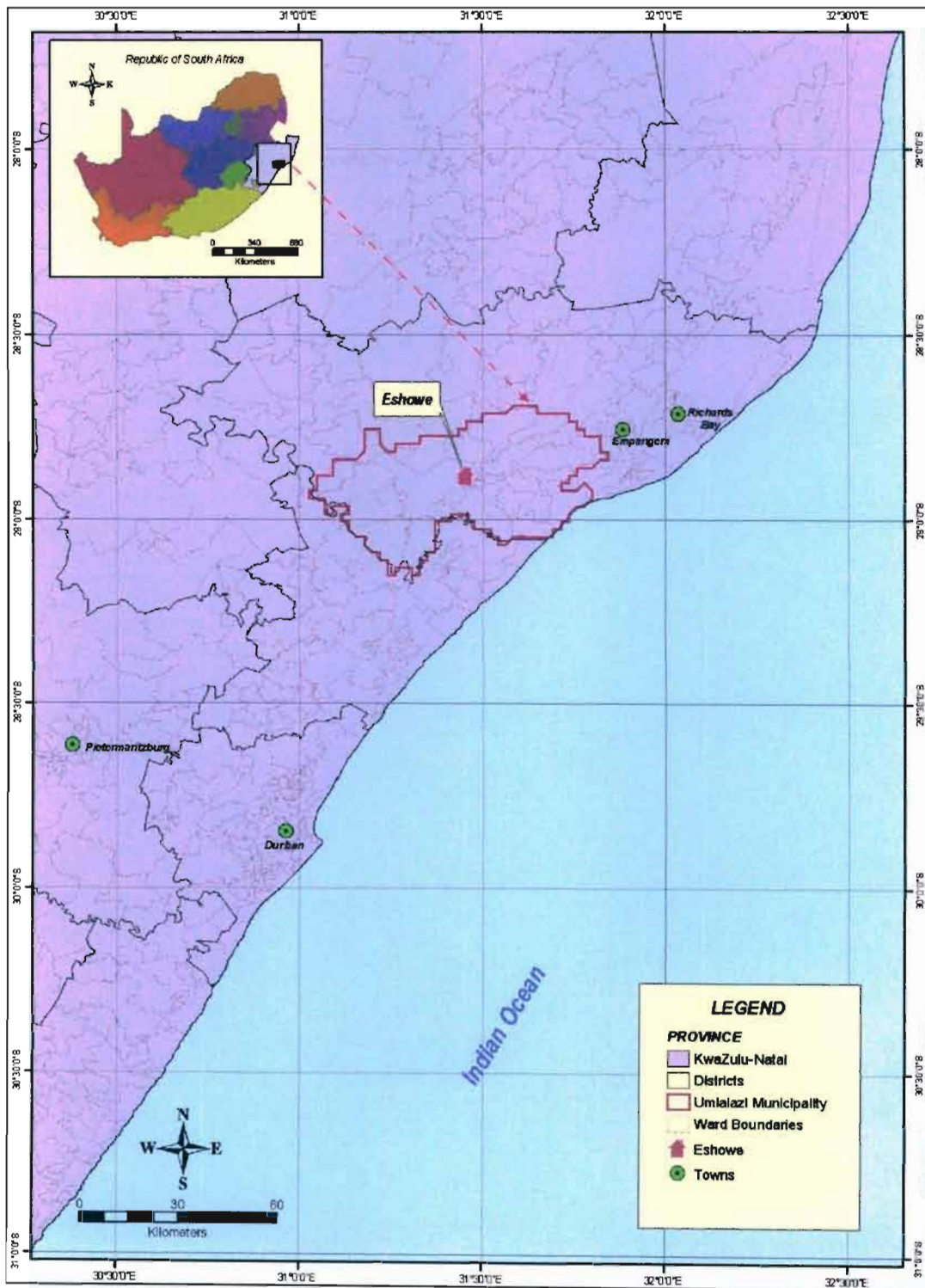


Figure 3.1 Location of the Study Area

### 3.3. Socio-Economic Characteristics of uMlalazi Municipality

#### 3.3.1. Demography

The total estimated population of the uThungulu District is 762 791. For the uMlalazi Municipality, the total population is 231 023 (Census, 1996). Table 3.1 shows the demographic data per local council in the uThungulu District. The rationale for looking at the demography of the entire uMlalazi municipality rather than that of Eshowe is because the Eshowe demographic information excludes that of the surrounding rural areas. The key points to note are:

- Approximately 80% of the people are considered a rural-based population (uThungulu IDP, 2001);
- A high percentage of the population falls into the youthful 0-19 year age group (53.5%);
- The female population (54.7%) is significantly higher than the male population (45.7%) due to migration patterns associated with the province in general.
- There are large disparities in settlement concentrations: uMlalazi is home to the highest proportion of the population (30.3%) in the uThungulu District as a whole.

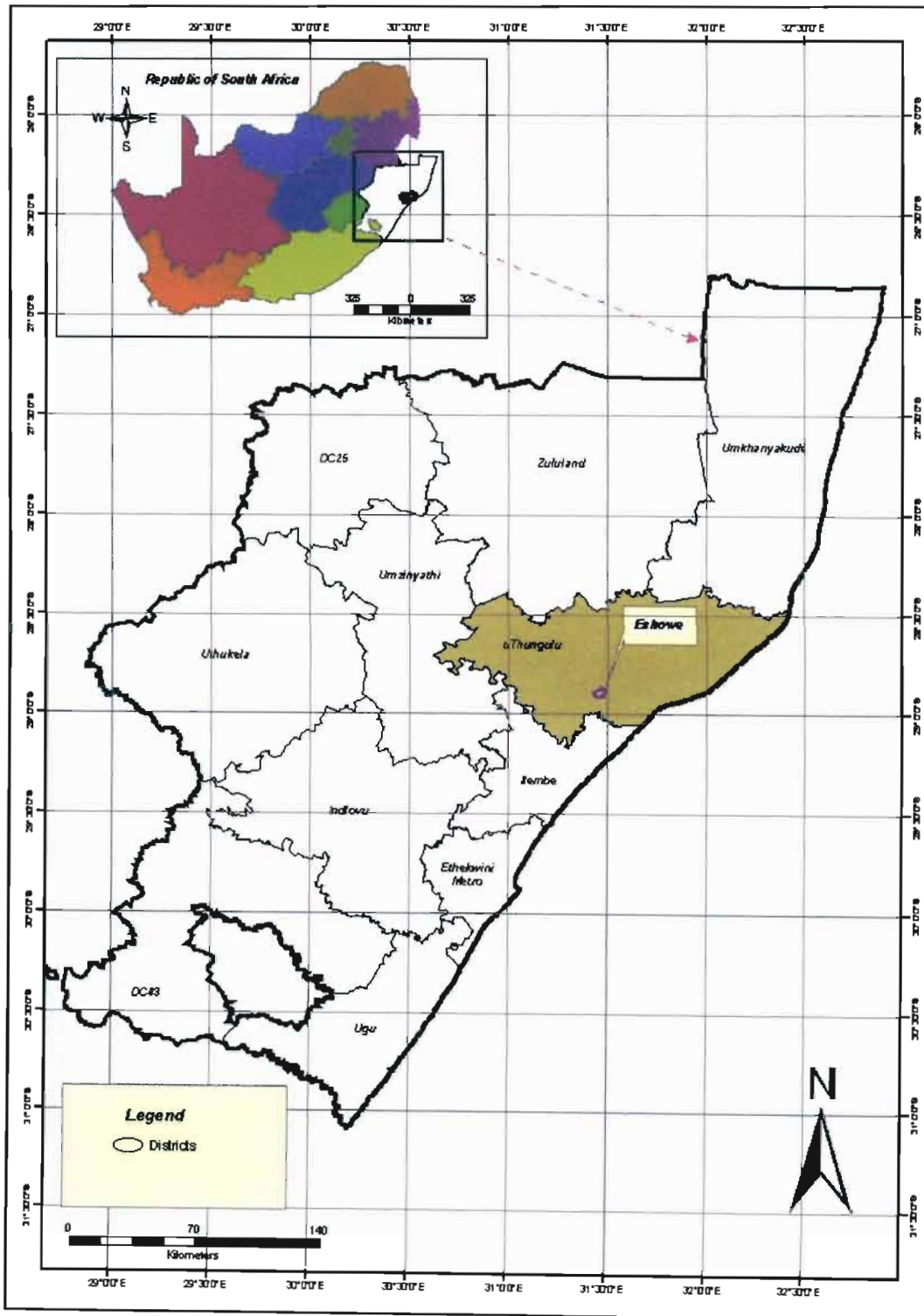
Table 3.1. Demographic Data Per Local Council Area

LOCAL COUNCIL	POPULATION	% POPULATION	MALE	FEMALE	AGE GROUP		
					0 – 19	20 - 64	65 +
Kwambonambi	96 497	12.7	46.6	53.4	52.9	42.8	4.3
Mhlatuze	196 183	25.7	48.5	51.4	45.0	52.2	2.8
Ntambanana	72 727	9.5	45.3	54.6	56.3	39.1	4.6
<b>uMlalazi</b>	<b>231 023</b>	<b>30.3</b>	<b>45.3</b>	<b>54.7</b>	<b>53.5</b>	<b>41.6</b>	<b>4.9</b>
Mthonjaneni	36 848	4.8	45.2	54.8	53.9	41.2	4.9
Nkandla	129 513	17.0	43.1	56.9	59.1	35.0	5.9
uThungulu	762 791	100.0	45.7	54.3	52.5	43.1	5.4

Source: uThungulu IDP, 2001

When extrapolating the 1991 census information with the 1980 and 1996 to calculate the average annual growth rate, it is found that there has been an average annual growth rate in the uThungulu District of 2,58%. The higher growth rate for the whole period was probably due to an immigration of people into the district, rather than necessarily a higher growth rate. Over the past decade, the growth rate has declined over the past decade to almost 0% due to the impact of HIV/AIDS and the emigration of people from the study area (uThungulu IDP, 2001).

Figure 3.2 Location of uThungulu in KwaZulu-Natal





### 3.3.2. Employment and Income Levels

The socio-economic conditions and characteristics of those living within the uThungulu District Council area vary considerably between the different local municipal areas. There are certain geographical areas where residents have a particularly low income and education levels. These areas need some kind of intervention in order to try and redress the imbalances, particularly as there are still enormous backlogs in service infrastructure within the uThungulu District Council. There is, as one would expect, a high level of correlation between employment and income levels. The uMlalazi Local Municipal area has been recorded as having the highest employment and income levels (uThungulu IDP, 2001), but it still suffers from development backlogs. Development backlogs for the Eshowe section of uMlalazi municipality are shown in Figure 3.3.

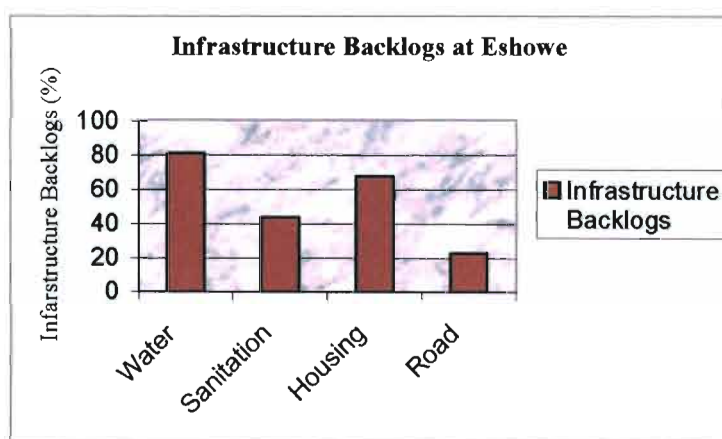


Figure 3.3. Infrastructure Backlogs at Eshowe

Source: uThungulu IDP, 2001

The uThungulu IDP (2001) indicates that water provision is a severe backlog in the study area with 26 201 households requiring potable water. This explains why the study area is prone to cholera. Both electricity and housing are also substantial backlogs with 21 183 households requiring electricity and 21 936 households requiring formal housing. Sanitation is a moderate backlog with 13 267 household requiring sanitation. Roads provision is adequate as most settlements are accessible (uThungulu IDP, 2001).

### 3.3.3. Literacy

Although 66% of the population at Eshowe have some form of education, only 30,79% can be said to be literate, as they have an education higher than primary school level. Since 54% of the total population is older than 15 years of age, it means that about 25% of the population older

than 15 years of age is illiterate. The IDP states that 33,67% of the population of uThungulu district have no education at all. The areas in which relatively high tertiary levels of education are recorded are in the uMhlatuze and uMlalazi Local Municipalities (uThungulu IDP, 2001).

### **3.3.4. Economy and Land Use Practices**

The limiting factor of installing infrastructure is cost, both for capital installation and ongoing management and maintenance. The hilly topography of the study area serves to increase costs further in terms of the engineering expertise required in installation and maintenance costs. Even though the economic performance of the study area is good, it must be noted that unemployment is high at 44,7% (uThungulu IDP, 2001).

The major land uses in the study area are:

*Commercial agriculture:* the main crop is sugar cane. The production of horticultural crops includes citrus, sub-tropical fruits and vegetables occurring in irrigated areas.

*Forestry:* that classified as commercial (largely found in the non-tribal or private property areas), as well as small grower timber production (found in the tribal areas).

*Traditional agriculture:* associated with the majority of the tribal authority areas which are characterised by underdevelopment and food deficiency. It is worth mentioning that there are neither industries nor mines in the immediate study area. However, people from the study area are employed in the industries which are concentrated in Richards Bay and Empangeni whose activities concentrate on sand mining and the mining of heavy minerals (uThungulu IDP, 2001).

## **3.4. Biophysical Characteristics of uMlalazi Municipality**

### **3.4.1. Topography**

The flat coastal region comprises of the Natal Coastal Belt and Zululand Coastal Plain with altitudes ranging between sea level to 450 metres. Inland adjacent to the coastal belt, the Lowveld of Zululand to the north east and the Eshowe to the west are characterised by hilly topography with altitudes increasing to 900 metres. The terrain becomes more extreme towards the north west of the study area and includes the Melmoth-Nkandla Block, the Babanango Block and Umsinga-Qudeni Massif characterised by steeply incised valleys with altitudes between 900 and 1 400 metres (uThungulu IDP, 2001).

### 3.4.2. Geology and Soils

The general geological structure of the region of KwaZulu-Natal is characterised by intense fracturing and faulting which occurred during both the attempted Gondwana break-up and the final drifting (Whitmore, Uken and Meth, 1999). The Natal Group, Dwyka Group and the Ecca group, dominate the geological structure of the study area, (Whitmore *et al*, 1999).

**Natal Group:** The Natal Group is of Ordovician-Silurian age and lies on the Precambrian Natal Basement Complex, which consists mainly of granite-gneiss (Bell and Maud, 1999). Its sediments vary considerably in thickness across the southern area. This is illustrated by the recorded thickness of a minimum of 15-30m west of Kranskop to a maximum thickness of about 500m in the Mhlatuze trough near Eshowe. The base of the Natal group is marked by a basal conglomerate with an average thickness of about 10m (Marshall and von Brunn, 1999). It is overlain by a succession of upward-fining sequences of grit, medium-to-fine grained quartzose sandstone and occasionally arkosic sandstone, siltstone and shale (Marshall and von Brunn, 1999). This sandstone is red to light purple in colour and cross bedded (Bell and Maud, 1999). Colluvial soils develop from the Natal Group. They are generally thin; often less than 1m thick and they are characteristically sandy. An eluvial layer of fine-to-medium-grained sand with silt normally occurs beneath the sandy top-soil. It is usually less than 1m in thickness and is underlain by sandy clay of low permeability. The residual soils beneath tend to be clayey sand in which occur fragments of sandstone. The clay-silt content of the residual layer varies from less than 10% to 50% ([www.nbi.ac.za](http://www.nbi.ac.za)). These soils tend to have a low plasticity with liquid limits frequently below 30% and plasticity indices usually in the range of 5 to 10% (Bell and Maud, 1999). In times of heavy rain, these soils become saturated very quickly.

**Dwyka Group:** Rocks of this formation overlie various older groups including the Natal Group. The main rock type is a massive tillite deposited in a glacial environment by retreating ice sheets 300 million years ago (Whitmore *et al*, 1999). It has a very fine-grained blue, grey to greenish matrix in which erratics, ranging in diameter from a few centimetres to more than 2m occur. The Dwyka Group forms the lowermost and oldest deposit in the Karoo Supergroup Basin. This basin extended across much of southern Gondwana and records 120m years of geological history. The soil that is formed from weathered tillite is known as an Estcourt soil. These soils make life rather difficult for plants, because of the impermeable clay layer at about 40 cm. This layer results in regular waterlogging of the soil after heavy rainfalls. Waterlogging results in a lack of oxygen, which retards metabolic processes within roots ([www.nbi.ac.za](http://www.nbi.ac.za)).

Ecca Group: As Gondwana moved northwards towards the equator, thick clay and silt beds were laid down in a large sea that occupied the Karoo Basin. These sediments now form shales of the Pietermaritzburg formation. The Pietermaritzburg formation consists of a fairly uniform succession of dark grey, blue or black usually well-bedded shale showing little variation throughout the southern area. Overlying the Pietermaritzburg formation is a thick sequence dominated by light grey sandstones called the Vryheid formation. These sandstones were deposited along ancient sandy shorelines behind which lay vast swamplands. Oakleaf soils develop from this group. They have a low infiltration rate and erosion off the slopes is a problem in areas where the soil is exposed to direct raindrop impact (usually areas that are not protected by vegetation). The soil temperatures reach to over 50°C in summer (www.nbi.ac.za).

### 3.4.3. Vegetation

The cash crop sugarcane dominates the vegetation of the study area. Table 3.2 below shows the distribution of eucalyptus, sugarcane and indigenous forests at Eshowe. It is worth mentioning that nearly half of the remaining indigenous forest in the area, is preserved at Dlinza Forest Nature Reserve (Water Services Development Plan, 2001).

Table 3.2. Eshowe Land Cover

Type of Land Cover	Area in km <sup>2</sup>
Indigenous Forest	5.6
Eucalyptus	8.79
Sugarcane	298.61

Source: Water Services Development Plan (WSDP) 2001

### 3.5. Climate

The climatic conditions of Eshowe are very diverse due to the topography, which plays a major role in modifying rainfall and temperature. The climate of the study area is warm sub-tropical and Eshowe is about 500 km south of the Tropic of Capricorn. Traditionally, the summer trade winds can be relied upon to bring rainfall. The warm Agulhas current plays a regulatory role in the climate and weather conditions along the eastern seaboard of the subcontinent and thus has a strong influence on the coastal catchments (Water Services Development Plan, 2001).

### 3.5.1. Precipitation

The mean annual rainfall of Eshowe ranges from 800mm to 1 400mm per annum (uThungulu IDP, 2001). Mean annual rainfall decreases from an average 1 200 to 1 400mm along the coastal region to an average of 650mm inland.

### 3.5.2. Temperature

KwaZulu-Natal and Zululand in particular has a warm sub-tropical climate for most of the year. Summer (Nov-Feb) temperatures are hot, from 24 to 30°C and winter temperatures average at 20°C (Water Services Development Plan, 2001).

### 3.6. Background to Dlinza Forest

The noun ‘dlinza’ is Zulu for grave or sepulchre whilst the verb ‘dlinza’ implies meditation and thought (O’Reagain, 2001; Lugg, 1975). Lugg (1975) mentioned that the forest gets its name due to an early Sibiya chief being buried in the forest. For many years, it was known by the white Zululand community as the Hlinza or Hlintsa Bush. The Dlinza Forest is 250 hectares in extent. It is unique in that it provides a sanctuary for many rare bird, plant and animal species, which are a great draw card for tourists, particularly those interested in wildlife. Currently it is on the popular Zululand Birding Route. Ezemvelo KwaZulu-Natal Wildlife (EKZNW), the provincial conservation board, is charged with responsibility for directing the development and promotion of ecotourism facilities within the province’s Protected Areas (PA’s). It administers the Dlinza Forest.

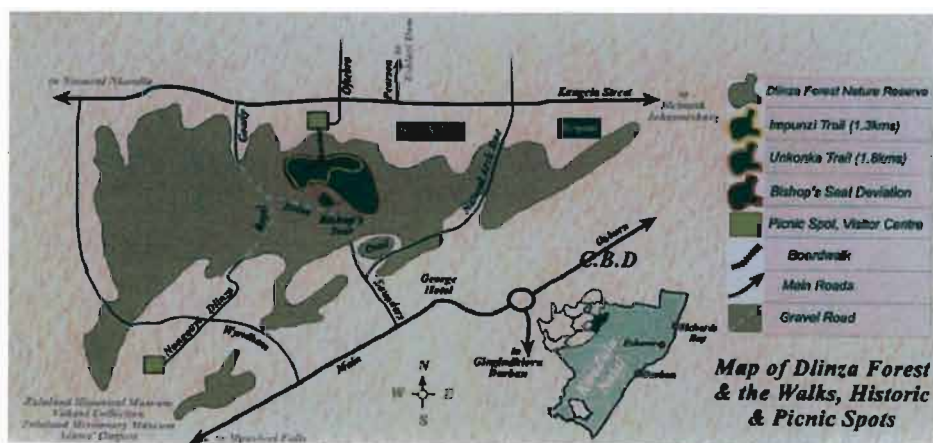


Figure 3.4. Map of Dlinza Forest

Source: [www.zbr.co.za/boardwalk/dlinza-map](http://www.zbr.co.za/boardwalk/dlinza-map)

There is a large diversity of plant species in the forest. O'Reagain (2001) notes that the forest provides habitat to a number of flowering trees and shrubs. Table 3.3 provides a list of some of the trees and shrubs found there. Because the sunlight cannot filter through the thick canopy at Dlinza, flowers are most likely found in open patches of grassland or on the forest fringe. The flowers can also be seen from the newly constructed boardwalk through the forest – a tourist attraction which is the most recent stage in development at Dlinza. The flowering species at Dlinza include the *Clivia miniata*, *Bolusiella maudiae*, *Dermatobotys saundersii* and the *Dietes iridioides* to mention only a few.

Table 3.3. Trees and Shrubs Found at Dlinza

Common Name	Scientific Name	Zulu Name
Assegai	<i>Curtisia dentate</i>	uMlahleni
Black Stinkwood	<i>Ocotea bullata</i>	uNukani
Cape Beech	<i>Rapanea melanophloeos</i>	uMaphipha
Coastal Goldenleaf	<i>Bridelia micrantha</i>	uMhlahle
Dragon Tree	<i>Dracaena aletriformis</i>	iThokothoko
Fluted Milkwood	<i>Chrysophyllum viridifolium</i>	uMemezi
Forest Ironplum	<i>Drypetes gerrardi</i>	uMhlwakela
Forest Peach	<i>Rawsonia lucida</i>	uMphindangulube
Giant Umzimbeet	<i>Millettia sutherlandii</i>	uMsimbishana
Horsewood	<i>Clausena anisata</i>	umNukambiba
Natal Milkplum	<i>Englerophytum natalense</i>	uMthomngwane
Outeniqua Yellowwood	<i>Podocarpus falcatus</i>	uNompumelelo
White Violet Bush	<i>Rinorea angustifolia</i>	iMpicasaguma
Red Ivory	<i>Berchemia zeyheri</i>	uMnini
Wild Peach	<i>Kiggelaria Africana</i>	iDungamuzi
Wild Plum	<i>Carpephyllum caffrum</i>	uMgwenya

There are approximately 65 bird species (O'Reagain, 2001; [www.kznwildlife.com](http://www.kznwildlife.com)) found in the forest, and birding is fast becoming a large pastime of visiting tourists. As noted, Dlinza forest is a popular birding destination and is part of the Zululand Birding Route (See Table 3.4 below). The Zululand Birding Route is located in southern Zululand. It covers a distance of about 320 km. It takes advantage of the main highways and district roads to create a recreational activity for birders. The Zululand Birding Route is made up of 22 birding sites. According to the Zululand Birding Route association the entire route encompasses more than 10 different habitat types which support more than 430 bird species, i.e. approximately 50% of the total South African species excluding vagrants.

Table 3.4. Zululand Birding Route Sites

<b>Eshowe Route</b>	<b>Melmoth Route</b>	<b>Babanango Route</b>	<b>Mtunzini Route</b>	<b>Richard's Bay Route</b>	<b>St. Lucia Route</b>
Dlinza Forest	Weni Farm	Emakhosini Valley	uMlalazi NR	Berm Wall	St. Lucia
Ongoye Forest	Kortbegrip Farm	Babanango Valley		Thulasihleka Dam	Fanies Island
Theunissen's Dam	Nkandla Forest	Mangeni Waterfall		Bay Hall Area	False Bay
Amatikulu NR	Wintershoek Farm				
Dreadnought Walking Trail	Upata Ranches				
Ntumeni Forest	Mgungundlovu Amafu				
Goedetrou Dam					

Table 3.5 provides a list of some of the bird species found at the forest. Some of the bird species found in the forest are endangered, for instance, the Spotted Thrush. There are over 80 species of butterfly and moths and about 12 species of snails and slugs found only at Dlinza. The tiny Clifden's Centipede Snail (*Trachycystis clifdeni*) species occurs only at Dlinza (O'Reagain, 2001; [www.kznwildlife.com](http://www.kznwildlife.com)). A number of reptiles are found, including chameleons, frogs and snakes. Mammal species include the red duiker (which is listed in the Red Data Book), bushbucks, bats and vervet monkeys. Dlinza is also home to three species of mongoose, the Slender Mongoose, the nocturnal White-tailed Mongoose and the Water Mongoose.

Table 3.5. Birds and Butterflies Found at Dlinza

<b>Birds</b>		<b>Butterflies and Moths</b>	
<b>Common Name</b>	<b>Scientific Name</b>	<b>Common Name</b>	<b>Scientific Name</b>
Black Sparrowhawk	<i>Accipiter melanoleucus</i>	Albatros white	<i>Appias sabine</i>
Crowned Eagle	<i>Stephanoaetus coronatus</i>	Blue-spotted Charaxes	<i>Charaxes cithaeron cithaeron</i>
Emerald Cuckoo	<i>Chrysococcyx cupreus</i>	Gaudy Commodore	<i>Junonia octavia sesames</i>
Narina Trogon	<i>Apaloderma narina</i>	Mocker Swallowtail	<i>Pipilio dardamus cenea</i>
Purple-crested Lourie	<i>Tauraco porphyreolophus</i>	Mother of Pearl	<i>Protogoniomorpha parhassus</i>
Red-backed Mannikin	<i>Spermestes bicolor</i>	White-banded swallowtail	<i>Priceps echerioides echerioides</i>
Spotted Thrush	<i>Zoothera guttata</i>	White-barred Charaxes	<i>Brutus natalensis</i>
Wood Owl	<i>Strix woodfordii</i>		

### **3.7. The Contemporary Ecotourism Venture at Dlinza**

The Aerial Boardwalk Project was started in 1994 by Mr Denis Eckard (Honorary Officer of the Natal Parks Board), Mr Glen Holland (Parks Board Officer), and Mrs Jane Chennells. After years of planning, a boardwalk was designed by Mr Rob Sully, based on similar boardwalks in Australia (See Appendix 3). In 1999, Richards Bay Minerals provided funding for the first phase of the Boardwalk Project, and a 125m long raised boardwalk, standing 10m off the ground, was built near the Dlinza Forest picnic site (Plate 1). uThungulu Regional Council donated funding to join the picnic site to the boardwalk with a low wooden walkway, making it accessible to wheelchairs. The World Wide Fund for Nature (WWF) forests and wetlands project, with funding provided by SAPPI, gave approval to build an additional extension to the boardwalk, ending in a steel viewing tower 20m high, which overlooks the whole of the forest area, and Eshowe. It is the first boardwalk of this kind to have been constructed in South Africa.

Plate 1. Dlinza Forest Aerial Boardwalk



EKZNW and the company running the boardwalk, Biz Afrika 1226 trading as the Dlinza Forest Aerial Boardwalk (a voluntary association), signed an agreement on the 25<sup>th</sup> of July 2001. They agreed that the administration and management of Dlinza should rest with the Dlinza Forest Aerial Boardwalk through the Boardwalk Committee in close cooperation with the conservation



authority, EKZNW. The memorandum of agreement shows that the Boardwalk Committee would also take responsibility to manage the revenue received from the project. According to the memorandum of agreement the objectives of the boardwalk are:

- To assist in the conservation and protection of the Dlinza Forest Nature Reserve.
- To provide a focus and anchor for the broader involvement of rural communities within the Eshowe district in conservation and tourism through assistance in management and marketing of satellite eco-tourism facilities associated with the Dlinza Forest Aerial Boardwalk, as per agreed terms, within communities residing near other forests and wetlands within the region.
- To empower local communities through capacity building and skills development programmes.
- To develop a greater awareness and understanding amongst the broader Eshowe community of the significant contribution that the environment can make in terms of tourism development through educational and environmental awareness programmes.
- To create a unique, high quality experience for the visitor which will create economic spin-offs within Eshowe town and the broader neighbouring community.
- To actively promote the conservation of forests and wetlands, specifically to assist wherever possible in promoting the general aims of the WWF/SAPPI Forests and Wetlands Venture in this regard.
- To contribute towards the creation of goodwill and pride between Eshowe and our neighbouring community (Memorandum of Understanding, 2001).

The Dlinza Forest Aerial Boardwalk has formed a Section 21 Company, with a Board of Directors selected by the following representative bodies, who are the members of the Company (O'Reagain, 2001). In 2001 the representatives were the following:

- uMlalazi Municipality (S.B. Larkan)
- EKZN Wildlife (M.G. Buthelezi)
- Eshowe-Ntumeni Conservancy (G.L. Gunter)
- Zululand Birding Route (F. B. Emberton)
- uMlalazi Community Tourism Association (H. A. Bird)
- The Chamber of Business (G. N. Reeves)

- Ntumeni Rural and Surrounding Environment Conservation Committee (M.C. Mthembu)
- The Amakhosi (X. B. Dube)
- World Wide Fund for Nature (South Africa, G. D. Laws)
- KZN Tourism Authority (A. J. Wentzel)
- Eshowe Environmental Education Centre (R.J Gaisford)
- KZN Department of Agriculture (F. B. Phewa)
- The Dlinza Conservancy (R. T. Masondo)
- Three other nominated members from the community (W. J. Axford, J. M. Chennels and R.K.N Garside)

### **3.8. Conclusion**

This chapter has provided the geographical location of the study area. It has also presented the socio-economic characteristics of the study area, which included the demographic data. This data shows that approximately 80% of the population reside in communal (tribal authority) areas. It also shows that the population growth rate has declined over the past decade to almost 0% due to the impact of HIV/AIDS and the emigration of people from the study area. The biophysical characteristics of the study area are also presented. This has shown that the topography of the area hinders development, as it requires engineering expertise in installation and maintenance costs that are very expensive. Lastly, a background to Dlinza Forest was provided. This provided information from the naming of the forest to the types of species found in the forest. Furthermore, a synopsis of the ecotourism venture at Dlinza is provided.

## CHAPTER FOUR METHODOLOGY

### 4.1. Introduction

Rothwell (1999) noted that the choice of methodology is of great importance in research as it determines the outcome of the research. The methodology used in this study was thus derived from careful planning and selection of the data collection techniques in order to achieve the aim and objectives of the study. The data collected was supplemented with a range of information available in the literature. This chapter attempts to outline and rationalize the research methods used in this study. It commences with a description of the research techniques used in the study and ends with an outline of the problems and limitations experienced during the fieldwork.

### 4.2. Type of Research

The researcher considered that intensive methods and qualitative data would be the most appropriate means of conducting the research, as the philosophical research questions would not be satisfactorily answered by using quantitative methods (Goff, 2000). As defined by Yin (1984:56) a “qualitative research method is generally concerned with non-quantifiable (non-numerical) data which is often specific to a particular situation”. Table 4.1 below shows the main differences between qualitative and quantitative research.

Table 4.1: Differences between Quantitative and Qualitative Research

<b>Characteristic</b>	<b>Quantitative</b>	<b>Qualitative</b>
Approach	Deductive	Inductive
Purpose	Theory testing, prediction, establishing facts, hypothesis testing	Describing multiple realities, developing deep understanding, capturing everyday life
Research Focus	Isolates variables, uses large samples, is often anonymous to participants, uses tests and formal instruments	Examines full context, interacts with participants, collects data face-to-face from participants
Research Plan	Developed before study is initiated, structured, formal proposal	Begins with an initial idea that evolves as researcher learns more about participants and setting, flexible, tentative proposal
Data Analysis	Mainly statistical, quantitative	Mainly interpretive, descriptive

Source: Gay and Airasian, 1996

The underlying belief of qualitative research is that meaning is situated in a particular perspective or context, and, since different people and groups have different perspectives and contexts, there are many different meanings in the world, none of which is necessarily more valid or true than another (Gay and Airasian, 1996). A qualitative researcher, therefore, believes that the world cannot have fixed objective meanings, but that all variables must be taken into account when conducting research, including past experiences. As shown in Table 4.1, research strategies in qualitative research aim to generate interpretive data, and may include interviewing and field observation (Silverman, 2000; Mouton and Babbie, 1998; Blanche and Durrheim, 1999). The type of data used in qualitative research often includes historical accounts, a variety of texts as well as transcripts. Social researchers perceive qualitative research to be important because it:

- Provides ways of transcribing and analysing the discursive construction of everyday events, of examining the consequential nature of learning within and across events, and of exploring the historical nature of life within a social group or local setting.
- Provides information about why and how miscommunication between actors occurs, particularly when such actors are members of different groups (e.g., administrators, teachers, different ethnic groups, and different genders).
- Provides ways for understanding the local and situated nature of everyday life; how this life is consequential for those who are members, as well as those seeking membership; and for exploring how equity of access to societal resources is locally constructed in and through the actions of people in local settings (Gay and Airasian, 1996; Mouton and Babbie, 1998; Robinson, 1998).
- Provides insights into the insider knowledge needed to participate in socially and academically appropriate ways.

However, qualitative research has been criticised. The main disadvantage of qualitative research is probably its heavy reliance on the researcher's experience, which determines the accuracy of the interpretations (Robson, 2002). Qualitative research has also been criticised for the following reasons:

- Current techniques of data collection typically involve semi-structured interviews that can place considerable demands on participants' time, making it difficult to recruit people, for whom time is often at a premium.

- Qualitative research is a time-consuming exercise, not only in relation to the data collection process but also because the process of analysis involves continual movement between the data and emerging themes to adapt and verify the analytical framework being developed.
- The conclusions of qualitative research typically are disseminated through academic publications and papers, which people not familiar with academic writing can find difficult to follow.
- Time delays between submission and publication may again mean that the findings are no longer relevant to the target audience (Robson, 2002).

Table 4.2 below summarises the strengths and weaknesses of qualitative research, which the researcher had to take into account through the research process. Knowledge about the existence of such weaknesses helped the researcher to avoid them as much as possible and where applicable use corrective measures, particularly in analysing the data.

Table 4.2. Strengths and Weaknesses of Qualitative Research

<b>Strengths</b>	<b>Weaknesses</b>
Depth and detail	Fewer people studied (usually)
Openness - can generate new theories and recognize phenomena ignored by most or all previous researchers and literature	Less easily generalized as a result
Helps people see the world view of those studied, their categories, rather than imposing categories	Difficult to aggregate data and make systematic comparisons
Attempts to avoid pre-judgement - goal is to try to capture what is happening; presents people from their perspectives and views.	Dependent upon researcher's personal attributes and skills

Source: <http://lnweb18.worldbank.org>

This is a qualitative study that attempts to describe the views and experiences of people, which cannot be obtained through quantification and measurement. Therefore, qualitative methods were employed in the study when gaining access to research subjects, collecting data and analysing it.

### 4.3. Data Sampling

Two sampling methods were used in the study. Firstly, the purposive sampling method was used. This is the kind of sampling method in which the researcher uses his or her own judgement about which respondents to choose, and picks only those who best meet the purpose of the study (Bailey, 1994; Silverman, 2000; Blanche and Durrheim, 1999). According to Robinson (1998: 29) a purposive sample represents the “selection of typical individuals ... in which for instance ‘a typical place’ is selected for study because it is believed to possess particular characteristics”.

In this research, the researcher felt that it would be advantageous to interview people living in rural areas that are the closest to Dlinza Forest Nature Reserve because they are the ones who might need to use the forest resources. Therefore the purposive sampling method was relevant in the study because it allowed the researcher to recruit participants who represented groups that the researcher intended to study. Information obtained from key informants on a preliminary site visit was used to choose respondents. As a result, Nkanini, Kwa-Khoza, Kwa-Mondi and Mbomboshane are the villages that were studied partly because of their proximity to the Dlinza Forest Nature Reserve and partly because key informants did indicate that people in these areas do use the forest ‘illegally’ (see Figure 4.1 below).

When choosing respondents within the selected villages, the stratified random sampling method was used. This sampling method was used because it is known to be an efficient sampling technique as “for a given sample size, the means of stratified samples are closer to the population mean” (Robson, 2002: 262). In this sampling method, the sampling frame is divided into sub-groups or strata (Kitchin and Tate, 2000). Robson (2002) notes that the sub-groups are formed where members of a group share a particular characteristic or characteristics. In this study, the respondents were divided in terms of gender because the researcher wanted to know how the perceptions, attitudes and views of men differed from those of women with regard to the management of Dlinza Forest.

Five men and five women from each of the villages were recruited, on the basis of interest shown in participating in the focus group. The total number of participants in the study groups was thus twenty men and twenty women. A local resident provided an introduction to the villages and assisted in assembling the focus groups. The random method used is important as in random sampling any individual element in the population is as likely to be included in the sample as any other person (Robinson, 1998; Bailey, 1994; Mouton, 1996). The small size of the groups aimed

to overcome the most common disadvantage of focus group interviews; that is, non-participation of respondents should the group consist of many people. Robinson (1998: 419) supports this as he notes that “the smaller the group, perhaps around five, the greater will be the participation of all members”.

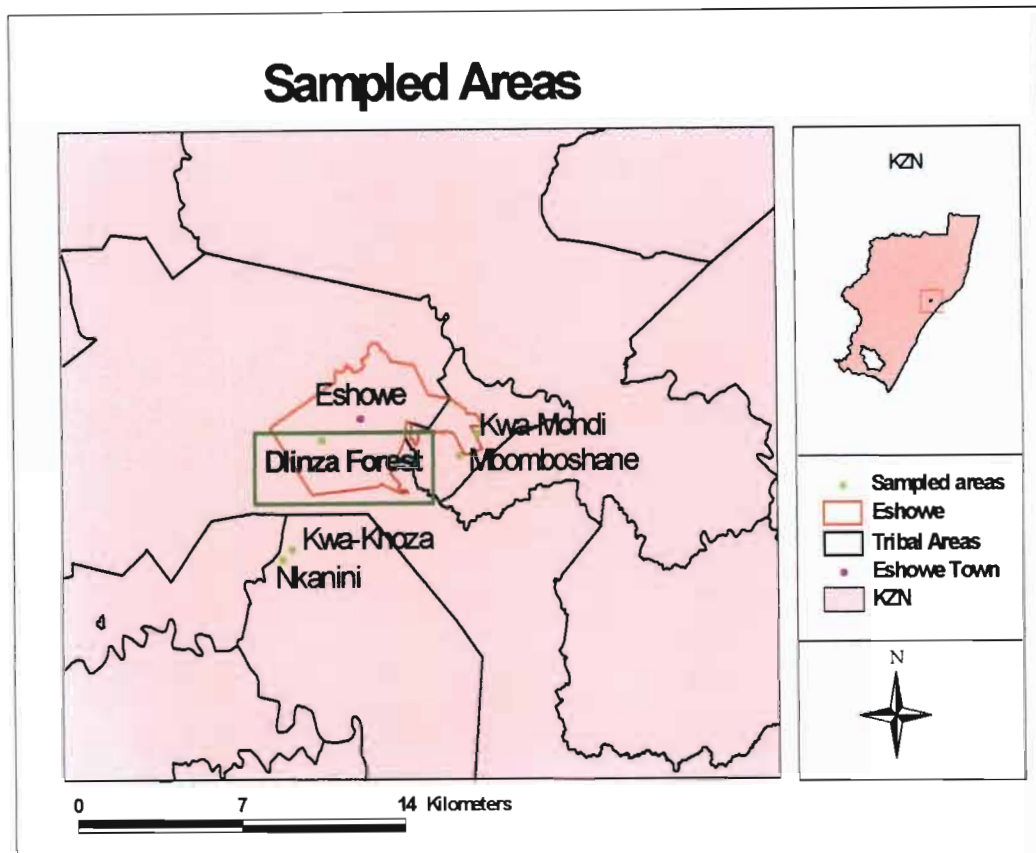


Figure 4.1. Sampled Areas

#### 4.4. Data Sources

Many researchers suggest that research should adopt multiple methods so that data collection and analysis approaches can be selected for their suitability for answering the immediate research questions (Silverman, 2000; Blanche and Durrheim, 1999). Flowerdew and Martin (1997: 6) support this, as they point out that “contemporary human geography is characterised by methodological diversity, a plethora of methods and approaches which link in complex ways to underlying philosophical debates”. Consequently, the methodology of this study is characterised

by this diversity. Mouton (1996) argues that a first general principle in data collection is the inclusion of multiple data collection in the research project to increase the reliability of the observation. In order to ensure a reliable research method and valid conclusions, both primary and secondary data has been used in the study. Both types of data were collected from a number of sources which are described below.

#### **4.4.1. Secondary Data Sources**

A number of documentary sources were used in the study. Although they are not written specifically for the purposes of one's research, documents provide an important source of data mainly because they are non-reactive, i.e. the document is not affected by the fact that one is using it (Robson, 2002). Such data was collected from both secondary and primary sources of data. Secondary data was collected for the literature review in this study. It included data from journals, books, research papers, theses and Internet sources. Such sources served both to familiarise the researcher with the study topic as well as to highlight possible directions for the research to take. It is recognised that especially with qualitative studies, there is a need to maintain a close relationship between the philosophical underpinnings of a piece of research and the methodology of the research (Goff, 2000). Flowerdew and Martin (1997: 27) support this idea as they point out that "ignorance of your philosophical roots implies a less than full understanding of what you are doing". The initial data collection for the study thus focussed on relevant literature. The literature reviewed included issues on the relationships of the state and people over the management of forests, community-based conservation and some material on public participation and environmental decision-making. This body of literature informed the selection of the data collection methods used in the study. It also informed the conclusions drawn from the primary data.

#### **4.4.2. Primary Data Sources**

Primary data was gathered through the use of a number of techniques including key-informant interviews, direct observation and focus groups. These techniques are discussed in section 4.4.2.1 below. Archival documentation and publicity material relating to Dlinza forest was also an important primary source.



#### **4.4.2.1. Primary Data Collection Techniques**

Several primary data collection techniques were used in the study. This includes data gathered from unpublished historical data, interviews, direct observations and focus group interviews.

##### **Historical/Archival Data**

Robson (2002) states that historical data is essential not only for providing insights into society and the interrelation of events; it is also required for the documentation of social change. For Kitchin and Tate (2000: 227) the use of historical data is important to those who want to study contemporary society because it “provides valuable insight into the structures and mechanisms of socio-spatial thinking and practice”. The influence of social change in the management of Dlinza Forest proved to be an important component of the study; historical data was thus used to provide such information for the study. It was collected from the Pietermaritzburg Archives Repository and the Durban Archives Repository. (Unfortunately the Eshowe Municipal Records were not available for research). The researcher used historical data not only because it provided the only way to study the history of resource users and management of the forest, it also helped to answer questions about why a programme (CBE/CBC in this case) is or is not proving successful. The historical data proved valuable for the study for it helped the researcher to understand the current situation in the light of past management practices.

However, like any data collection method, historical data has been criticised. Robson (2002) notes that the main disadvantage of historical data is that it is subject to researcher bias, as the researcher could be choosing information that is supportive of the hypotheses. It has also been criticised for relying on data that may be incomplete as some data may be missing or inaccurate. This is mainly because such data is not written to answer one’s research questions. Also, with historical data, it is very difficult to verify its accuracy. The researcher recognised that no document can be regarded as a completely accurate representation of the phenomenon of interest, but within limitations, historical documents can be valuable sources of data about society. Consequently, the study did not rely entirely on historical/archival data, but such data was used to supplement other methods of data collection.

## **Interviews**

An interview is a conversation initiated by the interviewer for the specific purpose of obtaining research relevant information (Bailey, 1994; Robson, 1993; Robinson, 1998). In this study, interviews were used because:

- The interviewer can probe for more specific answers and can repeat a question when response indicates that the respondent misunderstood.
- The interview tends to have a better response rate than the mailed questionnaire.
- The interviewer is present to observe non-verbal behaviour and to assess the validity of the respondent's answer.
- The interviewer has control over the environment and can standardise the interview environment by making certain that the interview is conducted at a suitable place.
- The interviewer has control over the order of questions.
- The interviewer can record spontaneous answers and make sure that all questions are answered.
- Personal interviews are the most effective option in rural areas, where a lack of telephones and illiteracy are still prevalent.
- Respondents can ask for clarification if they do not understand any of the questions (Bailey, 1994; Blanche and Durrheim, 1999).

### **4.4.2.2. Types of Interviews Used in the Study**

#### **Semi-Structured Interviews**

Semi-structured interviews are conducted with a fairly open framework, which allow for focused, conversational, two-way communication. They provide guidelines in order to ensure that a specific area of interest is covered to some degree (Fontana and Frey, 1994 cited in Rothwell, 1999). However, this is not a rigid set of questions to be answered as in a structured interview. Semi structured interviews may confirm what is already known but also provide the opportunity for learning. In semi-structured interviews, the interviewer is somewhat directive but also somewhat flexible, and guides the interviewee only when necessary (Rothwell, 1999). Often the information obtained from semi-structured interviews will provide not just answers, but the reasons for the answers because both the interviewer and the interviewee have the flexibility to probe for details or discuss issues ([www.fao.org](http://www.fao.org)). Semi structured interviews were used in this study during the focus-group interviews that are described in section 4.5.3 below.

### Unstructured Interviews

Unstructured interviews provide a direct interaction between the researcher and the respondents. In this form of interview, the interviewer is free to move the conversation in any direction of interest that may come up. They were used in the study in the form of informal conversations in particular with the ‘illegal’ users of the forest (muthi traders and women cooking in town) as introduced by the key informants. The researcher chose unstructured interviews in order to be able to put the interviewees at ease, as the issues discussed with them were very sensitive. Thus, the researcher felt that the use of a dictaphone or a camera would jeopardise the interview process. Unstructured interviews were also used because they allow for the establishment of human-to-human relations with the respondent and the desire to understand than to explain (Rothwell, 1999).

Unstructured interviews are particularly useful for exploring a topic broadly. This form of interviewing allowed the researcher to gain an understanding of the respondents’ concerns and views about Dlinza Forest. However, it is noteworthy that it was less easy to collect detailed information during the informal discussions, due to their lack of structure, and equally difficult to write them up afterwards for the same reasons. However, these informal discussions were ideal both for assessing the priorities of the interviewees and allow them to talk with ease. An outline of the pros and cons of each type of interview used are provided in Table 4.3 below. It is shown in Table 4.3 that each type of interview used has its own advantages and disadvantages; however, the most suitable type was used in each instance in order to gather high quality data.

Table 4.3. A Comparison of the Types of Interviews Used in the Study

<b>Semi-Structured Interviews</b>	<b>Informal (Unstructured) Discussions</b>
Takes longer to put interviewees at ease.	Very useful for putting interviewees at ease.
Some structure – possible to ask certain critical questions.	No structure – questions flow and follow priorities of interviewee.
A degree of flexibility – questions asked in a variety of ways.	Very flexible – discussion rather than interview.
Structure – easier to document and reflect on afterwards.	Difficult to document accurately, unless a tape-recorder is being used.
Possible to cover a number of issues once interviewer is familiar with the topic and types of responses.	No control over what is going to be covered and in how much depth.
Possible to delve into important issues in some depth.	Not necessarily possible to delve into issues important to the interviewer.

Source: Rothwell, 1999

### **Key Informant Interviews**

A number of people provided key background information needed in the study. These people were selected for their abilities to provide a clear overview of a particular aspect of the study area and to suggest other individuals who could act as informants to the research. Key informants were crucial in providing access to other important figures in the area and providing contextual information for the study.

### **Focus Group Interviews**

Most of the data collected for the study has been gathered through the use of focus groups. Focus groups are also known as group interviews. As defined by Blanche and Durrheim (1999), a focus group is an in-depth, qualitative interview with a small number of carefully selected individuals. Focus group interviews may be structured, semi-structured or unstructured (Stewart and Shamdasani, 1990). Robinson (1998) note that a group discussion can take one of the following approaches:

- Autocratic
- Laissez-faire
- Democratic

In this study the democratic approach was adopted since it allowed some direction to be given by the researcher, but as a facilitator of discussion and generator of group dynamics, not as a dominating presence. Consequently, the researcher chose to use semi-structured focus groups in this study in order to get the required information and a discussion of relevant issues, as a fairly directive and structured approach could be taken. With this form of control the issues discussed tend to be what is important to the research and not necessarily what the respondents consider significant (Stewart and Shamdasani, 1990). In this study focus groups were used as recommended by Morgan (1993) as he outlined that one may consider using focus group interviews when:

- There is a power differential between participants and decision makers.
- The researcher is investigating a complex behaviour.
- The researcher needs to learn more about a degree of consensus on a topic.
- The researcher needs a friendly research method that is respectful and not condescending to the target audience.

Basically, the researcher preferred to use focus group interviews for this study not only because they provide data from a group of people more quickly and at a less cost, but also because:

- Focus group interviews are one the few research tools available to obtaining data from individuals who are not highly literate.
- They allow the researcher to interact directly with respondents, which provides opportunities for the clarification of responses for follow-up questions and for probing responses.
- The open response format of a focus group provides an opportunity to obtain large and rich amounts of data in the respondents' own words.
- The researcher can obtain deeper levels of meaning, make important connections, and identify subtle nuances in expression and meaning (Robinson, 1998; Stewart and Shamdasani, 1990).

The most popular techniques for capturing data from focus groups include video recording, audio recording and manual note taking. In this study it was intended that both manual note taking and audio recording would be used. However, most of the interviewees were opposed to the use of the tape recorder. In such cases, the researcher together with a student observer who attended the sessions, took notes.

The information required to meet the objectives of the study could not be gained by close-ended, fixed questionnaires. Consequently, open-ended questions were used in the study (despite the type of interview) mainly because they are flexible and allow the interviewer to probe so that he/she may go into more depth if he/she chooses to (Cohen and Manion, cited in Robinson, 1998). For the purpose of this research, open-ended questions were used mainly because they allowed the interviewer to make an assessment of what the respondent really believed as they offer the possibility of modifying one's line of enquiry, following up interesting responses and investigating underlying motives (Robson, 1993).

### **Direct Observations**

Direct observation suggests a more detached perspective where the observer does not try to become a participant in the context but to be as unobtrusive as possible (<http://lnweb18.worldbank.org>). Bailey (1994) argues that the survey questionnaire is a restrictive instrument limited to a relatively small number of previously chosen questions, whereas the observational method is a flexible technique that allows the observer to concentrate on any

variables that prove to be important. In this research, direct observations were undertaken during the field visit to the study area. This method:

- Allows previously unnoticed or ignored aspects to be seen.
- Is unobtrusive and when obtrusive the effect wears off in reasonable time.
- People's actions are probably more telling than their verbal accounts and observing these is valuable (Mouton and Babbie, 1998).

For Bailey (1994), during field-visits, researchers use all the senses, noticing what is seen, heard, smelled, tasted or touched. In this way, the researcher becomes an instrument that absorbs all sources of information as it takes place in its natural setting.

In this study, this method of data collection was used mainly because it served both to acquire unspoken information about the people being studied and allowed the researcher to look, listen and discover the appropriate characteristics about the study. As a result, this method was used in the study during the data collection phase (06-20 July 2002 and 26-29 February 2003). Part of the observation entailed keeping a field diary to record each instance of observation. Technology can also be a useful part of direct observation. Consequently, where the researcher was allowed, a camera was used to take photographs during field visits.

#### **4.5. Data Analysis**

The objectives of the study formed the themes around which data analysis began. Data was organised under these themes. In such a case, Goff (2000) points out that the objectives are reviewed as pieces of a puzzle that ultimately fitted together to reveal a 'picture' from which explanations could be drawn. In this study, the existing literature largely informed the interpretation of the data.

Morgan (1988) notes that there are two basic approaches to analysing focus group data, namely, ethnographic summary and a systematic coding via coding analysis. The ethnographic approach relies more on direct quotation of the group discussion while content analysis typically produces numerical descriptions of the data (Morgan, 1988; Bailey 1994). In this study, the ethnographic approach to data analysis was adopted. Data was transcribed and then interpreted.

Blanche and Durrheim (1999) note that when transcribing one can transcribe everything or decide which data is relevant from the tape and then transcribe only that data. In this study the researcher transcribed everything because the meaning of what is being said in an interview can only be interpreted in the context of the sentences, which surround it and the conversation as a whole.

Some analytic notes were made when good ideas about interpretation came to the researcher's mind while transcribing. The reliability of transcription was checked through reading the transcripts while listening to the recording. In cases where the researcher was not allowed to use a tape recorder, the student observer also took notes so as to ensure that everything discussed was recorded.

As suggested by Kitchin and Tate (2000), the transcribed data was then classified. Answers to specific questions within a particular theme were grouped together. This is done so as to identify significant factors in the data. It also helps to draw out commonalities and divergences (Kitchin and Tate, 2000). Once the data was classified, the researcher was able to understand and draw the thoughts, views and attitudes of the interviewees. Coherent classes of the data were then identified. Lastly, relationships and associations between the different classes were identified. This is what Kitchin and Tate (2000) referred to as *connection*. In this stage of data analysis the researcher interrogates data in order to find possible reasons for the findings. As suggested by Kitchin and Tate (2000) in order to explain the connections in one's data, it is necessary to draw on evidence from beyond one's data. As such, the literature was used to give a critical analysis of the results and the findings from other similar studies were used to explain the results. Once the data was analysed, conclusions were formulated. The presentation of the results was carefully carried out in order to avoid any loss of the richness of the data.

#### **4.6. Limitations of the Study**

As in most (if not all) social research, there were problems encountered in the study. The collection of data for the study was carried out in the context of the racial tensions that exist within the emerging tourism industry at Eshowe. For example, some individuals who could have been key informants could not help the researcher, as they were suspicious of her intentions, perhaps because she is of the 'other' race. This tension also had an impact on the respondents. They could not allow the researcher to take photographs nor record some of the interviews. They explained that this was because they felt exploited by the tourists who are brought to their villages and take photos, which they assume they (tourists), were making money from. They refused to participate despite the researcher's explanation of her position and mission. The researcher was trapped in this situation because she was an 'outsider' to the area and thus, could not be trusted. This research was further restricted by the fact that the uMlalazi municipal records are not

available to the public. As such, the researcher could not look through the documents herself but a few were sent to her by Mrs. Jane Chennells.

#### **4.7. Conclusion**

This chapter has outlined the research methods adopted for this study. Both primary and secondary data sources were used. The four primary data collection methods used in the study (focus group interviews, direct observation, key informant interviews and the collection of historical documents) were described. Secondary data collected through the literature review was discussed. The way in which the focus groups were assembled, is explained. A purposive sampling method was also used to identify key role players. Data was analysed qualitatively and an effort was made to draw findings from the data in its richest form.



## CHAPTER FIVE

### TURNING POINTS IN THE MANAGEMENT OF DLINZA FOREST

#### 5.1. Introduction

This chapter traces the main phases in the management history of Dlinza Forest. The forest has been under management for over a hundred years, and the management style has dictated the relationship between people and the forest over this time. As discussed in Chapter Two, people live off forests materially and also spiritually. The activities that took place at Dlinza were associated with the identity of each group that was in power in a particular era, and also with the management strategy that was used at the time. The chapter traces the history and considers how new political systems and ideologies in the management of the forest, dating from post-1994, influenced the activities that took place at Dlinza.

#### 5.2. Pre-Colonial Use of Forest Resources

The history of forest use by people prior to colonialism shows that forests provided an important source of resources for them. Forests were not used primarily for commercial purposes; they needed forest resources mainly for survival. Most importantly, the literature has shown that people at this time had control mechanisms to ensure that the forests were not exploited. Eeley *et al* (in press) note that as the focus of ceremonial rituals, myths and legends, forests were of great cultural significance to local communities. Their management rested with community elders, the village priest, or the chief or headman. People's beliefs and practices were thus entrenched in customary laws that governed their use of forests (Eeley *et al*, in press). Respect for the highest community authority, chiefs, forest elders, traditional priests and healers, served to protect sacred forests. Religious and/or political sanctions were applied against those who disturbed trees or forests used as locations for rituals and severe fines were imposed on community members for hunting or collecting honoured or forbidden plants in sacred groves (Eeley *et al*, in press).

While there is little direct evidence of the way in which Dlinza forest was regarded before the arrival of the British, in pre-colonial KwaZulu-Natal as a whole, certain tree and plant species were preserved for particular reasons. For instance, whenever a kraal was removed to a new site, a branch of an uMlahlankosi tree (*Carisna anduina*) was dragged from the old to the new site to induce family spirits to follow (Lugg, 1975). Also, the Zulu kings had certain Royal Trees that were protected, for instance, the Red Ivory (*Berchemia zeyheri*/uMnini) (Lister, 1902). Eeley *et al*

(in press) state that Ongoye forest, also situated near Eshowe, was protected by the people both because it was a 'royal hunting ground' for King Shaka, and it was also the only local source of the muthi plant iNhliziyonkulu (*Dombeya rotundifolia*), the leaves and roots of which were used by King Shaka (Hendry, 1998 cited in Eeley *et al*, in press).

For the Zulu people in this era, forests provided a place of hiding or refuge during times of political conflict and rivalry. For instance, in 1883, Nkandla forest provided a refuge for the wounded King Cetshwayo following his defeat by Usibebu (Moberly, 1970). Noticeable also from the history of the Zulu people is that where communities have close cultural ties with local forests or where indigenous forest resources have a tangible socio-economic value to them, there is a high level of support for forest conservation (Lawes *et al*, in press). This however, does not mean that their use of forest resources was fully sustainable. Their practices were sustainable simply because their use of the resources was for their subsistence needs and thus not very exploitative. It should be noted as well that the population density during the 1800s was low and thus the forests could regenerate resources.

### **5.3. Colonial Conquest and the Establishment of Eshowe**

Eshowe is known as "A City Set on a Hill" (Moberly, 1970). It is situated close to the capitals of the old Zulu kingdoms and it was the colonial capital of British Zululand. Eshowe was home to many of the early kings and leading chiefs had kraals there. To name a few, Senzangakhona had a kraal named Gqikazi near Eshowe. This is where Mpande grew up. Shaka had several kraals in the district between Empangeni and Eshowe; Bulawayo, Dlangubo and Kangelanga being three of them (Moberly, 1970). Nearer Eshowe, Dingane had another kraal named Kangelanga. Mpande had a kraal named Ondini right in what is today the town of Eshowe. His son and successor Cetshwayo was born and died in Eshowe (Binns, 1963). It was King Mpande who first invited the Norwegian missionary, Reverend Ormund Oftedal in 1853 to settle his mission station here, thereby forever changing the face of Eshowe (Moberly, 1970; Binns, 1963). Eshowe was the first British capital of Zululand during its time as a separate British colony (1887-1897). Eshowe is thus steeped in Zulu and colonial history.

#### **5.3.1. The Arrival of Whites at Eshowe**

Although they were already in the country, the penetration of whites to Zululand took place in 1824 when the so-called white adventurers arrived at Port Natal, which is today known as Durban (see Figure 3.1) (Moberly, 1970). These were the ivory hunters who established a successful

business of hunting, buying or acquiring elephant or hippopotamus ivory in Zululand. In 1835 the missionaries arrived at Port Natal. Captain Allen Gardiner attempted twice to get permission to start a mission station in Zululand. King Dingane declined. In 1845 the Norwegian Missionary Society led by Reverend H.S.P. Schreuder approached King Dingane's successor, King Mpande for permission to start a mission station. He refused (Moberly, 1970). However, before long King Mpande was attacked by rheumatism and a visiting chief advised him to call Rev. Schreuder for help (Moberly, 1970). Schreuder helped the king, who then gave him permission to establish a mission station near Empangeni. King Mpande died in 1872. His son, King Cetshwayo took the throne. Moberly (1970) notes that King Cetshwayo was based at Empangeni, and moved to Eshowe as a result of the malaria outbreak in 1859. He invited Rev. Ommund Oftebro to accompany him. Cetshwayo gave the missionary land for a mission station. Rev. Ommund Oftebro was the first white person to live at Eshowe. The mission station was called Kwa-Mondi (the Zulu people's version of Ommund). Today, the rural area at which the mission station was built is called Kwa-Mondi (see Figure 4.1).

### **5.3.2. The Annexation and the Establishment of British Zululand, 1887**

Moberly (1970) points out that King Cetshwayo sided openly with the British, as it was not easy to get on with the Boers who at that time had established themselves beyond the Drakensberg. He (Cetshwayo) submitted to a full-scale coronation by the British. Sir Theophilus Shepstone as representing the British power, travelled with his followers to crown the king. Cetshwayo had basically hoped to find in the British useful allies against the Boers in his border dispute. Brooks (2001) notes that the Boers intended to gain control of the whole kingdom, thereby gaining access to the coast. However, political developments the Zulu king did not foresee led to annexation of Zululand to the British Empire as a colony in 1887 (Moberly, 1970). As a king, Cetshwayo had his own military and the British rulers in Natal decided to impose an ultimatum on him demanding that his military system be dismantled (Binns, 1963; Moberly, 1970). He found it impossible to meet this and the Anglo-Zulu War of 1879 began when British troops invaded Zululand. The Zulus lost the war and thereafter their country was affected by a damaging civil war (Guy, 1979). Finally in 1887, in order to achieve stability, the British decided to annex Zululand as a colony. British Zululand existed as a political entity for the period 1887–1897. In 1897 Zululand was handed over to the colony of Natal, which had attained Responsible Government status in 1893 (Brooks, 2001).

Eshowe was the capital of British Zululand. The first Resident Commissioner, also Chief Magistrate of the territory, was Melmoth Osborn. He was based at Eshowe. In Zululand there were six Resident Magistrates that were responsible for the governance of Africans living in their magisterial districts. During the 1890s, four new districts were delimited, making a total of ten (Brooks, 2001). The town of Eshowe was proclaimed in 1891 (Moberly, 1970).

### **5.3.3. The Zululand Forests under Colonial Rule**

The governance of British Zululand was indirect as it was through chiefs. The colony of British Zululand was an African territory under colonial rule. This was the case because very few white people except the administrative officials lived there (Brooks, 2001). According to Brooks (2001) Zululand administration during the period 1887-1897 depended to a large extent on the co-operation of the African people on the ground. This was a result of the demand by officials in London that the country be governed peacefully (Brooks, 2001). Consequently, “officials who provoked rebellions among their African subjects were not likely to be popular at the colonial office” (Brooks, 2001: 130). During the ten-year period of British Zululand, the administration had absolute power. However, Brooks argues that, ironically, it is at this time that African concerns were heard most clearly and taken seriously. To some extent, Africans were able to influence policy decisions: colonial officials were eager to avoid expensive and damaging conflicts (Brooks, 2001). This form of governance changed after the creation of the Union of South Africa in 1910 when the centres of decision-making moved away from Zululand to Pretoria.

Evidence from the archival records reveals that restrictions on the use of forests in Zululand were imposed soon after the annexation of Zululand. As required by the Zululand Proclamation No. XI of 1894, magistrates in Zululand were entitled to ensure that indigenous forests in their districts were protected from human use and any form of exploitation. This was at a time when there were no forest officers in Zululand. Although it could not be established exactly when the first forest guards were put in place in Zululand Forests, it is evident that this occurred soon after Zululand was annexed. On the 24<sup>th</sup> July 1899, the magistrate at Eshowe wrote to the Surveyor-General asking that the five African forest conservators attached to his office be supplied with new uniforms (shirts and coats) as the ones they had were already worn out.<sup>1</sup>

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<sup>1</sup> Pietermaritzburg Archives Repository, SG 3050/1899, Vol. iii, Letter from the Magistrate at Eshowe to the Surveyor-General in Pietermaritzburg requesting new uniforms for five native forest guards attached to his office, 24 July 1899.

Apparently, the attempts made to protect the indigenous forests of Natal were not very successful and thus the then (1902) Minister of Agriculture applied to the Cape government to loan the services of the forest conservator of the Cape Colony, Mr. Storr Lister. Among other duties, Storr Lister was directed to visit indigenous forests in Natal, ascertain their extent and value, and make recommendations for their conservation and systematic exploitation. He visited Dlinza, Ngoye, Ngome, Nkandla, and Qhudeni Forests. In his report, Lister mentioned that the forests in Zululand were almost “worked out”. In reference to Dlinza, Lister stated that:

“Eshowe itself is prettily planted on the gentle slope of a hill within a forest belt. The little town is...densely wooded with lofty handsome trees, some of which were new to me. The forests here were much cut into by, it is said, our own troops in the early days of occupation” (Lister, 1902: 9).

He further stated that “the reckless destruction of these beautiful and valuable forests is indescribable. The licensees seem to be allowed to cut how they like, where they like and as much as they like. There is little or no check” (Lister, 1902: 9). He therefore recommended that:

- A Forest Act similar to that of Cape Colony be introduced in Natal.
- Appropriate regulations or by-laws be framed.
- A list of reserved trees be published.
- “Reliable European Foresters” be placed in principal forests.
- Assistant conservators or district forest officers be employed.

Noticeable from his report, Lister encouraged that the forests be preserved as opposed to being used sustainably. He noted that

“It must be borne in mind that the object in conserving our indigenous forests is not solely for the market value, but for their climatic influence also. They clothe and shelter the sources of our water supply, and if they were more extensive we should have fewer floods during the wet seasons and a larger flow in times of drought. The priesthood of North-western India showed their wisdom when they forbade even a leaf from the woodlands which shelter the Temple Springs, and proclaimed such woodlands Sacred Groves” (Lister, 1902: 13).

Consequently, Proclamation No. 53 of 1903 was enacted to regulate forestry in Zululand. As suggested by Lister, foresters were distributed at the various forests and the forestry department became active. It is evident that after Lister’s recommendations were adopted, restrictions on

indigenous inhabitants regarding the use of forests were severe. The archival records reveal that the Minister of Native Affairs toured Zululand in 1911.<sup>2</sup> The indigenous people complained to him that the restrictions imposed on them in terms of access to the forests were severe. On the 12th September 1911 he required to be provided with a report on the restrictions that were imposed on the locals on open lands and in their reserves. In his letter to the Chief Native Commissioner, the Secretary for Native Affairs noted that

“I shall be glad if you can cause me to be furnished with a report outlining the restrictions which are in force on (a) open lands (b) Native Reserves and at the same time favour me with your views as to the direction in which relaxation might be allowed”.<sup>3</sup>

These communications show that the Minister of Native Affairs was trying to find out what practices were being allowed in forests with respect to indigenous people’s access. This, as mentioned above was stimulated by the Zulus’ complaint during his visit to Zululand.

However, the Chief Native Commissioner could not respond to the Minister’s letter so he required information in this regard from the Acting Conservator of Forests who was based in Pietermaritzburg. The Acting Conservator of Forests responded on the 31<sup>st</sup> of October 1911. In his letter to the CNC, he mentioned that:

“All forests on Crown Lands in Zululand have been allocated as forests from which natives may cut certain kinds of trees free of charge in terms of Section 28 of Proclamation No. 58 of 1903.”<sup>4</sup>

On the 2<sup>nd</sup> of November 1911 the Chief Native Commissioner then responded to the Secretary for Native Affairs. He provided the information as given by the Acting Conservator of Forests. With regards to the issue of relaxing the restriction, the CNC noted “Perhaps the safest course to pursue is to wait until such demarcation has taken place before attempting to relax existing restrictions”.<sup>5</sup>

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<sup>2</sup> Pietermaritzburg Archives Repository, CNC 1403/1911, Vol.32, “Forest Regulations in Zululand”, Letter from Acting Secretary for Native Affairs to the Chief Native Commissioner asking information with regard to forest regulations in Zululand, 12 September 1911.

<sup>3</sup> *Ibid.*

<sup>4</sup> Pietermaritzburg Archives Repository, CNC 1403/1911 Vol. 32 “Forest Regulations, Zululand”, Letter from Acting Conservator of Forests to Acting Chief Native Commissioner, 31 October 1911.

<sup>5</sup> Pietermaritzburg Archives Repository, CNC 1403/1911 Vol. 32 “Forest Regulations in Zululand”, Acting Chief Native Commissioner to Acting Secretary for Native Affairs, 2 November 1911. Note that the demarcation referred to is the demarcation of crown forests in Zululand.

The Secretary for Native Affairs in Pretoria, asked the District Native Commissioner at Eshowe to make recommendations with regard to the relaxation of the restrictions on Africans' access to forests. The District Native Commissioner stated that the restrictions could be relaxed in the following ways:

- Africans residing within the line of demarcation would be allowed to remain there and to live free from rent and be given grazing rights subject to good behaviour and compliance with Forest Regulations.
- All Africans would be allowed access to wood, thatch grass, and the material used when erecting huts.
- African industries should be encouraged by allowing them to use freely or at a low price the wood they require to make spoons, milking pots and meat plates.

This was only going to be effective after the demarcation of Crown Forests in Zululand. The District Commissioner also made it clear that trees that were required by the settlers for commercial purposes should be preserved. Unfortunately, these were the very trees that indigenous inhabitants required for subsistence use (See Chapter 6). These trees include the sneezewood, stinkwood, yellowwood, rubber vine, flat crown, milk wood, Natal mahogany and ironwood.

It is noteworthy that although this was during the time of the Union of South Africa the officials were still referring back to the earlier legislation. It seems then, that the legislation which allowed people access was not being implemented in practice, at a local level. People were being kept out of the forests.

The archival records reveal that after negotiations between the Chief Native Commissioner (CNC), the Secretary for Native Affairs, the District Native Commissioner in Eshowe and the Conservator of Forests, the issue of giving Africans free access to forest resources was laid to rest. Although he highlighted that it should always be remembered that when lots are set aside for European occupation, African rights cease, the Chief Conservator of Forests noted that:

“I am prepared to recommend that natives should be permitted to take, free of charge, dead wood lying on the ground, such wood to be removed by head loads under annual permits granted by this Department, hut wattles, poles and kraal wood would, however,

have to be paid for at tariff rates. It should be understood by the natives that this concession would be granted as a privilege not as a right...”<sup>6</sup>

Although it is not evident the extent to which these recommendations were put in place, it is however clear from the archival data that this was the last correspondence on the part of the Chief Conservator of Forests and he noted that this must be the final settlement of the matter. In response, the Secretary for Native Affairs mentioned that there was no wish to oppose the recommendations made by the Chief Conservator of Forests. Evident from these arrangements was that during the Union of South Africa, with the exception of firewood and forest produce, a price was attached to all other African uses of forest resources in Zululand. It is shown that they reached an agreement on this issue by making adjustments on the legislation they were referring to, by attaching prices to other resource uses in Zululand. In the case of hunting, the archival records show that Africans were not allowed to hunt.<sup>7</sup> Animals that could be hunted at a certain time were listed. For example, the Acting Conservator of Forests to the District Forest Officer noted that:

“I beg to inform you that hares have been deleted from the lists and schedules of Game Animals protected under the Game Ordinance (Natal), and in the circumstances there is no restriction of this species at any time during this year”.<sup>8</sup>

#### **5.4. The Period of Administration of Dlinza by the Eshowe Town Board**

The focus so far has been on the sanctions and regulations that were to be borne by Africans. For white settlers, Dlinza Forest provided a sense of ownership and pride to residents of Eshowe. Basically, they excluded Africans from the forest in order to obtain various benefits. This is shown through the settler activities, described below, that demonstrate the sense of ownership of the place and pride in the forest.

As mentioned above, the town of Eshowe was proclaimed in 1891. A formal administration, the Local Board, ran the town from 1915. It was elevated to a Town Board in 1927. During the 1950s

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<sup>6</sup> Pietermaritzburg Archives Repository, CNC 1786/1913, Vol.143, “Removal of Forest Produce by Natives in Natal and Zululand”, Letter from the Chief Conservator of Forests to the Secretary for Native Affairs on the issue of the Removal of Forest Produce by Natives in Natal and Zululand, 18 September 1914.

<sup>7</sup> Durban Archives Repository Z/146/37/1 “Shooting of Animals by Natives” Letter from Acting Conservator of Forests to District Officer with regard to the issue of giving African permission to shoot animals in reserves.

<sup>8</sup> Durban Archives Repository ADD 2/1/1 “Shooting of Hares on Forest Reserves” Letter from Acting Conservator of Forests to District Officer about the shooting of hares in forest reserves, 13 January 1913.



serious talks to obtain a Borough Status for Eshowe began, because borough status conveyed certain privileges not enjoyed by Town Boards, including loan facilities. According to Moberly (1970) the motivation for seeking promotion to borough status was mainly a matter of civic pride, or fear that the rival Empangeni might get promoted before Eshowe and thus became the first town of Zululand to boast a mayor. After lengthy talks, the Borough of Eshowe was realised in March 1953. The flower of *Clivia miniata* (Clivia), which is found at Dlinza forest, was used as an emblem for the Borough of Eshowe (Plate 5). Indeed, the very name Eshowe is assumed to be derived from the forest: Moberly (1970) presumes that it is the sound of the leaves of the forest stirring in the wind that gave Eshowe its name.

Plate 5.1 Clivia



On the 19<sup>th</sup> of March 1947 King George VI and Queen Elizabeth with daughters Princess Elizabeth and Princess Margaret visited Zululand. Their visit was known as the Royal Visit. They were driven through Dlinza Forest, arriving eventually at the Oval. (The Oval is discussed below). As a memento of the visit, the Town Board declared that the route by which the Royal Family had driven through Dlinza, be named the Royal Drive (see Figure 3.4) and signboards proclaim this even today.

The earliest inhabitants of the town of Eshowe were essentially British, and so cricket was played at the town. There were at least two cricket clubs during the last years of the nineteenth century (Eshowe Cricket Club and Eshowe Wanderers). An open space at the Dlinza Forest was used as a sports ground. It was cleared by the military. It soon acquired the name of the Oval (see Figure 3.4), not so much from its actual shape, as from the famous Surrey home ground in Kennington, London (Moberly, 1970). This was where the soldiers played cricket, and eventually it was used for the Zululand cricket team. This is where the Marylebone Cricket Club (MCC) played in 1924/1925 against Zululand, as did the Australians when they came to play Zululand between the two world wars. All sports matches were played on the Oval including hockey and rugby. In 1948/1950 new sports fields were constructed outside the forest and cricket, rugby and hockey clubs were moved to their new venues.

Another example of white cultural pride in the forest is represented by the “Bishop’s Seat”. Bishop Carter, a nineteenth-century bishop, left his mark on the forest. During his tenure as bishop, St. Michael’s Church was built in Eshowe and the town became firmly established. Bishop Carter was a great lover of nature and loved to wander through the forest. He had a favourite spot where he used to sit and meditate on his next sermon and this place was named the Bishop’s seat (see Figure 3.4) (O’Reagain, 2001). A recent *Mail and Guardian* article promoting the ecotourism project and boardwalk at the forest described it as having a colourful history: “for instance there is a clearing among giant figs that Zululand’s Bishop W.M. Carter, just like Winnie the Pooh, designated his ‘thinking spot’ in 1891” (*Mail and Guardian*, 23 November 2001). (See Appendix 1, Article 2).

In 1953 Mr. G.S. Moberly had an idea that the clearing at Dlinza forest that had been used by Bishop Carter, should be made to serve as an outdoor theatre for the presentation of pastoral and other plays. Following this idea, he wrote a Nativity play entitled “The Forest Noel”, which was produced in December 1953. The Eshowe Town Board cooperated by running a special power line to the site. The Eshowe Choir led the singing and almost every organisation in the town contributed in some way to the success of the production. The Forest Noel was produced at three yearly intervals since that time (Moberly, 1970). In conducting these performances, the forest was being symbolically claimed by Eshowe’s white residents and their particular cultural construction of “nature” in the forest.

One of Dlinza's noticeable features in the early days was the Natural Arch. Moberly (1970) note that long ago, (date unknown) one tree threw out a long branch which gradually curved over from its own weight, until its point touched the ground almost forty feet from the trunk, where it struck a root and continued to grow as a natural woodland arch, which for generations was to be one of the landmarks of the town, hence the Natural Arch Drive (see Figure 3.4). When roads were constructed through the forest, one of them was constructed underneath the arch, and both ox-wagons and cars passed under it. With time, the tree began to show signs of decay and the roots' strength to hold the tree in place became weak. Attempts were made to patch it with cement or to plant another tree to help support it, but it could not be saved. In 1937 the Town Board decided to have it removed as it was considered a public hazard. In 1949, a vase was made from the wood of this tree, and it is kept at the Zululand Historical Museum (Moberly, 1970).

Moberly (1970) argued that if the early town boards of Eshowe were to be criticised, it might be to the effect that they were neglectful of the town's great heritage, which is the Dlinza Forest. According to Moberly (1970) during this era of town board control, the forest suffered from a considerable amount of neglect. In his view, the permission to cut trees was given too often. The main exploitative uses of the forest at that time included tree felling for construction; tree-felling for commercial use and tree felling to keep soldiers busy. Soldiers were to be kept busy for their own good and for the sake of discipline. Moberly also notes that the troops of the Eshowe garrison were kept busy cutting roads through the Dlinza forest for tactical reasons to prevent it from becoming a secret hiding place for their enemies.

There are clues in Moberly's text to the fact that the forest was also used (albeit illegally) by local African people during this time. Moberly (1970: 120) notes that "during the earlier and middle years of the town's life, the forest was neglected and thus it became a refuge for vagabonds and a hunting ground for poachers". As a result of such neglect, the mpiti buck that used to be abundant approached extinction. Unfortunately the Eshowe town board records are not available to the public so it was not possible to obtain more detailed information on Africans' use of the forest during this time.

### **5.5. Handover of Dlinza Forest to the Natal Parks Board, 1952**

In 1951 negotiations to lease the forest to the provincial conservation body began. On the 8<sup>th</sup> of July 1952 the lease agreement was signed and Dlinza Forest was proclaimed a nature reserve (see Appendix 2). The lease was for a period of thirty years with the option of renewal for a further

thirty years. The lease agreement was between the Eshowe Town Board and the Provincial Administration of Natal (under which the Natal Parks Board operated). The lease was renewed in 1986. Eshowe then had obtained Borough status and the agreement was thus between representatives from the Borough of Eshowe and the Natal Provincial Administration. The lease agreement document states that as from the date of signing the agreement the lessor agreed that the Dlinza Forest should be proclaimed a nature reserve and private property. This shows that the Town Board required that the forest be proclaimed a nature reserve, and thus leased it to an organisation that could proclaim it.

Noticeable from both agreements is that the general public was allowed free access to the Dlinza Forest at all times except in sections that the Natal Parks, Game and Fish Preservation Board (as it was called then) set out as closed to the public. Despite these provisions, the Parks Board was given the right not to allow access to the forest to ‘undesirable persons’. Although it is not stated as to who such people would be, the literature has shown that during the creation of nature reserves, all forest resource uses by indigenous, mainly rural and poor people were considered undesirable and thus criminalized.

Moberly (1970: 120) mentioned that when the Parks Board took charge of the forest “stronger measures were taken against poachers”. Moberly (1970) further noted that their success was questionable, as people never stopped poaching.

#### **5.6. The 1990s: Ecotourism Development of the Forest**

In the new South Africa the management of Dlinza Forest had to change. As shown in Chapter 1, with the democratising shifts that took place in the country, the management of conservation areas had to change and redress the imbalances of the past by allowing people who previously had no say in conservation issues to partake in the management of Protected Areas (PA’ s). The global move away from fortress to community conservation promoted the full participation of local mainly rural people in local environmental decision-making (EDM). This was also required in terms of the establishment of the community-based ecotourism project at Dlinza forest. As briefly described in Chapter 3, the Boardwalk Committee seeks to establish an interest in forests, and create strategic partnerships with rural communities. As such the management strategy had to be in line with the new laws of the country, discussed below. This new era, which focuses on the development of a community-based ecotourism venture, can be considered the most recent “turning point” in the history of the management of the forest.

### 5.6.1. The Regulatory Framework

As a consequence of the general shift from a protectionist approach, to stakeholder participation and a paradigm promoting sustainable use of natural resources, the management of PA's in South Africa required that the past apartheid policies be revisited. This is because the establishment of most PA's in South Africa entailed the displacement of people who were either forcibly moved from their land or denied access to the natural resources. The current government faces a challenge of establishing a viable people and parks relationship. Consequently, the Department of Water Affairs and Forestry (DWAF), which has responsibility for forest resources in the country, has undergone reorientation and transformation in line with the new democratic principles in the country and evolving international trends. The Participatory Forest Management (PFM) approach is being used to consider local peoples' forest-based needs, their management capabilities and to empower them. The PFM approach aims to contribute to social and ecological sustainability in forest management. In order to legalise the engagement of previously ignored groups in EDM, the National Forests Act 84 of 1998 was enacted.

#### The National Forests Act, 84 of 1998

The National Forests Act 84 of 1998 repealed the Forests Act 22 of 1984. It is now the main statute controlling the management of forests and trees in South Africa. In terms of the National Forests Act 84 of 1998, every individual has a right to reasonable access to South African state forests, both indigenous forests and plantations (National Forests Act, 1998). Sustainable forest management is seen as a thread that runs through the Act to promote responsible use of forests, ensure the continual growth of trees, benefits to communities and conservation of the environment (*The Daily News*, 27 November 2001). The Act recognises the role played by trees, forests, and woodlands in people's livelihoods and the resources that these generate, thus it aims to legalise community involvement in conservation. Simply put, the Act calls for full involvement of forest resource users on issues pertaining to trees and forests.

Chapter 2 of the Act presents the principles underlying the Act. It is shown that forests must be developed and managed so as to:

- conserve biological diversity, ecosystems and habitats;
- sustain the potential yield of their economic, social and environmental benefits;
- promote the fair distribution of their economic, social, health and environmental benefits;

- promote their health and vitality;
- conserve natural resources, especially soil and water;
- conserve heritage resources and promote aesthetic, cultural and spiritual values;
- advance persons or categories of persons disadvantaged by unfair discrimination (National Forests Act, 1998).

The Act recognises that many people depend on forests for their day-to-day survival. Therefore its overarching principle outlines that forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual needs of current and future generations (DWAF, 1996). The Act does allow for some form of forest resource use in protected areas whereby licenses are issued with a forest officer present to monitor and ensure that the forest resources are used responsibly. However, access to forests is subject to certain conditions:

- Firewood and other forest produce can only be taken for domestic use and not for sale (if needed for commercial purposes, a licence has to be issued).
- No live wood may be taken from the forest.
- A person can only take as much wood out of the forest as he/she can carry.
- There are limitations on the number of people allowed in the forest at any time.
- There are limitations on the type of transport allowed.
- Forests may be closed for specific periods (*The Daily News*, 27 November 2001).

Basically, the Act seeks to balance access to and use of forests for environmental, economic, educational, recreational, cultural, health and spiritual purposes with protection and sustainability of forest resource use.

#### The National Environmental Management Act, 107 of 1998

The National Environmental Management Act 107 of 1998 (NEMA) is founded on the principles of human rights laid down in the South African constitution and on the principles of sustainable development. The Act facilitates the resolution of environmental problems through conciliation and partnerships and uses prosecution and enforcement as a last resort (NEMA, 1998). It requires stakeholders to participate in the generation of local solutions to environmental problems and recognises the legitimacy of local knowledge. Its opening principle goes to the core of environmental management by providing that:

“Environmental management must place people and their needs at the fore front of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably” (NEMA, 1998).

Furthermore, in an attempt to redress the country’s apartheid past, the Act states:

“Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination” (NEMA, 1998).

An important element observed from both the Acts described above is the adoption of community conservation strategies (see Chapter 2). These strategies are adopted not only as an influence of the global paradigm of CBC but mainly to redress the injustices of the past. For Glazewski (2000: 371), these Acts seek to establish “a viable ‘people and parks’ ethic to ensure that conservation needs are met and past racial imbalances are redressed”.

### **5.6.2. New Structures at Dlinza Forest**

In 2001 the management of Dlinza Forest took a new form as a result of the establishment of the Dlinza Forest Aerial Boardwalk ecotourism project. This project started after the construction of a 125m long boardwalk in the forest, which was made possible through funding from uThungulu Regional Council, World Wildlife Fund (WWF) and SAPPI, a commercial timber company. The boardwalk is 10m off the ground and it ends in a steel-viewing tower, which is 20m high.

As shown in Section 5.6 above, the forest has been administered by EKZNW (formerly Natal Parks Board), which is mandated to direct nature conservation within PA’s in KZN. On the 25<sup>th</sup> of July 2001 EKZNW entered into a memorandum of understanding to lease the forest to BIZ AFRIKA 1226, a company running the boardwalk, trading as the Dlinza Forest Aerial Boardwalk through the Boardwalk Committee. As described in Chapter 3, the Dlinza Forest Aerial Boardwalk is a Section 21 Company with a Board of Directors made up of about 15 members from different organizations in the area including the uMlalazi Municipality (which is represented by the mayor of Eshowe) and EKZNW (See Appendix 3).

EKZNW agreed to extend certain uses and rights to the Boardwalk Committee for a period of ten years (which is renewable) ending on the 27<sup>th</sup> of June 2012. In their agreement, the administration and control of Dlinza Forest and its associated access rests with the Boardwalk Committee in

close cooperation with EKZNW. The Boardwalk Committee will however take full responsibility for financial management including revenue generated by the project.

The Boardwalk Committee is also responsible for maintaining all structures within the forest. This includes buildings, drains, septic tanks or other sewage disposal arrangements relating to the boardwalk. EKZNW has a right to carry out inspections in the forest and may suggest repairs, improvements and alterations where necessary.

The Memorandum of Understanding further shows that should the Boardwalk Committee need to erect any structures in the forest, such developments should follow the standard IEM procedures. Lastly, EKZNW is granted the right to terminate the agreement within a period of three months in case the Boardwalk Committee is in default with the current arrangements.

### **5.7. Conclusion**

This chapter has shown that the push to achieve power or control of the forest is the main device that drove change at Dlinza. This is shown by the fact that each group that was in power at a certain era 'stamped' its presence through the activities that took place at the forest.

The chapter identified three main "turning points" in the management of Dlinza forest. First, the management of forests in the pre-colonial era was based on customary laws which originated from people's beliefs and practices. During the colonial era, several institutions were set up in control of forests. These include legislation, which among other issues controlled people's access to forests. Forest guards were also introduced to enforce the new regulations. Observed from the management of Dlinza Forest at this era, the settler community enshrined its own cultural identity and removed that of the 'other' groups.

Management of the forest turned out to be a more difficult task than the town board anticipated, and the authorities of the town of Eshowe decided to hand over the control of the forest to a provincial conservation authority (the Natal Parks Board, now called EKZNW) who could then declare the forest a PA, which occurred in 1952. This was the second "turning point" in the management of Dlinza forest. Under the management the provincial conservation authority, Dlinza Forest (like all PA's in the country) was not accessible to human use although the literature shows resource users never stopped poaching.



In 2001 the management of Dlinza changed a third time as a result of the establishment of an ecotourism project in the forest. The forest is currently administered by the Boardwalk Committee in close cooperation with EKZNW.

This chapter also supports the point (made in the literature review), that in many cases the adversarial relationship between conservationists and communities has been exacerbated by loss of land, restricted access to forest resources and diminished economic opportunities. Resource poaching, forest exploitation and fragmentation increased as a consequence. At Dlinza as in other South African forests, current management seeks to address these problems by devolving forest management from the state to communities using new policies of participatory and communal forest management (DWAF 1997; National Forests Act, 1998).

## CHAPTER SIX

### COMMUNITY PERCEPTIONS OF THE FOREST

#### 6.1. Introduction

This chapter presents the results of the study. It is concerned with the perceptions of the rural community with regards to the management of Dlinza Forest. As mentioned in Chapter 4, eight focus group interviews were conducted at the four sampled areas (Nkanini, Mbomboshane, KwaKhoza and KwaMondi) (see Figure 4.1). Two interviews were conducted in each area. They were divided into a female and a male group. Each focus group consisted of five individuals. The information in this chapter is also derived from the unstructured interviews (for example, with women mealie cookers and muthi traders) as well as some of the structured interviews with key informants.

#### 6.2. General Information about the Focus Group Respondents

It is noteworthy that none of the members of the focus groups had a permanent job. The forms of jobs they are involved in are rather seasonal, in particular working in the cane fields when required to do so. Those that get such jobs are mainly women. Ten percent of the male respondents are involved in non-formal jobs such as building houses. They also work only when needed. This reveals that their pattern of living is difficult. The respondents' households depend on:

- pension remittances received by elder members in the household,
- a disability grant received by a disabled member of the household, or
- a family member that works either in Richard's Bay, Durban or Johannesburg.

There are many other economic activities that the female respondents engage in. This is shown in Figure 6.1 below. They stated that other than working in cane fields, they also work as domestic workers especially for the local teachers. This is not an everyday job. They work once or twice a week. Those that do this kind of job pointed out that they do specific work such as washing and ironing which they do once a week. They also mentioned that they also engage in street trading seasonally. This happens mainly during the maize season where they cook and sell maize in town.

For the men in the sampled areas, the main source of income is also working in the cane fields. This is shown in Figure 6.2 below. Although men also engage in street hawking, no one among the respondents does that. Ten percent of them do take part in building houses in the area. It should be noted that builders have to be skilled; the respondents that do this job provide unskilled labour by helping the builder. Figure 6.2 also shows that about 15% of the male respondents do take part in construction jobs that become available in the area at any time. They mentioned that they took part mainly in road construction and the digging of trenches when pipes are to be placed for the supply of water. They take part in these jobs even if they are not working in their immediate areas.

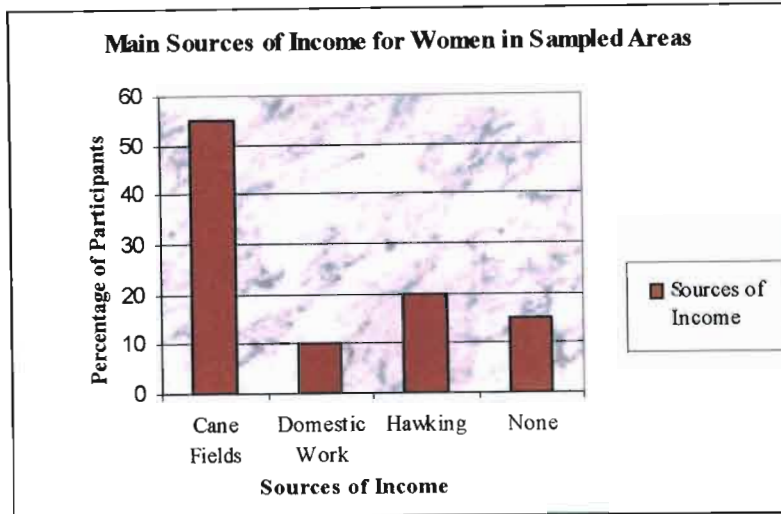


Figure 6.1: Main Sources of Income for Women in Sampled Areas

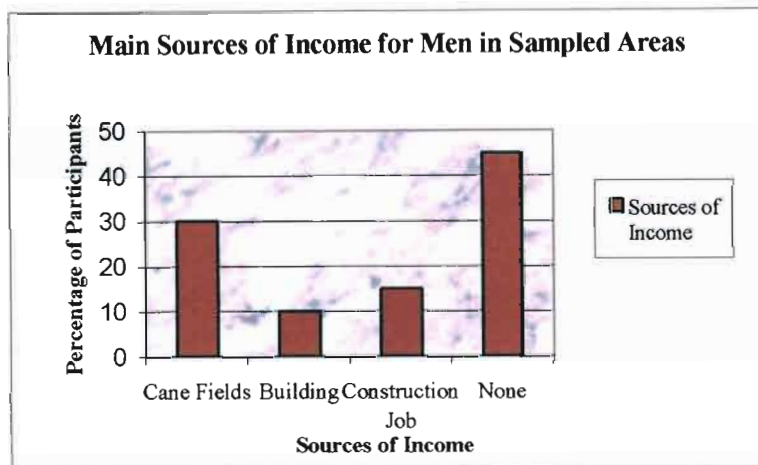


Figure 6.2: Main Sources of Income for Men in Sampled Areas

Figure 6.2 shows that about 45% of the male respondents do not have any form of income. This is in contrast with Figure 6.1, which shows that about 15% of women respondents have no source of income. This reveals that women in sampled areas are engaged in many activities in order to gain income. It also shows the reliance of many households on income generated by women. Noticeable about the socio-economic characteristics of the sampled areas is that the respondents' sources of income are those that require unskilled labour.

### 6.3. Cultural Significance of Dlinza Forest to the Rural People

The history of people's use of forest resources shows that they have been attached to forests for centuries. In the case of Dlinza, the researcher was told of stories and legends through which people are attached to the forest. Mather (1996) notes that the use of oral history in research is important for it

provides a more personal and subjective view of social processes. Although they play such an important role in the reconstruction of past and present geographies, oral testimonies may be reproduced or romanticized. Mather (1996) believes that a researcher may be told what the respondent thinks he/she wants to hear as opposed to the truth. In this section however, one is not interested in knowing 'the truth' necessarily, but in knowing what people believe about the past.

The following are stories and legends about Dlinza Forest and the rural people. These stories show the cultural significance of the Dlinza Forest to the rural people. The respondents said that these stories and beliefs lead them to view the forest as a repository of their history. The forest is "a place that functions like a museum. A place where our history is stored; mainly because that history is about our earliest leaders" (Focus Group Interview, Nkanini, 27. 08. 02).

- There is a belief among the respondents that Phunga and Mageba who were the sons of Zulu, the most prominent Zulu king, were buried in the forest. They said that Phunga and Mageba later became chiefs when their father was still a king. These two sons of Zulu also settled next to the forest. This was supported by the freelance guide who has dedicated his life to studying the history of Zulu leaders: he said that although it is not known where King Zulu was buried, it is known that his sons, Phunga and Mageba were buried at Dlinza. (Mr. Mdluli, 09.07.02).<sup>1</sup>
- The respondents also mentioned that Chief Sibiya who was also a chief at the Eshowe area was buried in the forest. The freelance guide said that while this has not been documented in the history books he had access to however, he knows about it. He further mentioned he believes that Chief Sibiya was buried in the forest because elderly people he had spoken to agree with these claims (Mr. Mdluli, 09.07.02). The boardwalk manager stated that the grave is in the forest and the family of the late chief is allowed access to the grave when they need to see it (Mr. Ndwandwe, 08.07.02). He further noted that tourists had to get a permit from the Eshowe Tourism Board should they wish to see the grave. The forest guards however, said that although they know about the grave, they have never seen it (interview with conservation workers, 09.07.02). Lugg (1975) notes that the forest was given the name 'Dlinza' due to Chief Sibiya being buried in the forest.<sup>2</sup>
- Another legend narrated by the respondents is that during the many battles that King Shaka had with his enemies, he hid women, children and livestock at Dlinza Forest. O'Reagain (2001), Moberly, (1970) and the ZBR association ([www.zbr.co.za/boardwalk](http://www.zbr.co.za/boardwalk)) support this

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<sup>1</sup> Professional historians may disagree with the claim that forests were used as burial places, see Bryant, 1929.

<sup>2</sup> It should be noted that the noun 'idlinza' is Zulu for grave.

claim as they specified that King Shaka hid women, children and livestock at Dlinza when he was attacked by his enemy Zwide, chief of the Ndwandwes.<sup>3</sup>

- The respondents believed that during the battles in which the Zulu kings were involved, amabutho (Zulu soldiers) hid in the forest when escaping an enemy. They would make fire in the forest, and kill game for food. In this case the respondents were not specifically referring to Dlinza, they said this generally happened during those times. Possibly, they would have hidden at Dlinza as well. Moberly (1970) note that clearing at Dlinza Forest was done by the British troops in the 1880s to prevent it from becoming a secret hiding place for their enemies. This shows the possibility that the Dlinza Forest was also used as a hiding place by soldiers.
- Although it is not documented, it is a belief among the respondents that King Cetshwayo's body was temporarily held at Dlinza forest: "He might have not been buried there temporarily. He died at his Gqikazi kraal; they had a long way to travel to the place where he was buried. Possibly, they rested at the forest with the coffin before resuming their journey" (Interview with Mr. Mdluli, 09.07.02). After his visit to King Cetshwayo's grave, Binns (1963) points out that he was buried at a remote and almost inaccessible part of Zululand, at the Bhope Ridge.<sup>4</sup>
- The respondents pointed out that King Mpandes's (King Cetshwayo's father) kraal was near Dlinza forest. This is supported by Binns (1963: 10) as he notes that "Cetshwayo tells us in the story of his life as dictated to his interpreter, R.C. Samuelson that he was born about the year 1826 at his father's Mlambongwenya kraal, which was situated near the Hlintza Forest on the outskirts of which the present town of Eshowe stands".

Like many forests, Dlinza serves as a burial site. The researcher observed this. Some of the people were buried there before Dlinza was proclaimed a nature reserve (some of the tombstones dates back to 1943). These are graves of both black and white people. This was observed through the names in the tombstones. Initially the fence incorporated the gravesite. The researcher was informed that after negotiations between the people and the then Natal Parks Board (NPB), the fence was moved to leave out the forested area that incorporates the graveyard to allow for access (interview with conservation workers, 09.07.02).

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<sup>3</sup> Ibid.

<sup>4</sup> Professional historians may disagree with this claim, see Guy, 1979.

It is further argued that some of the people that were buried in the forest are Zulu warriors who died during the Anglo-Zulu War. (www.kznwildlife.com). Although there are graves that appear to be of soldiers at the Dlinza gravesite, they are not of Zulu people as shown by the names. It is also noteworthy that this graveyard is still used currently by both black and white people living nearby the forest. This was observed by the researcher and confirmed by the conservation workers interviewed, (09.07. 02. Pers. comm).

#### **6.4. Material Significance of Dlinza Forest to the Rural People**

Poffenberger and McGean (1998) noted that in remote communities, where cash is scarce and markets distant, forests function much as shops do in urban areas by meeting diverse rural household needs for food, fuelwood, toys, utensils etc. The same applies to the rural community near Dlinza. They need the forest for many uses.

##### **6.4.1. Fuelwood**

Plate 6.1. A Pile of Firewood



In all sampled areas (see Figure 4.1) it has been found that people do not ‘steal’ firewood at Dlinza for domestic purposes. They mentioned that it is not possible because they fear that they might be caught on the way to their homesteads with the firewood. Consequently, they have been forced to degrade the nearby woodland resources in order to get fuelwood. This reveals the fact that although PA’s aim to ‘protect’ forest resources from human degradation in actual fact, they shift the pressure to other forests and woodland resource areas.

Some of those that could afford to buy fuelwood have decided to do this instead. Others have resolved to use paraffin, gas or dung due to the high cost of purchased fuelwood, which would account for a relatively high proportion of income to low-income groups.

“We end up using very dangerous fuel such as paraffin. It takes a lot of time to prepare food because paraffin stoves normally have a single plate. Some of us cannot afford to buy such stoves and we are forced to [use] cow dung. It is very smoky and not good for our health; our children have chest problems” (Focus Group Interview, KwaMondi, 17.07.02).

The respondents revealed that their households make use of any type of fuel, which they come across at a certain stage. As a result, they use almost all the other types of fuel in their households. These include gas, paraffin and cow dung. For instance, during prolonged rainfall when they run out of firewood and cannot get any from the woodlands, they switch to use paraffin or gas. They also mentioned that all their households have made use of cow dung at some point. They said that cow dung could be used simultaneously with firewood in order to save firewood. Where one is using live wood to make fire, cow dung (since it is used when dry) is used to start-up the fire. In those households that are electrified, electricity is used mainly for lights.

However, the conservation workers interviewed (09.07.02. Pers.comm) mentioned that a number of women have been caught collecting firewood illegally at Dlinza. They stated that these are mainly women who require firewood in order to cook and sell food in town. They also pointed out that this practice is very destructive, as these women require firewood for such purposes daily. Furthermore, they stated that when maize is in season this form of ‘poaching’ gets exacerbated. This is because during that season the number of people selling maize in town increases as new people join in this informal trade for that season only. The conservation workers stated that although these women do not collect live wood, it still is not acceptable because they do not have a licence to do so.

When the women were asked if they know that they can get a licence to collect firewood, they responded as follows:

“Licence, what licence? To collect dead wood! Who is using it? This is crazy, I will never do it. I saw others collecting firewood using vans. Listen my child, I’m very busy trying to get money and feed my children. I cannot go around for licences as well. In my case I need firewood everyday. How many times should I go to ask for a licence”? (Interview with mealie cookers, Eshowe, 12.07.02).

“I hate this thing. What licence? No one is using dead wood. They want to make money and they tell us about licences. This is jealousy. Isn’t it enough that we respect them and hide that we are taking the wood from the forest”? (interview with mealie cookers, Eshowe, 12.07.02).

The literature has shown that continued illegal resource use signifies resistance to the regulations. The above quote gives the impression that the respondents feel that they are at liberty to use the forest, yet

out of respect for the rules (and out of fear of punishment) they abide by the rules not to use the forest. Some choose to ‘steal’ the resources in secret, firewood specifically, when they have the opportunity. They therefore expect the conservation workers not to provoke them when they steal the resource because this ‘tactful’ approach is a kind of ‘respect’ they giving them, otherwise they would keep extracting the resources as it pleases them since they feel they should be at liberty to do so.

All the sampled areas (see Figure 4.1) are electrified but people still depend on wood as a source of fuel. This is mainly because personally collected wood is free of charge (they freely get it from the highly degraded woodlands) and they cannot afford to pay for electricity. Consequently, some even use live wood from the woodlands.

#### **6.4.2. Building Material**

Traditional circular huts (Plate 6.2) are the dominant types of houses at all the sampled areas. There are also square concrete houses and square mud houses. The rural people use poles and laths for both the huts and mud houses whereas the concrete houses require poles only. The respondents mentioned that building material is among the resources that they mostly need for their dwellings.

Plate 6.2. A typical circular hut



(Source: Tooley, 1996)

Ninety percent of the respondents mentioned that they couldn't afford to buy wood, as they are unemployed. For just one circular hut they require a lot of poles and laths:

“When building a circular hut, we need about 10-14 standing poles, and for the lattice and roofing, 40-60” (Focus Group Interview, KwaKhoza, 24.07.02).



The poles vary from 8-20cm in length and 2-5cm in diameter respectively. Besides the houses, there is significant amount of poles used for other constructions such as fencing and the building of kraals (Plate 6.3). Sleds are also built from indigenous plants and branches of thorn trees are used for bomas to keep livestock from straying at night and to protect cultivated fields during the day.

Plate 6.3. A kraal made from laths and poles



At the Nkanini and Kwa-Khoza areas people have planted gum trees, which they use for both building and fencing. However, there are disadvantages to gum trees according to the respondents: gum trees are not very strong and they are not termite resistant and thus their houses do not last long. The male respondents (as this is mainly their job) complained that they continually have to re-build their houses or fix the fence, as the gum trees do not last long. Furthermore, it emerged through the focus groups that those who cannot use gum trees for construction purposes would go to great lengths to obtain the preferred types of building timber especially laths. This includes getting them ‘illegally’ at Dlinza forest. The respondents were not very keen to discuss how they get them out of Dlinza but they hinted that such an activity does happen at night.

The forest guards had never caught anyone ‘stealing’ poles in the forest although sometimes they do find out that some tree branches have been cut. The forest guards stated that they had never been suspicious that anyone had cut the trees for building purposes, as they believe that most of the trees they find cut are cut by people that need them for traditional muthi.

#### **6.4.3. Indigenous Medicine**

The conservation workers at Dlinza Forest pointed out that the rural people (especially the muthi traders) often get into the forest illegally and debark the plants they need, mainly those they could lay their hands on whilst the guards are out of sight. They mentioned that there are certain species that

they mostly find debarked at Dlinza (see Table 6.1). They referred to these species as ‘problematic trees’ (interview with conservation workers, 09.07.02). The guards further stated that these ‘problematic trees’ are not necessarily the only ones that cause difficulty: “Sometimes we find that people have ‘stolen’ even the roots of the trees and other shrubs they need” (interview with conservation workers, 09.07.02). This, according to the conservation workers is encouraged partly by the fact that people know that there are only two guards for the 250ha forest, and partly because they have caught many people but no one has ever been prosecuted. Basically, they were complaining that they are understaffed, and thus cannot do their job properly. It is also worth mentioning that these ‘problematic’ trees species (Table 6.1) are not the only tree species that people use for traditional medicine.

Table 6.1. ‘Problem Medicinal Tree Species’ at Dlinza Forest

Scientific	English	Zulu	Use
<i>Podocarpus falcatus</i>	Outeniqua Yellowwood	uNompumelelo	Bark mixed with other herbs for luck.
<i>Bridelia micrantha</i>	Coastal Goldenleaf	uMhlahle	Roots and bark used for sterility, respiratory and eye complaints.
<i>Ocotea bullata</i>	Black Stinkwood	uNukani	Used for headache, urinary and nervous disorders.
<i>Bersama lucens</i>	Glossy White Ash	uNdiyaza	Roots and bark used to cure madness.
<i>Kiggelaria africana</i>	Wild Peach	iDungamuzi	Used for magical purposes.
<i>Harpephyllum caffrum</i>	Wild Plum	uMgwenya	Bark mixed with other herbs for luck
<i>Rapanea melanophloeos</i>	Cape Beech	uMaphipha	For respiratory, stomach and heart complaints. Also used as iNtelezi-a charm to ward off evil.
<i>Curtisia dentata</i>	Assegai	uMlahleni	Bark used for stomach pains and diarrhoea.
<i>Clausena anisata</i>	Horsewood	umNukambiba	Kill tapeworm and cure rheumatism. Leaves inhaled to strengthen babies.

According to the conservation workers (09.07.02. Pers.comm) the non prosecution of poachers results from the fact that police officers do not believe that someone should be prosecuted for extracting forest resources illegally. They mentioned that “Police officers see it as a joke that someone could be brought to justice for debarking a tree in the forest. They laugh at us. Sometimes they apologise for the victims” (interview conservation workers, 09.07.02). They do not think that the police officers do this because they are not aware that poaching is a crime. They believe they make a joke about it because they (forest guards) are trying to be like them (police officers, who have a right to bring people to justice) and thus end up arresting people for no reason:

“They think we are trying to be police officers. They think we bring poachers to them not because they have committed crime, because we long to be police officers yet we don’t have much knowledge about what is a crime and what is not” (interview with conservation workers, 09.07.02).

The conservation workers also feel that the restructuring of the provincial conservation authority has had an impact on their work:

“In the past, when we were working under the Natal Parks Board, poachers were prosecuted and fined. This is because our boss then would do everything to fight poaching” (interview with conservation workers, 09.07.02).

The forest guards pointed out that the muthi traders threatened to kill them when they were caught in the forest. They also said that whenever people go to the forest to get the muthi plants, they harvest them in large quantities partly because they need them for commercial purposes and partly because they hardly ever get an opportunity to ‘steal’ the plants, so when they do, a large quantity is taken.

#### 6.4.4. Wild Fruits and Food

The respondents indicated that they know of the fruit bearing plants available at Dlinza. They stated that even though they would like to eat these fruits they only eat them when their children have gone to ‘steal’ them in the forest. Table 6.2 below lists some of the fruit bearing species found in the forest.

Table 6.2. Fruit-Bearing Trees at Dlinza Forest

Scientific	English	Zulu
<i>Szygium cordatum</i>	Water berry	uMdoni
<i>Harpephyllum caffrum</i>	Wild Plum	uMgwenya
<i>Englerophytum natalense</i>	Natal Milkplum	uMthongwane
<i>Carissa bispinosa</i>	Forest num-num	amaThungulu
<i>Ficus sycomorus</i>	Sycamore fig	umKhiwane
<i>Mimusops obovata</i>	Red Milkwood	umPhumbulu

The respondents mentioned that they feel restricted by not having access to the forest fruits when they need them. They stated that:

“We grew up in rural areas, we grew up eating these fruits. We know them and we like them. If things were happening as we wish, we would continue eating them” (Focus Group Interview, Mbomboshane, 25. 08. 02).

The children at the sampled areas value access to the sweet, chewy gum substance that is produced from stem wounds: this is used as a candy substitute. The respondents mentioned that their children like this substance and thus go to the forest to get it. However, the forest guards pointed out that they have never seen these children and even if they did see them collecting this substance, they would not

chase them away because they believe they are not doing any harm to the forest. They also stated that they were never told what to do with children should they catch them in the act. The researcher observed that the forest guards believe this chewy substance is of minor importance with no need to special protection. Table 6.2 above shows some of the fruit-bearing tree species found at Dlinza forest as indicated by the conservation workers and the focus group respondents.

Furthermore, 70% of the respondents said that even if they had access to the forest, they would not harvest mushrooms. “People were killed by eating wild mushrooms in other areas. It is difficult to differentiate between the non-poisonous and the poisonous ones” (Focus Group Interview, KwaMondi, 17.07.02). The remaining 30% said that they do get mushrooms from Dlinza and are willing to risk this because they are able to distinguish between the non-poisonous and the poisonous ones. They stated however that they do this cautiously because they are not allowed to harvest mushrooms.

#### **6.4.5. Wild Honey**

Wild honey provides an important dietary supplement to rural people. Although there is wild honey at Dlinza, the forest guards stated that people are not ‘stealing’ it. They believe that this is mainly because the traditional way of getting the honey involves burning the beehives which people are unlikely to do as they may be caught.

Having heard that there is wild honey in the forest, the researcher asked about it during the group interviews. The respondents pointed out that the honey in the forest is wasted because they cannot have it for fear of being caught.

“Some of us started the act of getting honey from beehives at a very early age. We know how to do it. We can do it such that not even a single tree get burnt, if they don’t allow us to do it in fear of forest fires” (Focus Group Interview, KwaMondi, 22.07.02).

They further mentioned that they feel bad that some families starve within the rural community when food like wild honey is available in the forest.

“I see it as being insensitive that some people may starve to death when food like honey and fruits are locked up in the forest” (Focus Group Interview, Nkanini, 27.08.02).

#### **6.4.6. Wild Animals**

According to the forest guards, there is no ‘illegal’ hunting taking place at Dlinza at the moment. The male respondents in the focus group mentioned that they would like to hunt in the forest; however, they think that Dlinza does not have enough of the animals they would like to hunt. They also stated

that if the Dlinza management would negotiate with them, they would suggest that arrangements be made for them to hunt at other areas where such an activity is allowed, as a compensation for their agreement not to hunt at Dlinza. They said that they would accept as little as a single hunt every year for they understand that animals should be protected so that they do not become extinct (Focus Group Interview, KwaKhoza, 24.07.03).

#### **6.4.7. Edible Insects**

Edible insects play a significant role in food security among rural people. They include edible insects of different species such as grasshoppers and *mopane* worms. The respondents revealed that it is not easy to find these insects:

“Although we know and eat some of the edible insects that are found in the forest e.g. grasshopper, we cannot get them because they are also hunted. We cannot do that in the forest; we would be jailed. The only time we eat them is when our children have gone to the forest and happen to catch them” (Focus Group Interview, KwaKhoza, 24.07.02).

In cases where the respondents relied on their children for the extraction of forest resources, the researcher observed that they do fear for their children that they may be jailed. They also indicated to the researcher that it is a disgrace to them because they find themselves in a situation whereby they have to instruct their children to ‘steal’ in the forest. They said it is an embarrassing situation, which any parent would like to avoid. However, they are compelled by the situation, they said.

#### **6.4.8. Clay and Sand**

Both clay and sand are abundant at the Dlinza Forest as there is a stream running through the forest. The part of the forest where this stream runs is swampy and the soil is clayey. There is also sand that the stream deposits along its banks. The forest guards mentioned that they had not found the rural communities extracting sand. They thought that this might be mainly because it would require a vehicle to transport it. The respondents stated that their children do go to the forest to get clay when it is required at school and when they need to play with it. However, they did mention that they believe it is illegal to do so (Focus Group Interview, Mbomboshane, 25.08.02).

#### **6.4.9. Woodcarving**

The sale of carved products was observed along some streets at Eshowe. However, the respondents pointed out that woodcarvers in the area go as far as the Eastern Cape to get the types of wood they need for their products although some of those species are available at Dlinza.

Plate 6.4. Carved Meat Trays



Source: Tooley, 1996

Some of the common-use articles carved are meat trays (Plate 6.4), thatching needles, spoons, sticks and knobkerries. The unavailability of wood for carving purposes affects men since woodcarving is a male activity. This directly affects a few people because woodcarving is done by people who have the skill to do so. A majority of people are indirectly affected. These are those that derive benefits from having a woodcarver in a family.

This section has shown that the Dlinza Forest is both culturally and materially significant to the rural people. It has also shown that the total protection of the forest would have a negative impact on both the forest and the rural community. This is because the rural people need many resources from the forest, for which they go to great heights such as poaching to get them. The respondents indicated that although they need forest resources, for instance wild honey, they say they cannot get such resources in fear of being arrested. It is not clear as to how people were told about the restrictions at the forest when it was proclaimed a nature reserve. There are however signposts in the forest saying that it is a private property and anyone who may be found in the forest illegally shall be prosecuted. This section has shown that the rural people learn from the experience of other people that they are not supposed to use the forest in certain ways. The forest guards have however mentioned that they inform people who ask them about the use of forest resources and also those they catch in the forest.

### 6.5. Evaluation of the Effectiveness of Participation by Rural People when Decisions are Made

In order to assess the extent to which the rural community is involved in environmental decision-making (EDM) at Dlinza forest, the researcher looked specifically at the way in which, and extent to which, local people were involved in the planning and implementation of the boardwalk. As already explained, the construction of the boardwalk led to the establishment of the Dlinza Forest Ecotourism Venture (see Chapter 3). The focus group discussions appear to indicate that no formal procedures were undertaken to inform the poor rural community as a whole about the boardwalk and the new venture.

The respondents did not know if there were any negotiations that went on about the construction of the boardwalk. As shown in Figure 6.3, 65% of the respondents had never heard about the boardwalk whilst 15% of them were unsure whether they had heard something or not. Those that heard about the boardwalk (20%) heard about it from:

- Their children who illegally go to the forest to get fruits and clay.
- Local people who were employed during the construction of the boardwalk.
- People talking about it in town (especially those that hoped that its construction will create job opportunities.)

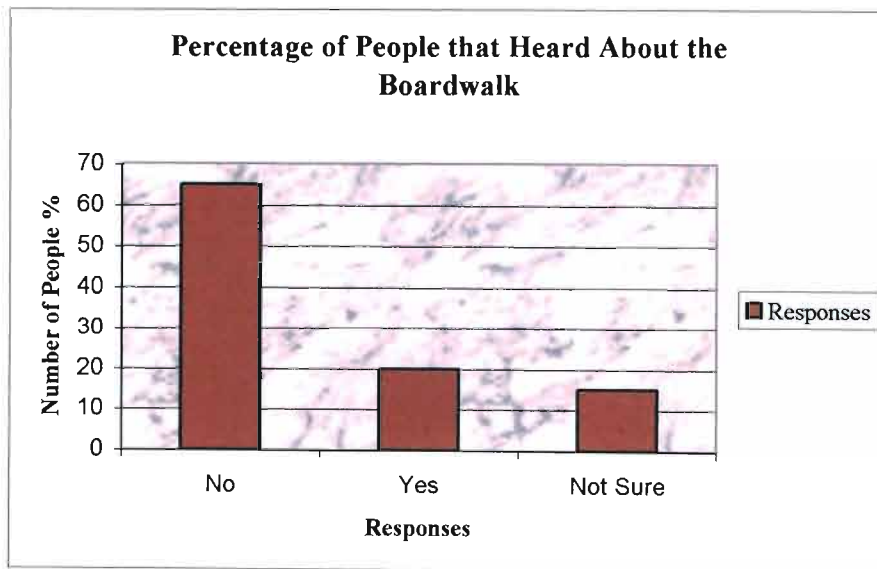


Figure 6.3: Responses of people on whether they heard about the boardwalk

Some respondents indicated that it would not matter whether they were told or not, because Dlinza is run without their recognition:

“I never heard about the boardwalk. The forest has nothing to do with me. I think even if I heard about such a meeting I would have not attended it. I don’t understand why I should discuss other people’s businesses. I do what I want to do but who ever comes to obstruct me, I will deal with him accordingly” (Focus Group Interview, KwaMondi, 17.07.02).

As noted above, the forest guards mentioned that they are sometimes threatened by the people they find ‘stealing’ resources in the forest, and this is apparent in the quote.

The respondents pointed out that whenever there is a meeting at their areas, the organisers of the meeting use loudspeakers to inform them about the meeting. They also go to the schools and give messages, either written or verbal messages, to the children so that they can inform their parents about a meeting. They were thus arguing that if there was ever a meeting about the boardwalk, they would definitely have heard about it.

The respondents revealed that if the officials did inform any person about the construction of the boardwalk, it is most probably those that reside in urban areas, i.e. the white community staying in Eshowe itself (thus immediately adjacent to the forest), and those that stay at Gezinsila Township. The respondents felt that they were not informed because of their social status.

“They speak to these people because they are educated and would question how the decision was taken. We were not informed because we are neither educated nor rich” (Focus Group Interview, Nkanini, 27.08.02).

Some respondents felt that they were not informed because they are not members of the ruling party. (To avoid political tensions and for the success of the interviews, the researcher could not probe on such comments).

However, the key actors mentioned that

“The decision making process was very transparent. Meetings were held with community members. Councillors and chiefs had the duty to inform people” (Mr. Ndwandwe, 08.07.02. Pers. comm).

For the key actors in the decision making process, chiefs and councilors were reliable people with whom to drive the decision-making. As shown in the above quote, Mr. Ndwandwe the boardwalk manager believes that rural people were represented since the chief was part of the process. As argued in literature, conservation authorities seem to put too much power in the hands of chiefs and may fail to verify the extent to which they play their role as representatives of the people.

When asked what they would have suggested or recommended if they had been included in the planning of the boardwalk, the respondents stated that they would have recommended that the



boardwalk be some distance from the areas where their early chiefs were buried because it is indecent that people would walk above a place where their chief was laid to rest. When asked how they would identify such places, they said:

“If needed, somewhere there is someone who may be able to show where someone was buried. I refuse to believe that everyone with such knowledge is dead. Or else, the books that were written at this time should give an indication” (Focus Group Interview, KwaMondi, 22.07.02).

The argument of the respondents was not necessarily that there should be a clearly identified place where someone was buried. However, the simple act of taking this into cognisance when constructing the boardwalk, would have meant a lot to them because they are a people that respect the dead.

### **6.6. Impact of Ecotourism**

With the ecotourism development at Dlinza, 90% of the respondents stated that it would be difficult for them to comment on whether the development was necessary or not. One noted:

“It is difficult because we are not involved in the functioning of the forest. Even though we may have different ideas on what we feel should be done at Dlinza, we may not have the chance to voice our opinions” (Focus Group Interview, KwaKhoza, 24.07.02).

However, the remaining 10% felt that instead of constructing a boardwalk, they would have suggested that whatever development was decided on, it should be a development in which ‘they’ (the “not so learned” members of society) would also have access to job opportunities. Basically, the respondents were arguing that they would appreciate development that considers the rural poor.

Although the main aim of ecotourism is to give opportunities to the rural poor, the respondents revealed that the establishment of the ecotourism project has not brought any changes to their lives so far. The instigators of the project, on the other hand, argue that rural people benefited from the project mainly from job creation and education:

“We employ 6 previously unemployed guides from the local community, whom we have had trained at Wakkerstroom in bird guiding and tourism. We also employ a manager. All the building was done by local Eshowe building contractors and labour. The surrounding communities will be brought in to the project more when we are able to start our trails into the Ntumeni Forest area. Obviously we are educating the local communities all the time. They benefit from job creation and education mainly. As we expand, we will be training more guides and developing into more areas of conservation” (Boardwalk committee member, 03.10.02. e-mail).

However, the respondents mentioned that they have not obtained any benefits from the project:

“I have not seen any changes. The forest is still preserved. We do not benefit from the project” (Focus Group Interview, KwaMondi, 17.07.02).

It is however noteworthy that when the interviews were conducted, the ecotourism project at Dlinza was hardly a year old.

On the issue of employment creation and ecotourism, the respondents revealed that they do not perceive the jobs created by the ecotourism project as beneficial to them. They stated that the project creates job opportunities for certain individuals. They referred to them as ‘corruption jobs’ because

“even if the employee is from a not so well off family, he/she has bribed someone somewhere, be it a chief, a councillor or any one who has a voice in the whole thing” (Focus Group Interview, Nkanini, 27.08.02).

The respondents regarded their education level as hindering them from getting the jobs. They believe that their children could have been employed though:

“The people employed at Dlinza have no formal training, they have matriculation certificates. Our children do have these certificates but we never heard when the posts were advertised and when they were appointed. It was not transparent. All we know is that they are related in one way or the other to someone who has a voice in the tourism thing be it a chief or a councillor” (Focus Group Interview, Mbomboshane, 19.07.02).

It is shown that although the instigators of the ecotourism project at Dlinza perceive the jobs created by the project as beneficial to the rural people, the extent to which this has been achieved is questionable.

When asked if their chiefs could be bribed and take decisions that would benefit other people, the respondents stated:

“Chiefs are humans too. Some of them are very poor, they would do anything so as to get money and make a living” (Focus Group Interview, Nkanini, 27.08.02).

When asked about the role played by the rural community in the management of the forest, the key actors mentioned that “there is representation on the Board of Trustees from the Nkosis” (Mr. Ndwandwe, 08. 07. 02 Pers.comm; boardwalk committee member, 03.10.02. e-mail). Unfortunately, the extent to which the chiefs represent the people may be questionable because of their susceptibility to bribery.

The study required people’s views on the ecotourism project and thus they were asked what they like/do not like about ecotourism. The respondents pointed out that ecotourism:

- *Promotes begging*

The gap between the rich tourist and the poor rural community is seen as bringing along problems. The respondents pointed out that their children are forced to beg in an attempt to get the “fancy things” that the tourists possess:

“In the long run, this will impact even more on us because they may resort to crime to get other things that they wish to have from the tourists. This whole thing is not in favour of us; we are going to face the imprisonment of our needy children” (Focus Group Interview, KwaKhoza, 24.07.02).

- *Causes cultural decay*

The locals view tourists as intruders in their ceremonies. They said:

“We end up doing it for them. The way they dress in our ceremonies has an influence on our children. They criticise our culture and make undermining comments. e.g. when our girls are bare-breasted they criticise it but it’s our culture. Consequently, these kids feel like they are idiots as a result they don’t want to do it anymore” (Focus Group Interview, Mbomboshane, 25.08.02).

- *Likely to cause crime and disease in future*

As mentioned, the respondents feel that the gap in social status between themselves and the tourists will lead to crime. They believe that their children may be tempted to engage in criminal activities because they long to have the “nice and sophisticated possessions” of the tourists. They stated that even though it has not happened yet, it is going to happen because they are not getting any richer, so as to afford to buy their children most of the things they would like to have, nor are they getting jobs to improve their quality of life. Coupled with the high level of unemployment among the youth in the area, the respondents feel that their children are very likely to resort to crime. In this case they were referring mainly to the boys. When asked what they think the girls would do they thought that girls are susceptible to prostitution, which may exacerbate the already high HIV/AIDS infection in the area. They believe that:

“At the end of the day some of our boys will be in prison and some will be dead because of AIDS whereas the girls will be dead of the same disease and the number of orphans will increase. All, because of tourism” (Focus Group Interview, KwaKhoza, 24.07.02).

- *Undermines rural forms of income generation*

It was felt by the respondents that:

“If the forest was not preserved for tourism, we would be able to cultivate its edges. We would also be able to get indigenous muthi for commercial purposes. As it is now, we have to keep it all for tourism” (Focus Group Interview, KwaMondi, 22.07.02).

Finally, the literature has shown that all the resources extracted from forests have a commercial value. The rural people trade in them. As shown in the above quote, where an ecotourism project is put in place, rural resource users have to cease using the resources as these same resources draw tourists to the forest. In this way ecotourism does not only deprive the rural people of the forest resources, it also disturbs their economic spin-offs. That is why the literature argues that ecotourism exacerbates rural poverty.

### 6.7. Importance of Dlinza Forest to the People

In order to determine the importance of Dlinza Forest to the people, they were asked if it is in any way important to them as it is now. The respondents had different views. This is shown in Figure 6.4 below. Sixty percent of the respondents feel that Dlinza is not important to them, as they cannot:

- Collect fruits
- Hunt
- Collect firewood
- Use the fertile soil (plough vegetables or decorate their houses)
- Collect medicinal plants
- Get building materials

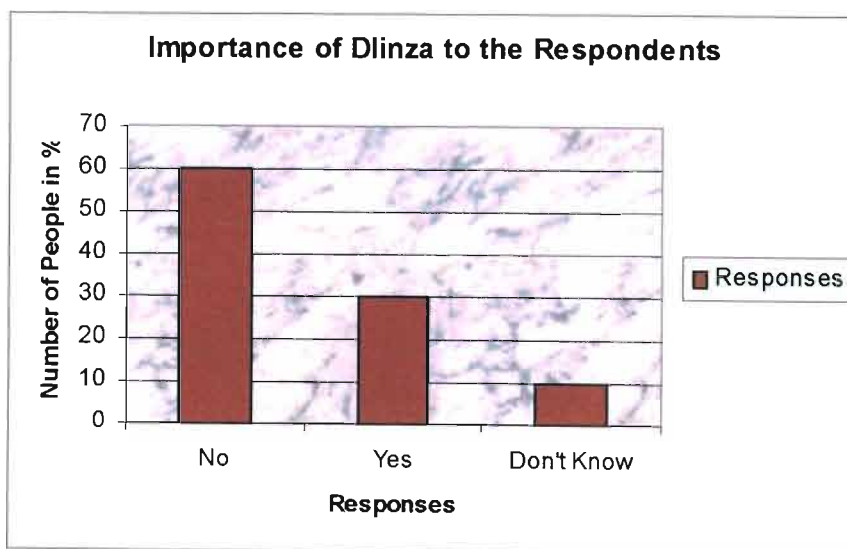


Figure 6.4: Importance of Dlinza to the Respondents

Although they are still attached to the forest, the respondents feel that Dlinza can only be important to them if they can extract resources from it freely. They looked at the forest from a highly utilitarian perspective.

In addition, a gendered division of labour was apparent as the respondents stated their reasons for not considering the importance of the forest. A majority (80%) of the male respondents indicated that they need the forest for building materials whilst about 20% needed it for hunting. The female respondents needed it for the fruits/food and firewood, however about 60% of them did mention that they would like to get building material as well. The latter are women who head their households and those that are widowed or single. The remaining 40% stated that they would need it for building material because they too suffer the consequences if their houses fall down as a result of using weak poles that cannot resist termites for long. This is summarised in Table 6.3 below.

Table 6.3. Forest Use and Gender

<b>Forest Use</b>	<b>Male</b>	<b>Female</b>
Firewood Collection		<b>X</b>
Agricultural Use		<b>X</b>
Building Material	<b>X</b>	<b>X</b>
Food/Fruit		<b>X</b>
Wood for Carving	<b>X</b>	
Hunting	<b>X</b>	

With regards to the use of the forest for agricultural purposes a respondent said:

“I wish we can use the soil to plough vegetables to feed our families and to sell fresh vegetables to the people here and make a living” (Focus Group Interview, Nkanini, 27.08.02).

When asked if they cannot grow those vegetables in their plots, the women pointed out:

“We do have big plots here in rural areas but the soil is not as fertile and we do not have the money to buy fertilisers. As a result, we cannot sell vegetables to the people and for ourselves” (Focus Group Interview, Nkanini, 27.08.02).

The male respondents on the other hand mentioned that they would not want to plough at the forest edges because they need large fields for what they plough in particular, maize. They think they would still be ploughing in their current fields even if they had access to the forest because what they plough (maize) does grow in their fields and it doesn't need as much fertile soil as compared to what women would grow.

Basically the respondents believe that the forest is not important to them because they cannot utilise any of its products. They pointed out that it is important only to those who have access to the resources.

“How would I see its importance? What do I get from it? I cannot enjoy even its shade. It has got its owners; they make money out of it. It is important to them” (Focus Group Interview, Nkanini, 27.08.02).

The respondents feel that their use of the forest is taken as a form of resource exploitation whereas the way other people prefer to use the forest is considered non-exploitative, thus these people are allowed in the forest. This is clearly illustrated in the following quote:

“Until tourism understands that we differ on our use of the forest and its resources - some prefer touching and looking at the trees whilst others choose to have its fruits and bark - we will NOT feel part of tourism. As it is now, it is for those that can use it ‘better’ (Focus Group Interview, KwaKhoza, 24.07.02).

The above quote gives the impression that refraining from using the forest by rural people is a consequence of the belief that their use of the forest would destroy the forest and its resources. The respondents believe that visitors to the forest are given access not only because they pay the entrance fee, also because what they do in the forest is regarded worthwhile as compared to theirs. This includes activities such as bird-watching. As most tourists are from urban areas, the rural people thus perceive this as derived from the fact that they have to stop using the forest for the benefit of urban dwellers.

When asked if they are aware that for the collection of firewood and indigenous medicines they can have access only if they can get a licence or permit to do so, the respondents indicated that they do not know about the licence. However, the researcher noticed reluctance or resistance to getting the licence, rather than having no information about it. Some of the comments are given below:

“Even if I had the money, I would not pay. I do not understand why I should pay in the first place. Pay to use a forest that should be available to everyone! Our forefathers used it free of charge. Why should we pay? I think the outsiders that have access to it at the moment should pay, not us” (Focus Group Interview, KwaKhoza, 24.07.02).

“Licence, what licence? To collect dead wood! Who is using it? This is crazy, I will never do it. I saw others collecting firewood using vans. Listen my child, I’m very busy trying to get money and feed my children. I cannot go around for licences as well. In my case I need firewood everyday. How many times should I go to ask for a licence”? (Interview with mealie cookers, Eshowe, 12.07.02).

On the issue of licences, the muthi traders differed in their response; this is what they said,

“I cannot use Dlinza, it is fenced, though I would like to because there’s a lot of trees I need. I don’t know the procedure for issuing licences, all I know is that the forest guards take us to prison” (Interview with muthi traders, Eshowe, 15.07.02).

I know about the licence thing but I don’t see the reason why I should do it, is it because I’m black and poor”? (interview with muthi traders, Eshowe, 15.07.02).

Although the respondents were showing resistance to the issuing of licences rather than lack of knowledge, it is apparent that they also lack information. For instance, in one of the above quotes, the respondent said that as she needs firewood everyday she doesn’t understand how many times she should go to ask for the licence. The conservation workers mentioned that there is a fee to use the forest and the licences are valid for a period of three to six months, depending on what resource one wants to use in the forest. They also stated that the licence is obtainable from their (EKZNW) offices at Eshowe.

The 30 % of respondents who believe that the Dlinza Forest is important and its use must be controlled, based their argument on the following reasons:

- *For the benefit of their children*

They stated that it is important for their children to know and see indigenous tree species. They believe that their consumption of the forest produce should be controlled and managed wisely for the benefit of their children. These respondents felt that their children as they are today, will not be able to get to the forest because they (parents) do not have the money to pay the entrance fee. They believe that because their children will be educated one day and hopefully get jobs, they will be able to pay the entrance fee at the forest and see the trees they (parents) are telling them about. However, the researcher saw reluctance on the side of the parents to pay for their children as they kept on emphasizing that they do not understand why they should pay.

“They want to make money out of us for the benefit of the tourists. This is cruelty. We are poor and unemployed, where do they think we get the money from” (Focus Group Interview, KwaKhoza, 24.07.02).

- *Important to those that can sell their beadwork to tourists*

The respondents argued that the forest is important to the few people who are able to sell some products to the tourists. They however did emphasize that this becomes applicable only if those tourists visited the Eshowe area to see the Dlinza Forest. They also stressed that these tourists cannot buy such products at the forest premises because there are no provisions for craft marketing. Therefore, the tourists may buy the products in places such as the Vukani Craft Market, which is

situated in the town of Eshowe, only if they do go there. This argument has revealed that although the respondents view the forest as important to those that can sell their products to the tourists it draws to the area, this has not yet been addressed by the authorities because the products cannot be sold on site, i.e. within the premises of the reserve. This is perhaps the authorities' failure to accommodate the local people in the ecotourism business enterprise.

- *Important to those that get jobs in the project*

The respondents in this group believe that the forest is also important to those that get jobs. However, their discussions on the issue of the jobs created by ecotourism in section 6.5 above shows that they are not happy with the way these jobs are offered. Basically, the respondents who view Dlinza as important revealed that it is important to certain individuals other than themselves or the rural community as a whole.

## **6.8. Conclusion**

This chapter has presented the findings of the rural community survey, which show that although the forest has undergone many changes in terms of its management and administration, the relationship between the rural people and the conservation authorities over the management of the Dlinza Forest has not fundamentally changed. This is so despite the global paradigm shift from fortress to community conservation and also despite the democratising shifts (that provide an enabling environment especially through legislation) that are taking place in the country. Rural communities are still excluded in the decision making process with regards to the management of the forest. Their relationship is still characterised by the disparity between a hegemonic group (the forest authorities) and a subordinate group (rural people).

Observed also from the study is that despite the improvement that has been made through legislation to legislate for the involvement of rural people in EDM, there is no political will to implement the legislation by authorities "on the ground". It appears from this study that, in general, the people that participate in EDM at Dlinza are only the most affluent members of the community. Rural people are not yet reaping the fruits of ecotourism despite the provisions made by the legislation. This is a result of the fact that conservation authorities still view the involvement of people from an inappropriate 'Western' mindset, not necessarily from the traditional cultural framework and recognition of the rural residents (Adams and Mulligan 2003). Unless the mindset of local conservation authorities is changed to recognise and appreciate local strategies, conservation efforts would not succeed.



## CHAPTER SEVEN

### DISCUSSION

#### **7.1. Introduction**

This chapter provides a discussion of the findings of the study. It draws on the literature to give a critical analysis of the findings. It begins by discussing the (contested) significance of the forest to the various local communities. While poor rural people had attached both use and non-use values to the forest, the settler community also attached value to the forest, in particular “non-use” or aesthetic values. This is followed by a discussion of the various perceptions of the contemporary ecotourism project at Dlinza. The discussion contrasts the views and understandings of the rural people with those of the key actors in the ecotourism project at Dlinza. It shows that the rural people feel excluded from the decision-making process at Dlinza, yet the key actors in the decision-making process feel that the process was transparent and a necessary action benefiting all the people.

An analysis of the environmental decision-making (EDM) process that took place at Dlinza is then presented. This is done with reference to the EDM model presented in Chapter 2. First, the principles of public participation are used to assess the process undertaken before constructing the boardwalk at Dlinza. Secondly, the model is employed to identify the characteristic management style adopted at each of the three main “turning points” in the history of the management of Dlinza Forest. Finally, a theoretical explanation of the power dynamics in EDM presented by Preston-Whyte (1996) shows in a systematic way why the rural people are still excluded in decision-making at Dlinza.

#### **7.2. Contested Significance of the Forest**

One of the objectives of the study was to determine the current significance of the forest to rural poor people. Bouman and Brand (1997) point out that there are non-commercial values attached to forests (Table 7.1 below). These are values attributed to forests that are not easily measured or quantifiable in monetary terms.

The Dlinza Forest case study has revealed that non-use values were attached to the forest not only by the rural community, but by the settler community as well. Contestation over the use and value of the forest has been apparent as each group exercised its will and attempted to display “ownership” of the forest. In general, the more powerful (in the political sense) dictated the management style.

Table 7.1. Non-Use Values of Forests

<b>Non-Use Values of Forests</b>	
Intrinsic Values	The value the forest has in itself, independent of its value to any other being.
Spiritual Values	The value attached to the forest by people because of its importance to their spiritual and cultural sense of identity.
Ecological Values	The value attached to the importance of maintaining forest biological diversity.
Community Values	The value central to understanding the sense of community identity.
Existence Values	The value attached to the satisfaction people obtain from an amenity for various reasons other than their expected personal use.

Source: Bouman and Brand (1997)

### 7.2.1. Non-Use Values

The results have shown that the rural people are still attached to the forest. This is shown through the stories and legends about Dlinza (section 6.3). This reveals the fact that although the forest was preserved in an exclusionary manner for so many years, people still feel much attached to it as a result of the beliefs they have about it. The bond between the people and the forest cannot be erased by the restriction on the use of forest resources.

The literature on indigenous knowledge shows that such knowledge tends to be collectively owned and take the form of stories, songs, folklore, beliefs, rituals and cultural values. It is transmitted orally from generation to generation (Biodiversity Support Program, 1993). This suggests that the current generation can, when given the opportunity, use those practices to protect the forest. The respondents in this research displayed the existence of these practices through their beliefs and legends to the researcher as shown in Chapter 6. In particular, the results show that the rural people do not value the forest only as a reservoir for resource extraction but also as a place where their 'history is stored', as they put it. Therefore, it is incorrect to assume that when people's use of the forest is prohibited, they should be completely marginalized in terms of the management of the forest. This is because the bond between them and the forest remains through the non-use values they attach to it.

Experience from other forests shows that when a forest provides a burial site, people consider that forest as sacred. In such cases they attach a spiritual value to the forest, which means that the value attached to the forest is important to their spiritual and cultural sense of identity

(Bouman and Brand, 1997). Lawes *et al* (in press) note that when this value is attached, people take it upon themselves to ensure that the forest is protected as a sign of respecting the deceased. Henry (1998, cited in Lawes *et al*, in press) notes that this form of protection is especially effective if chiefs are laid to rest in that forest, for instance, Silahlankosi forest near the town of Bergville in KwaZulu-Natal (Lawes *et al*, in press). Lugg (1975: 5) supports this: “The permanent home of family spirits is the graves. Graves are treated with the greatest respect and awe, regardless of race, and this is especially so when the graves happen to be those of chiefs”.

It is possible that in this case, the measures taken by the authorities to protect Dlinza forest deprived people of the opportunity to conserve the forest in a way that is suitable to their beliefs. It is also important to note that the location of Dlinza (within the town of Eshowe) would have made it impossible for the rural people to be in charge of a forest that is in town, especially in the context of apartheid planning in South Africa. The results show however that the exclusion of people from the functioning and management of the forest has not destroyed the “people-forest bond”.

The results have also shown that it is not only the rural community that attached non-use values to the forest. The settler community also attached “existence value” to the forest. The forest was viewed as a spiritual place. This is suggested for example by the tradition of the Bishop’s seat, where Bishop Carter used to sit and meditate on his next sermon. The forest provided peace of mind for members of the settler community. According to Bouman and Brand (1997: 174), existence value is related to peace of mind, which “comes just from knowing that a natural feature, such as a forest exists”.

Observed also from the results is that both groups have attached particular community values to Dlinza. This assigning of value went hand-in-hand with control of the forest. Whichever group controlled the forest in a particular era considered themselves “owners” of the forest and this was reflected in the cultural practices allowed or not allowed in the forest. Controlling Dlinza was part of creating or keeping social order. For instance, the Zulus restricted the use of certain tree species. For the settler community, cultural identities were performed within the space of the forest. When young white Eshowe residents played cricket at the forest, they were showing the importance of the forest to their cultural sense of identity, i.e. playing an English sport, and thus symbolizing their culture. The settlers also performed the Forest Noel, the Nativity play that drew the settler community to the forest. Thus the conflicts within the two actors (government and rural people) are not only about the use of the forest, but also about power and control of the forest. This is because state control of forests,

at Dlinza as elsewhere, has denied rural people access to a place that symbolises their cultural/spiritual identity.

It should be emphasised that the attachment of non-use values to the Dlinza Forest by rural people is as important as that of the settler community. The forest ‘stores’ the history of both communities. It is this very history that the current management of the project is selling to the ecotourists that visit the forest. While they are told Zulu history, they are also told about the Bishop’s Seat (British history). The Aerial Boardwalk pamphlet (O’Reagain, 2001) in its emphasis on the rich cultural history of the forest mentions the naming of the forest (Zulu history) and, the Bishop’s seat and how the Royal Drive was named so at Dlinza (British history). The publicity material (see Appendix 1, Article, 2) mentions the ‘colourful history’ of the forest and refers specifically to the Bishop’s Seat. Both cultures therefore contribute to the success of the project. Therefore the contested non-use value of the forest poses a challenge to the current management. It is clear that the population, whose culture or history is sold as part of the ecotourism project, have a right to know about it. It would be ethical in such a context to provide a balanced view of the forest’s history and combine it with a fair process of EDM so as to redress the imbalances of the past.

### **7.2.2. Use Values**

The study has shown that the rural community needs many resources from Dlinza. This includes firewood, building material, fruits and food, wild honey, edible insects, indigenous muthi. Cunningham *et al* (1988, cited in Tooley, 1996) points out that the use of forest resources by the people is thought to have five main advantages:

- Plants are a renewable resource.
- The harvesting, use and sale for this purpose generates income
- Preserves traditional skills
- Preserves indigenous knowledge
- Plant products are often available at low cost.

The following section discusses each of the main use patterns and attempts to establish the underlying motive behind each resource use.

#### Use of Wood

In general, rural people in South Africa have tended to rely heavily on wood as an energy source, as the supply of electricity was historically biased towards urban centres and white settlements (Tooley, 1996). The majority of the population residing outside the grid used alternative energy sources such as wood, candles, paraffin and gas. Despite the major

electrification schemes that have been implemented in South Africa, rural people often continue to depend as they have done in the past, on indigenous wood as a source of fuel. This was true at the study area too. This is partly because they cannot afford to pay for electricity and partly because of the perception of wood as a good fuel, which is based on the fact that it is cheap and readily available. James (1992, cited in Tooley, 1996) also suggested that cultural preference might be at work here. People might prefer to use wood for cooking, as it suits the type of food cooked and the manner in which it is cooked.

The researcher observed that the woodland resources nearby the sampled areas (Figure 4.1) are severely depleted. Although PA's aim to 'protect' forest resources from human degradation, in actual fact; they may shift the pressure to other forests and woodland resource areas. The results show that the people that do collect firewood from Dlinza are those that need the firewood to cook in town. People at the sampled areas mentioned that they would like to get firewood from Dlinza but they fear that they may be jailed. It is however apparent that if the current management strategy carries on for long, these people will end up poaching, especially when the woodland resources nearby are finished. This therefore highlights the urgency for change in the current management strategy at Dlinza.

In addition to firewood, forests have for long been a source of building material to African people. Live wood is cut for poles and laths. Poffenberger and McGean (1998) argue that rural households find it even more difficult to find construction timber than fuelwood. This is because the type and quality of timber used for building is specific and poles that are favoured for construction are those that are durable and termite resistant. Like building material, woodcarving is also highly selective with species since specific attributes are required of the wood for each different purpose (Tooley, 1996). The main characteristics required are durability, strength, flexibility and resistance to splitting.

Some of the species favoured for construction and woodcarving are found at Dlinza, for instance, the Natal Mikplum. The results have shown that the rural people do "steal" laths from the Dlinza Forest. The forest guards on the other hand believe that the trees they find cut in the forest are cut for traditional muthi purposes. They mentioned that: "Sometimes we find that people have 'stolen' even the roots and branches of the trees and other shrubs they need" (interview with conservation workers, 09.07.02).

The fact that the forest guards do not realise that the extraction of tree branches might be for another use other than muthi (i.e. for construction purposes), suggests that the damage is currently not severe. Also, this might mean that not many people are illegally extracting wood

for construction purposes in the forest. However, if it carries on, the effects will ultimately be serious. It is also important to note that there are only two forest guards in that forest and they do not patrol the whole forest everyday. They are therefore unlikely to discover whatever happened in the forest as soon as it took place.

The principle that not all forms of resource use may be freely allowed in PA's, is reiterated in the National Forests Act of 1998. Such uses include the use of live wood for construction and woodcarving. However, in the forests of the Eastern Cape, DWAF officials have an agreement with the rural people that they can have access to trees that are likely to fall down naturally. As these are mainly nationally protected trees, the officials cut such trees for the people (personal observation, Mbotyi Forests, September 2002). Such arrangements could be made at Dlinza. The argument here is that people will understand that the forest is a PA but would appreciate the fact that when the trees they need are available, they are given first preference. It should be noted that trees that are likely to fall are cut down in forests before they fall; otherwise they are likely to cause greater deforestation.

The results show that at the Nkanini and Kwa-Khoza areas the rural people have planted gum trees, which they use for both building and fencing. However, there are disadvantages to gum trees according to the respondents: gum trees are not very strong and they are not termite resistant and thus their houses do not last long. The male respondents (as this is mainly their job) complained that they continually have to re-build their houses or fix the fence, as the gum trees do not last long. Clearly, the strategy to plant the gum trees relieves the pressure on Dlinza Forest. The literature has shown that ecotourism should enhance ongoing activities that try to reduce people's dependency on forests. Perhaps encouraging the planting of more gum trees (by providing free seeds, for example) would be an important step taken by the conservation authorities. Most importantly, encouraging the planting of the indigenous species favoured for construction would be advantageous.

#### Plants Used for Indigenous Medicine

The literature has shown that the use of indigenous medicine by rural people especially in South Africa is grounded in the following reasons:

- Lack of modern medical facilities in rural areas.
- People's beliefs in indigenous muthi.
- Inability to afford medical expenses (Lawes *et al*, in press).

The literature suggests that when monitored, the use of forests for medical purposes does not degrade a forest (Ghimire, 1994). This is so particularly when the indigenous medicine is not required for commercial purposes. The researcher observed in the forests of the Eastern Cape that when people extract forest resources for medicinal purposes (especially the bark) in fear of being jailed they do it unsustainably (personal observation, Mbotyi Forests, September 2002). They also use the ring barking method of debarking or cut the trees. When debarked in this fashion, trees die out.

As poaching is already occurring at Dlinza, it is important that this issue be addressed for the benefit of both the people and conservation. The results of this study show that the destruction of trees takes place at Dlinza partly because people need the trees for commercial purposes and partly because even those that need them for subsistence, extract them in large quantities when they do get an opportunity, in fear of being jailed. This leads to the destruction of the forest that could be avoided. This then shows that the authorities at the study area should involve the people in the management of the forest. People could be alerted to the dangers of ring barking and maybe together take a decision to promote strip barking, which is the debarking of a tree on one side (especially the side that gets more sunlight).

#### Food and Fruit

Many studies have emphasised the importance of fruit in terms of the diet and nutrition of many indigenous people (Mather, 1990; Immelman *et al*, 1973; Tooley, 1996). The results have shown that the rural community at the study area does need the fruit from the forest. Also, their poor economic status proves that the forest may be the only source of fruit to them. Many studies, in particular Ghimire (1994) suggest that people should be allowed to collect fruits from forests since such an activity poses no threat to the forest. Collecting fruits from the forest poses no threat to the forest's biological diversity yet poor people are in desperate need of non-timber forest products. The researcher was told:

“I see it as being insensitive that some people may starve to death when food like honey and fruits are locked up in the forest” (Focus Group Interview, Nkanini, 27.08.02).

This shows an urgent need to allow such an activity to take place in the forest. Of course, since Dlinza is a PA where an ecotourism business venture is in existence, the collection of such fruits must be controlled. Most importantly, such a decision should be taken with the appropriate stakeholders, i.e. the resource users.

In many rural areas wild meat represents the only viable source of meat protein, with domestic meat being prohibitively expensive and largely unavailable (www.traffic.org). The archival records show that attempts to stop hunting among indigenous people in Zululand started during the 1900s (Brooks, 2001). The people were not even allowed to kill “pest” animals dangerous to their livelihoods. It is evident in the archival material that the authorities were aware that some of the animals were destroying the crops of Zulu cultivators.<sup>1</sup> A letter from the Chief Native Commissioner to the District Officer stated: “You are quite right; the natives should not be granted permission to shoot monkeys on [native] reserves.”<sup>2</sup>

The problem with such restrictions is that the settlers were allowed to hunt (as long as they had licences). Although it is not shown how African people responded to this issue, the literature has revealed that in most areas people were fined or prosecuted for killing these destructive animals, and were also prohibited from hunting with dogs for sport. By reducing the use value of the forest through prohibiting hunting by Africans, this simultaneously affected the non-use value of the forest, since among the Zulu people, hunting is a significant cultural practice for men and a form of recreation (Dhlamini, forthcoming).

The respondents at the study area mentioned that they would like to hunt in the forest; however, they think that Dlinza does not have enough of the animals they would like to hunt. They also stated that if the Dlinza management would negotiate with them, they would suggest that arrangements be made for them to hunt at other areas where such an activity is allowed, as a compensation for their agreement not to hunt at Dlinza. They said that they would accept as little as a single hunt every year for they understand that animals should be protected so that they do not become extinct (Focus Group Interview, KwaKhoza, 24.07.02).

### Summary

Common among the forest uses discussed above is that:

- Each practice is culturally grounded.
- People cannot afford the alternatives available.
- People were compelled by apartheid planning to use these resources.
- These appear to be the most easily accessible support systems suitable to the living conditions of the rural people.

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<sup>1</sup> Durban Archives Repository Z/117/13 “Shooting of Baboons and Monkeys” Letter from Acting Chief Native Commissioner to District Officer regarding the shooting of “pest” animals.

<sup>2</sup> Durban Archives Repository Z/146/37/1 “Shooting of Animals by Natives” Letter from Acting Chief Native Commissioner to District Officer with regard to the issue of giving African permission to shoot animals on native reserves.



As Dlinza is a PA, it would clearly not be possible to allow all of these uses. The most important element is that whatever is decided upon, that decision must be taken collectively with the people who need to use the resources. While public participation in EDM does not guarantee that everyone will be happy with the decision taken, such a procedure helps to build consensus (Webler *et al*, 2001). As shown in the model for EDM (section 2.6), involving all relevant stakeholders early in the EDM process is important because concerns can be met early in the process and this helps to avoid conflict after the decision is made.

It is important to note that there is a monetary value attached by rural people to all the forest uses discussed below above. It is shown that rural communities do not only use forest resources themselves; they also trade in them to generate income. Thus the importance of resources to human welfare extends to urban areas and sometimes to international communities. Most rural industries are based on resources from the forest, either as a source of energy or raw material. Such industries include carving and carpentry, basketry, weaving and other craftwork that generates income for rural households.

The issue of attaching a monetary value to forests is crucial. This is because when other people (mainly urban people) attach a monetary value to a forest, the rural people must refrain from using it. Urban needs take precedence. This means that where an ecotourism project is put in place, rural resource users are required to stop using the forest. This is shown at the study area, where forest use is currently dictated by the ecotourism project rather than the other use-values required by the rural people. On this issue the respondents felt that their use of the forest is perceived as “unacceptable behaviour”. As one focus group participant stated:

“Until tourism understands that we differ on our use of the forest and its resources - some prefer touching and looking at the trees whilst others choose to have its fruits and bark - we will NOT feel part of tourism. As it is now, it is for those that can use it ‘better’ (Focus Group Interview, KwaKhoza, 24.07.02).

This shows that if not addressed properly, ecotourism may appear to be encouraging some groups’ use of forest resources at the expense of other people. The literature supports this as it argues that where ecotourism is imposed on people, people perceive it as a strategy that requires them to cease using forest resources for the benefit of urban dwellers (Adams and Mulligan, 2003; Steinberg, 1993). In extreme cases, this becomes a racial issue. Where there are such perceptions the success of an ecotourism project is not guaranteed.

### 7.3. Perceptions of Ecotourism at Dlinza

Community-based ecotourism emphasises the extension of benefits to economically marginal groups. It carries the notion that in order to sustain natural resources through ecotourism, government, developers, and scientists must invest in these communities and recognize the rights of rural people, who have for so long protected these natural resources (Yu, *et al*, 1997; Scheyvens, 2000).

The key decision-makers at the study area argue that the ecotourism project is important to the rural people for it brings employment opportunities. They mentioned that:

“We employ 6 previously unemployed guides from the local community, whom we have had trained at Wakkerstroom in bird guiding and tourism. We also employ a manager. All the building was done by local Eshowe building contractors and labour. The surrounding communities will be brought in to the project more when we are able to start our trails into the Ntumeni Forest area. Obviously we are educating the local communities all the time. They benefit from job creation and education mainly. As we expand, we will be training more guides and developing into more areas of conservation” (boardwalk committee member, 03.10.02 e-mail).

However, from the point of view of the respondents these jobs are only for the privileged few. The rural people in the sampled areas were not employed in these jobs, referring to them as ‘corruption jobs’ because they believe that those who were employed bribed some of the officials:

“Even if the employee is from a not so well off family, he/she has bribed someone somewhere, be it a chief, a councillor or any one who has a voice in the whole thing” (Focus Group Interview, Nkanini, 27.08.02).

The respondents argued that with the exception of a few people that worked during the construction of the boardwalk, all other people employed in the project are from urban areas. This supports the findings of other studies that suggest there are many complications with job opportunities created by ecotourism (Duffy, 2002; Scheyvens, 2000; Fortin and Gagnon, 1999; Wearing and Neil, 1999). These include the periodic nature of these jobs and inequity in their distribution. It is interesting to note here that there has already been a relatively high turnover in staff since the start of the project in 2001 (personal observation, March 2003).

In general, rural areas have fewer job opportunities as compared to urban centres. As a result, some households in rural areas are dependent on forests for survival (Poffenberger and McGean, 1998). When proper arrangements are not made with them, yet they have to refrain from extracting resources from the forest, rural people believe that they are being forced to

reserve their resources for the benefit of urban centres since many ecotourists are from urban areas. In this way conservation displaces local economic spin-offs. If forest resources are a source of income to rural dwellers, a prohibition on their use in the interests of ecotourism must be supported by an alternative form of income generation. If not so, the potential for conflict increases and resource poaching takes place. Therefore the authorities should come up with an alternative source of revenue so as to eliminate poaching.

### **7.3.1. Perceived Benefits of Ecotourism**

The literature suggests that through the generated income, ecotourism can provide improved health care and education to the local inhabitants, develop small enterprises as well as employment in the ecotourism industry (Duffy, 2002; Belsky, 2000). The literature has shown that ecotourism projects that distribute revenue to households are the ones that succeed (Duffy, 2002; Dubois, 1999; Hackel, 1999). At the same time, in cases where an ecotourism project generates much income, power sharing becomes impossible (Dubois, 1999) and the most powerful group seeks to control and manage both the forest and the people. However, the results of this study have shown that the establishment of the ecotourism project has not provided benefits to the rural community.<sup>3</sup> One respondent mentioned that:

“I have not seen any changes. The forest is still preserved. We do not benefit from the project” (Focus Group Interview, KwaMondi 17.07.02).

Experience from other studies has shown that the main reason for the exclusion of rural people in EDM is that conservation authorities perceive rural involvement as too difficult because most rural people are illiterate and likely to resist change (Mapedza and Madondo, 2002). Therefore they would not like to involve the whole rural community because this may delay the process. (One way around this is simply to involve the chief and hope that this will solve the problem. This is a common solution in ecotourism projects in South Africa at the moment and has also occurred at Dlinza). In this way, by privileging the ecotourists' needs, the key actors are indirectly telling the rural people how they should live and interact with the natural environment (Berkhout *et al*, 2003). The results show that the project is imposed on the rural community, hence their non-participation in EDM.

As shown in the next section, the decision-making style adopted at Dlinza forest has meant that those that were not included in the EDM process are effectively excluded from sharing the benefits. It is not clear as to how the authorities are dealing with the distribution of the

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<sup>3</sup> It is important to mention that when the data was collected, it was hardly a year since the establishment of the project. Two subsequent site visits have been made since then.

impacts from the project especially to the rural people who are not currently beneficiaries of the project.

A final point to be made is that of Adams and Mulligan (2003), who note that exclusivist conservation (although it was considered a rational approach to forest conservation) did not only take control of the forests; it also removed indigenous institutions that were responsible for forest management. This did not only deprive forest communities of their use rights, it also disturbed social cohesion. Many of the local people do not perceive the management of the Dlinza PA as important to them even though they are attached to it. This is because it has been alienated and is thus perceived as important only to the 'other' groups that derive benefits from it. This includes the people that get jobs within the ecotourism venture, but most rural people do not feel part of the ecotourism/boardwalk project.

### **7.3.2 Resistance and Ecotourism**

The literature has shown that resistance often comes up in situations where people are not satisfied with the decisions taken. Scott (1985) notes that resistance could be covert or overt. Covert resistance is usually individual acts that seek to assert local rights in a manner that evades confrontation with the powerful group. Scott (1985) points out that such acts are more effective than violent forms of resistance. In this study, resistance of various kinds was identified.

First, it has been observed that the rural community resists obeying the regulation that they should get licences to extract forest resources:

“Licence, what licence? To collect dead wood! Who is using it? This is crazy, I will never do it. I saw others collecting firewood using vans. Listen my child, I'm very busy trying to get money and feed my children. I cannot go around for licences as well. In my case I need firewood everyday. How many times should I go to ask for a licence”? (interview with mealie cooks, Eshowe, 12.07.02).

The above quote shows that a lack of awareness is not the issue here: it is just that people do not want to get licenses as they feel it is unfair. This is called resistance. Visible also in the above quote is lack of knowledge about the procedure of issuing licences to collect forest products. Therefore, this resistance might be exacerbated by the thought that one has to get a licence every time one needs firewood - whereas in fact a licence may be issued for a period of three to six months.

In other cases however, the respondents have shown resignation rather than resistance.

“I hate this thing. What licence? No one is using deadwood. They want to make money and they tell us about licences. This is jealousy. Isn't it enough that we respect them and hide that we are taking the wood from the forest”? (Interview with mealie cookers, Eshowe, 12.07.02).

In this quote the respondents give the impression that they feel they are acting justifiably in using the forest resources. It is simply that, because of the regulations, they have had to adjust their practices (while not believing that these are wrong). As a way of submitting to the regulations, they quietly ‘steal’ the resources, firewood specifically, without making a stand about it. They therefore expect the conservation authorities not to provoke them when they steal the resource because this is a kind of ‘respect’ they giving them, otherwise they would keep extracting the resources as it pleases them since they are at liberty to do so. In this case they ‘spare the feelings’ of the forest guards.

In other cases the respondents seem to be prepared to go beyond covert resistance and fight the forest guards. One said: “... I do what I want to do but who ever comes to obstruct me, I will deal with him accordingly” (Focus Group Interview, KwaMondi, 17.07.02). The guards mentioned that sometimes the people they catch in the forest do threaten them.

Munton (2003) notes that resistance is people's response to the failure of present management strategies. In this case, the research indicates that the ecotourism project at the study area will be short-lived unless resource users are involved in EDM and the issue of resource use is addressed properly. This is because if poaching carries on and destroy the forest's biological diversity, the ecotourism project cannot operate. Therefore, whatever the form of resistance they choose, it should be noted that where people are against the form of governance, the consequences would be felt in the forest, as shown in other studies.

### **7.3.3. Ecotourism Management and the Law**

The history of environmental decision-making with regard to forests has been excluding of local people, as shown in Chapter 2. Forest protection legislation imposed penalties on people for using forest resources. Peluso (1992) notes that the law defined and determined the bounds and criminality of people by setting the limits of action (see Table 2.1). The enforcement of such legislation was viewed as unfair by the indigenous people as early forest protection legislation criminalized resource use (Peluso, 1992).

The results have shown that having enabling legislation does not necessarily guarantee fairness and equality in EDM. This echoes the experiences of the past, when limited access to

forests was allowed on paper but often disallowed in practice. The archival material revealed that during the colonial period, according to Section 8 of Proclamation No. 58 of 1903, permits were to be issued freely to Africans for the cutting of certain kinds of trees in forests. However, complaints from the people continued, which suggests access was only on paper. People are unlikely to complain if they have free access to the resources they need. Provisions made by the law were not carried out.

In the new South Africa, public participation in environmental management is legislated through the National Environmental Management Act 107 of 1998 (see Section 5.6). Therefore, the conservation authorities are required by law to ensure the full participation of all affected and interested parties in order to attain responsible environmental decision-making. However, findings from this study show that the public participation process still marginalizes the rural people.

The National Forests Act, 84, which current conservationists and government agencies are trying to implement, was enacted in 1998 (section 5.6). The Act, which reflects the rise of community conservation and the democratising shifts in the country, includes the flexibility to allow some form of consumptive use in PA's using permits and licences as control mechanisms. It provides that use of forest resources in PA's be controlled. According to the Act, if forest resources are required for subsistence needs, a permit need not be issued whereas if resources are required for commercial purposes then a permit is required. The results of this study suggest that the rural people are not aware of the provisions made by the Act. Thus knowledge about the procedure to be undertaken for the issuing of licences and conservation issues in general would be an important factor in changing attitudes about conservation. As noted in the literature review, community-based ecotourism should be coupled with educational programmes, which are aimed at alerting people to the general qualitative value of conservation and the procedure to be undertaken.

While the National Forests Act makes the provision that previously marginalized people be involved in EDM, the study has shown that this remains only on paper as poor rural people are still sidelined in EDM. As discussed below, this results from the fact that the authorities seem to vest too much power in local chiefs as representatives of the rural people and never verify the extent to which the chief represents them. Ribot (2000: 139) supports this as he notes that "village chiefs ... are frequently assumed to represent rural populations in participatory development and resource management projects". This point is discussed in detail below.

#### **7.3.4. The Issue of Representation in Ecotourism**

Dubois (1999) notes that finding the right mode of representation in EDM is still the subject of much debate and experimentation. The absence of adequate community representation makes participation pointless, as there is no possibility for the community as a whole to interact with other stakeholders (Ribot, 2000).

In many studies including the Dlinza case study, chiefs are assumed as representatives of rural people. Most chiefs gain their positions through inheritance or they are elected by household heads, who are mostly male and do not represent more than 20 % percent of the population (Ribot, 2000; Dubois, 1999). In other cases Ribot (2000) notes that chiefs are from families chosen by colonial powers to replace antagonistic local leaders. Given all these ways that a chief gained his chieftaincy, it is highly probable that a chief may neither represent nor be systematically accountable to a village as a whole (Ribot, 2000).

The literature has shown that when local structures are put in place - on political grounds, to comply with administrative requirements, or under donor pressure as a condition to receive funding - the following obstacles are experienced:

- More benefits to local elites;
- Competition with other decision-making bodies;
- Dismay and further distrust on the part of rural populations;
- Lack of efficiency, in particular due to the neglect of cultural features and the consequent low-absorptive capacity of local stakeholders (Dubois, 1999).

Another issue is that conservation authorities often claim that rural people have no clear understanding of the complexity of the issues confronting society or the knowledge necessary to address them. It is argued therefore that they (the authorities) should represent rural people's interests in EDM. In this way EDM continues to "privilege certain kinds of knowledge and foster administrative rationalism" in the management of the protected area (Munton, 2003). Scholars suggest that a better approach would be to encourage inclusive, non-hierarchical decision making processes that encourage debate, learning, adaptation and consent (Nelson, 1994; Munton, 2003). The rationale for such arrangements is the need to establish "dialogic mechanisms of decision making and accountability that emphasize inclusivity, reflexivity and social learning or the creation of a more engaged and informed society in terms of its collective interests" in order to achieve environmental objectives (Munton, 2003: 111).

The importance of the representation issue in EDM, is still poorly understood by many conservation and local authorities managing ecotourism projects. Evidence from other studies reveals that in Africa elected bodies are not necessarily representative of local stakeholders' interests, in particular in the absence of independent candidates at the polls (Mapedza and Madondo, 2002). In his study at Makacoulibantang (Senegal), Ribot (2000) discovered that the social status of an individual would compel a chief to be in his favour at the expense of the people that he represents. Ribot (2000) discovered that urban merchants were able to get permits to cut wood in Makacoulibantang villages because some of the merchants are either political or religious leaders or are closely associated with important social figures. The chiefs find it difficult to turn down the request of such powerful personalities since they may need them in other times. Therefore, local leaders (chiefs in particular) are not a guarantee of good representation (Ribot, 2000).

Although complete handing-over to local communities is also not the solution for sustainable management, the involvement of rural people through accountable representatives is important for the success of CBE. Ribot (2000) supports this as he notes that without locally accountable representation, local control of forests is not necessarily *community* control. Conservation authorities therefore should take it upon themselves to ensure that the chief represents the interests of the people he is meant to represent in the EDM process. They ought to strive to build relationships of high quality because these determine the rate of progress in co-management arrangements. This kind of relationship would lead to a situation where forest officials would be seen as partners rather than controllers of conservation.

### **7.3.5. Gender Issues in Ecotourism**

The literature has shown that women are the ones who suffer the most as a result of the creation of PA's. For example, they spend more time travelling longer distances to collect firewood. In addition, women face severe hardships not only by walking long distances when the resource is depleted, they also face assault or abuse for the extraction of forest resources (Godbole 2002). This study has shown that women need more resources from the forest than men. This is partly because of the division of labour within their society and partly because of the high number of female-headed households at the sampled areas. This is supported when looking at the demography of the study area, which has more resident women than men. Even married women, whose houses are built by their husbands, still suffer when the houses fall down even though it is the men's duty to ensure that the house is fixed.

The study suggests that women should be key players in the management of the Dlinza Forest because they need more of the forest resources. The division of labour with the kind of part



time jobs women do, reveals the fact that PA authorities need to understand women's use of time if they are to be actively involved in the management of the forest. It is also apparent that if women are left out in the decision making process, conservation goals will not be achieved as they would continue to use the forest illegally.

#### **7.4. An Analysis of the Environmental Decision-Making Process at Dlinza**

This section presents an analysis of the environmental decision-making (EDM) process that took place at Dlinza. It starts off by providing an assessment of the public participation process that occurred in the setting up of the ecotourism project at Dlinza. The analysis focuses on the participation of rural people in the decision-making process. This is assessed using the five principles of public participation presented by Webler *et al* (2001). Thereafter, Tonn *et al's* model of EDM presented in Chapter 2 is used to categorise the kind of decision-making process that has taken place at Dlinza over time, in order to see whether the "new era" of inclusive decision-making has made any real change. Lastly, a theoretical explanation of the possible causes of the Dlinza situation is presented. An attempt is made to determine the factors that may be preventing the move to a more inclusive form of decision-making that incorporates the rural poor in a meaningful way.

##### **7.4.1. Assessing Public Participation in the Ecotourism Project at Dlinza**

The advocates of CBE assert that for PA's to succeed, local people (particularly rural people) have to be won over as supporters of PA's. This is derived from the argument that local people have devised sustainable, long-term land use practices that were ecologically sound and resulted in more equitable income distribution than other practices currently being imposed upon their lands (Mehta and Kellert, 1998; McNeely *et al*, 1990; Hough, 1988). Therefore, the management of PA's should be based on a balance of scientific and traditional knowledge (Alexander, 2000). The literature has shown that the importance of public participation lies in its ability to

- Promote dialogue between diverse communities.
- Improve understanding of the specific problem situation.
- Integrate scientific and public knowledge about the problem situation.
- Increase rapport, respect, and trust among participants.
- Clearly articulate systems-based concerns about the problem situation.
- Provide tangible improvements in the problem situation (Dubois, 1999).

When analysing the public participation process that took place at Dlinza, special attention has been given to the construction of the boardwalk, which is at the centre of the ecotourism

project. The researcher has used the five principles of public participation discussed in Chapter 2 to study the public participation process that took place at Dlinza before the boardwalk was constructed.

*First Principle: The Process should be Legitimate*

Webler *et al* (2001) note that there are three attributes of a legitimate public participation process:

- Decisions should be made by consensus
- A legitimate process ensures that evidence as opposed to elite preferences drives decisions.
- The process must be transparent i.e. process should avoid conveying any sense of secrecy.

For the rural people, the construction of the boardwalk is not legitimate. The results show that 80% of the rural resource users had never heard of the boardwalk, yet the project was already running. In addition, those that heard about it were not informed formally. It appears that no consensus was reached before the boardwalk was constructed. Webler *et al* (2001: 441) note that in an ideal decision making process “technical and local knowledge are gathered, evaluated in valid ways and used to support recommendations”. Literature also supports this as it shown that social learning should take place in EDM. However, at the study area the authorities’ attempt to obtain local knowledge was too limited. This is based on the information gathered from the focus group interviews that if the conservation authorities did inform local people about the construction of the boardwalk, it was mainly those that reside in urban areas, i.e. the white community staying in Eshowe (thus immediately adjacent to the forest), and those that stay at Gezinsila Township. Focus group respondents mentioned that,

“They speak to these people because they are educated and would question how the decision was taken. We were not informed because we are neither educated nor rich” (Focus Group Interview, Nkanini, 27.08.02).

The authorities mentioned that public meetings were held with community members. They also mentioned that chiefs had the duty to inform people about the changes taking place at the forest. The results of the study have however shown that the rural people were not informed about such changes. As shown in the literature, the authorities vested too much trust in the chiefs as representatives of the rural people. This is shown by the fact that they did not do any follow-up to verify the extent to which the chiefs informed the people. The literature has shown that the inclusion of chiefs in EDM is not to be assumed as a guarantee for local

participation. In a country that has a history of creating “compliant chiefs” the extent to which they represent the people has to be treated with caution.

*Second Principle: The Process should Promote a Search for Common Values*

Ideally, a public participation process should build the relationships necessary for continued dialogue, including respect, trust and a greater understanding of different viewpoints. Many studies have shown that the creation of PA’s especially in South Africa, led to a hostile relationship between the indigenous people and the conservation authorities. The results of this study show that the protection of Dlinza is no exception. If decisions are still excluding people even today, there is little chance for a dialogue to be conducted between rural people and conservation authorities. For the rural people this is perceived as being disrespectful of their existence. The results show that they feel dehumanised. People thought that their exclusion might be because they are not learned and thus not worthy to be acknowledged. Clearly they do not trust the authorities - yet trust is said to be the building block for co-management (Mohamed, 2002; Sexton *et al*, 1999).

*Third Principle: The Process should Realize Democratic Principles of Fairness and Equality*

According to this principle, a participatory decision-making process should be fair and unbiased. Fairness in public participation means that all people irrespective of their political affiliation, gender, race and age should participate in the EDM process. It discourages the domination of certain groups in the process. The literature emphasised that less powerful people should not only participate in the process, they should be heard.

Unfortunately, the process at the study area has been biased against the rural people. Their viewpoints have not been considered. For instance, the idea to be considerate of the places where their leaders were buried was not incorporated in the planning of the boardwalk yet the boardwalk was designed based on other boardwalks in Australia (Appendix 1). This situation shows that local conservation authorities still rely on conservation strategies from other areas without the recognition of local ideas and opinions (Adams and Mulligan, 2003).

The emphasis in this principle is on the public participation process rather than the implementation of the decision. This relates to a point made earlier, that people are unlikely to rebel against a decision if they disagree with it but know the reasons for it being made. In their own words, Webler *et al* (2001: 444) note that people do not necessarily need to agree with the outcome, “they only need to consent to it, which they will do if they believe they had a proper and fair opportunity to influence the outcome, and if the final decision can be justified”.

*Fourth Principle: The Process should Promote Equal Power among All Participants and Viewpoints*

This principle describes a participatory decision making process that is highly sensitive to issues of power. Webler *et al* (2001) note that an important element of this principle is that the process should not lead to the creation of decision-making institutions that take away the rights and power of local communities. The process should actually protect local interests by allocating power more equally among participants. The issue of power in EDM is an important one since it does not only look at who participated in the process, it questions the extent to which the socially weak members of the society participated. This refers mainly to women, who suffer disproportionately as a result of environmental decisions made. The demography of the study area shows that there are more women than men. Therefore, the marginalisation of the rural community affected women more than it affected men. This is not only because they are the majority, it is also because they need more resources from the forest as compared to men.

*Fifth Principle: The Process should Foster Responsible Leadership*

This principle shows that a good public participation process leads to the creation of a responsible decision-making body. Dubois (1999) supports this as he notes that it is important to maintain a strong relationship among all stakeholders in order to build mutual trust, which is a prerequisite for co-management. This would be a legitimate body elected by and in the presence of all interested and affected parties. The results at the study area have shown that the outcome of the EDM process that led to the establishment of the boardwalk was reached by an only partially responsible decision making body hence the exclusion of the rural people in the process. The people that make up the Board of Trustees – the main decision making body at Dlinza – are members of what Tonn *et al* (2000) term “elite groups”. These include:

- KZN Nature Conservation Services
- UMLalazi Municipality
- Eshowe-Ntumeni Conservancy
- Zululand Birding Route
- The Amakhosi
- World Wide Fund for Nature (South Africa)
- KZN Tourism Authority
- KZN Department of Agriculture
- The Dlinza Conservancy
- Three other nominated members from the community

It should be noted that the three community members that form part of this body do not dwell in the rural areas. The rural community is represented by the chief who did not inform the people about the boardwalk in the first instance. This shows a continued exclusion of the rural community in the functioning and management of the Dlinza Forest.

#### **7.4.2. An Application of Tonn *et al*'s Model of EDM to Decision-Making at Dlinza**

The study identified three main “turning points” in the management of Dlinza forest. This section shows how EDM at Dlinza took place at each of the turning points. In order to do this, Tonn *et al*'s (2000) diagnostic model of EDM is used as a tool. The aim here is to see whether the dominant decision-making mode has changed over time. The model provides six typical decision-making modes, which are dependent on the outcome of the decision (See Chapter 2, section 2.6). In the analysis, particular attention is given to the most recent era, i.e. the current management of the forest.

##### Pre-Colonial Management

It has been shown that the management of forests in general during the pre-colonial era was based on customary laws. Eeley *et al* (in press) note that during this era people's beliefs and practices were entrenched in customary laws that governed the use of forests. Their management rested with community elders, the village priest, or the chief or headman. This shows that respect for the highest community authority, chiefs, village elders, traditional priests and healers, served to protect forests. Of significance to the management of forests during this era is that certain species that required extra protection were preserved for the benefit of the community at large. Such species include for example uMlahlankosi tree (*Carisna anduina*) whose branch was dragged from the old to the new site to induce family spirits to follow (Lugg, 1975). The preservation of such trees did not only protect the tree species, it also led to the continued practising of the ritual. The literature has shown that other than the protection of these species, people were allowed free access to forests.

It is difficult to use Tonn *et al*'s model in classifying this form of decision-making as this kind of informal collective decision-making does not feature in the model.

##### Colonial Forest Management

During the colonial era, several institutions were set up to control forests. These included laws, which among other issues controlled people's access to forests. Forest guards were also appointed. As this was in response to a perceived crisis in terms of the destruction of forests, this decision-making mode could be seen as an “emergency action” form of environmental decision-making. In addition, because there was little consultation, this was also an “elite

corps” decision-making mode. Decisions were made by the responsible officials on the ground.

Later, the settler community enshrined its own cultural identity in the forest and removed that of the ‘other’ groups, thus strengthening this form of decision-making. Decision-making under the Eshowe town board also seems to conform to an “emergency action” mode in the sense that the board, when it did take action, appears to have taken decisions on an *ad hoc* basis in response to crises rather than according to a management plan. This is suggested by Moberly’s (1970) comment:

“During the earlier and middle years of the town’s life, the forest had suffered from a considerable amount of neglect; and from time to time the cutting of timber had been permitted. The place became a refuge for vagabonds and a hunting ground for poachers”.<sup>4</sup>

#### Management by Provincial Conservation Agency

Not satisfied with their management strategy, the decision-makers in the town of Eshowe decided to hand over the control of the forest to a provincial conservation authority (the Natal Parks Board) who then declared the forest a PA in 1952. Under the management of the Natal Parks Board, Dlinza Forest (like all PA’s in the country) was not accessible to human use although the literature shows that resource users never stopped poaching. During this era, the “routine procedure” mode became increasingly important as the Parks Board developed its management systems. This form of management was common in conservation areas throughout the world from the 1950s, as conservation became more professionalised. As Adams and Mulligan note, “routine procedures” dominated during this era, as “standardised models of landscape management and social administration were applied wholesale” (Adams and Mulligan, 2003: 43).

In general, the elite corps decision-making mode dominated during the colonial and apartheid era. Where this mode of decision-making is used, outsiders do not participate and senior members within the decision-making body reach an agreement or a majority view of the issue at hand (Webler *et al*, 2001). Tonn *et al* suggest that where this mode of decision-making is used, the potential for conflict is very high. This would account for the adversarial relationship that has historically existed between conservation authorities and communities surrounding forest reserves. Where the elite corps mode of decision-making is applied the

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<sup>4</sup> The town board records could not be made available to the researcher, as the public is not allowed access to them.

consequences are long-term in that local rural people are excluded from decision-making. This is of course the source of the imbalances that current policy and legislation are trying to address.

The elite corps decision-making mode fits in very well with apartheid because during the apartheid era the ruling party had absolute power. The weaker members of society (mainly Africans) had no say in EDM. They could not influence policy. Decisions were taken for them, against their will in most cases.

#### Current Management of the Forest

In 2001 the management of Dlinza changed as a result of the establishment of an ecotourism project in the forest. The forest is currently administered by the Boardwalk Committee in close cooperation with EKZNW. This change took place at a crucial time in the history of the country. It took place when the country had obtained democratic governance. It also took place at a time when the world conservation strategy has changed from fortress to community conservation. As such, community-based conservation strategies came into being. This includes the community-based ecotourism (CBE) strategy that is of importance to this study. In pursuit of democracy and to redress the imbalances of the past, the democratic government of South Africa passed legislation that provides for the inclusion of the once ignored members of society in environmental decision-making (see Chapter 5).

In this study, the respondents were asked if they heard about the construction of a boardwalk at Dlinza and 80% indicated that they never heard about it. They were asked to identify from a list of possible approaches the information dissemination strategy that had been used, and they said none of those were used (see Appendix 5). Basically, the results show that the rural communities were not informed that there were changes taking place in the forest. It further shows that there was no formal procedure that was used to involve the rural people in the decision making process. These results reveal a crucial issue in terms of Tonn *et al's* EDM model which, shows that where an inadequate decision-making mode is used, it is highly probable that some stakeholders do not take part in the EDM process.

The discussion of the public participation process in section 7.4.1 above shows that, again in this era the elite corps mode of decision-making was used. As already mentioned, where this mode of decision-making is used, outsiders do not participate and senior members within the decision-making body reach an agreement or a majority view of the issue at hand (Webler *et al*, 2001). Despite the fact that conservation authorities at the study area know that the rural people are the main actors in the ongoing resource poaching at the forest, they were excluded

in EDM. This however raises questions of how the conservation authorities intend to ensure the long-term sustainability of the ecotourism project and the forest when they ignore such people. Ignoring the rural people who are adversely affected by the ecotourism project may well eventually degrade the forest. For the rural people, particularly the women, losing the resource base in future will also affect them and they are thus impacted by the exclusivist decision-making process taking place at the forest.

It has already been noted that, when looking at the members of the Board of Trustees entitled with decision-making at Dlinza (section 3.7), it is evident that the institution entitled with decision-making at the forest consists of the “elite” members of society. This is shown by the fact that even the three community members that form part of the decision-making body dwell in the urban area. The chief who is supposed to represent the rural people in the EDM process is not accountable to them. So, one can therefore argue that they are not represented since their viewpoints are not heard. The literature has shown that a good public participation process does foster responsible leadership. A good leadership is one that strives to attain fairness and equality in the EDM process. This study however shows that an unfair public participation process ends up with an elite leadership that is not representative of the weaker members of society.

The model suggests that lack of knowledge of the issue (construction of the boardwalk) by stakeholders (the rural community in particular) has led to an inadequate decision-making mode being used in the EDM process at Dlinza. As the choice of a decision mode is based on the data that informed the EDM process, it is thus shown that the information the key actors had, and on which the decision to construct the boardwalk was based, was incomplete.

An informed decision is obtained where both scientific and indigenous knowledge influence the decision made. The literature has shown that people’s interests, beliefs, culture, and religion should be considered if one is to make a responsible decision. In addition, Dubois (1999) suggested the following criteria that may be used to assess the links between people and forests. This provides a strategy along which stakeholders can be placed to avoid the selection of irrelevant stakeholders:

- Proximity to the forest
- Dependency
- Local knowledge
- Forest/culture integration

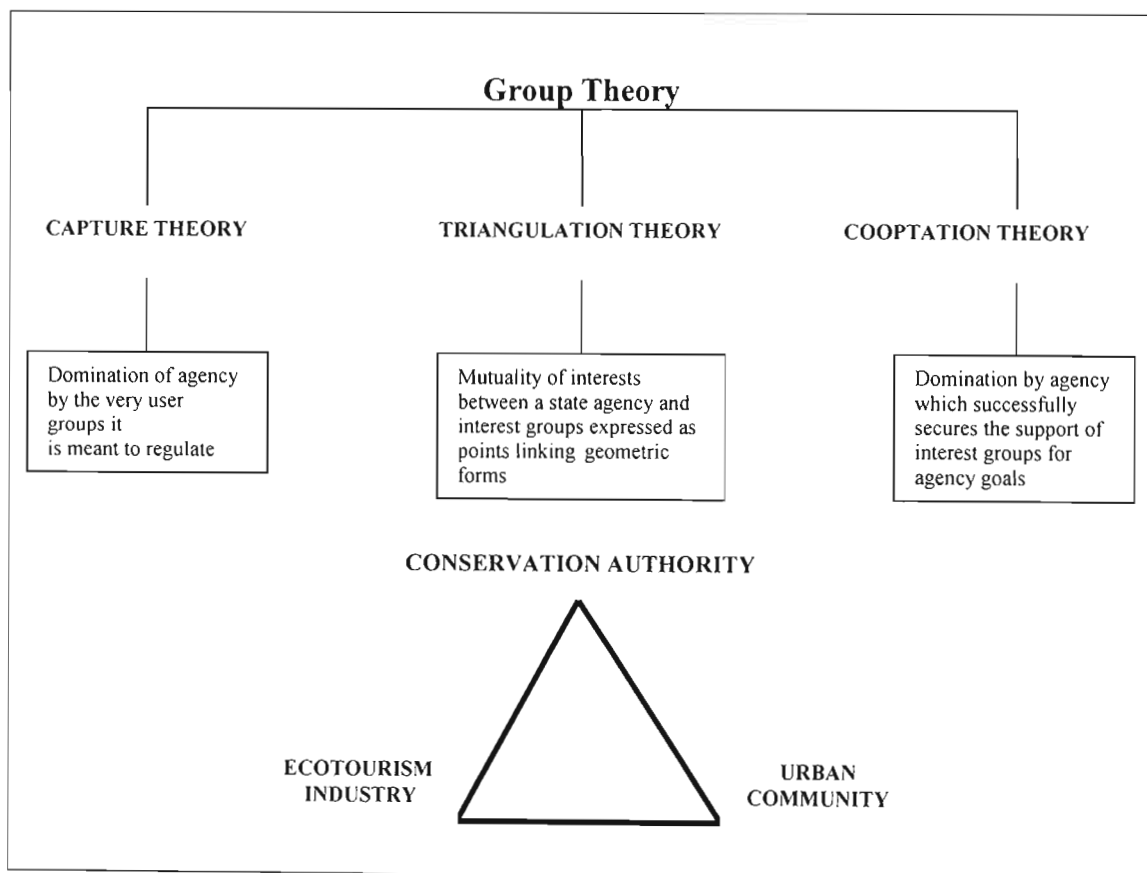


The results have however shown that even dependency on the forest, which is widely accepted as the main indicator of who should be involved in EDM, was not considered by the key actors at Dlinza. This therefore supports the statement made by Tonn *et al* (2000) that where an inadequate decision-making mode is used, it is highly probable that some stakeholders do not take part in the EDM process.

### 7.4.3. A Theoretical Explanation of the Situation at Dlinza Forest

Preston-Whyte (1996) provides a theoretical explanation of the connection between state agencies and special interest groups. This is based on group theory. While each actor in an environmental process appears to be acting as an individual in the EDM process, Preston-Whyte and Laing (1990) note that in reality alliances are developed in order to maintain mutual interests. This leads to the formation of the “iron triangle” (Preston-Whyte, 1996: 181). Thus a “common form of connection is explained by the triangulation theory” (Preston-Whyte, 1996: 181). Actors or stakeholders within the iron triangle forge linkages among themselves to the disadvantage of excluded interest groups (Figure 7.1).

Figure 7.1: Theoretical Constructs Contained Within Group Theory



Source: Adapted from Preston-Whyte, 1996.

Mutual support is observed between the main actors that form the iron triangle at the study area. These are: the urban communities, the ecotourism industry and the conservation authority (Figure 7.1). The conservation authority and the Boardwalk Committee currently manage the Dlinza Forest jointly. The conservation authority receives the lease payment from the ecotourism project.

At Dlinza, the conservation authority has been given power by the municipality to exclude any person they consider unacceptable in the reserve. In addition, the memorandum of agreement between the conservation authority and the ecotourism industry shows that the conservation authority (EKZMW) would take part in any decision that is made by the ecotourism industry with regard to the management of the forest whilst it is leased to them. EKZMW also have a representative on the Board of Trustees. This shows little change from the situation when the reserve was first proclaimed in 1952.

The actors that form the iron triangle at the study area have particular priorities in mind: conservation of biodiversity and the creation of profits from ecotourism. While a few jobs have been created, the rural respondents regard these jobs as unavailable to them, as they never heard of them nor saw advertisements for them.

In his study of the St. Lucia area in South Africa, Preston-Whyte (1996: 181) observes that “resources allocated in this manner often benefit special interest groups”. This is shown at the study area since the rural community do not benefit from the project yet they are already experiencing its negative impacts. Thus supporting the theoretical explanation of the triangulation theory according to which “iron triangle structures lead to rent-seeking activities that lower net benefits for society as a whole” (Preston-Whyte, 1996: 181). Also, allocating resources by forming iron triangles is a threat to sustainable development (Preston-Whyte, 1996). This is because actors within an iron triangle work to the detriment of other groups, thus against the equity principle of sustainable development.

## **7.5. Conclusion**

The history of forest conservation in South Africa has been characterised by conflict between forest reserves and neighbouring communities. Communities have sometimes even been perceived as ‘enemies’ of conservation (DWAF, 1997). The study has shown that such an adversarial relationship between conservationists and communities has been exacerbated for communities by loss of land, restricted access to resources and diminished economic opportunities. Consequently, resource poaching, forest exploitation and fragmentation have all increased. Current management seeks to address these problems by devolving forest

management from the state to communities using new policies of participatory and communal forest management (DWAF, 1997).

At Dlinza, when the colonial administration set up institutions like the forest department and passed laws to control the use of forests, the preservationist style of forest management was applied. Many forest uses were criminalized and thus people's access to this and other forests was minimised if not removed completely. Then when the town board administered the forest and when the Natal Parks Board administered the forest, the style of EDM was predominantly prejudiced against the rural community. The global move to community conservation and the democratising shifts in South Africa is the context for a new era in the management of Dlinza Forest. This is the period where the once marginalized members of society have to be fully involved in EDM. However, the analysis suggests that the style of EDM does not yet fully include the rural community.

This study has shown that conservation authorities were able to choose to be involved in EDM, only people who would agree on their proposal - despite the call that all communities that are impacted should be part of the EDM process. The literature has shown that the institutional structure within which an EDM is taking place should be enabling. Therefore all interested and affected parties must be represented in the EDM process. In addition, the representatives should be accountable to the people represented, for conservation to succeed. This study has shown that having policies and legislation that legalise the involvement of the weaker members of society is not a sufficient tool for such a purpose. As shown in the past, if the authorities are not prepared to include poor mainly rural people in the EDM process, the enabling legislation becomes ineffective.

The range of values that forests have for people in South Africa is a reflection of the cultural diversity and socio-economic differences of people in this country. It is clear that the conservation and management of South African forests depends on a deep understanding of the ecological, economic and social processes that affect them (Lawes *et al*, in press). Therefore, the exclusion of the less affluent members of society in the management of Dlinza, would worsen the relationship between conservation authorities and the rural community. It would aggravate rural poverty and exacerbate resource poaching. Severe exploitation is resulting in a gradually declining resource base and current values may not be sustainable in the long-term. Thus, the inclusion of rural communities in EDM will not only improve rural welfare, it will also sustain the natural resource base, the Dlinza Forest.

As shown in the study, change in the institutional structure and the introduction of current PA management strategies has so far failed to give rural people a voice in EDM. The literature shows that it is the change of attitude on the authorities' side that will help save the forest and achieve conservation goals by protecting the forest resources and mitigating rural poverty.

When the authorities exclude resource users in EDM, they miss the opportunity to engage in dialogue and learn from them. This does not only lead to using an inadequate mode of decision-making, it also opens the forest to destruction. In order to protect the natural environment, a change in the mindset of authorities is therefore urgent for the long-term benefit of both the resource users and conservation. This is because if Dlinza were destroyed, all the years of conservation efforts would be useless.

## **CHAPTER EIGHT**

### **CONCLUSION AND RECOMMENDATIONS**

#### **8.1. Introduction**

This chapter concludes the study and provides recommendations. The first part of the chapter summarises the findings of the study and contextualises these in terms of the challenges of achieving “post-colonial” conservation. The second part of the chapter provides specific recommendations for the study. In particular, it argues that environmental partnerships would provide solutions to the conflicts that exist between the rural people and the reserve authorities. It is through partnerships that authorities would know people’s ideas and opinions about conservation and vice versa, and partnerships would help build trust among stakeholders as they strive for a common goal. The findings show however that this will not be an easy goal to accomplish. Willingness on the authorities’ side to co-manage and to learn from the rural users of the forest resources would be an initial step towards reaching conservation goals, i.e. protecting the natural environment whilst providing sustainable livelihoods for the local inhabitants.

#### **8.2. Findings of the Study**

The study aimed to critically examine the environmental management of Dlinza Forest Nature Reserve. The overall aim of the study was to assess moves from exclusivist to community based forms of environmental decision-making in forest reserves, with particular reference to Dlinza Forest. A key focus was whether the attempts made by the government to redress the imbalances of the past are being actively promoted on the ground. This was a qualitative study and qualitative methods of data collection were used. Data was gathered mainly through focus group interviews. Archival material was also useful in providing the historical background of the study. The data was analysed using qualitative data analysis techniques.

The study has traced the exclusion of local people from environmental decision-making since the creation of PA’s, forest reserves in particular. The history of the origins of forest conservation brings an understanding of the causes behind the present situation i.e. why and how forest reserves were created. South Africa’s own forest reserves were set out based on the desiccationist theory, to protect the rains as Grove (1997) puts it. This theory was inconsiderate of the human impact of creating the reserves. The legislation and policies that were formulated in the colonial period were disrespectful of indigenous knowledge and criminalized all rural forest use (Table 2.1).

At Dlinza Forest it appears that a number of activities that were undertaken by the settlers in the late nineteenth century led to the degradation of the forest. Commercial timber harvesting also had a negative impact. However, when protecting the forest, the authorities wanted also to protect it against the use of the indigenous people. Local people were thus increasingly excluded. The study identified three main “turning points” in the management of Dlinza forest. Although in the pre-colonial period, the management of forests was based on customary laws which originated from people’s beliefs and practices, during the colonial era, several institutions were set up in control of forests. These include legislation, which among other issues controlled people’s access to forests. This formal protection for Dlinza forest was identified as the first “turning point”.

At first, Dlinza forest was administered by the Eshowe town board. In 1952 the town board handed over the management of the forest to a provincial conservation authority (the Natal Parks Board, now called Ezemvelo KwaZulu-Natal Wildlife) who could then declare the forest a PA. This was the second “turning point” in the management of Dlinza. Under the management of the provincial conservation authority, Dlinza Forest (like all PA’s in the country) was not accessible to human. The literature reveals however that resource users never stopped poaching. Dlinza Forest was proclaimed during the apartheid era where Africans could not partake in decision-making on issues affecting them nor influence policy. In this context, it is not surprising that the 1952 agreement for the protection of Dlinza was made between a representative of the Borough of Eshowe and the conservation authority (Natal Parks Board). In South Africa the antagonistic relationship that exists between the conservation authorities and the people living next to PA’s is not only a consequence of the protection of forests to protect the rains (section 2.2), it was also exacerbated by the apartheid regime.

In 2001 the management of Dlinza changed a third time as a result of the establishment of an ecotourism project in the forest. The forest is currently administered by the Boardwalk Committee in close cooperation with Ezemvelo KwaZulu-Natal Wildlife (EKZNW). This study thus provides an example of an ecotourism project that started during the democratic period in South Africa and at the height of the global move to community conservation. The results of the study, however, show that poor rural people are still marginalized in EDM despite the new philosophies of protected-area management and the democratising shifts taking place in the country.

Contestation over the use and value of the forest has been apparent at Dlinza. Each group that was in power (in the political sense) exercised its will and attempted to display “ownership” of the forest. Whichever group controlled the forest in a particular era considered themselves “owners” of the forest and this was reflected in the cultural practices allowed or not allowed in the forest. While poor rural people had attached both use and non-use values to the forest, the settler community attached non-use or aesthetic value to the forest. Stories and legends narrated by the rural people reveal that although the forest was preserved in an exclusionary manner for so many years, the rural people still feel much attached to it as a result of the beliefs they have about it. The rural community also attach use values to the forest, from which they need resources such as firewood and traditional muthi. Attaching use values to the Dlinza however comes into conflict with the aesthetic value or the ecotourism project operating at Dlinza. Long-term sustainability of the ecotourism project, the biological diversity of Dlinza forest and the sustenance of rural livelihoods depends on the reconciliation of conflicting values attached by the rural community and conservation authorities.

Employing the theoretical tools of EDM to analyse how EDM took place during the above mentioned turning points, it was found that with the exception of the pre-colonial era, the decision-making process was characterised by the elite corps mode of environmental decision-making. “Emergency action” decision-making was also traced during the colonial era as officials responded to crisis. The “routine procedures” mode was also used during the era of control by the provincial conservation authority.

The key feature of EDM during the colonial era was that there was little (if any) consultation with impacted communities. However, the EDM process at this era is unsurprising in view of the fact that the government was also undemocratic. However, this study found that current management of the forest also conforms to Tonn *et al's* (2000) description of elite corps decision-making because of the exclusion of the communities mostly affected by ecotourism development in EDM at the forest reserve. It should be noted that the exclusion of rural people from EDM at Dlinza affects women more than men partly because of the demography of the study area and partly because women require more resources from the forest than men (see Table 6.3).

An explanation of how this exclusion process works is provided by Preston-Whyte (1996). This approach reveals that although each actor in an environmental process appears to be acting as an

individual in the EDM process, “iron triangles” may be developed in order to maintain mutual interests. In the case of Dlinza, the urban community, the ecotourism industry and the conservation authority at the study area appear to have formed an alliance or “iron triangle”, which is interested in the conservation of biodiversity and the creation of profits from ecotourism. Preston-Whyte (1996) cautions that resources allocated in this manner often benefit special interest groups and this may explain the continued exclusion of the rural community in the management of Dlinza Forest.

A major finding of the study was that good policy and legislation is not a sufficient mechanism to implement community conservation. New approaches can easily remain on paper rather than being translated into practice. The successful implementation of community conservation strategies lies in the hands of conservation authorities who may not be as sensitive to new participatory trends as they could be. One problem is undoubtedly lack of finances and capacity to implement new ideas, except perhaps in flagship conservation areas. Another might be that it is difficult to change everyday routines and the power relations involved in conservation management practices, especially in the smaller reserves. Also, authorities seem not to be in a position to allow for power sharing among all stakeholders. They often exclude the rural mainly poor members of the society, with the exception of authority structures like the chiefs who are assumed to represent the community’s interests. Yet these are the people with whom they have to co-manage the resources as they are its users. Thus, unless the authorities understand why and how they should involve rural people in EDM and unless rural people are empowered to fully participate in EDM, community conservation will never be realised.

The literature points out that community conservation, in particular, CBE is well suited to African countries that are adopting democratic governance. Yet Adams and Mulligan (2003) believe that, although community conservation strategies have given indigenous communities a stronger basis from which to converse and negotiate with conservation authorities, they bring limited recognition of indigenous people’s rights. Adams and Mulligan (2003: 129) believe that conservationists in third world countries are forced to take a “follow-the-stream role” rather than “craft their own strategies”. As a consequence, they are not equipped to implement the new conservation movements. Adams and Mulligan argue that many current conservationists, attempting to undo the mistakes that were created by those operating during the era of fortress conservation, are still using the colonial ideologies in managing PA’s. They lack skills required to



harmonise and to harness competing interests. These would require them to “appreciate and understand indigenous cosmologies and values” (Adams and Mulligan, 2003: 40). This according to Adams and Mulligan (2003: 43) stresses an urgent need for conservation authorities to “decolonise the mind” and recognise and appreciate the role that indigenous communities could play to sustain forest resources.

### **8.3. Recommendations**

A number of recommendations have been formulated through the study. They were formulated taking into cognisance the fact that Dlinza should be protected against exploitation, yet its protection should not aggravate rural poverty. In addition, these recommendations are future directed and equity oriented, in order to bring a solution to the current conflicts around the management of the Dlinza Forest. An underlying assumption is that those involved with the management of Dlinza Forest would consider the various options available and select an *appropriate* environmental decision making mode for the current context (Table 2.5). The study suggests that the “conflict management” and “collaborative learning” modes are of particular relevance to this context.

#### **Recommendation 1: Form environmental partnerships with which to co-manage the forest with all interested and affected parties.**

Environmental partnerships are the process whereby different stakeholders coalesce to share resources in order to solve environment-related problems. Environmental partnerships are not only important for promoting efficient policies, but also for empowering those groups that traditionally have been excluded from government decision making. They aim to achieve a democratic society. Basically, they convey a sense of constructive and voluntary collaboration among different stakeholders in environmental protection and natural resource management. However, a co-management arrangement requires a number of activities for the success of the partnerships (Mapedza and Mandondo, 2002; Sexton *et al*, 1999).

- *Build Trust*

Establishing trust among stakeholders is a basic prerequisite for co-management. This is because lack of trust serves as a barrier to establishing communication and initiating negotiations towards the formation of environmental partnerships and to implementing any agreement. In view of the differential in power between the conservation authorities and the rural people, the burden of demonstrating trustworthiness, or a real commitment to a change in historical confrontational attitudes, will fall on the authorities. It is thus their duty to ensure that there is trust between them

and the other stakeholders, particularly the rural people. Hough (1988) suggests possible strategies for building trust and opening communication. These strategies include:

a) Making Concessions

The authorities need to make real concession to local demands, rather than just offers such as jobs. They have to demonstrate a commitment to some sort of compromise. A concession that forces the authorities to commit to some form of real change, and hence increases the level of trust when negotiations have begun, is the giving of real power to the locals. As required by co-management, real power must be given to the locals in the form of partnerships, which are crucial in establishing trust and cooperation.

b) Third-party Intervention

A second mechanism for overcoming the initial distrust and for opening negotiations might be the use of 'third parties' who are perceived to be neutral. However, from the researcher's experience this strategy must be used cautiously as rural people believe that 'third parties' are influenced by those who approach and who pay them to intervene. This is especially the case where consultants are employed.

Once sufficient trust has been established, the use of traditional meeting areas, rather than conservation offices or facilities would aid in building trust and participation. The belief here is that the authorities should demonstrate trust by going to the locals' areas in order to get trust in return. It is an undeniable truth that communities are not homogenous and they will represent a variety of interests from which different coalitions of individuals and groups will form. However, when negotiations have been established, trust can be promoted by identifying areas of common concern and concentrating on these rather than on contentious differences. The finding of some common ground may be difficult but is an important first step to successful cooperation, which fosters both trust and enables the more difficult issues to be addressed. To sustain the trust, authorities should avoid making unrealistic promises. Many times CBE projects have failed to achieve their objectives because they fail the people with whom they need to be co-managing the resources.

- *Gender Sensitivity when Forming Partnerships*

Experience from other studies shows that given proper opportunities women can participate in the management of PA's. However, for this to happen adequate time must be given and the opening

up of opportunities must be supported so women and other socially weak members of society can build up courage and confidence to speak out and take part. The conservationists need to be determined to involve women, as this would take time.

- *Empowerment and Full Participation*

Full participation of people is perceived as an important dimension of any environmentally sustainable pattern of development. It does not only give people the opportunity to take part in making a decision about the implementation of processes, programmes and projects affecting them, but also empowers them to play a role in the decision-making process. The participation of people in EDM should be active, meaning they should be able to influence the decision made. For active participation to be attained, conservation authorities should devolve a certain degree of power to the people. Basically, there should be power sharing in EDM relating to the forest. Often conservation authorities claim to have resorted to passive participation because of participation fatigue among the locals. It should however be remembered that full participation of people throughout the life cycle of a project symbolises an empowered community. Therefore, the people (men and women) have to be empowered in order to be fully and effectively in the partnerships and in EDM in general as the meaningful involvement of skilled, well-informed and competent communities is an increasingly important aspect of EDM.

**Recommendation 2: Place some control over project identification and selection in the hands of the community.**

The respondents have shown that if they had an opportunity to voice their opinions as to whether and how or where the boardwalk or other structures should have been constructed at Dlinza, they would have come up with other ideas as shown in section 6.5. Authorities should thus place some control over project identification and selection to the hands of the communities, and with them weigh the options and reach an agreement. This is because:

- Local communities are well-informed about local ecological conditions, although they sometimes misapprehend the causes of more recent and quicker environmental changes;
- They are well aware of local technical, economic and social conditions as well as cultural values. Hence they are in a good position to devise management systems well-adapted to their needs, if not always to purely conservationist purposes;

- Local communities can adjust their local rules of use to changing circumstances, depending on the nature and magnitude of pressure the change places on the resources and their livelihoods;
- Self-monitoring by the resource-users themselves often proves much more efficient and cheap than centralised control, as long as the former are convinced of its necessity (Dubois, 1999).

This however, does not mean that in all instances the communities should have a final word. Basically, it is the participatory process of decision-making that matters because even if people do not agree with the decision taken, they understand why it was taken and are more likely to accept it.

### **Recommendation 3: Build on customary rules**

Indigenous rules should be incorporated in the policy that governs the ecotourism project. This will not only enhance the rural people's involvement in the management of the project, it will also acknowledge their existence as co-managers of the resources. Indigenous rules offer some potential advantages in the management of natural resources because:

- They are locally designed, hence adapted to local contexts and familiar to local dwellers.
- They are based more on social criteria than space; they are thus more inclusive.
- They display flexibility that allows for the co-existence of multiple rights to the same resource (Dubois, 1999).

It is however emphasized that indigenous rules should not be the only source of the project policy. This is because they have disadvantages e.g. the fact that they often neglect the interests of certain minorities and other socially weak groups such as women. Therefore it is recommended that when formulating the policy; indigenous rules should be recognised taking into account their weaknesses.

### **Recommendation 4: Inform people about their rights and the provisions of the legislation**

The literature on EDM emphasizes that people's rights to natural resources should be linked with responsibilities. This is also enshrined in the National Forest Act 84 of 1998 as it calls for responsible use of forest resources. Despite resentment and resistance to the current management strategy at Dlinza, the rural community appear to lack knowledge of their rights in the management of the forest. There is a corresponding lack of information about their responsibilities with regard to their access to the forest. It is thus recommended that a campaign

to inform them of the provisions made by the legislation, particularly the National Forests Act 84 of 1998 be started. This will not only benefit the community but will benefit conservation as a whole, for instance, people may be prepared to get licences to collect firewood in order to cook in town, when they are informed that these licenses are valid for three months.

**Recommendation 5: Allow for sustainable use of some of the forest resources**

The results of the study have shown that total protection of the forest does not only aggravate rural poverty, it may lead to the eventual depletion of the forest through resource poaching. It is thus recommended that a sustainable use of some of the forest resources be allowed at Dlinza. This would include a periodic collection of firewood (which might be necessary to prevent forest fires), forest fruits and plant shoots for medicinal use. If controlled, the collection of these resources would not impact badly on the status of the forest as a PA, and the rural community would be supported. With few exceptions products from forests will not make households rich, but they definitely help them to survive. The use of forest products must continue in such a way that these products will provide their safety net function.

**Recommendation 6: Share the revenue received from the ecotourism project.**

Experience from other studies has shown that people who feel that they are benefiting from an ecotourism project tend to have positive attitudes towards conservation. This is not the only reason why the revenue received from the ecotourism project should be shared. People should be offered incentives for not using the forest. Authorities at the study area seem to view the jobs created by the ecotourism project as the main benefit to the people. However, these jobs are not evenly distributed. The provision of health centres, upgrading of schools and road construction would not only offset community level costs of conservation and improve attitudes towards conservation, they would also provide tangible benefits to the society. In addition, if the project were to take a few of the specific needs of women into consideration, such as their need for cleaner and quicker forms of cooking and/or easy availability of water and medical facilities, this would leave women with more time and inclination to participate in the conservation management of the forest. Transparency in handling project funds would be the only way through which the revenue received from ecotourism could be shared.

**Recommendation 7: Build the capacity of the authorities.**

The sustainable management and use of forest resources requires an appreciation of and support for the participation by people directly dependent on forest resources. This includes:

- Recognizing and calling on local knowledge, skills and experience in natural resource management;
- Understanding the interests and motives of people directly dependent on natural resources;
- Relating general environmental concerns to specific local contexts;
- Helping to identify and strengthen local institutional capacities; and
- Challenging and revising inaccurate assumptions about the nature and causes of local environmental problems (Dubois, 1999).

Conservation authorities appear to lack the capacity to implement community conservation. Many times they have been criticised for the following, which has also been observed at the study area.

- They have an ongoing problem in terms of their relations with indigenous people. Indigenous people and indeed poor rural people in general, are rarely able to exercise power or authority in discussions about conservation.
- The authorities have rarely engaged in dialogue with those remote from corporate or metropolitan power. Conservationists have been distrustful of the ‘ignorant’ public and this has highlighted the perception that nature conservation is an elite activity.
- They have largely failed to convince people that conservation is required for a just and sustainable society. As a result, conservation still appears to impose controls on economic opportunities for the poor in order to protect a playground for the rich.
- They target local problems and the impact upon nature of the resource demands of the rural poor; they are less good at addressing broader economic and political structures and their impacts (Adams and Mulligan, 2003).

It is therefore recommended that the capacity of the authorities to engage rural, poor and illiterate people in the management of the forest and EDM be built. In terms of their approach, conservation officials often descend directly from the fortress conservation model where local engagement in EDM was impossible, and yet suddenly they are expected to implement the strategies of community conservation. They are also expected to implement the new legislation, which aims to legalise community conservation. A culture in which local people must be educated to change their values to correspond more closely with the “dominant” value is still prominent, whereas community conservation requires the conservation authorities to be willing to learn, not just teach.

This exclusionist approach however, would only lead to the deterioration of the forest in future which will not only show that conservation has failed to achieve its objectives, but also exacerbate rural poverty among the rural poor especially women, who are disproportionately affected by the social and ecological costs of the loss of the forest. There should thus be some form of training (by the government) that conservation officials receive to make community conservation possible. This training should aim at 'decolonising the mind' as Adams and Mulligan (2003) would put it in order to achieve a move away from the colonial ideologies of conservation, which were characterised by social exclusion.

#### **Recommendation 8: Educate local leaders on EDM**

There should be a locally accountable representation that would participate in the decision-making process. Devolution of control into the hands of leaders who are not locally accountable will not achieve the efficiency or equity goals that participatory policies promote. Unfortunately, authorities seem to assume that the presence of an indigenous or local leader in EDM means that people are represented. This is not the case.

The issue of representation goes beyond being indigenous or local. It requires locally accountable representation to be in place so as to have an appropriate object of local concern with which to interact. The study has shown that chiefs are not a guarantee of local representation. Whenever a good public participation process has taken place, a responsible leadership will emerge. This is the kind of a leadership that would be locally accountable. It is thus recommended that the government should educate local leaders in EDM. Basically, this means that they should be made aware that they represent people who are supposed to be the decision makers through them, hence their leaders. This means that community representatives should make decisions with the people they represent rather than making decisions for them, if representation in EDM is to be locally accountable.

#### **Recommendation 9: Further Research - a Time Allocation Study**

The literature has revealed that conservation authorities cannot co-manage natural resources with the rural people unless they know and acknowledge their use of time. A Time Allocation Study is thus recommended for further research. In order for the authorities to co-manage the forest with the people, they require a deep understanding of their lives as well as access to them. A Time Allocation Study would provide this opportunity. Such a study is essential at the study area because people's use of time differs along gender lines; therefore knowledge of their allocation of

time by gender, season and activity can be very useful. Such knowledge can suggest areas of concern for conservation, existing areas of indigenous skills and knowledge that might enhance conservation goals and income generation. Such knowledge would also help authorities to plan new activities at convenient times or in conjunction with ongoing activities. It should be noted however that the study would only be a success if undertaken when the racial tensions that presently exist within the tourism industry have subsided. In this context, the “conflict management” mode of decision-making might be especially useful in order for the authorities to mend their relationship with the rural people.

#### **8.4 Conclusion**

This chapter presented the recommendations and the conclusion of the study. The study recommended that environmental partnerships be formed to manage Dlinza forest. Environmental partnerships are an integral tool that would enable all stakeholders to be involved in environmental decision making. Environmental partnerships do not only provide relief for the consequences of conflict, they also strive for a win-win situation. However, these partnerships cannot succeed if the capacity of the authorities to engage the rural poor is not built. It has thus been recommended that the authorities be given some form of training to build their capacity so that they can learn and appreciate local knowledge. The study further recommended that benefits from the ecotourism project should be shared with rural communities. Authorities have to seek out local structures with which to begin new enterprises, to provide alternative opportunities for conservation and reduce dependency on the forest. The study demonstrates that a move away from the preservationist ideologies of conservation on the part of the authorities and empowerment of rural people to participate fully in EDM would help attain community conservation practically as it is explained theoretically.

In conclusion, it is imperative to note that the reconciliation of all actors within EDM and the maintenance of the ecological status of the Dlinza Forest would be realized if it is recognised that the uncertainty associated with the problems encountered, demands that the widest possible range of knowledge(s) be brought to bear on the management of the PA. It is essential that thought be given to the most appropriate mode of decision-making in the next context, rather than relying on outdated, ineffective, and conflict generating modes.



## **List of Bibliographical Divisions**

1. Primary Sources
  - A. Private Collection
  - B. Interviews Conducted by the Researcher
  - C. Newspapers
  
2. Secondary Sources  
(Books, Articles and Chapters in Books, and Unpublished Theses and Papers)

### **1. Primary Sources**

#### **A. Archival Collections**

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“Shooting of Hares on Forest Reserves” Acting Conservator of Forests to District Forest Officer, 13 January 1930

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Memorandum of Understanding, Dlinza Forest Aerial Boardwalk 13 July 2001

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Interview with Cllr. Mthiyane (IFP Cllr.), uMlalazi Municipality 08 July 2002

Interview with Mr. Benson Ndwandwe, then Boardwalk Manager 09 July 2002

Interview with Mr. Victor Mdluli, Freelance Guide 10 July 2002

Interview with Conservation Workers, EKZNW 11 July 2002

Electronic interview with Boardwalk Committee Member 23 June 2003

## **Other Interviews**

Interview with Mealie cookers Eshowe 12 July 2002

Interview with Traditional Healers Eshowe 15 July 2002

Focus Group Interview KwaMondi (Female Group) 17 July 2002

Focus Group Interview Mbomboshane (Female Group) 19 July 2002

Focus Group Interview KwaMondi (Male Group) 22 July 2002

Focus Group Interview KwaKhoza (Female Group) 24 July 2002

Focus Group Interview KwaKhoza (Male Group) 24 July 2002

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**Appendix 1:**  
**Newspaper Articles**

## **Appendix 1: Article 1**

*The Natal Witness*, Tree-top wonderland, 14 November, 2001

## **Appendix 1: Article 2**

*The Mail and Guardian*, Birdwatching boosts ecotourism in Eshowe, 23 November 2001.

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FEATURES

>> [Tree-top wonderland](#)

NIKI MOORE

Eshowe newest birding feature boosts the town's growing range of tourist attractions.

Eshowe's Mayor Stan Larkan got high last Tuesday afternoon - and no-one blinked an eyelid. In fact, everyone looked decidedly pleased to see the town's first citizen hoog innie takke.

There he was, swaying gently, with a grin of intoxicated delight on his face. But, in case anyone's wondering, the goofy look on Larkan's visage had nothing to do with booze and everything to do with birds.

The occasion was the opening of southern Africa's first aerial boardwalk in Eshowe's Dlinza Forest. It's an elevated walkway made of sturdy logs that winds its way through the iron-plums, strangler figs and spreading albizias.

From a sedate few metres above the ground it swoops up to right under the forest canopy and finishes with a flourish at a 25-metre galvanised tower set in the treetops with a view over the forest to the far-away mountains that would make a barbarian weep. And in the nearby trees, the black-collared orioles and Delagorges pigeons are kicking up a musical racket.

This Dlinza Forest is a bit of a holy grail for birdwatchers. It contains the spotted thrush. There are people who travel stupendous distances - like from Germany and Hawaii - just to catch a glimpse of this rather unassuming feathered friend.

The Dlinza Forest is the one of the few places in the world where the spotted thrush hangs up its hat and shouts: "Hi, honey, I'm home!" And therefore it is the peg on which the people of Eshowe hang their title of South Africa's birding capital. It's the hub of the wheel from which all birding routes radiate and the town has decided to put itself on the global bird-fanciers' map. Because, along with the spotted thrush, are other ornithological goodies like the green coucal and narina trogon.

Hence the aerial boardwalk. Already - even before it was officially opened - it has become the spark-plug that has fired up all the other impressive tourist ventures in the town.

Eshowe is literally a town with a wooden heart: the Dlinza Forest lies slap bang in the middle of a busy commercial centre.

This 250-hectare, green spot has a colourful history - for instance, there is a clearing among giant figs that Zululand's arch-prelate Bishop W. M. Carter, just like Pooh Bear, designated his Thinking Spot in 1891.

There are 65 species of birds in the forest, plus little mammals like the shy red and blue duiker. Binoculars, therefore, are a must for visitors as the other attractions are butterflies, insects, reptiles and snails.

Eshowe resident Jane Chennels has been the boardwalk's instigator and champion: "I remember watching a documentary on birds with David Attenborough, where he sits up on a platform right under the tree canopy in a rainforest. And I thought how fabulous it would be if we had a platform like that right in the trees of the Dlinza Forest, where people could sit and get a literal bird's-eye view of the environment," she said.

Once the thought had been planted, Chennels began to interest other people in her scheme. Richard's Bay Minerals provided the funding for the first phase - a 25-metre-long boardwalk 11 metres off the ground. Uthungulu Regional Council weighed in with the money for a wooden walkway to join the boardwalk to the picnic spot.

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But this was just the beginning. Chennels' proposal to the World Wildlife Fund and the Sappi Forests and Wetlands Venture was more than just a pie-in-the-sky idea.

"What impressed us about Chennels' proposal was that it was the focal point for a whole range of environmental, educational and development ideas," said WWF's Greg Laws.

"She had brought in elements like the training of local people to become guides and caretakers of the boardwalk. It was designed right from the beginning to bring in tourist income, to create jobs, to empower people and to become an attraction for visitors to the town. And it also fits in with other ambitious tourist development schemes for Eshowe, like the museum-mall development, the craft museum, the local brewery and the paper-making factory. It was what we call a cluster-development: a whole lot of really interesting attractions all within a short distance of each other."

Sappi paid R900 000 for the second phase - 120 metres more boardwalk, ending in the famous steel tower-in-the-treetops. There was some small change left over for a visitors' centre, a curio shop and refreshment kiosk.

Every few metres along the boardwalk there are thoughtfully-placed benches for visitors who get weak-kneed at the wonder of it all. Trees nearest to the boardwalk are - just as thoughtfully - marked with a name plate that identifies them tri-lingually (Latin, English, Zulu).

The aerial boardwalk is also a showpiece for the Zululand Bird Club, which has its headquarters in Eshowe. "The nearby Ngoye Forest is home to the Green Barbet and it is the only place on earth where this particular bird appears," said Bird Club chairman Pat Brenchley. "We get visitors from all over the world who come to see this bird. While they're here they will want to spend some time in the Dlinza Forest and look at other rare birds.

"So now we have this amazing walkway through the trees that makes the international birding experience even more exciting."

Louis Gunter is chairman of the steering committee for all the goodies that have been dreamed up by the energetic residents of Eshowe to attract tourists. Apart from establishing Eshowe as the centre for bird-watching trails, there are ambitious plans to turn the Historical Museum and Nonqayi fort into a museum-mall - a one-stop shop for culture-seekers, arts-crafts-peekers, good-food-freakers and holiday-sneakers.

No wonder Larkan looks a little punch-drunk - his sleepy little town of Eshowe with its gentle forest, sedate streets and laid-back bird-watchers is busting out and planning on becoming the tourist city junction for Zululand.

**Publish Date:** 14 November 2001

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ARCHIVE

# Birdwatching boosts tourism in Eshowe

Date: 23 Nov 2001

Niki Moore

It's a chance for tourists to get high in Eshowe, and it's quite legal.

In fact, it's encouraged – and cheap. For the cost of R20, anyone can sit in the treetops and watch the birds go by, courtesy of Southern Africa's first [aerial boardwalk](#) in Eshowe's [Dlinza forest](#).

The [boardwalk](#) is an elevated wheelchair-friendly walkway made of sturdy logs that winds its way through the iron plums, strangler figs and spreading albizzias.

From a sedate few feet above the ground it swoops up to under the [forest](#) canopy and finishes with a flourish at a 25m-high galvanised tower in the treetops with a view over the [forest](#) to the far-away mountains. And in the nearby trees, the black-collared orioles and Delagorges pigeons kick up one helluva musical racket.

[Dlinza forest](#) is a bit of a holy grail for birdwatchers. It contains the spotted thrush. There are people who travel stupendous distances – like from Germany and Hawaii – just to catch a glimpse of this unassuming creature.

The [forest](#) is one of the few places in the world where the spotted thrush is found. It is, therefore, the peg on which the people of Eshowe hang their title of the "capital of South Africa's birding". The town is reinventing itself as the hub of the wheel from which all birding routes radiate.

It's quite easy for Eshowe to put itself on the global birding map. The town bristles with resident bird-fanciers. Local farmers have created conservancies of indigenous bush and riverine [forest](#) on their lands to cater for the feathered populations and their two-legged admirers.

Apart from the spotted thrush there are other ornithological goodies like the green coucal and narina trogon, the nicators and buff-spotted fluff-tails.

Hence the [aerial boardwalk](#). Even before it was officially opened it had become the spark-plug that has fired up all the other impressive tourist ventures in the town.

Eshowe is literally a town with a wooden heart: the [Dlinza forest](#) lies in the middle of a busy commercial centre. This 250ha spot has a colourful history – for instance there is a clearing among giant figs that Zululand's Bishop WM Carter, just like Winnie the Pooh, designated his "thinking spot" in 1891. There are 65 species of birds in the [forest](#), plus small mammals like the shy red and blue duiker. Binoculars, therefore, are a must for visitors as the other attractions are butterflies, insects, reptiles and snails.

Eshowe resident Jane Chennels was the instigator of the [boardwalk](#): "I

remember watching a documentary on birds starring David Attenborough," she says, "where he sits up on a platform under the tree canopy in a rain forest. And I thought how fabulous it would be if we had a platform like that right in the trees of the Dlinza forest, where people could sit and get a literal bird's-eye view of the environment."

Once the thought had been planted, Chennel's began to interest other people in her scheme. Richard's Bay Minerals provided the sponducks for the first phase – a 25m-long boardwalk 11m off the ground. Uthungulu regional council weighed in with the money for a wooden walkway to join the boardwalk to the picnic spot. But this was just the beginning. Chennel's proposal to the World Wildlife Fund (WWF) – and the Sappi Forests and Wetlands Venture – was more than just a pie-in-the-sky idea.

"What impressed us about Chennel's proposal," says the WWF's Greg Laws, "was that it was the focal point for a whole range of environmental, educational and development ideas. She had brought in elements like the training of local people to become guides and caretakers of the boardwalk."

From the beginning it was designed to generate tourist income, to create jobs, to empower people and to become an attraction for visitors to the town. And it also fits in with other ambitious tourist development schemes for Eshowe, like the museum mall development, the craft museum, the local brewery and the paper-making factory.

"It is what we call a cluster development: a whole lot of really interesting attractions all within a short distance of each other."

The WWF approached Sappi for the R900 000 for the second phase – 120m more boardwalk ending in the steel tower in the treetops. There was some change left over for a visitors' centre, a curio shop and refreshment kiosk.

Every few metres along the boardwalk there are thoughtfully placed benches for visitors who get weak-kneed at the wonder of it all. Trees nearest to the boardwalk are marked with a name plate that identifies them tri-lingually (Latin, English and Zulu).

The aerial boardwalk is also a showpiece for the Zululand Bird Club, which has its headquarters in Eshowe. "The nearby Ngoye forest is home to the green barbet," says bird club chairperson Pat Brenchley, "and it is the only place on Earth where this particular bird appears. We get visitors from all over the world that come to see this bird. While they're here they will want to spend some time in the Dlinza forest and look at other rare birds. So now we have this amazing walkway through the trees that makes the international birding experience even more exciting."

Apart from establishing Eshowe as the centre for bird-watching trails, there are ambitious plans to turn the museum and Nonqayi fort into a mall museum – a one-stop shop for arts, crafts, food and culture.

The Vukani Museum is a large building that is a happy mix of cathedral and Zulu hut – and it is a stunning showcase for the best examples of Zulu crafts. Next door is Adam's Post – a restaurant housed in a colonial corrugated-iron office building that was moved, panel by panel, from the town to its new site. There is a replica of the original Norwegian mission church.

Further plans include craft shops, a paper-making factory, a conference centre and some rather ambitious landscaping.

So even though it might have started that way, the residents of Eshowe don't believe that tourism is just for the birds.

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**Appendix 2:**  
**Natal Provincial Proclamation No. 67, 1952**

DIE  
Natalse Koerant  
van die  
Provinsie Natal



THE  
Official Gazette  
OF  
The Province of Natal

Op Gesag Uitgegeef

Published by Authority

DONDERDAG, 7 AUGUSTUS, 1952.

No. 2427, THURSDAY, 7TH AUGUST, 1952.

—Alle kennisgewings wat vir die eerste maal verskyn, word met 'n \* gemerk.

NOTE—All Notices appearing for the first time are indicated by an \*

7, 1952.

[Engelse lesing deur die  
Administrateur onderteken.]

### PROKLAMASIE

aan Sy Edelagbare DENIS GEM SHEPSTONE,  
Administrateur van die provinsie Natal.

LAAS-ek ooreenkomstig artikel 2 (1) (c) van Ordonnansie No. 35 van 1947 (Ordonnansie op die Bewaring van Parke, Wild en Vis, 1947) die bevoegdheid besit ad en met die toestemming van die Uitvoerende Komitee, verklaar ek dat enige plek op grond, wat deur die Provinsiale Administrasie gehuur word, 'n natuurtuin naam aan sodanige natuurtuin te gee en om die daarvan te omskryf:

ADEMAAL-ek ooreenkomstig artikel 2 (2) van die ordonnansie die bevoegdheid besit om op raad en toestemming van die Uitvoerende Komitee te verklaar ooreenkomstig artikel 2 (1) (c) van genoemde ordonnansie 'n natuurtuin as private eiendom beskou.

DIT dat ek, handelende op raad en met die goedkeuring van die Uitvoerende Komitee, hierby proklameer dat die in die bylae hiervan omskrewe eiendom van 8 Julie 1952 'n natuurtuin bekend as die Hlinza-bos is en vir die doel van Ordonnansie No. 35 van 1947 as private eiendom beskou word.

GOD BEHOEDE DIE KONINGIN!

Gegee onder my handtekening te Pietermaritzburg, Natal, op die negen-en-twintigste dag van Julie eenduisend negen-en-veertig.

D. G. SHEPSTONE,  
Administrateur.

BYLAE.

NATUURTUIN HLINZA-BOS.

Lot 854, dorp Eshowe, county Zoeloceland, in extent 461-5037 acres.

\*No. 67, 1952.

[English text signed by  
the Administrator.]

### PROCLAMATION

By the Honourable DENIS GEM SHEPSTONE,  
Administrator of the Province of Natal.

WHEREAS by Section 2 (1) (c) of Ordinance No. 35 of 1947 (the Natal Parks, Game and Fish Preservation Ordinance, 1947), I, acting upon the advice and with the consent of the Executive Committee, am empowered to proclaim that any place upon land leased by the Natal Provincial Administration shall be a Nature Reserve, to assign a name to such Nature Reserve and to define the boundaries thereof:

AND WHEREAS by Section 2 (2) of the said Ordinance, I, acting upon the advice and with the consent of the Executive Committee, am empowered to declare that any Nature Reserve proclaimed in terms of Section 2 (1) (c) of the aforesaid Ordinance shall be deemed to be private property.

NOW, THEREFORE, I, acting upon the advice and with the consent of the Executive Committee, do hereby proclaim and declare that the property described in the Schedule hereto shall be a Nature Reserve to be known as the Hlinza Forest Nature Reserve and shall be deemed to be private property for the purpose of Ordinance No. 35 of 1947, with effect from the 8th July, 1952.

GOD SAVE THE QUEEN!

Given under my hand at Pietermaritzburg, Natal, this Twenty-ninth day of July, One Thousand Nine Hundred and Fifty-two.

D. G. SHEPSTONE,  
Administrator.

SCHEDULE.

HLINZA FOREST NATURE RESERVE.

Lot 854, Township of Eshowe, County of Zululand, in extent 461-5037 acres.

**Appendix 3:**  
**Dlinza Forest Aerial Boardwalk Project Summary**

## **DLINZA FOREST AERIAL BOARDWALK**

### **SUMMARY OF PROJECT**

The Aerial Boardwalk Project was started in 1994, when Mr Denis Eckard (Honorary Officer of the Natal Parks Board), Mr Glen Holland (Parks Board Officer), and Mrs Jane Chennells had the idea of a boardwalk in the high canopy of the Dlinza Forest. After years of planning, a boardwalk was designed by Mr Rob Sully of V.S.P. Consortium, based on similar boardwalks in Australia.

The Dlinza Forest, which is 250 hectares in extent, is unique in that it provides a sanctuary for many rare bird, plant and animal species, which are a great drawcard for tourists; particularly those interested in conservation. The unusual bird species include the Delegorgues Pigeon, the Spotted Thrush and Green Coucal, while mammals include the Red and Blue Duiker. There is a large diversity of plant species, including the Giant Umzimbeet, Clivias and Cycads. There are approximately eighty bird species found in this area, and birding is fast becoming a large pastime of visiting tourists. In addition, there are over eighty species of butterflies, numerous reptile, snail and insect species.

In 1999, Richards Bay Minerals provided funding for the first phase of the Boardwalk Project, and a 25m long raised boardwalk, standing 11m off the ground, was built near the Dlinza Forest picnic site. Uthungulu Regional Council donated funding to join the picnic site to the boardwalk with a low wooden walkway, making it accessible to wheelchairs. The World Wide Fund for Nature (WWF) forests and wetlands project, with generous funding provided by SAPPI, gave approval to build an additional extension to the boardwalk, which is 127m long, and 10m high, ending in a steel viewing tower 20m high, which overlooks the whole of the forest area, and Eshowe. There is a visitor centre and boma, providing a place for schoolchildren and tourists to be educated in conservation, and in particular what Dlinza Forest has to offer. There is also a curio shop and refreshment kiosk. The Mazda Wildlife Fund has supported the forests and wetlands project with the donation of a bakkie.

The Dlinza Forest Aerial Boardwalk has provided training for six field guides, who have been selected from the local community, and sent on a one month training course in basic tourism concepts, conservation and bird guiding at Wakkerstroom. In addition, a manager has been employed to supervise the trained field guides in all aspects of the Boardwalk, market the project and deal with administration.

The Dlinza Forest Aerial Boardwalk is seen as the central focus from which other projects will grow. We have established the Prince Dabulamanzi Walking Trail to Ntumeni, and will extend this to the Mbongolwane Wetlands, through natural river gorges, where the local community will be involved as guides. Rural crafts will have an opportunity of being displayed and sold, and local schoolchildren will benefit from the on-site education in conservation and the environment.

Schools in disadvantaged areas will be sponsored to participate in educational workshops, which will be held at the Boardwalk Visitor Centre. The project will establish an interest in forests, and create strategic partnerships with rural communities. It is anticipated that the Amatikulu Wetlands, Ongoye and Nkandla Forests will be able to be linked in similar ways, encouraging rural eco-tourism.

The Dlinza Forest Aerial Boardwalk has formed a Section 21 Company, with a board of Directors selected by the following representative bodies, who are the members of the Company:

- uMlalazi Municipality
- KZN Nature Conservation Services
- Eshowe-Ntumeni Conservancy
- Zululand Birding Route
- uMlalazi Community Tourism Association
- The Chamber of Business
- Ntumeni Rural and Surrounding Environment Conservation Committee
- The Amakhosi
- World Wide Fund for Nature (South Africa)
- KZN Tourism Authority
- Eshowe Environmental Education Centre
- KZN Department of Agriculture
- The Dlinza Conservancy
- Three other nominated members from the community

The Steering Committee, chaired by Mr Louis Gunter, is positive that this project will generate numerous job opportunities for our Eshowe community at large, and looks forward to the involvement and support of the people of Eshowe in this community project.

November 2001

**Appendix 4:**  
**Detailed Examples of Public Participation in PA  
Management**

<b>RESPONSE/APPROACH</b>	<b>PROTECTED AREA EXAMPLE</b>
<b>COMMUNITY RESPONSE</b>	
The community response is often governed by the agency's approach and the level of community interest and understanding of the issues. Most activity occurs at the 'comply' and 'cooperate' level.	
<b>Comply</b> The community complies with regulations and laws.	The community complies with by-laws governing activities in parks.
<b>Cooperate</b> The community agrees voluntarily to undertake an action.	Walking along marked tracks, filling out visitor surveys and taking part in community education programs.
<b>Participate</b> Members of the community or community groups become involved in a program or activity.	Commenting on draft plans of management, representation on advisory/management committees, becoming a member of a volunteer group and participation in public meetings on park management issues.
<b>Self Directed Action</b> The community makes the decisions and has ultimate responsibility.	PA and private land added to the National Reserve System.
<b>AGENCY APPROACH</b>	
Legislation and perceptions about the level of community interest and understanding often governs the approach of an agency. Most agency approaches occur at the 'inform' and 'consult' level.	
<b>Inform</b> The agency provides information to the community.	Signs and other information provided to encourage compliance with regulations and promote appropriate use of a park. Interpretation and education programs provided to encourage appreciation and understanding of protected area values and management. Agency provides information that facilitates informed choices by the community especially where legislation provides opportunities for involvement in decision making.
<b>RESPONSE/APPROACH</b>	
<b>PROTECTED AREA EXAMPLE</b>	
<b>Consult</b> The agency seeks information or advice which it takes into consideration in the decision making process.	The management planning process calling for public comment.
<b>Collaborate</b> The agency and community work cooperatively in the decision making process, although the Agency maintains ultimate control of the process.	Shared management committees, good neighbour agreements, Friends of groups.
<b>Partner</b> The agency and community (stakeholders) share responsibility in the decision making process.	Joint management arrangements, formal agreements for the protection of flora and fauna on private land, cooperative neighbour programs.
<b>Hand Over</b> The agency hands over control and decision making to the community. The agency may facilitate management by the community through the provision of resources and expertise.	Examples of full government hand over are limited in terms of protected area management. Most legislation precludes agencies from divesting their responsibilities to the community. However, in most jurisdictions agencies do facilitate and contribute resources and expertise to the management of private lands and PA's.

Source: Parks and Wildlife Commission of the Northern Territory, Australia (2002)

**Appendix 5**  
**Questionnaire**



General Questions

Who are you?

Where do you stay?

Are you employed? Please give details.

If not, how do you live?

Stories and legends about the forest?

Is Dlinza forest important to you? Please explain.

What are the occurrences that make it important or less important to you?

History of EDM related to the forest.

How old are you?

For how long have you been staying at Eshowe?

Who was in control of Dlinza forest before it was protected?

Did you have access to it then?

Who took control of it after its protection?

Did you have access to it?

If you had access, how did you use it?

Use of the Forest

How did you use the forest before its protection?

1. Hunting
2. Wood collection (Firewood, building)
3. Herbs collection
4. Fruits
5. Other

What are the fruits/food that you got from the forest?

1. ....6. ....
2. ....7. ....
3. ....8. ....

4. ....9. ....
5. ....10. ....

What are the herbs that you got from the forest before its protection?

1. ....6. ....
2. ....7. ....
3. ....8. ....
4. ....9. ....
5. ....10. ....

Has the ecotourism project made any difference in terms of your access to the forest?

Please explain.

What restrictions were imposed if any?

Evaluation of the effectiveness of PP when decisions are made?

When did eco-tourism take place in the forest reserve?

How did it happen? Please give details.

Were you informed that it was taking place?

Who informed you?

How did you hear about it?

1. From your neighbours.
2. From the radio
3. From the newspaper
4. From extension leaflets/pamphlets
5. From an official (please specify)

Did you have the chance to raise your views and concerns about the ecotourism development in the reserve?

If no, if you had an opportunity, what were you going to propose/recommend?

Are you happy with the way it happened?

### Impact of Ecotourism

Do you think the ecotourism development in the reserve was necessary? Please explain.

Do you think you benefit from it?

What do you like about it? Please give details.

What is it that you don't like about it? Please give details.