

**A SURVEY OF CONSERVATION ATTITUDES OF THE RURAL COMMUNITIES
AROUND THATHE FOREST,
NORTHERN PROVINCE**

by

MBENGENI ERIC SIKHITHA

**Submitted in partial fulfilment of the academic requirements of the degree of
Masters in Environment and Development
in the
the School of Environment and Development
University of Natal**

Pietermaritzburg

**January
1999**

This project was carried out within the

Forest Biodiversity Programme

School of Botany and Zoology

University of Natal, Pietermaritzburg



FOREST

BiODiVERSITY
PROGRAMME

UNIVERSITY OF NATAL

ABSTRACT

Indigenous forests are an integral part of rural communities in Africa, and they are socio-ecologically managed and conserved by customary laws. Most of these forests are important reserves of cultural and ecological values, although they are threatened by modern economic and political developments and often by foreign religious intrusion. Based on this background the Thathe sacred forest in the Zoutpansberg mountains of the Northern Province, in South Africa, was chosen for investigation. The perceptions and conservation attitudes of the rural communities living around the forest were investigated. In addition, the contribution of the traditional ethics of the local people to forest biodiversity management were also assessed. The extent to which the rural communities attach consumptive and/or non-consumptive values to the Thathe forest was examined for insight to the survival of the forest into the future.

Data collection included a field survey, interviews with key informants, structured and semi-structured interviews, and a documentary survey (documents or records such as monthly or annual reports of an institution like the Department of Water Affairs and Forestry (DWAF) about its activities, and government gazettes). Responses of 201 interviewees from around the Thathe forest were analysed. Data was arranged by age, sex, educational background and area of residence. The majority of the respondents (76.6%) across the gender categories regarded the forest as sacred, while 20.4% felt it is an area of conservation importance. A strong cultural link between the local people

and the forest is inferred from these positive attitudes, in spite of a history of forced removals of the surrounding communities from the Thathe-Vondo forest area. The attitudes of the people around the forest are wide-spread and consistent across the tribal areas. Nevertheless, cultural usage of the forest has waned in recent years (a consequence of restrictions on access to the forest) and few people (13.4%) actively use it for cultural rituals.

Based on the research findings it is imperative that an attempt is made to reconcile the local people and the government institution managing indigenous forests and policing forestry in general (DWAF). The relevance of conventional conservation principles must be brought to the attention of the local people, and these ought to be integrated with cultural methods of forest resource management and conservation. This will serve as a foundation for sustainable indigenous forest resource management in Thathe forest.

PREFACE

The research work presented in this dissertation was carried out in the School of Environment and Development, University of Natal, Pietermaritzburg, from August 1997 to January 1999, under the supervision of Professor Michael J. Lawes, from the Department of Zoology and Entomology.

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



MBENGENI ERIC SIKHITHA

ACKNOWLEDGEMENTS

I owe my indebted gratitude to Professor Michael J. Lawes, my supervisor whose assistance, guidance and patience throughout the project have been so invaluable. His motivations were a source of inspiration to me.

The financial assistance of the FRD fund through the Forest Biodiversity Programme in the Department of Zoology and Entomology, the Research and Development Fund of the School of Environment and Development, and the Smart Centre Bursary for the duration of my studies are hereby acknowledged.

To the Tshidzivhe and Tshilungwi communities, staff members and learners of the schools in these communities, headman Mandela Joseph Netshidzivhe for allowing me entrance and company to the Thathe forest, Tshamanyatsha and Matondoni forestry officers, staff members of the State library in Pretoria for the assistance with relevant government gazettes, staff members of the University of Natal libraries in Pietermaritzburg, and the Venda Herbarium at Thohoyandou, I am grateful for the support given to me.

My gratitude also to the Department of Education in the Northern Province, for offering me study leave during 1997. The management at Makhado College of Education, and fellow staff members who encouragement me are heartily thanked.

Professor M.E. Nthangeni, Thivhusiwi Sikhitha, Marubini Reuben Ramudzuli, for helping with data processing. Mashudu Mashige and Susan Davies for proofreading. I thank you guys for being so considerate (*A vha ntshileli!!*).

My wife Mmbangiseni and the children for their understanding, moral, and spiritual support, and my siblings for standing by my family in my absence. The Lubasi Mbumwae's family in Maritzburg for company and encouragement in my studies. My father and my late mum who gave me basic education and life-long skills, I say thank you. Above all, I am truly thankful to the Almighty through Jesus Christ, for His mercy and providence.

DEDICATION

This dissertation is dedicated to Rotondwa, Denzhe, Vusani, Mulanga and Muwanwu Sikhitha, and all those of their same age. It is equally dedicated, to those rural communities around indigenous forests who use these resources sustainably.

TABLE OF CONTENTS

Abstract.....	-i-
Preface.....	-iii-
Acknowledgements.....	-iv-
Dedication.....	-vi-
Table of Contents.....	-vii-
List of Contents.....	-vii-
List of Figures.....	-xi-
List of Tables.....	-xi-
List of Abbreviations and Acronyms.....	-xii-

LIST OF CONTENTS

CHAPTER 1 AN OVERVIEW OF INDIGENOUS FOREST USE AND CONSERVATION PRACTICES BY THIRD WORLD RURAL COMMUNITIES.....	1
1.1. Introduction.....	1
1.2. The use of indigenous forest by rural people.....	1
1.3. Non-consumptive cultural use of indigenous forest.....	3
1.4. The impact of changes in cultural and political systems on indigenous forests' survival.....	9
1.5. The case of the Thathe forest.....	11
1.5.1. Historical background.....	11

1.5.2. Cultural significance of Thathe forest to the Tshidzivhe people...	13
1.5.3. The period 1940-1994.....	16
1.5.3.1. Forced removals.....	16
1.5.3.2. The return of the Tshitangani people to their former land and change of management in control of Thathe-Vondo forestry.....	20
1.5.4. Current conservation status of Thathe forest.....	22
1.6. Conceptual framework of the study.....	27
1.7. Aims and objectives of the study.....	29
 CHAPTER 2: METHODOLOGY.....	 30
2.1. Introduction.....	30
2.2. Methods.....	32
2.2.1. Preliminary survey.....	32
2.2.1.1. Key informants.....	34
2.2.1.2. Group interviews.....	35
2.2.1.3. Field survey.....	37
2.2.1.4. Documentary survey.....	38
2.2.2. Structured interviews (post-preliminary phase).....	39
2.2.2.1. Sampling procedure.....	40
2.2.2.2. Data recording.....	41

CHAPTER 3: PERCEPTIONS AND ATTITUDES OF THE LOCAL COMMUNITIES TOWARD THE THATHE FOREST.....	43
3.1. Introduction.....	43
3.2. Results.....	49
3.2.1. Data analysis and results.....	49
3.2.2. Local people’s perceptions of Thathe forest.....	49
3.2.3. Use of Thathe Forest for cultural purposes.....	51
3.2.4. Control of the local use of Thathe forest.....	53
3.2.5. Perceptions of, and attitudes toward, the Department of Water Affairs and Forestry (DWAF).....	55
3.2.6. Perceptions of, and attitudes toward, the future of the Thathe- Vondo plantation.....	57
3.3. Discussion.....	59
3.3.1 Perception of Thathe forest and cultural uses.....	59
3.3.2. Control of the local use of Thathe forest.....	61
3.3.3. Perceptions of, and attitudes toward, the Department of Water Affairs and Forestry (DWAF).....	62
3.3.4. Perceptions of, and attitudes toward, the future of Thathe-Vondo plantation.....	63

CHAPTER 4: MANAGEMENT IMPLICATIONS AND PROPOSALS FOR FUTURE

DEVELOPMENT.....	65
4.1. Introduction.....	65
4.2. Management implications.....	66
4.2.1. Representation.....	67
4.2.2. Inequitable distribution of benefits.....	68
4.2.3 Institutional capacity building at local level.....	68
4.3. Future development options and implications.....	69
4.3.1. Agriculture.....	69
4.3.2. Settlement.....	70
4.3.3. Tourism development.....	70
4.4. Recommendations.....	73
4.4.1. Rehabilitation of the periphery of the indigenous forest.....	73
4.4.2. Compiling an inventory of floral and faunal species.....	74
4.4.3. Establishing an agroforestry nursery.....	74
4.4.4. Development of an environmental education centre.....	74
4.4.5. Low impact ecotourism development.....	74
4.4.6. An environmental and social impact analysis.....	74
4.4.7. Local communities be given ownership and use rights.....	75

REFERENCES.....	76
APPENDIX 1.....	89

LIST OF FIGURES

Figure 1. Map showing Thathe forest and the surrounding communities before the establishment of plantation.....	15
Figure 2. Map showing Thathe forest and the surrounding communities (villages) after the establishment of plantation.....	19

LIST OF TABLES

Table 1. Animal species reported to have disappeared in the Fundudzi valley.....	26
Table 2. Samples of the communities around Thathe forest.....	41
Table 3. Perception of Thathe forest across the age classes.....	50
Table 4. Perception of Thathe forest across educational backgrounds.....	51
Table 5. Perception of Thathe forest across sex	51
Table 6. Perception of Thathe forest across residential areas.....	51
Table 7. Use of Thathe forest for cultural purposes by the age classes.....	52
Table 8. Use of Thathe forest for cultural purposes by sex.....	53
Table 9. Use of Thathe forest for cultural purposes by educational background.....	53
Table 10. Use of Thathe forest for cultural purposes by residential area.....	53

Table 11. Control of the local use of Thathe forest by age classes.....54

Table 12. Control of the local use of Thathe forest by sex.....54

Table 13. Control of the local use of Thathe forest by educational background.....54

Table 14. Control of the local use of Thathe forest by residential area.....55

Table 15. Perceptions of, and attitudes toward, DWAF by age classes.....56

Table 16. Perceptions of, and attitudes toward, DWAF by sex.....56

Table 17. Perceptions of, and attitudes toward, DWAF by educational background... 57

Table 18. Perceptions of, and attitudes toward, DWAF by residential area.....57

Table 19. Perceptions of, and attitudes towards, the future of the Thathe-Vondo
plantation.....59

LIST OF ABBREVIATIONS AND ACRONYMS

ANC	African National Congress
Benso	Bureau for Economic Research, Co-operation and Development (RSA)
DWAF	Department of Water Affairs and forestry
IIED	International Institute for Environment and Development
IUCN	International Union for Natural Resource Conservation
NGO's	Non-Governmental Organisations
PRL	Participatory Rural Learning
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa

EIA	Environmental Impact Assessment
RAU	Rand University (Randse Afrikaans Universteit)
SIA	Social Impact Assessment

CHAPTER 1:
AN OVERVIEW OF INDIGENOUS FOREST USE AND CONSERVATION
PRACTICES BY THIRD WORLD RURAL COMMUNITIES

1.1. Introduction

This chapter focuses on indigenous forest use and conservation practices by rural communities in the Third World countries in general, and the Thathe forest, in the Northern Province in particular. Third World rural communities depend mostly on indigenous forests for a variety of their daily survival needs such as cultural, economic, religious, and ideological needs (Schmidt 1994). As a consequence, the pressure exerted on those limited forest resources is tremendous.

1.2. The use of indigenous forest by rural people

Indigenous forests in Africa, India and New Zealand (Aseffa 1997, Clarke 1994, Lebbie *et al.* 1996, Schmidt 1994, Wilson 1993, Singh 1990, Gupta 1988, Gould *et al.* 1993, Centeno *et al.* 1993) provide a plethora of basic needs which can be characterised as either consumptive or non-consumptive.

Consumptive forest uses are those which involve the direct use or harvest of vegetation, and they are manifest in a variety of practices like construction, fuelwood, grazing,

cultivation, art and craft, medicinal and food harvesting. Some of these activities use large amounts of forest vegetation for their products, often harvesting at a rate higher than the rate which the vegetation can recover. The question is whether indigenous forest usage by rural communities is sustainable.

Non-consumptive forest uses are those activities which do not involve direct consumption of forest products. They often have cultural or heritage value, and include sacred forests (to be discussed in the next section) or certain plant species which are revered for their spiritual value (Lebbie *et al.* 1996). Wilson (1993) observed that in the coastal districts of Kilifi and Kwale, in Kenya, there are about 30 sacred forests (groves), known as *Kayas* (i.e. homesteads). Similarly, many sacred groves in Moyamba District, in Sierra Leone survived due to strong cultural forces within certain societies such as the *Poro*, *Wunde* and *Sande*, who reserved 'sacred groves' or 'traditional forest reserves' (Lebbie *et al.* 1996). In Venezuela the Yanomami people inhabit Urihi and Uli indigenous forest, these names mean homes in Amerindian. Such forests are homes as well as spiritual shrines (Centeno *et al.* 1993).

The origin of the use of forests as sacred places is not known. However, the Kenyan *Kaya* forests' use stemmed from people fleeing fierce northern tribes some centuries ago, and building fortified villages in the forests (Wilson 1993). Those forests initially provided people with refuge, and with time became spiritual centers under the custodianship of the elders.

Opinions as to whether the use of indigenous forests is sustainable vary widely. There is the perception that use by the rural people was, and still is sustainable (Lebbie *et al.* 1996). This stems from the notion that indigenous people have interacted with the local environment for a long time and hence, have a thorough knowledge and experience of their environment. Durning (1992) attests to this notion by stating that “indigenous peoples possess, in their ecological knowledge, an asset of an incalculable value: a map to the biological diversity of the earth on which all life depends”.

1.3. Non-consumptive cultural use of indigenous forest

Third World rural people are very often the custodians of indigenous forests. Durning (1994) notes that “indigenous people are the sole guardians of vast, little disturbed habitats that modern societies depend on more than they realise - to regulate water cycles, maintain the stability of the climate, and provide valuable plants, animals and genes”. Forests revered as sacred or holy owe their survival to rural indigenous people who have protected them against all sorts of exploitation and development. Examples include the already mentioned Kaya forests in Kenya, the Uli in Venezuela, the Sierra Leonean Poro, Sande and Wunde forests. The Thathe forest in the Northern Province of South Africa also falls in this category of forests which have cultural, political, economic and ideological value.

Culturally, they are centers of ceremonial rituals, myths and legends; as such the forests were considered to be inhabited by ancestral spirits (Dwomoh 1990, Lebbie *et al.* 1996, Ntiamoa-Baidu 1992, Wilson 1993). The management of sacred forests was generally under the custody of either the village priest, like the Bachwezi priest south of Uganda (Schmidt 1994), community elders like those of the Kayas of Kenya, and the community chief or headman as is the case in the Thathe forest. The chief had political powers, but all other custodians acted as middlemen between the people and the gods (midzimu or vhadzimu, (i.e. spirits). Generally, they alone (custodians) decree when and how the trees in the forest can be used. Rituals such as ancestral worship, annual thanks-giving, youth initiation and sacrifices were, and still are performed to appease the spirits.

Ideologically to some societies indigenous forests are considered centers of all forms of power and reproduction of culture (or traditions), thus political, economic, and spiritual (Schmidt 1994). Politically, the powers and duties of the headman or chief as a community leader is considered to derive from the ancestors or the spirits inhabiting the forest (i.e. to those societies or communities which revere sacred groves). Subsequently, as leadership (chieftaincy or headmanship) is inherited in most societies or Third World rural communities, culture is perpetuated. The community priest, elder, the chief or headman are the highest traditional social structures to wield religious and political power. Related to political power, are economic and cultural practices. Traditional indigenous forest conservation policy or practices in Third World rural communities, encapsulated the balance of forces prevalent in these communities. No

member of these communities could oppose the coercive code of conduct laid down by the above mentioned structures. The following factors influence perception and attitude in traditional conservation policy.

1. Superstition: Fear or abhorrence of certain plants and animal species was instilled in different forms like bad omens, myths or superstitions, monsters, taboos, and totems. Certain plant species or forests, by virtue of their location, were considered bad omens when used. Whilst some tree species are, or were revered by all members of the society, totemic plants differ, or differed from one ethnic group to another, but also among different clans of the same community. To the Vhatavhatsindi tribe of Thengwe, in the Northern Province for instance, the 'Mutavhatsindi' tree *Brackenridgea zanguebarica* (van Wyk *et al.* 1980) is revered and dominates their praises (Ralushai 1977). It is a taboo among the Thengwe tribe to use this species as fuelwood. Medicinally, Mutavhatsindi is believed by traditional healers around Venda, to have panacea healing status. Rituals are performed when harvesting the roots, bark and leaves of this plant. They include stripping oneself naked, closing eyes and not looking back after harvesting. It is superstitiously held that ignorance of such rituals causes blindness, barrenness, and above all, renders the medicinal power ineffective (local traditional healers, *pers. comm* 1997).

The Thathe forest is superstitiously held within the Tshidzivhe tribe as a forest inhabited by ancestral spirits. It is strongly believed that the spirits can turn into a white lion 'Nethathe', named after the former priest and magician Mpande Nethathe (M.J. Mpande,

pers.comm 1997).

Oral tradition suggests that Nethathe belonged to the Netshidzivhe royal clan, and that he was a magician who at the same time was a medium between the chief and the spirits during the time when the Netshidzivhe dynasty stayed in the forest. That is, before they subjugated their chieftaincy status to the Tshivhase tribe (M.J. Mpande, *pers. comm.* 1997). The white lion is believed to harm or devour trespassers, especially those not belonging to the Netshidzivhe clan. Apart from the fear instilled to the local people through the mysterious lion 'Nethathe', a legend is told of a white man (European) who mysteriously disappeared in the forest after having stubbornly ignored warnings against entering the forest (Netshitangani, *pers. comm.* 1997). Up to date, outsiders are not allowed to enter the Thathe forest without permission and company of a member of the Netshidzivhe clan (i.e the royal family).

2. Seasonality: Schapera (1970) observed that indigenous people in Botswana have seasonal taboos controlling the cutting of indigenous trees. Trees are normally not harvested during January through April. Similarly, it was customary tradition among the Vhavenda to harvest wood for construction purposes during winter. Apart from the fact that summer coincides with cultivation of crops, it is believed by experts in construction that the woods are full of water and therefore not strong enough to serve as construction material in summer. The practice of seasonal harvesting of indigenous vegetation, gave shoots time to grow undisturbed during summer.

3. Courtesy to the highest community authority: Chastity had to be shown to community leaders by the followers. Above all, it was not simple to defy the authority of the social figures like the traditional healers, forest elders, traditional priests and chiefs. An attempt to defy could be labelled as betrayal not only of the high authority, but of the whole society. Such included the harvesting of vegetation from sacred forests without sanction from the custodian of the forest. Natural disasters like lightning, drought, and epidemics were interpreted as the gods' anger at transgression of certain codes of conduct. Moreover, certain plant species were designated royal plants and could not be harvested without the middleman or the chief's ruling. Similar traditional rules cover the use of faunal resources in the area of the Kafue river, under the control of the Tonga chief Mwanachingwala (Chidumayo 1994). In South Africa, although related to faunal resources, similar traditions existed within the Zulu kingdom where royal hunting preserves in the Umfolozi district were set aside in the 1820's by Shaka (Carruthers 1995).

4. Community solidarity: Oneness among members of the community played a significant role in keeping the community together. Hardships which befell the society without clear explanations from within the society were explained as curses from the gods and usually attributable to transgression by an individual, family members, and/or all members of the community. Cohesion played a significant role in avoiding the gods' curses.

5. Religious-political sanctions: These were applied against those who disturbed trees or forests which functioned as ritual locales (Schmidt 1994, Gerden *et al.* 1990). Severe fines were imposed to community members for hunting or collecting venerated and forbidden plants in sacred groves. Examples include punishment imposed to the offenders of the Poro, Wunde and Sande groves in Sierra Leone. Offenders are expected to offer either a chicken (or chickens), goat, or a cow together with traditional beer and snuff, as fine, to the custodian of the sacred forest (Lebbie *et al.* 1996). Failure to comply with (pay) the fine could lead to the offender being ostracised, as it is tantamount to breaking the cultural rules regulating wildlife resource management.

Under the above conditions of resource control through traditional ethics or indigenous conservation laws, no floral or faunal products could be harvested at random from sacred forests without the blessing of the higher traditional authorities, especially the custodians. Certain plant and animal species, irrespective of whether they occurred in sacred locales (forests) were revered as totems and therefore tabooed and did not have consumptive value to the rural people. Although there were no conventional (i.e. written and internationally accepted) ethics regulating natural resource management, the above cultural principles have saved indigenous forests in Africa and globally, from deforestation and kept them almost pristine as national heritages (as already mentioned of the Kenyan Kaya and the Amerindian forests). Indigenous conservation practices have existed over generations and are transferred from generation to generation orally (Thakadu 1997) and survived as long as there was cultural and political stability (Lebbie

et al. 1996).

1.4. The impact of changes in cultural and political systems on indigenous forests' survival

Cultural and political changes brought antithesis and the evolution of new customs and behaviour toward the conservation of indigenous forest. In most African countries, Christianity and Islam have been the main forces causing change in rival peoples perceptions and causing conflict between worshippers of ancestral spirits and those of Christianity and Islam (Schmidt 1994, Lebbie *et al.* 1996, Mazrui 1986). The impact is that priests, who were the mentors of the sacred forests, have been in several instances converted and have abandoned and shunned their own religion. The conversion of the Bachwezi traditional priests who were vested with the protection of sacred groves dedicated to the Bachwezi gods (Schmidt 1994), and the waning support of the sacred forests in Kenya, are good examples of the impact of political and cultural changes. The outcome is that sacred forests are left without mentors and, therefore, become vulnerable to modern economic practices. The hiking trail (Mabudashango, i.e. cross country) through the Thathe forest is an example of a modern development which nullifies the forest's sacredness and tranquillity. Today, hikers and four-by-four vehicles pass through the holy Thathe forest.

Subsequently, any change in socio-economic perspective, outlook and policies of the local community is bound to have an impact on the resource base (indigenous forests in this case), and in turn on the ecology (Gupta *et al.* 1988). Thus, changes in traditional politics either due to conquest or modernity leave the same impact as religious conversion. New political systems bring new ideologies and this can, to a large extent, initiate the desecration of sacred forests. In Central Africa for instance, the seizure of the Kaija shrines by the Bahida royals brought centralised management of sacred shrines and other forest resources as laws regulating forestry changed (Schmidt 1994). Centralised control neutralised the customary power (which centred around the custodians of indigenous forests) concerning conservation of indigenous forest, rendering them vulnerable to vegetation poachers. The same effect occurred in Mayomba District in Sierra Leone, when the colonial government brought change of management of sacred groves from common property to state controlled areas (Lebbie *et al.* 1996). The latter, however, did not bring significant change in traditional practice due to strong conservative attitudes of the rural communities.

Based on the above exposition, the sustainability of the remaining pristine indigenous forests in Africa, and globally, most of which are mere patches of their original past, hangs in balance as traditional conservation ethics give way to modern socio-economic forces. That the forest's survival is also under threat of these forces which are characteristic of economic development and political changes.

1.5. The case of the Thathe forest

1.5.1. Historical background

Before the 1940's the Thathe forest was inhabited by the Tshidzivhe tribe, especially the Netshidzivhe royal clan. A tribe whose occupation of the forest and categorisation within the Vhavenda ethnic groups is infested with conflicting evidence. Ralushai (1977) accounts that the Tshidzivhe tribe belongs to the Vhangona (Kwinda) people. The Vhangona are considered to be the aborigines of Venda (Grey *et al.* 1969, Marole 1969, Phophi 1956, Ralushai 1977, Stayt 1931). However, a different version about the Tshidzivhe tribe is that it belongs to the Vhatavhatsindi tribe (Linger 1981, van Wyk *et al.* 1980). On the surface, all evidence may appear to be correct depending on the context in which the local history is reconstructed.

The last version (the Vhatavhatsindi tribe) recounts that they came from the Great Zimbabwe after its demise. The period which is speculated to have occurred during the early 15th century (Mufuka 1983). Mutsvairo (1983) asserts that the first migration from Great Zimbabwe could have taken place about the 1420's, and that the final blow attended by drought, civil commotion, and religious strife came about in 1480.

On the other hand oral (reconstructed by G. Nethengwe, *pers. comm* 1997) and documented (Phophi 1956) history about the Vhatavhatsindi tribe invariably suggests that their first place to stay in Southern Africa, south of the Limpopo river, is Tshiavha. Even today the Tshiavha people, who occupy the western and North-western part of

Lake Fundudzi, are the Vhatavhatsindi tribe. Tshidzivhe, Tshiheni, Fondwe, Khalavha, Murangoni and Tshiavha tribal areas share boundaries (see figure 1). The fact that the Tshidzivhe and Tshiavha tribal areas are adjacent to each other, might be convincing evidence on the surface that the two tribes are related. The Tshidzivhe and Tshiavha people are related by marriage (Ralushai 1977).

The Vhangona (Kwinda) version regarding Tshidzivhe people seems to be more relevant on the following basis: (1) The fact that nobody precisely knows when the Tshidzivhe people occupied the Thathe forest, even among themselves, might be attributable to the fact that it was some years immemorial. (2) The Tshidzivhe tribe do not mention that their occupation of Tshidzivhe area occurred by conquest like what the Vhatavhatsindi relate. (3) Available evidence shows that they (the Tshidzivhe people) have been in fact conquered and subjugated to the Masingo of Ha-Tshivhasa (Ralushai 1977). (4) Moreover, a strong connection prevails between the Tshidzivhe religious practices and the Vhangona people around Venda. They keep and revere sacred groves which are claimed to be guarded by dangerous animals and snakes. Their ruins have stone walls, and they are renowned magicians (Ralushai 1977). Similar practices characterise the Netshidzivhe people especially when it comes to Thathe forest.

Examples of the above practices were, and still manifest, in the Vhangona of Vhutanda (or Nevhutanda), who have their sacred grove known as 'Tshitaka tsha Vhutanda' (i.e. the bush of Vhutanda). It is at present invaded and totally surrounded by the Tshivhasa

tea Estate. The Vhangona of Thenzheni have their sacred grove called 'Tshavhadzimu' (i.e. a place of ancestors or gods). Stone walls (or mitsheto) are found in Thathe forest and Tshavhadzimu.

Lastly, in his palynological study, Scott (1987) speculates that Thathe forest could have been occupied by the Iron Age people some 1500 years ago. This period coincides with the 3rd century. These occupants are unlikely to have been the forefathers of the Vhatavhatsindi tribe.

It is at present difficult to provide a correct time frame regarding the first occupation of the Thathe forest. The Vhangona version concerning the Tshidzivhe tribe seems to be more plausible, because of the artifacts (stone walls) which still remain and sacred groves.

1.5.2. Cultural significance of Thathe forest to the Tshidzivhe people

Thathe forest was traditionally valued as 'musanda', that is, the Tshidzivhe tribe's kraal (a place traditionally characterized by a cluster of houses surrounding the chief's '*pfamo*' or palace). Residents of musanda are usually close royal family members and their relatives. It was also a shrine (i.e. a place of worship) of the Tshidzivhe royalty and their followers.

Culturally, the Thathe forest was the center of political and religious activities, hence surrounded with myths and rites. Similar cultural values, though coupled with trading, existed during the glory of Great Zimbabwe (Mufuka *et al.* 1983). Unfortunately, the forest kingdom and its glory went into demise when factions arose for succession to the royal throne. Factions intensified and the crowned chief was killed by a rival group some eight generations ago (Headman Netshidzivhe, *pers. comm.* 1997).

The exact time frame as to when this happened is not available. Assuming that a life expectancy of 45 years prevailed during the preindustrial phase (Rix *et al.* 1986) in this area until the 1970's (i.e. the period when the current headman was enthroned), the speculated time frame could not be less than 360 years since the Netshidzivhe royalty left Thathe forest (eight generations since they left inhabited the forest till the present).

According to oral evidence from headman Netshidzivhe (*pers. comm.* 1997), infighting for the throne within the royal clan continued until the patriarch of the present ruling royal family decided to leave the forest for the hill which today is known as the Netshidzivhe Hill. There they ultimately had their own chief (leader) crowned. Stability then prevailed, and the current headman (M.J. Netshidzivhe) is the seventh at the Netshidzivhe Hill since the demise of the kraal in the forest. The present headman was sworn onto the throne after his father passed away in 1979 (Linger 1981, headman Netshidzivhe, *pers. comm.* 1997).

Thathe forest remains a shrine even after the demise of the kraal in the forest, and despite the conflicts which surrounded the royal clan some years ago. Most of the Tshidzivhe people remained in the vicinity of the forest, whilst some followed their headman. At present, although the cultural value of the Thathe forest seems to have waned with time, it is still the burial place of the Tshidzivhe tribe headmen. There are six headmen known to be buried in the Thathe forest, the last was in 1979 (Linger 1981, headman Netshidzivhe, *pers. comm* 1997).

1.5.3. The period 1940-1994

1.5.3.1. Forced removals

This period, especially 1945-1985 marked a moment of harassment for the people of Tshidzivhe and their neighbouring villages, such are Tshiheni, Khalavha, Fondwe, Murangoni, and Vondo (see figure 2). The government declared Thathe - Vondo, in accordance with the 1936 Native Trust and Land Act No. 18, a reserved land for forestry purposes (Government gazette No 20, Notice No 474, 1947, see also Notice 494 April 1947). This heralded forced removals of the Tshidzivhe tribe and part of their land was seized for timber plantation purposes. The dispossessed land included Thathe forest and its environs. The boundaries of Thathe-Vondo state forest were redefined in 1966 (Government gazette Extraordinary no. 1563, October 1966). Thathe- Vondo means the combined areas of the Thathe forest and Vondo tribal area. Nevertheless, the extent of the state forest includes Thathe forest, part of Tshidzivhe, Tshiheni, Fondwe, Khalavha,

Murangoni, and the whole of Vondo tribal areas (see figure 2). To the Tshidzivhe people, the declaration of Thathe-Vondo for forestry purposes interfered with, and has ended free access to their shrine. Subsequently, the reservation of the area for commercial forestry interfered with the common property tenurial system customary to the local people. Culturally, the Tshidzivhe people were not only dispossessed of their land, but spiritually and politically dispossessed as well.

The response of the local people was unfortunately an uncoordinated resistance, which ultimately failed to counter the government's plan (M.H. Nemudzivhadi, *pers. comm* 1997).

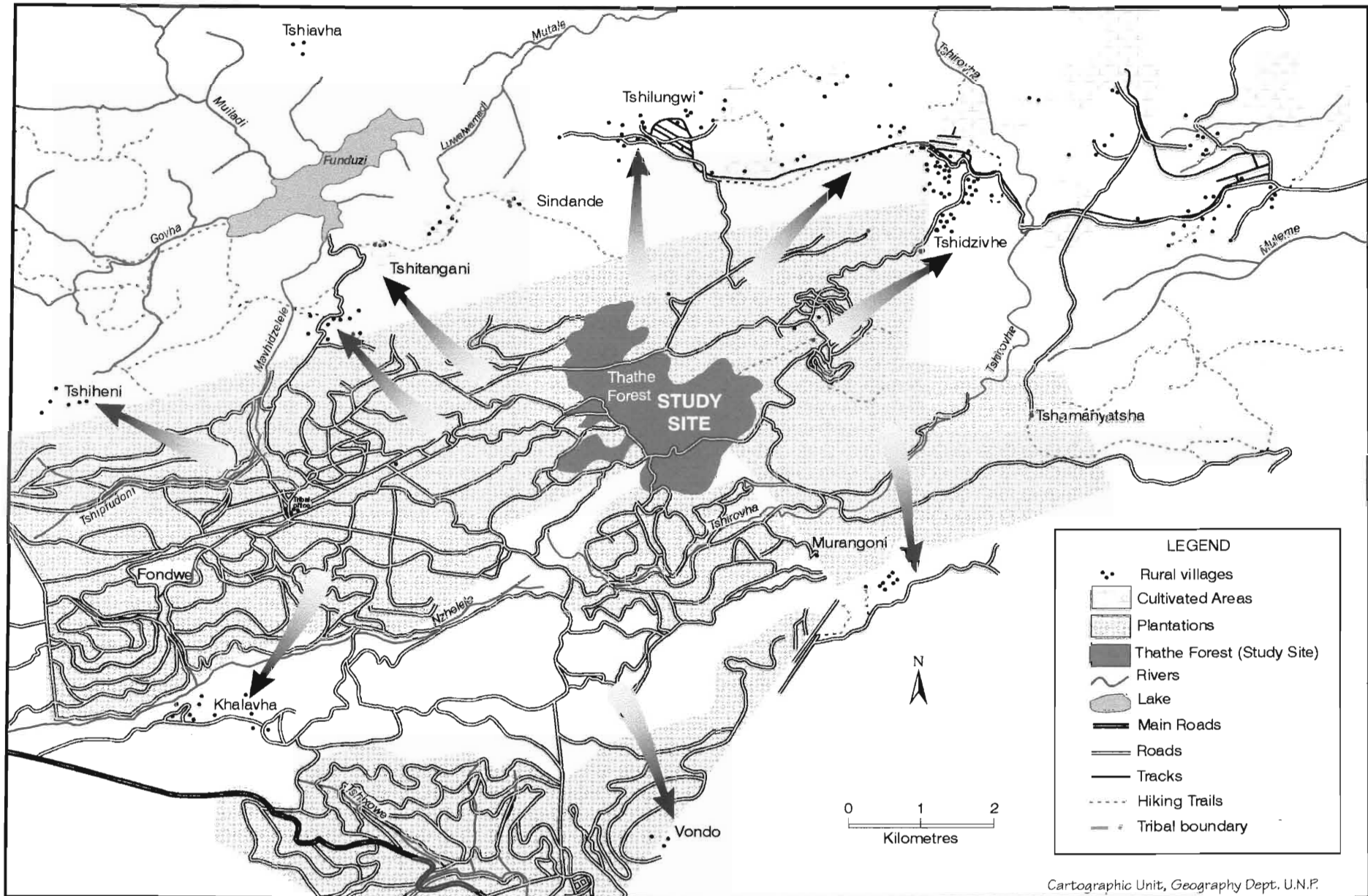
In 1949, the Department of Forestry fell part of the indigenous forest in Thathe forest for timber (pine) plantation. In the process they were asked by headman Netshidzivhe to preserve certain parts of the forest (Linger 1981). Meanwhile people were scattered and settled in neighbouring villages, some went to Sibasa town, but a large number of those who remained settled around their headman, Netshidzivhe. Resistance by the local people took another form, they started veldfires and uprooting pine seedlings during the night, and rumours were spread that the spirits in Thathe forest were avenging the destruction of their shrine (N.M. Negoma, *pers. comm* 1997).

Forced removal did not only cause loss of land to the local communities, but had negative impacts on the environment. As part of the government programme of

'betterment' and rural resettlement, people were concentrated in small areas, which were planned rural villages during the 1950's. People were forced to resettle in these planned rural villages.

The most negative side effect of these rural villages was that the selected areas were environmentally sensitive in that they had few resources, steeper slopes and less fertile soils than those areas from which they had been removed. Meanwhile, life among the rural communities continued in the same pattern as before. They cleared the new areas, collected wood, cultivated the soil and raised livestock. The results were environmental degradation, malnutrition, and other social problems.

Leaders of the Tshitangani ward, which ward is part of Tshidzivhe tribal area, who were scattered around neighbouring tribal areas, negotiated with the then District Administrator for their return to their former land. In the light of the appalling conditions into which they found themselves in, and the resultant deterioration in quality of life, their negotiation were successful.



Cartographic Unit, Geography Dept. U.N.P.

Figure 2 : Map showing Thathe Forest and the surrounding communities (Villages) after the establishment of plantation

1.5.3.2. The return of the Tshitangani people to their former land and change of management of Thathe-Vondo forestry

In 1968, due to the continued pressure exerted by some of the Tshidzivhe people (especially those of Tshitangani ward or *tshisi*) on the Department of Forestry and the District Administrator, an agreement was reached with the Tshitangani people that they return to their land, on condition that they controlled veldfires (Netshitangani, *pers. comm* 1997). Apparently, this agreement was in line with section 16 of the 1968 Forest Act (i.e. Act No. 72, 1968), which empowered the Secretary of Forestry to enter into agreements with the local people for reciprocal assistance. Although almost all of their land was under pine plantation, some of the Tshitangani people went back to their land, which included yet another environmentally sensitive area. That is, the slopes of the Fundudzi sacred lake. These areas have already started to show environmental degradation due to deforestation and soil erosion resulting from uncontrolled down slope ploughing.

In 1973 Thathe - Vondo forestry was transferred to the then government of Venda. In 1976 an agreement was reached between the government section concerned with agriculture and forestry, and headman Netshidzivhe to afforest the eastern part of Thathe forest (i.e. Tshamanyatsha) as an extension of the pine plantation (headman Netshidzivhe, *pers. comm* 1997). In 1979 when Venda was declared an independent homeland. The plantation and the Thathe forest fell under the control of the Department of Agriculture and Forestry. After the 1994 national elections in South Africa, Thathe-Vondo plantation was

transferred to the Department of Water Affairs and Forestry (DWAF).

The extension of the plantation by Tshamanyatsha brought both positive and negative socio-ecological results to Thathe forest and the surrounding areas. On the positive side, some of the local people, including headman Netshidzivhe and Netshitongwe (of Tshilungwi), were employed at the extended plantation.

The negative results however, outweigh the positive ones. These include: (1) some of the perennial sources of water (springs, marshes, etc) dried up due to insensitive planting of pine trees in close proximity to them (headman Netshidzivhe, *pers. comm* 1997). (2) There was a legal restriction to access Thathe forest freely by the local people as it became surrounded by the combined Thathe-Vondo-Tshamanyatsha plantations. Anyone found in the plantations without a written permit is guilty of trespassing (paragraph [c] section 9, subsection 4, and section 19 of the Forest Act 72 of 1968). (3) Some indunas (or *vhakoma*) lost their wards (*zwisi*) and simultaneously lost their political power and influence, consequently, their social status within Tshidzivhe society was also lost. The following *zwisi* (wards) which belonged to the Tshidzivhe tribal area, have according to headman Netshidzivhe (*pers. comm* 1997) been lost to the plantation: Tili, Tshiundeni, Mademeni, Mutambazwira, Vhunyadza, Mangundu or Tshitopeni, Ditumbu, Ngunanguna, and Tshakhanga. More than half of the Tshitangani and Sindande (both Tshidzivhe wards) areas fell under the plantation. Part of Tshidzivhe area lost to the plantation was occupied by 200 families who got no

compensation (headman Netshidzivhe, *pers .comm* 1997). (4) The distance (in both physical and social contexts) became wider between the neighbouring villages. The plantation formed a physical barrier between them, and between different *zwisi* of Tshidzivhe area, as well as between Tshidzivhe and Thathe forest. Communication between the neighbouring communities became difficult as the distance became wider. Social links between relatives suffered because of this barrier. Thus, the reservation of Thathe-Vondo area for forestry purposes resulted in significant changes in socio-cultural policy, and brought in conflict between the Department of Forestry and the local residents.

1.5.4. Current conservation status of Thathe forest

Proposals were made for developing the Thathe forest and the environs for tourism purposes (Benso 1978, Piek *et. al* 1979). The only venture to get off the ground was the hiking trail (Mabudashango hiking trail) that passes through Thathe forest.

The proposed mega-hotel with casino facilities has not been realised due to lack of capital and interest from potential developers.

At present Thathe forest is almost totally surrounded by pine plantations. Whilst the combined Thathe-Vondo-Tshamanyatsha state forest is 8 232 hectares, Thathe forest constitutes 82,7 hectares (Department of water Affairs and Forestry 1997). The size of the original indigenous forest is not known, but the total area covered by the detached remnants of indigenous groves within Thathe-Vondo, including the Thathe forest is 3

807 hectares (DWAF 1997).

In 1990, Van der Waal (1996) surveyed the local people of the nearby Fundudzi valley which shares the same catchment with Thathe forest, about the extinction of animal species (see Table 1). Van der Waal's (1996) efforts for the work he has done in the Fundudzi valley, is skeptically appreciated. Part of the evidence he received from the local people seems to be inconsistent with reality because some of the species he listed are still reported to be present in the catchment and Thathe forest. These include: greyduiker, reddenker, mongoose, slender mongoose, canerat, blackbacked jackal, civet, baboons, vervet monkey, samango monkey, bushpigs, and porcupine (van der Waal 1996, Ramovha, *pers.comm* 1997). The bird species include: crested guinea fowl, golden biskop, purple -crested lourie, and many more (Ramovha, *pers. comm* 1997), while reptiles such as python and leopard tortoise are reported to be found in the Thathe forest (Netshitangani, Ramovha, *pers.comm* 1997).

It is true that most of the animals listed to be extinct are no longer found in the Thathe forest and the environs, but some are still found, though in small numbers. Conflict of evidence in Van der Waal's list also manifest in faunal species which are reported to be extinct as well as being present. This suggests that this area need to be research thoroughly and that an inventory of the floral and faunal species present in the area be compiled.

Thathe forest has a variety of floral species, among which the following are locally endemic species: Mutango (*Faurea saligna*), Mutondo (*Pterocarpus angolensis*), Mutuhu (*Trichilia dregeana*), Mugubiso or Mulathoho (*Croton sylvaticus*), Tshikwatule (*Sapium integerrimum*), Tshiphophu madi (*Apodytes dimidiata*), Tshidima (*Tree fern*), nambi (*Strlitzia alba*), and Mulilo or Phiriphiri (*piper capense*) (Venda Herbarium 1998).

Other floral species found in the Thathe forest include: Mutaululo (*Widdringtonia nodiflora*), Muhuyu (*Ficus capreifolia*), Tshigungu (*Protea arborea*), Muvhula (*Parinari curalellifolia*), Muelela (*Albizia gummifera*), Muluwa (*Acacia ataxacantha*), Muunga (*Acacia karroo*), Munenzhe (*Dichrostachys cinerea*), Mutswiri (*Bauhinia galpinii*), Munembenembe (*Cassia petersiana*), Musese (*Peltophorum africanum*), Mukunda-ndou (*Mundulea sericea*), Muhataha or Mushushaphombwe (*Pterocarpus rotundifolius*), Munukhavhaloi (*Clausena anisata*), Muvhaha (*Calodendrum capense*), Mupala-Khwali (*Antidesma venosum*), Tshipandwa (*Maytenus senegalensis*), Lutadzi (*Catha endulis*), Mukhalu or Mutshetshete (*Ziziphus mucronata*), Murumbula-Mbudzana (*Rhoicissus revoilli*) (Linger 1981, Venda Herbarium 1998). Some of the above are considered to have medicinal values to the local people, *Piper capense*, for instance, is used for curing mouth sores, while *Strelitzia alba* is used for making baskets. Other plants used in medicinal healing are *Protea arborea* and *Mundulea sercea*.

Three structures are responsible for conserving Thathe forest: (1) The Department of Water Affairs and Forestry (DWAF) under which the state forest falls. (2) Nature

conservation section of the DWAF, dealing especially with wildlife conservation. (3) The Netshidzivhe royal clan who are the traditional custodians of Thathe forest, especially that part of the forest known as the 'Holy or sacred' forest. Unauthorised entrance into the forest is strictly prohibited. To visit the forest, permission must be obtained from Thathe-Vondo forestry office and headman Netshidzivhe jointly. The Collection of wood, fruit, plants, and hunting of animals is prohibited.

The Mutale river, which supplies water to thousands of people and irrigation schemes in the Mutale river valley, originates from the Thathe forest. Moreover, Thathe and the environs form the upper catchment area of important rivers supplying water to the Vhavenda people. These are the Nzhelele, Tshirovha, and Tshinane rivers, and some of the tributaries of the Mutshindudi river. Most of the water carried in these rivers drains into the Luvuvhu (Levubu) river which, in turn, debouches into the Limpopo river. This indicates how important the Thathe-Vondo area in the Northern Province is, and the ripple effect that the northern and north-eastern part of South Africa could suffer, should this important catchment be destroyed.

Table1: Animal species reported to have disappeared in the Fundudzi valley. Source: van der Waal (1996).

Species		Frequency in questionnaire
English	Tshivenda	n=68
<u>Mammals</u>		
leopard	nngwe	10
kudu	tholo	10
hippopotamus	mvuvhu	8
grey duiker	ntsa	8
red duiker	phiti	7
black backed jackal	phunguwe	6
lion	ndau	6
warthog	nguluvhe-daka	5
impala	phala	4
mountain reedbuck	davhu	4
klipspringer	ngululu	3
elephant (last in 1970)	ndou	3
spotted hyaena	phele	3
cheetah	didingwe	1
white rhinoceros	tshugulu	2
water buck	zwirololo	2
porcupine	nungu	2
cane rat	tshedzi	1
dassie	mbila	1
white-tailed mongoose	mutshere	1
slender mongoose	lukhohe	1
dwarf mongoose	lutswikita	1
<u>Birds</u>		
crested guinea fowl	khanga	2
black eagle	nnzhu	1
redbilled quelea	ndiane	1
purplecrested lourie	khurukhuru	1
rock pigeon	liivha-thavha	1
green twinspot	phinimini	1
golden bishop	thongola	1
<u>Reptiles</u>		
black mamba	dyambila	3
leopard tortoise	tshibode	2
python	tharu	1
crocodile	kwena	1
water monitor	kwashe	1
<u>Amphibians</u>		
bullfrog	hunda	1

1.6. Conceptual framework of the study

Given the cultural, econo-political and conservation values of indigenous forests in the Third World in general, and of the Thathe forest in particular, coupled with the history of forced removals, the following preconceived issues form the basis of this investigation:

1. Some members of the communities surrounding the Thathe forest have lost access to their customs and culture due to forced removals;
2. Traditional belief systems of some members of the surrounding communities have been diluted due to the influence of the urban life style, contact with other religions, and the impact of formal education;
3. The Thathe sacred forest is almost surrounded by pine plantations, communities around Thathe forest (especially the Tshidzivhe community) no longer have free access to their shrine, and consequently no longer pay allegiance to the spirits in the forest and do not care about its survival;
4. Traditional conservation practices which saved Thathe forest for centuries have disappeared as cultural rituals are no longer performed;
5. The surrounding communities do not have sufficient economic and spiritual resources following land dispossession;
6. There is potential conflict and differences in conservation values concerning Thathe forest between;

- (a) Those who remained behind and those who left and returned;
 - (b) those who received formal education and those who did not;
 - (c) the school pupils (youth), middle-aged and the elderly;
 - (d) those who are benefiting from the plantation through employment and otherwise, and those who are not deriving any benefit;
7. With the Land Claims Commission in place (ANC 1994), the surrounding communities are likely to lodge a claim for land restitution (according to headman Netshidzivhe, the Netshidzivhe clan has already done so); and;
8. Should their land be restituted, the future of Thathe forest hangs in the balance. The influx of the people to Thathe forest, like in the case of Dukuduku state forest near St. Lucia, in Kwazul/Natal and other formerly protected indigenous forests, is likely to yield an ecological and environmental disaster (Yeld *et al.* 1992). People may colonise the forest, hunt animals and clear it for settlement and/or cultivation.

Given the above issues, the primary question to be addressed by this study is: With the socio-economic and political changes associated with South Africa in general and Thathe forest and the environs in particular, do the rural communities surrounding Thathe forest still uphold their traditional (cultural) values toward the forest? Secondary research questions concerning perceptions and attitudes of the local communities toward the forest are:

1. Is there a difference in perception and conservation attitude between school pupils, middle-aged, and elderly people?

2. Are there attitudinal differences between males and females about conserving the forest?
3. Does formal education influence perception and attitude toward conserving Thathe forest?
4. Does residential area influence perception and attitude toward conserving Thathe forest?

These questions inform the ultimate aim and objectives of this investigation.

1.7. Aims and objectives of the study

The ultimate goal of this study is to establish a foundation on which a sound conservation policy regarding indigenous forest use by the rural people in general, and to the Thathe forest in particular may be formulated. This foundation could provide the potential rural developers, decision-makers, conservationists, ecologists and administrators with a perspective on integrating indigenous resource conservation ethics and conventional resource base management systems. Based on these, the objectives of the study are to assess if there is an association between age, sex, educational background, and area of residence regarding the respondent's attitude toward conserving Thathe forest. This will be addressed in chapter 3 of the study.

CHAPTER 2

METHODOLOGY

2.1. Introduction

The primary and secondary research questions outlined in the previous chapter the researcher to embark on a process of obtaining the relevant data based on people's perceptions and hence, their attitude toward the forest. The use of conventional software packages enabled the researcher to accurately determine people's attitude as well as to establish the relationships between the different factors embodied in the stated research questions (for instance, the relationship between gender and educational categories). The collection of data was restricted to people's perception of the forest with respect to culture, economy and politics.

Different factors determine the choice of methods and tools for gathering data. These include: the nature of information required for a given project (e.g. experimental research will need data to be collected differently from surveys), socio-economic and political constraints (e.g. unrest in a study area due to political instability may render data collection difficult) as well as resources (time, finance and expertise) available to the researcher. Smith (1995) claims there are only three methods of collecting data for tourism analysis: direct observation, examination of administrative records, and social surveys. Opoku (1994) provides a wide range of research methods for gathering data

on indigenous knowledge systems. These include participatory appraisal, communal or public gathering (i.e. social gatherings in rural areas like celebrations, *Zwivhidzo* (which in Venda, refers to special meetings called by the chief or headman), and annual thanks givings gatherings), group discussions, participant observation, structured or unstructured interviews, focus groups, key informants, community workshops, questionnaires, use of documentary data, public records, case studies, life history (i.e. a historical account of an informant about his or another person's life) and panel discussions. A single research topic may employ several methods and tools, or a triangulation approach. A combination of thought out research techniques and tools is more likely to yield reliable data. In other words, there is no single method that can claim perfection in data collection. Since the focus of this study is on perceptions and conservation attitudes of the rural people toward an indigenous forest, survey methods were used to cover a wide range of issues.

Surveys are a combination of research methods used to collect information on attitudes, opinions, and pieces of information about the conditions of life (Babbie 1992). In recent years survey methods have been used to obtain information on human population distribution, attitudes and behaviour (e.g. demographic data, voting, migration, education and occupational aspirations, as well as friendship networks (Peil 1982). Surveys were ideal as this study is partially exploratory, descriptive, and explanatory. Above all, surveys are excellent vehicles for measuring attitudes in a large population Babbie (1992). In tribal areas such as Tshidzivhe, Tshilungwi, Tshitangani, and

Sindande where there are no post offices and telephones, direct interviews ('person-to-person' discussion) are the most efficient methods of data gathering. A variety of methods and tools were used to capture data, and the process was divided into two phases, 'preliminary' and 'full-scale' surveys or data collection.

2.2. Methods

2.2.1. Preliminary survey

Over a six week period, starting in the last week of July 1997, the exploratory phase was conducted to (1) determine the viability of study area, (2) gain an insight to the conservation issues surrounding Thathe forest and (3) obtain attitudes of the adjoining communities towards conservation. The Thathe forest and the environs have no administrative databank (organised and readily available data) relevant to this investigation. Semi-structured interviews were used. These comprised both closed and open ended questions. Closed questions are questions which provide the respondent with preconceived answers (Haralambos *et al.* 1991). Such questions do not allow for probing and prompting (i.e. helping the respondent toward an answer), or deviation from the given answers (Haralambos *et al.* 1991). The following are preconceived answers to the question "how do you view the Thathe forest?"

(1). It is a sacred forest. (2). It is an area of conservation importance. (3). It is an ordinary forest. (4) It should be used and converted to agricultural and communal use The above example does not allow the interviewee to give his/her own view or an explanation. On

the other hand, open questions allow flexibility. The respondents could air their points of view about the forest. The respondents were for instance, required to make value judgement about Thathe forest. Open questions were based on leading statements like, 'there are different perceptions concerning Thathe forest. Some people are of the opinion that it should be cleared and be allocated for settlement purposes, while others think that it should be left as it is. What is your opinion regarding the Thathe forest?'

Closed questions are also called structured questionnaires as they are designed to collect specific information. Open questions elicit general but personal free responses and as such are referred to as unstructured interviews (Baily 1987), whereas a combination of both provides semi-structured interviews.

Closed questions were used to obtain specific information, while open questions allowed the respondents to air their own views and gave the researcher an opportunity to probe for more information when needed. The data from the pilot study enabled the researcher to:

1. define the study area;
2. identify key informants;
3. inform the stakeholders about the purpose of the study;
4. establish the historical background of the study area, and;
5. Gather demographic information about the population and minimise potential problems in the final phase of the study.

2.2.1.1. Key informants

The *magota* (headmen) and *vhakoma* (*indunas*), that is traditional leaders like headman Netshidzivhe, Netshitongwe (of Tshilungwi), Nesindande and Netshitangani, and locally influential people of communities around Thathe forest and the environs, as well as persons with specialised knowledge relevant to the subject were consulted. Tshamanyatsha forestry officers also co-operated.

These people were individually interviewed using semi-structured interviews, which acted as a guide for the researcher to ask similar questions to the respondents and to remain focused. They were designed to capture specific as well as general information.

Probing for more information was possible when situations arose, to get more clarity from the sample. It was important during this initial stage to source for specific information while allowing the respondents to air their own views. “Snowball sampling” (Babbie 1992, Peil 1982) was used in this context. After identifying and interviewing the first key informant, the latter was asked to suggest other informants deemed to have more or specialised knowledge about the subject in question. This method worked well especially when extracting historical and cultural data about the study area.

The Key informants technique was prioritised as the first step in data collection and therefore heralded subsequent methods. It would have been impossible to organise group interviews without initial contact having been established with the traditional and locally influential leaders. An important issue to note is that the “intruder factor” (i.e. the

feeling within a society of being intruded by an outsider and being spied on) could have prevailed amongst members of the communities and would have rendered data collection difficult. The technique was also conducive for initiating (or grooming) the researcher to membership of the surrounding communities (i.e. through their leaders and being associated with them), and thus instilling trust to the people.

2.2.1.2. Group interviews

Three group meetings were organised. One with the standard 9 school pupils of Thathe Secondary school, another with the Tshamanyatsha plantation officers and compound residents, and the last with Tshitangani residents.

The standard nine (grade 11) pupils were purposely chosen to represent Thathe Secondary school on the basis of the following: (1) standard nine constituted a level within the formal schooling system that is conducive to intercept knowledge related to environmental awareness and wildlife conservation, gained from schooling activities.

All schooling grades except standard ten (grade 12) are represented in this level since the respondents have passed through all the preceding grades. (2) Access to the standard ten pupils who were initially targeted for interviews was denied on the ground that they were being prepared for the final matriculation examinations. The whole standard nine class comprised 52 pupils who constituted 22.6% of Thathe Secondary school population (i.e. 230 pupils).

Gay (1992) suggests the following to be the acceptable minimum sample size: 10% of the total population for descriptive research, 30 subjects for correlation research, and 20% for small population research. On the strength of these suggested minimum sample sizes and time constraints, 22,6 % in this study justifiably represents the attitudes of Thathe Secondary school population. Forty two percent of the total number of each group (ward or area) was considered an appropriate and a representative sample for this research undertaking, especially for administering the structured questionnaire. It should also be pointed out that the aim of interviewing standard 9 pupils during the preliminary phase was descriptive and not meant to establish perceptual and attitudinal relationships among school pupils about Thathe forest.

The interview was conducted over a period of one and half hours. The standard 9 class was organised into four groups and they were constituted as follows:

1. the Tshidzivhe royal members (clan);
2. Tshidzivhe non-royal members;
3. pupils from Tshilungwi and elsewhere, and;
4. children of parents employed at Thathe-Vondo forestry.

The purpose of this categorisation was two fold. (1) To assess whether social and/or family status, residential area, and benefits derived from the Thathe-Vondo plantation, have an impact on pupils' attitudes towards the Thathe forest. (2) To compare the pupils' perceptions and attitudes towards Thathe forest with those of their parents.

The Tshamanyatsha group was intended to evaluate whether forest officers, who police and enforce conservation regulations at Tshamanyatsha plantation, and the labourers share the same values concerning indigenous forests.

As far as the Tshitangani group is concerned, I wanted to evaluate the perceptions and attitudes of the people who, after forced removal, have returned to their land, as to whether they still attach cultural values to the forest. The majority of employed people at Tshitangani are migratory labourers and only one man is employed at Thathe-Vondo commercial forestry. Similarly, their attitudes towards the Department of Water Affairs and Forestry and its parastatals (conservationists and forestry officers) could provide valuable descriptive and explanatory information concerning the sustainability of the Thathe forest.

2.2.1.3. Field survey

Field observation of the forest and clues for forest use by local people was undertaken in the company of headman Netshidzivhe and Mr Ramovha (an extension officer), both attached to Tshamanyatsha forestry offices. A notebook, pen and an optical camera served as tools for data recording purposes. The field survey involved walking through the forest under the guidance of headman Netshidzivhe, observing clues for forest use by the local people which included stumps, leaves, bark, fruits, roots, honey harvesting and snares. According to Babbie (1992), if a person wants to know about something, that person must go where the thing is and watch it. He further indicates that field

observation is not only a data collecting activity, but a theory generating activity as well. The argument being that a well defined hypothesis is formulated based on field observations.

Apart from observation and recording, the researcher got some lessons from headman Netshidzivhe about some cultural rituals performed during the burial of a deceased headman. Consequently, this technique combines participatory rural learning (PRL) with observation and learning experiences.

2.2.1.4. Documentary survey

In order to corroborate data obtained from key informants "inadvertent primary sources" (Bell 1993) were surveyed. This refers to data from local and central government structures in their daily working activities. It included legislative (Government Gazettes, and legislation) reports on implementing statutory provisions and regulations, and local authorities' administrative records (annual reports at Thathe-Vondo forestry and Zoutpansberg District offices of the Department of Water Affairs and Forestry). Moreover, links were established with the University of Venda library, the archives and State library in Pretoria. Operational information about DWAF's structures (i.e. regional offices), and historical information was gathered through these links.

Data gathered during the exploratory phase was used to compile a structured questionnaire. This instrument (questionnaire) was used for collecting data for analysis and discussion. The information also enabled the researcher to demarcate the study

area (see figures 1 & 2).

2.2.2. Structured interviews (post-preliminary phase)

The preliminary survey (see 2.2.1) was critically important in the preparation of a structured questionnaire (Appendix 1) and delimitation of the study area. The questionnaire was the main instrument for collecting data during the last phase. Fixed response questions were used to extract information about the respondent's attitudes towards specific demographic, conservation, economic and recreational issues. These issues, perceived as socio-ecological factors by Weber (1987), have an impact toward the sustainability of indigenous forests in Africa, and globally. Interviewees were channeled towards choosing predetermined answers based on preconceived potential behaviour of the local communities. Whilst acknowledging the limitations of fixed response questions in extracting information about the respondent's value judgement of an issue, they allow for easier data interpretation, analysis and uniformity (May 1993, Infield 1987, Peil 1982).

'Trick questions' (Infield 1986a) were included to validate and/or invalidate responses (respondents). These were included in the questionnaire purposely to countercheck whether the interviewee's responses could be relied upon. This procedure enabled the researcher to render 17 questionnaires of the original 218 questionnaires invalid.

The study area comprised Tshidzivhe, Tshitangani, Sindande, Tshilungwi, and Thathe

forest (figure 1). Sindande and Tshitangani are both wards (zwisi in Tshivenda) of Tshidzivhe tribal area, while Tshilungwi is independent of Tshidzivhe. However, both fall, under the Tshivhase territorial authority.

2.2.2.1. Sampling procedure

The subsequent sample-sizes were deemed appropriate for the purpose of this investigation. Gay's (1992) suggestion (refer to 2.2.1.2) acted as a guideline.

(a) Standard 9 pupils of Thathe Secondary

A list of standard 9 (grade 11) pupils was copied from their class register. Forty two percent (n=21) of the 52 pupils (science and general subjects) was randomly selected for the study. A table of random numbers (Mulder 1993) was used for selection..

(b) Households

The village of Sindande composed only of ten households. In view of the small number, each household was included for the study (100%). Name-lists of pupils from local schools were used to randomly sample the respondents. Forty-two percent of the accessible households population was randomly sampled for both Tshidzivhe and Tshilungwi. That is forty- two percent of 270 and 150 households respectively, though in each instance 5 and 3 questionnaires were finally invalidated respectively. At Tshitangani, fifty percent of the total 20 households was randomly sampled. However, like in the case of Sindande, 2 questionnaires were invalidated and 8 were used for analysis. It should be pointed out that Tshamanyatsha was excluded from structured

interviews as it was deemed not to constitute a true community. It is composed of employees from different tribal areas, and of different cultural backgrounds. Consequently, they are not permanent residents this area, and their inclusion is likely to render perceptions biased. Table 2 shows the total household population per village, the sampled households, the number of invalid and valid questionnaires. The standard 9 pupils of Thathe Secondary school do not constitute a village, but was included for purposes of comparing their perceptions to those of their parents.

Table 2. Samples of the communities around Thathe forest.

Village (community)	population	sampled	invalid	valid
Sindande	10	10 (100 %)	6	4
Thathe Secondary (not a village)	52	22 (42 %)	1	21
Tshidzivhe	270	113 (42 %)	5	108
Tshilungwi	150	63 (42 %)	3	60
Tshitangani	20	10 (50 %)	2	8
TOTAL	502	218 (43.4)	17	201

2.2.2.2. Data recording

Responses were recorded by ticking the code category or the space provided on the questionnaire as the respondent made a choice during interviews. The collected data

was organised and subjected to statistical analysis in order to compare and establish the existence of relationships between the fore-stated factors (variables). This consequently, enabled the researcher to establish the basis for critical arguments and discussions with respect to attitudes of the local people towards the Thathe forest. Such arguments and discussions will be detailed in the subsequent chapter.

CHAPTER 3:
PERCEPTIONS AND ATTITUDES OF THE LOCAL COMMUNITIES
TOWARD THE THATHE FOREST

3.1. Introduction

Attitudes toward conservation of indigenous forests in rural African communities can be categorically analysed by separating conservation systems or trends into the indigenous (traditional) and non-traditional management systems (Ntiamoa-Baidu 1992, Thakadu 1996). Traditional indigenous forest conservation systems are embodied in customary laws (Dwomoh 1990). Entrenched in customary laws are religious and cultural practices and ethics acting as guidelines for managing indigenous forests. As a consequence, some indigenous forests in African countries like Ghana, Kenya, Sierra Leone, and even in South Africa are traditionally conserved as sacred or fetish forests (Dwomoh 1990, Ntiamoa-Baidu 1992, Dorm-Adzobu 1991, Lebbie *et al.* 1995, Wilson 1980, Ralushai 1977). Sacred or fetish forests were, and still are in most cases, conserved out of respect for the dead and the belief that ancestral spirits inhabit them. Certain animals, birds or plant species inhabiting them are also considered to be sacred. In most African communities, totems, taboos, and superstitions play a significant role in wildlife conservation (Dwomoh 1990). The Boaben-Fiema Monkey sanctuary in Ghana is a sacred forest conserved because of the presence of Black and White Colobus and Mona monkeys. The Boaben and Fiema people identify their spiritual ancestry with these animals (Dwomoh 1990). A further example is a leopard which is a totemic symbol

for the Akan people (Dwomoh 1990).

Although sacred forests are conserved for social, rather than for their biodiversity or ecological significance, cultural ethics play a significant role in maintaining their survival.

The implication is that the attitudes of the rural African communities towards conserving indigenous forests, are positive, although non-traditional, modern conservation management trends can create a negative attitude.

Non-traditional (modern) conservation systems initiated by European settlers during the colonial period, were mostly in conflict with indigenous people (Curruthers 1995) as conventional conservation regulations were imposed upon them. Rural people had to abide by the restrictive rules. Violation leads to criminal or charges. In certain places modern methods of conservation of wildlife (indigenous forests included) meant forced removals and land dispossession, followed by restriction of access to the resource base as well as to ancestral shrines. The Kruger National Park in South Africa (Curruthers 1995), and the Amboseli National Park in Kenya (Lindsay 1987), though related to animal conservation, are examples of wildlife resource management by the state where local people have been removed and thereafter have been restricted as far as entrance to, and access to, resource use and their ancestral graves. The non-traditional approach to wildlife conservation was, and still is, more protective of wildlife and therefore excludes local communities from resources. This approach to the conservation of indigenous forests in particular, caused conflict between

conservationists and traditional rural communities (Curruthers 1995). Poaching, veldfires, fines and imprisonment of trespassers became common. It is hardly surprising, therefore, that the perceptions and attitudes of rural African communities are often negative towards protected or conserved areas. The communities feel that they have no share or ownership rights in protected or conserved areas (Curruthers 1995, IIED 1994).

Communities around the Thathe forest were also confronted with interventions by South African government. They were forced out of the land close to the indigenous forest and away from their ancestral area to make way for pine plantations. In this study the attitudes of the communities around the Thathe forest were thus expected to be negative toward Thathe-Vondo plantation and the institution (DWAF) which polices the plantation. The researcher further expected the attitudes of the communities towards conserving Thathe forest, which was highly revered by the Tshidzivhe people as sacred, to be more negative than before, following government intervention in the then social setup of the rural people around Thathe forest. The following issues are referral points for the analyses to follow:

1. Many of the middle-aged people work in urban and industrial areas, while households are occupied by the elderly, women and children.
2. The indigenous forest is totally surrounded by the plantation and access is restricted by law, except for members of the Netshidzivhe royal clan who have free access.

3. Since the forced removal, Christianity and formal education might have devalued the customary laws of the people to an extent that they no longer revere the forest as they used to.
4. Women are the main collectors of fuelwood in Venda, and particularly around Thathe forest. The issue to be investigated is, is there attitudinal difference between men and women regarding conserving Thathe forest?
5. Most of the current youth have no direct contact with, and/or interest in the spirits in Thathe forest, consequently perceptual and attitudinal difference between age classes, the youth, middle-aged and the elderly regarding conserving Thathe forest is worthy of attention.

In this chapter special attention is given to questions about the effect of the respondent's age, sex, education and residence on the perceptions and attitudes of the local communities toward the conservation of the Thathe forest.

Age-based differences in response are critically important in this investigation since three age groups; the elderly, the middle-aged, and youths were all affected differently by the forced removal. The surviving elderly people (pensioners) directly suffered the forced removal, while the youths and most of the middle-aged did not. Most of the middle-aged are employed in urban centres such as Sibasa-Thohoyandou, Louis Trichardt, Pietersburg and the Gauteng areas, all of which are some distance from the forest. As a consequence households are occupied predominantly by the elderly and

children. The issue at stake, and to be analysed, is do all age groups still uphold and support the traditional values of the Thathe forest?

Another factor of critical importance is the gender issue. The male-female ratio is considered an important aspect for analysis in this investigation since it is affected by migratory labour dynamics. Most economically active men are migratory labourers and therefore remain in urban areas most of the time. As a consequence, the households around Thathe forest are dominated by a large number of women, children, youths and elderly people, except during the festive seasons (Easter and Christmas recesses). Moreover, women in rural communities are responsible for collecting wood for cooking and heating, and generally run the household. Women carry the burden of responsibility for maintaining the household and are more likely to value the resources offered by the Thathe forest.

Formal education is the third factor of the analysis, for it is paradoxically regarded both as an agent of social change and as a means of conserving customs. In order to investigate the impact of education toward conservation attitudes of the Thathe forest, responses of interviewees of different educational backgrounds (i.e. primary, secondary and tertiary education) were analysed to evaluate the effect of formal education.

Finally, residential area or territorialism can play a cohesive role in consolidating a general attitude toward issues such as conservation and control of the forest. People

inhabiting the same tribal territory usually have the same cultural roots, and are more likely to unite in support of their culture or customs than those of different territories. The residential factor was included the conservation attitude of tribes living in localities surrounding the forest.

The attitudes of Tshidzivhe tribe (which includes both the *zwisi* or wards of Tshitangani and the Sindande), are compared with those of the Tshilungwi tribe.

People's perceptions and attitudes were coded as binary data (i.e. on the basis of either their negative or positive responses to the questionnaires). The rationale and basic premise investigated here is that the survival and sustainability of any pristine indigenous forest, and that of the Thathe forest in particular, is contingent upon the strength of positive conservation practices and the sociological factors characteristic of a particular community (Weber 1987). Highly structured questionnaires were used to interview individuals (see Chapter 2 and Appendix 1) and the analysis that follows is of independent data points or counts, collected by means of 201 questionnaires. Chi-Square tests (χ^2) are used throughout to analyse these data, for they are good for determining associations (relationships) with respect to count data. Degree of freedom, critical factor and calculated factor, determine whether the difference (association) is significant or not. Consequently, these tests were considered suitable in this analysis, to establish whether perceptions of the local communities toward conserving Thathe forest were constant or not.

3.2. Results

3.2.1. Data analysis and results

The SAS and Minitab statistical packages were used for organising, analysing, and presenting of the results of the 201 questionnaires. Cross tabulations were done and Chi-Square (χ^2) statistical tests used to assess the count data (Norusis 1991, Siegel *et al.* 1988). This statistical technique can establish if there was any relationship between categories of age, sex, education and place of residence. In other words, it was intended to determine whether the respondent's age, sex, level of education, or place of residence has an influence in perception and attitude toward conserving Thathe forest. The subsequent sections are the results of such analysis.

3.2.2. Local people's perceptions of Thathe forest

The majority of the respondents 76.6% (n=154) across the gender categories regarded Thathe forest as sacred, while 20.4% (n=41) said it was an area of conservation importance. These are likely to be people who are historically attached to the forest. Very few people 2% (n=4) viewed the forest as being no different to any other forest. One percent (1%, n=2) believed that it should be converted for purposes of agriculture and communal use. The latter respondents were excluded from the subsequent analysis. There was a significant difference among the age groups in their perception of Thathe forest ($\chi^2=9.29$, df =3, $P<0.03$; Table 3), with the youth, middle-aged, and pensioners more likely to perceive the forest as sacred, in contrast to most of the

working youth (11.9%, n=24) who felt it was of more conservation value than it was sacred. This was unexpected, for the working youth are quite modern in outlook and did not have direct contact with the spirits in the forest.

Nevertheless, these youths were more likely to have lower educational experience (39.8%, n=80, Table 4), males and females (Table 5), who frequent the forest for cultural rituals, especially those of the Tshidzivhe area (Table 6) and those who play 'Tshikona dance' (a Venda traditional dance exclusively used for the installation of kings, chiefs or headmen) during the induction and burial of the Tshidzivhe chiefs. After combining and/or, excluding cells with less than 5.0 expected counts from the subsequent analysis, there was no significant difference across people of different educational backgrounds ($\chi^2 = 0.73$, $df = 2$, $P = 0.7$), nor between males and females ($\chi^2 = 0.02$, $df = 1$, $P = 0.9$), nor between the main residential areas of Tshidzivhe and Tshilungwi ($\chi^2 = 0.3$, $df = 1$, $P = 0.6$)

Table 3. Perception of Thathe forest across the age classes ($\chi^2 = 9.29$, $df = 3$, $P = 0.03$).

Question	Youth	Youth-working	Middle-aged	Pensioners	Total
1. Sacred forest	18	0	26	55	154
2. Ordinary forest	0	2	2	0	4
3. Conservation value	2	24	8	7	41
4. Converted to agriculture	0	0	2	0	2
Total	20	81	38	62	201

Table 4. Perception of Thathe forest across educational backgrounds ($\chi^2 = 0.73$, df = 2, P = 0.7)

Question	No education	Primary	Secondary	Tertiary	Total
1. Sacred forest	4	76	48	26	154
2. Ordinary forest	0	1	1	2	4
3. Conservation value	0	23	10	8	41
4. Converted to agriculture	1	1	0	0	2
Total	5	101	59	36	201

Table 5. Perception of Thathe forest across sex ($\chi^2 = 0.02$, df = 1, P = 0.9)

Question	Females	Males	Total
1. Sacred forest	92	62	154
2. Ordinary forest	1	3	4
3. Conservation value	24	17	41
4. Converted to agriculture	4	0	2
Total	119	82	201

Table 6. Perception of Thathe forest across residential areas ($\chi^2 = 0.30$, df = 1, P = 0.6)

Question	No education	Primary	Secondary	Tertiary	Total
1. Sacred forest	4	76	48	26	154
2. Ordinary forest	0	1	1	2	4
3. Conservation value	0	23	10	8	41
4. Converted to agriculture	1	1	0	0	2
Total	5	101	59	36	201

3.2.3. Use of Thathe Forest for cultural purposes

Although 76.6% (n=154) of respondents regarded the forest as sacred very few actually used the forest for cultural purposes (13.4%, n=27; Tables 7,8,9 &10). Most people either did not use the forest or did not use it for cultural purposes (86.6%, n=174).

There was, however, a significant difference among the age classes in their use of the forest ($\chi^2=18.4$, $df=3$, $P<0.00$; Table 7). More youths and less middle-aged respondents used the forest for cultural purposes than expected. Part of the initiation ceremony for youths is probably conducted in the forest therefore these results are not surprising. There was no significant difference between the sexes in the cultural use of the Thathe forest ($\chi^2=0.795$, $df=1$, $P<0.37$, Table 8). There was a significant difference in the cultural use of the forest among respondents with different education levels ($\chi^2=13.3$, $df=2$, $P<0.01$, Table 9). Those respondents with at least a secondary school education were more likely to use the forest for cultural purposes, while those with a tertiary education did not use the forest for cultural purposes at all. This difference may relate to the fact that more educated persons are less likely to hold on traditional beliefs, or the more educated persons tend to live away from the area and were thus under sampled ($n=36$). Persons living in one Tribal area were no more likely to use the forest than persons from another Tribal area ($\chi^2=3.99$, $df=3$, $P<0.26$, Table 10). This is interesting in the light of the different histories of removal of people from the two main Tribal areas.

Table 7. Use of Thathe forest for cultural purposes by the age classes ($\chi^2 =18.8$, $df = 3$, $P<0.001$).

Question	Youth	Youth working	Middle-aged	Pensioners	Total
1. Spiritual worship	1	2	0	1	4
2. Installation of headmen	7	7	0	6	20
3. Youth initiation	0	0	0	3	3
4. Others	12	72	36	54	174
Total	20	81	36	64	201

Table 8 Use of Thathe forest for cultural purposes by sex ($\chi^2 = 0.70$, df 1, P = 0.37)

Question	Females	Males	Total
1. Spiritual worship	2	2	4
2. Installation of headmen	10	10	20
3. Youth initiation	2	1	3
4. Others	105	69	174
Total	119	82	201

Table 9. Use of Thathe forest for cultural purposes by educational background ($\chi^2 = 13.3$, df =2, P =0. 01)

Question	No education	Primary	Secondary	Tertiary	Total
1. Spiritual worship	0	3	1	0	4
2. Installation of headman	1	5	14	0	20
3. Youth initiation	1	2	0	0	3
4. Others	3	91	44	36	174
Total	5	101	59	36	201

Table 10. Use of Thathe forest for cultural purposes by residential area ($\chi^2 = 3.99$, df =3, P =0.26)

Question	Tshidzivhe	Tshilungwi	Tshitangani	Sindande	Total
1. Spiritual worship	3	1	0	0	4
2. Installation of headmen	16	3	1	0	20
3. Youth initiation	2	1	0	0	3
4. Others	102	60	7	5	174
Total	123	65	8	5	201

3.2.4. Control of the local use of Thathe forest

Most respondents (66.2%, n=133) are of the view that there should be some control over the use of the forest by local people, that is, local people should be excluded from the forest. There was no significant difference among the age-classes in the attitude to limiting local access to the forest ($\chi^2 = 6.4$, df=3, P<0.1; Table 11). It appears that the

That the forest is still highly revered by the people living around it. Similarly the sexes did not differ in their attitude toward exclusion of people from the forest ($\chi^2=0.15$, $df=1$, $P<0.70$; Table 12), nor did the education level of the respondent affect the general opinion ($\chi^2=1.06$, $df=2$, $P<0.60$; Table 13). In both residential areas (Tshidzivhe and Tshilungwi) 66% of respondents believed that access to the forest by local people should be limited ($\chi^2=0.99$, $df=1$, $P<0.80$; Table 14).

Table 11. Control of the local use of Thathe forest by age classes ($\chi^2=6.4$, $df= 3$, $P=0.1$)

Response	Youth	Working youth	Middle-aged	Pensioners	Total
1. No	6	35	12	15	68
2. Yes	14	46	24	49	133
Total	20	81	36	64	201

Table 12. Control of the local use of Thathe forest by sex ($\chi^2=0.15$, $df =1$, $P =0. 70$).

Response	Females	Males	Total
1. No	39	29	68
2. Yes	80	53	133
Total	119	82	201

Table 13. Control of the local use of Thathe forest by educational backgrounds ($\chi^2=1.06$, $df =2$, $P =0.60$)

Response	No education	Primary	Secondary	Tertiary	Total
1. No	1	32	23	12	68
2. Yes	2	69	36	24	133
Total	5	101	59	36	201

Table 14. Control of the local use of Thathe forest by residential area ($\chi^2=0.10$, df =1, P =0.80)

Response	Tshidzivhe	Tshilungwi	Tshitangani	Sindande	Total
1. No	41	23	3	1	68
2. Yes	82	42	5	4	133
Total	123	65	8	5	201

3.2.5. Perceptions of, and attitudes toward, the Department of Water Affairs and Forestry (DWAF)

Most respondents (55.7%, n=112) recognised that DWAF's role is to protect the environment. Thirty three respondents (n=67) accepted DWAF's management of the environment of the environment. Very few respondents viewed DWAF as a primary source of employment (4.9%, n=10) or was responsible for promoting tourism (5.9%, n=12).

The age class did differ significantly in their perception of the role of DWAF ($\chi^2=0.81$, df=3, P<0.03; Table 16), and mainly about its role as a provider of employment or tourism opportunities. More youths and pensioners, and fewer working young adults and middle-aged persons, perceived DWAF as a provider of jobs and tourism opportunities. There was almost no difference as expected across the age-classes in their perception of DWAF as the conservation authority. Nor was there any difference between the sexes ($\chi^2=0.88$, df=3, P<0.83; Table 17) or the education levels ($\chi^2=4.05$, df=2, P<0.13; Table 18) in the perception of DWAF's functions. However, there was

potential difference in the attitudes of the two residential areas toward DWAF ($\chi^2=8.88$, $df=1$, $P=0.35$; Table 19). Respondents from Tshidzivhe (closest to the forest) were less likely, and those from Tshilungwi (farther from the forest) more likely, than expected, to perceive DWAF as having a tourism promotion function.

Table 15. Perceptions of, and attitudes toward, DWAF by age classes ($\chi^2=0.81$, $df =3$, $P =0.03$)

Question	Youth	Youth working	Middle-aged	Pensioners	Total
1. Protection of the environment	10	43	20	39	112
2. Law enforcement	5	34	15	13	67
3. Tolerated as a source of employment	2	3	1	4	10
4. Interested in tourism rather than community development	3	1	0	8	12
Total	20	81	36	64	201

Table 16. Perceptions of, and attitudes toward, DWAF by sex ($\chi^2 = 0.88$, $df =3$, $P =0.83$)

Question	Females	Males	Total
1. Protection of the environment	68	44	112
2. Law enforcement	40	27	67
3. Tolerated as a source of employment	5	5	10
4. Interested in tourism rather than community development	6	6	12
Total	119	82	201

Table 17. Perceptions of, and attitudes toward, DWAF by educational background ($\chi^2=4.05$, df =2, P = 0.13)

Question	No education	Primary	Secondary	Tertiary	Total
1. Protection of the environment	3	61	28	20	112
2. law enforcement	2	26	24	15	67
3. Tolerated as a source of employment	0	7	2	1	10
4. Interested in tourism rather than community development	0	7	5	0	12
Total	5	101	59	36	201

Table 18. Perceptions of, and attitudes toward, DWAF by residential area ($\chi^2=0.88$, df =1, P =0.35)

Question	Tshidzivhe	Tshilungwi	Tshitangani	Sindande	Total
1. They protect the environment	76	31	3	2	112
2. They are law enforcers	36	23	5	3	67
3. They are tolerated as a source of employment	7	3	0	0	10
4. They are more interested in tourism	4	8	0	0	12
Total	123	65	8	5	201

3.2.6. Perceptions of, and attitudes toward, the future of the Thathe-Vondo plantation

Although the majority of the respondents across age classes (46.3%, n=93, Table 19) viewed the future of the plantation in terms of co-management and profit sharing between DWAF and the local communities. Twenty percent (20.9%, n=43) of the respondents supported the view that the plantation should be decommissioned (degazetted) and land be given to the community. A minority group (13.4%, n=27) were

of the conviction that the forest had great potential for tourism.

There was a strong significant difference among age classes in their perception of the Thathe-Vondo plantation ($\chi^2=22.29$, $df =9$, $P<=0.01$). The working youth and especially the middle-aged, are likely to favour decommissioning the plantation for well founded reasons: (1) They either do not have stable jobs or (2) they are dissatisfied by the authoritative management of the plantation by DWAF, and/or (3) since they have an exposure of western economic life style embodying industrial actions and free expression, they feel they are better suited to manage the plantation. On the contrary, most of the working youth and pensioners favour co-managing the plantation with DWAF. This can be a viable option for (1) reconciling the plantation with local people (2) providing jobs to the poverty stricken rural communities and hence, (3) carrying out the objectives of the 1996 Forestry Policy regarding communities around state forestry.

Tests on sex, education and residence were statistically invalid, following many cells with low expected frequencies.

Table 19. Perceptions of, and attitudes toward, the future of Thathe-Vondo plantation
 ($\chi^2=22.29$. df =9, P =0.01)

Question	Youth	Youth working	Middle-aged	Pensioner	Total
1. It should be degazetted and land be given to people	7	13	14	8	42
2. It should remain under pine, in partnership with local the people	10	30	10	43	93
3. It should be maintained to supply timber to the Province	3	10	6	20	39
4. It should be maintained for its tourism potential	5	10	7	5	27
Total	25	63	37	76	201

3.3. Discussion

3.3.1 Perception of Thathe forest and cultural uses

Detailed studies on sacred forests in Africa are not extensive. The available evidence indicates that such forests are still prevalent in contemporary rural Africa. They also include areas where are communities influenced by Islam and Christianity (Dorm-Adzobu *et al.* 1991, Gerden *et al.* 1990). The previous analysis concurs with this statement, as it shows that many people around Thathe forest still revere it as a sacred forest. It is however interesting to note that although they revere it, most of them do not use it for any cultural purpose. A few do use the forest for ancestral worship, induction of headmen, and youth initiation. The fact that few persons use it for cultural purposes could be attributable to the following: (1) people do not have free access to Thathe forest as they are restricted by law, (2) few people are traditionally charged with the

function of performing cultural rituals on behalf of the whole society, and (3) cultural transition due to invasion of western customs and religion have devalued African traditions among the people around Thathe forest. In a similar investigation Castro (1990), observed that the cultural significance of sacred forest in Kenya, has been eroded by the weakening of the generation-set system, the popularity of new religious beliefs and practices, the disappearance of communal celebrations and workshops, and the increasing privatisation of land tenure. The conversion of the sacred grove elders from animist practices to Christianity and Islam, reduced the ideological and popular support for the sacred forests (Castro 1990).

Nevertheless, more youths, and fewer middle-aged persons, use Thathe forest for cultural purposes than expected. This contrast in age classes in the use of the forest could be explained in two ways: (1) the youth are more likely to use the forest for initiation purposes, though this ritual is performed in collaboration with, and/or in the company of the elderly people (2) most of the middle-aged are away and in urban areas working or seeking employment. However, even when they are at home, they are always busy with something else to sustain the household, rather than visiting the forest.

Those residents with primary and secondary level of education are more likely to use the forest for cultural purposes, while those with tertiary education do not use it at all. The following factors are likely to be the cause of this difference: (1) Less educated people hold to their traditional beliefs while the more educated reject their cultural

tradition. This means that whereas those with lower education continued to associate themselves with the forest while the more educated respondents dissociated themselves from the forest. (2) Most of those with tertiary level of education are busy people and therefore do not have enough time to spend in the forest for cultural rituals, rather, they may use the forest for recreational purposes. These people leave the rural area for urban areas (Sibasa, Thohoyandou, Shayandima, and Louis Trichardt) for a better standard of living. A comparative investigation in this regard does not exist.

The history of forced removals coupled with restrictions of free access to the forest by residents of different tribal areas, seems to have had a tremendous impact on the people's attitude toward the cultural use of the forest. The Netshidzivhe (of Tshidzivhe) are more likely to use the forest than the Tshilungwi residents. Tshitangani and Sindande residents are unlikely to use the forest for any purpose, for they associate it with wild animals which ravage crops in their field (Netshitangani, *pers.comm* 1997).

In Tanzania, similar attitudes were held (Newmark *et al.* 1993) by people who lived adjacent to protected areas, and who experienced problems with wild animals in their fields. The respondents, when asked whether the protected areas should be abolished, they opted for the abolition of such areas due to troublesome wild animals which destroyed their crops.

3.3.2. Control of the local use of the forest

It is interesting to find that most of the respondents were of the view that local people

should be excluded from Thathe forest, implying that they needed stringent control of the forest. This kind of attitude is unexpected on two grounds: (1) Thathe forest has more resources in terms of fuelwood and perhaps wild animals than the surrounding woodlands, and these resources are needed in communities like Tshidzivhe and Tshilungwi, for there is no electricity. (2) Thathe forest forms part of the dispossessed land, and normally people would like their land to be restituted. The positive attitude toward the indigenous forest is in contrast with the land-claim which the Tshidzivhe royalty have lodged in order to regain part of their land in the plantation area (Headman Netshidzivhe, *pers.comm* 1997). This however, is an indication that Thathe forest is still highly revered locally, and there was no significant difference among the categories of age, sex, educational and residential area. It further indicates that attitudes of the people around the forest are and consistent, and that historical attachment or experience seems to be the main influential factor, rather than people's daily needs.

3.3.3. Perceptions of, and attitudes toward the Department of Water Affairs and Forestry (DWAF).

Most people accept the authority of DWAF for they positively acknowledge that its role in the area is to protect the environment as well as to provide law enforcement. For people with a history of forced removal by the same institution (DWAF) for the purpose of developing a state controlled plantation, such a positive attitude was unexpected. It is in contrast with Lindsay's (1990) findings of the conflict which arose when the Maasai lost grazing rights and access to the Amboseli region when the latter was turned into a

national park. Very few respondents seem to know that DWAF is concerned with employment and promotion of tourism in the area. It shows lack of awareness and community involvement in management and tourism development. Apparently, the majority of the local communities around Thathe-Vondo area are not aware of the Mabudashango hiking trail, nor do they know about the picnic sites developed and maintained by DWAF in the area.

The age class differences were observed mainly in DWAF's role as a provider of employment or tourism opportunities. An interesting contrast is that most of the youth and pensioners regard DWAF as provider of jobs or tourism, while fewer working youth and middle-aged persons are of the opposite view. This difference is likely to emanate from the fact that young adults and middle-aged people are the economically active group in the society, while the youth and pensioners are inactive or rather, dependent.

The implication is that the economically active persons (young adults and middle-aged) know very well that DWAF does not provide job opportunities, especially after some of the workers have been retrenched by DWAF in 1994 (Headman Netshidzhivhe and Ramovha, *pers.comm* 1997) from Tshamanyatsha plantation. Management implications and future development options of the Thathe-Vondo area (including Thathe forest) will be discussed in the next chapter.

3.3.4. Perceptions of, and attitude toward the future of Thathe-Vondo plantation

Studies regarding attitudes of local people to a plantation whose origin is associated

with removal of people and land dispossession are currently not available. Infield (1987) found that attitudes of the local communities were negative toward the Natal Parks Board's management policy, and not against preservation of the park itself. Similarly, Newmark *et al.* (1993) found that in Tanzania over 71% of the surveyed local people were against the abolition of the protected areas. These findings compare well with the 46.3% in this study, who believed that co-management is the way forward rather than decommissioning the plantation. The overall implication is that people across age classes are not in opposition to the plantation in itself but that they want to be incorporated in its management. This option is acceptable, for it can save the area, rather than decommissioning the area for settlement and agricultural purposes, especially, when taking the environmental sensitivity of the area into consideration: Steep slopes, poor communities, indiscriminate agricultural practices and many more.

CHAPTER 4:
MANAGEMENT IMPLICATIONS AND PROPOSALS
FOR FUTURE DEVELOPMENT

4.1. Introduction

An overview of indigenous forests in Third World rural communities indicates that these forests are an integral part of the rural landscape in Africa, and that they remain important repositories of cultural and ecological value (Dorm-Adzobu *et al.* 1991). In many instances these forests are accorded the status of sacred forests (groves). Although some have lost their cultural importance due to social, political, religious and economic changes, others, like the Thathe forest, still maintain their socio-ecological importance, as shown by the responses of the people who live around it. Previous discussion of the socio-political circumstances surrounding the Thathe forest has highlighted issues, which even though they do not seem to pose problems at present, are likely to pose future potential problems for Thathe forest and the plantation, in particular. The following sections focus on management implications and future development options of the Thathe-Vondo area based on the outcome of this investigation and the conditions affecting the rural communities in the area.

4.2. Management implications

Under the prevailing conditions, it can be stated with certainty that the forest faces no significant threat or pressure from the surrounding rural communities. The traditional custody of headman Netshidzivhe and the legal protection of the forest by the Department of Water Affairs and Forestry appears to enjoy the support of the overwhelming majority of the local communities. It is accepted that the forest is an area of conservation importance, and that its nonconsumptive value is highly appreciated. Potential conflict over management systems, and access rights and usage options, however, seems to confront the Vondo commercial state forestry. Some 20.9% of respondents believed that the plantation should be decommissioned and the land be given to the local people. This reaction is typical of most South African rural communities around commercial forestry and protected areas, taking into consideration the hostilities derived from the history of forced removal and land dispossession.

Decommissioning the plantation could result in loss of biodiversity, environmental degradation, silting of streams, drying up of the water table, loss of jobs and effluent waste in the catchment area. A sudden change in the prevailing socio-economic practices of the local people could alleviate this. Co-management (or partnership) of the plantation was strongly favoured by 46% of the respondents. This, however, is unlikely to be a realistic option since the plantation is a sophisticated economic venture. More

co-operation between plantation management and the local community might make it possible to derive alternative benefits for the local community from the plantation.

A complex undertaking in terms of capital, skills or expertise, and dividends, drawing local people into the management of the plantation could be used as a means of integrating the rural communities as recommended by the 1996 Forest Policy (RSA government). Reconciliation with the surrounding rural communities, by re-addressing the legacy of the forced removals and land dispossession by the previous government is critically important. Implementation of some of the principles of the 1996 Forest Policy (refer to sections 2.1, 2.5, 2.6, and 2.7. of the policy) regarding the rural communities around the commercial and protected indigenous forests, is important. It should be noted that some of the principles of the 1996 Forest Act regarding rural people are not new, in fact, rhetoric characteristic of these principles had been uttered globally since the publication of the World Conservation Strategy (IUCN 1980). It includes buzz-words such as 'community participation', 'community-driven projects', 'community integration', 'capacity building' and many more. However, partnership cannot be seen as the panacea of all the potential problems faced by the communities around the Thathe forest in particular. Potential obstacles to community development in the area are included:

4.2.1. Representation

Because the Thathe-Vondo plantation is comprised of combined tribal areas, partnership would be untenable where participants are from diverse backgrounds.

Participants would include chiefs, headmen, and nominated (or elected) elite community leaders. That has been the case in Third World community-based rural development projects in South Africa, Africa or globally. According to Koch (1991), it has become clear that these people are not always representative of every sector of their local communities. They either represent the royal clan, sections of the community or their constituency, especially where there are rival political parties or ethnic groups. This affects the distribution of the resources or benefits.

4.2.2. Inequitable distribution of the benefits

More often than not, the representatives enrich themselves and distribute very little or nothing to the people. Or, they give more to their constituencies at the expense of the rest of the community. This has been, and still is, the case with almost all chiefs in the former Venda homeland where royalties from developers benefited the chiefs at the expense of the communities directly affected, who under normal conditions should be the main beneficiaries.

4.2.3. Institutional capacity building at local level

There is much rhetoric about this issue, arising from government quarters, party-politics, and Non-Governmental Organisations (NGO's), but few practical advances have been made. Community integration through co-management or partnership appears a viable method to sustain projects in rural areas. Capacity and institutional building should be a priority before the implementation of projects because: (i) sustainability of the project

even when patronage is removed must be ensured; (ii) it encourages a spirit of committed support from all stakeholders or community members; and (iii) it integrates and builds on indigenous systems of local knowledge and skills. These objectives could be realised through education, exposure to information, appropriate technology, and acquisition of skills.

The results of this study show that the attitudes of the rural communities around Thathe forest are positive concerning its conservation. The rural people value the forest for its nonconsumptive value, and they are aware of the role of the forest and its environs' as an indirect source of water.

4.3. Future development implications

The Thathe forest and the environs have been already planted with pine trees but despite this, there are opportunities for future development. Some options are:

4.3.1. Agriculture

A combination of factors, such as mature arable and well drained red soils, a fairly high average annual rainfall of between 800-1500mm per annum, and a warm climate throughout the year (Piek *et al.* 1979) favours the production of certain cereals such as maize and some subtropical fruits.

4.3.2. Settlement

The area had been used for translocation and resettlement purposes some years ago.

Disregarding the sociological impacts to the environment, it is still possible to use the area for settlement purposes. Agricultural and settlement land use can be envisaged, but one has to consider environmental stability. This area is environmentally sensitive.

It is mountainous and susceptible to (i) induced or accelerated soil erosion, due to steep slopes, (ii) leaching of the soil, (iii) silting of the streams, (iv) effluent waste in the water supply, and (v) ultimate disturbance of the entire catchment. The resettlement potential of the area must be balanced against the considerable potential of the area for tourism development.

4.3.3. Tourism development

the area, if well planned and developed, tourism could be an economically, socially and environmentally preferable land use option to plantations, settlement and agriculture.

Ecotourism development in particular, would be preferable, which by definition "includes purposeful travel to natural areas; to understand the cultural and natural history of the environment; taking care not to alter the integrity of the ecosystem, while producing economic opportunities that make the conservation of natural resources beneficial to local people" (The Ecotourism Society, 1990).

The Thathe forest and the environs could be left as they are, for ecotourism development, incorporating the local rural people who apparently are unaware of its

tourism potential. The latter is indicated by the lack of understanding of DWAF's role in tourism promotion in the area. Several factors support the tourism potential of the area. Its scenic beauty and tranquillity, and availability of tourism attractions. These include the Mutale water falls (cataracts or rapids), lake Fundudzi, Vondo and Tshivhase dams, the Tshatshingo potholes, and a rich Venda culture. All these occur within or in the vicinity of the Thathe-Vondo area and within a radius of less than ten kilometres from Thathe forest. Mabudashango hiking trail and some attempts by the former Department of Agriculture and Forestry (of the former Venda government) to establish picnic sites in the area, are all that has been done thus far to improve the area's potential for ecotourism development.

Ecotourism development moreover, is compatible with, and can benefit other land use options in the area, such as wildlife conservation, catchment management as well as provision of employment to the rural communities around the forest, the Northern province and South Africa as a whole. Available evidence indicates that ecotourism (or tourism in general) such as game ranching and safaris have earned rural communities more benefits than agriculture and cattle farming (Koch 1991). reference can be made to programmes like the Campfire (Maveneke 1993) in Zimbabwe, Madikwe game reserve in the former Bophuthatswana homeland (Financial Mail 1991), the Rwandan mountain gorilla reserve (Koch 1991) and many more.

Attractions of the Thathe forest and the environs, coupled with proper planning and management can make ecotourism development very successful. However, all forms of socio-economic development are subject to positive and negative impacts. In the case of ecotourism the following can be expected:

According to Koch (1991) "the biggest problem with ecotourism is sheer weight of numbers it brings to fragile ecosystems. The notion that ecotourists are more sensitive than ordinary travellers is not always true. The management implications of tourism areas are complex: (i) limits must be set on the carrying capacity (sustainable load) of the area like in the case of the Galapagos islands in Ecuador, and the Himalayas (Koch 1991). Fame and economic expedience may prevail over the carrying capacity of certain tourism spots or places and can lead to their destruction; (ii) dispersion of alien weeds may occur by means of mud stuck on vehicular tyres or hikers' boots (Lea 1988); (iii) cultural conflict may manifest itself between the hosts and tourists (Lea 1988) on two grounds (a) tourists are usually international people from developed countries with foreign customs, and (b) tourism has a tendency of uplifting the standard of living above that of the local rural people by bringing into the area, modern infrastructure which will not be accessible to all of them, hence widening the gap between the rich and the poor (Lea 1988). Such conflicts are more likely in the context of the developers and custodians of the Thathe forest and lake Fundudzi, because both are sacred places characterised by traditional rites. Vandalism of the huts at picnic sites constructed by

the then Department of Forestry and agriculture in the area, is more likely a result of cultural conflict, rather than rebellious response against cultural invasion by developers.

The huts never served any of the preconceived purposes they were intended to; iv) moreover, in most Third World rural countries benefits accrued from ecotourism activities flow back to developed countries. The world Bank (Brandon *et al.* 1992) estimated that 55% of tourist spending in Third World countries seeps back, in one way or another, to developed countries. Proper policy and government intervention, coupled with justifiable intentions for sustainable rural and socio-economic development are necessary for the upliftment of rural communities like those around Thathe-Vondo areas.

In the absence of proper policy and government intervention rural communities will remain poorer than before.

4.4. Recommendations

The following recommendations are made in the light of the above discussion about management and development implications of Thathe forest and the environs, taking into consideration the positive attitudes of the people around the forest about its conservation, and the socio-economic and sociological factors that define the area.

4.4.1. Rehabilitation of the periphery of the indigenous forest by allowing the indigenous vegetation to regenerate. This can be enhanced by abandoning afforestation of pine trees at the periphery of the indigenous forest.

4.4.2. Compiling an inventory of floral and faunal species found in Thathe forest, which are locally, nationally, and regionally (Southern Africa) endemic.

4.4.3. Establishing an agroforestry nursery of rare indigenous ornamental and medicinal plant species found in Thathe forest. This can help to supply both the local rural people and the pharmaceutical industry.

4.4.4. Development of an environmental education centre near the forest, for schools around the Northern Province and ecotourists. This could encourage public awareness about catchment management, biodiversity and environmental educational programmes.

4.4.5. Low impact ecotourism development such as the improvement of the Mabudashango hiking trail (in existence) and a Venda cultural village nearer the forest, with tour guides catering for ecotourists and school pupils about Venda culture, especially the Tshidzivhe traditions. This could provide employment to local rural people, though only a few people can be employed in this way.

4.4.6. An environmental and social impact analysis (EIA and SIA) be done before any development initiative is carried out, to assess the ecological (environmental), social impacts and the sustainability of the area, or the catchment.

4.4.7. Local communities be given legal ownership and use rights of the Thathe-Vondo area. Especially those people who were removed from the Thathe forest and all those affected by the development of the Thathe-Vondo forestry. They might derive benefits such as free harvesting of wood after timber has been cut, and access into, or through the plantation. This could entrust them with a duty to care for the ecosystem of which they are a part.

REFERENCES

African National Congress (ANC), (1994). *The Reconstruction and Development Programme (RDP). A policy frame work*. Umanyano Publications, Johannesburg.

Aseffa, A. (1991). *Problems of environment and sustainable development in Africa*. In Alternative development strategy for Africa. Suliman, M. (ed), Women Institute for African development.

Babbie, E. 1992. *The Practice of Social Research*. Wadsworth Publishing Company. Belmont.

Baily, K.B. (1987). *Methods of social research*. Free Press, New York.

Bell, C. & H. Roberts (Eds). 1984. *Social researching: Politics, problems and practice*. Routledge & Kegan Paul. London.

Brandon, K. & M. Wells (1992). *People and Parks. Linking Protected Area Management with local communities*. World Bank, WWF, USAID. IBRD/ World Bank, Washington DC.

Bureau for Economic Research, Co-operation and development (Benso) (1979). *Independent Venda*. Pretoria, RSA.

Castro, P. (1990). *Sacred groves and social change in Kirinyaga, Kenya*. In Social change and applied anthropology: Essays in Honor of David W. Brokensha. Chaiken, M.S. and A.K. Flueret (Eds), 277-289. Boulder Co: Westview Press.

Centeno, J.C. & C. Elliot.(1993). *Forest home: The place where one belongs*. In Indigenous peoples and protected areas. The Law of mother earth. Kempf, E.(Ed),95 - 103. Earthscan, London.

Chidumayo, E.N.(1993). *Realities of aspiring young African conservationists*. In Voices from Africa: Local perspectives on conservation. Lewis,D. & N. Carter (Eds). WWF publications, Maryland.

Ckarke, J. (1994). *Building on Indigenous Natural Resource management: Forestry practices in Zimbabwe's Communal Lands*. Earthware Publishers. Forestry Commission, Harare.

Curruthers, J. (1995). *The Kruger National Park, A social and Political History*. University of Natal Press, Pietermaritzburg.

Dorm-Adzobu, C., Ampandu-Agyei O, & P.G. Veit (1991). *Religious beliefs and Environmental Protection. The Malshegu Sacred grove in Northern Ghana*. World Resources Institute, Washington D.C. and African Centre for Technology Studies (ACTS) Press, Nairobi.

Durning, A.T. (1992). *Guardians of the Land: Indigenous peoples and the health of the earth*. Worldwatch paper 12, Worldwatch Institution, Washington D.C.

Dwomoh, D. (1990). '*Forest conservation: The contribution of Sacred Groves: A study of Sekyere District, Ashanti Region*'. BA Hons. Dissertation, Geography Department, University of Ghana, Legon.

Farmer's weekly. (1994). *Plant for life: The biomass initiative aims at tree for people 4* (8):46.

Financial Mail, (1991). "*Big bucks for Conservation*", September 20

Gay, L.R. 1987. *Educational Research: Competencies for analysis and application*. 123-137. Maxwell Macmillan International, New York.

Gerden, C.A. & S. Mtallo. (1990). *Traditional forest Reserves in Babati district, Tanzania: A study in human ecology*. Swedish University of Agricultural Sciences, Uppsala.

Gould, J. & A. Lees. (1993). *God of the forest for ever*. In Indigenous peoples and protected areas. The Law of mother earth. E. Kemf.(Ed), Earthscane, London. 77-80

Government (RSA). (1968). *Forest Act No. 72*: Government printers, Pretoria

Government Gazette No. 20, Notice No. 474 (RSA) (1947). *Reservation of Trust land for forest purposes, District of Zoutpansberg*. Government Printers, Pretoria. 3 (7).

Government Gazette Extraordinary No. 1563, Notice No.1608 (RSA) (1966). *Reservation of Trust Land for forest purposes, District of Zoutpansberg*. Government Printers, Pretoria. 10 (14).

Government (RSA) (1985). *Official Yearbook of the Republic of South Africa*. Government Printers, Pretoria.

Government (RSA) *White Paper* (1996). *Sustainable Forest Development in South Africa*. Ministry of Water affairs and Forestry, Pretoria.

Government (Department of Water Affairs and Forestry) (1997). *Thathe-Vondo forestry*. Zoutpansberg District. Louis Trichardt.

Gray, R. (1969). *Fieldwork Tapes :Dealing with History and customs of the Venda of South Africa*. The Cambridge History of Africa. Cambridge University Press, Cambridge

Gupta, A. (1988). *Ecology and development in the Third World*. Routledge, London

Haralombus, M. (1991). *Sociology: New directions*. Collins Educational, London.

IIED, (1994). *Whose Eden? An Overview of Community Approaches to Wildlife Management*. A report of the Overseas Development Administration of the British Government. International Institute for Environment and Development, London

Infield, M.M. (1986a). *Wildlife Resources, Utilization and attitudes towards conservation: A case study of the Hluhluwe and Umfolozi Game Reserves in Natal/Kwazulu*. MSc thesis, University of Natal, Pietermaritzburg.

Infield, M.M. (1987). *Attitudes of a rural community towards conservation and a Local Conservation Area in Natal, South Africa*. In *Biological Conservation* 45 (1988) 21-46.

IUCN, (1980). *World Conservation Strategy*. Morges, IUCN.

Kalton, G. (1983). *Introduction to social survey sampling*. Newbury Park, Calif.

Koch, E. (1993). *Report based on Ballagio Conference on Ecotourism, February 1991*. In Group for Environmental Monitoring. Johannesburg.

Lea, J. (1993). *Tourism and development in the Third World*. Routledge, London.

Lebbie, A.R. & M.S. Freudenberger. (1996). *Sacred groves in Africa: Forest patches in transition*. In *Forest Patches in Tropical landscapes*. Schelhas, J., & R. Greenberg. (Eds). Island Press, Washington DC. 300-321.

Lindsay, K. (1987). *Integrating parks and pastoralists: Some lessons from Amboseli*. In *Conservation in Africa: People, policies and practice*. Anderson, D. & R. Grove (Eds). Cambridge University Press, Cambridge.

Linger, M. (1981). *Thathe: Holly forest of the Vhavenda*. In *Veld and Flora*. Journal of the Botanical Society of South Africa. Credo Press, Cape Town. 67(2): 51-52.

Marole, L.T. (1969). *Mutupo na mirero*. Marole book depot, Sibasa.

Maveneke, T. (1993). *The CAMPFIRE programme in Zimbabwe: Its origins, current status, and future development*. A paper presented to the group for environmental monitoring, Johannesburg.

May, T. 1993. *Social research: Issues, Methods and processes*. Open University press. Buckingham.

Mazrui, A.A. (1986). *The Africans: A triple heritage*. BBC. Publications, London.

Mufuka, K., Nemerai, J. & K. Muzvidzwa. (1993). *Zimbabwe: Life and politics in the golden age 1100 - 1500 A.D.* Harare Publishing house, Harare.

Mulder, P.C. 1993. *Statistical Techniques in Education*. Haum, Pretoria.

Newmark, W.D., Leonard, N.L., Sariko, H.I. & D.G.M. Gumassa (1993). *Conservation attitudes of local people living adjacent to five protected areas in Tanzania*. In *Biological Conservation* 1993. 63. 177-183.

Norusis, M.J. (1991). *SPSS/PC+ Studentware*. SPSS Inc. Michigan

Ntiamoa-Baidu, Y., Gyiampfi-Fenteng, L.J. & D. Abbiw. (1992) *Management Strategies for Sacred groves in Ghana*. A report prepared for the World Bank and EPC Ghana.

Opoku, K.A. (1994). *How do we collect information on Indigenous System?* Paper presented in a regional Workshop on *Indigenous Knowledge Systems and Natural Resources Management in Southern Africa*. Matowanyika, J.Z.Z., Garibaldi, V., & E Masimwa, (Eds). IUCN, Harare.

Peil, M., Mitchell, P.K. & D. Rimmer. (1982). *Social Science Research Methods: An African Handbook*. Hodder and Stoughton, London.

Phophi, W.M.D. (1956). *Phusuphusu dza Dzimauli: A history of Rambuda's tribe, Northern Transvaal*. The Bantu's Publishing home, Pretoria.

Piek, B.J., Moody, E.J. Harrison, C.J., Eloff, J.L. & P. Pietersen. (1979). *A framework for Development in Venda: Planning proposals for Venda*. Institute of development studies.

Rau, Johannesburg.

Ralushai, V.N.M.N. (1977). *Conflicting accounts of Venda history with particular reference to the role of mutupo in social organisation*. Queen's University, Belfast.

Rix, d., Earle, J.L., Keats, G., Powell, E., Metcalfe, J.R., & P.L van Schalkwyk..(1986). *Geography in Action Standard 9*. Juta & Co LTD, Kenyn.

Schapere, I. (1970). *A handbook of Tswana Law and custom*. Frank Cass & Co, London.

Schmidt, P.R. (1994). *Historical ecology and landscape transformation in Eastern Equatorial Africa*. In *Historical Ecology: Cultural knowledge and changing landscapes*. Crumley, C.L. (Ed). School of American Research Press. Sata Fe, New Mexico.

Scott, L. (1986). *Late quaternary forest history in Venda, South Africa*. In *Review of Palaeobotany and palynology*. Elsevier Science Publishers, B.V. Amsterdam.

Singh Malhaver, K.P. (1990). *Forest Laws and People's participation in environment protection*. In *The New Environmental Age*. Sapru, R.K. (Ed). Ashish Publishing house, New Delhi.

Siegel, S. &, N.J. Castellan. (1988). *Nonparametric statistica for the bahaviuoral sciences*. McGraw-Hill International. Singapore

Stayt, H. (1931). *The Bavenda*. Oxford University Press, London.

Smith, S.L.J. (1995). *Tourism Analysis: A handbook*. Longman, London.

Thakadu, O.T. (1997). *Indigenous Wildlife Management Knowledge Systems and their role in facilitating Community based Wildlife Management projects in Botswana*. MSc thesis in the School of Environment and Development, University of Natal, Pietermaritziburg.

The Ecotourism Society (1993). *Ecotourism: A guide for planners and managers*. Lindberg, K. & D.E. Hawkins (Eds). The Ecotourism Society, North Bennington.

Van der Waal, B.W. (1996). *Fundudzi, A sacred lake profaned: Inaugural address* (unpublished). University of Venda, Thohoyandou.

van Wyk, A. E., & E.N Netshiungani (1980). *Mutavhatsindi-mysterious plant from Venda*. In Veld and Flora: Journal of the Botanical Society of South Africa. Ackermann, M. & C. Malan (Eds). Creda Press, Cape Town. 66 (3): 87 - 89.

Wilson, A. (1993). *Sacred forest and the elders*. In Indigenous peoples and protected areas. The Law of mother earth. Kempf, E. (Ed). Earthscane, London 243-248.

Yeld, J., T.Bodbijl & K. Cooper. (1992). *Dukuduku forest destruction*. In African Wildlife 46(1) 30

PERSONAL COMMUNICATIONS:

MR. M. J. Mpande	Related to the Tshidzivhe royal family
Address	Miluwani (Sibasa) Tel. (0159) 31 537
Mr. Negoma N.M.	Pensioner and former Thathe-Vondo forestry employee, charged with the duty of removing people from their land.
Address	Dzimauli First Gate Tshathovhela School Dzimauli
MR. M.H. Nemudzivhadi	A local historian (Venda)
Address	3013 Makwarela(Sibasa) Tel (0159) 31 251

MR. J.S. Nengovhela	Operational manager (Matondoni forestry) Private Bag 2210 Sibasa
MR. G. Nethengwe	A member of the Thengwe Royal family Sibasa (Makwarela township) Tel (0159)
M.R. Ramovha	Tshamanyatsha Forestry Tel.Vhufuli 2013
MRS. Netshitangani Address	Tshitangani ward headman's (or mukoma's) mother Tshitangani
MR. M.J. Netshidzivhe Address	Current headman of Tshidzivhe tribal area Tshamanyatsha Tel. Vhufuli 2013
MR. Netshitongwe Address	Current headman of Tshilungwi tribal area Tshamanyatsha Tel. Vhufuli 2013

1.7. Occupation:

Economically active	Employer	1
	Self - employed	2
	Employee	3
	Unemployed	4
Economically inactive	Student	5
	Housewife	6
	Pensioner	7
	Not fit for work	8

2.1. Were your relatives staying around (at) Thathe and the environs some years ago? Yes No

2.2. Where do you bury your deceased?

Ancestral graveyard	communal graveyard	Thathe forest
1	2	3

2.3. Do you use Thathe forest for cultural rituals such as:

spiritual (ancestral) worship	Installation of headmen	youth initiation schools	(other(specify)
1	2	3	4

2.4. Do you intend to migrate to some other places in the future? Yes No

2.5. Could the following be your reason for the above question(2.4.)?:

No longer interested in rural lifestyle because there are no modern services	1
Preference of urban lifestyle and modern services	2
Historical attachment to Thathe forest	3
Just interested in rural life style	4

2.6. How do you view Thathe forest?

It is a sacred (holy) forest	1
It is an ordinary forest like any other forest	2
It is an area of conservation importance	3
It should be used and converted to agricultural and communal use	4

2.7. Under which tribal area is Thathe forest located?

Tshidzivhe	1
Tshilungwi	2
Khalavha	3
Murangoni	4

B. Conservation information (general and specific knowledge)

1.1. Under whose control is Thathe forest?

Netshidzivhe	TLC	Dept of Forestry	Nemurangoni	Dept of forestry and Netshidzivhe	no one
1	2	3	4	5	6

1.2. Should an indigenous forest like Thathe forest be controlled? Yes No 1.3. Do you support the protection of plants and animals? Yes No 1.4. Should local people be excluded from going to Thathe forest? Yes No

1.5. What consequences will people have to bear if Thathe forest and the environs are destroyed? People will suffer shortage of:

fuel wood	grass for thatching	medicinal plants	animal protein	water	grazing	none
1	2	3	4	5	6	7

1.6. Do you think that you have a duty of taking part in Nature conservation decisions? Yes
No

1.7. Do you find the condition of Thathe forest and the environs as you knew it 10 years ago: The **same**, **deteriorating**, or **improving**? Please rate the conditions of Thathe forest and the environs as you perceive it.

	Deteriorating	Same	Improving
water quality			
soil erosion			
soil fertility			
abundance of plants			
abundance of animals			

2. What is your view of the Department of forestry (DWAF) and the forestry extension officers and their activities at Thathe Forest and the environs?

They protect the natural environment for our future generations to enjoy as we are enjoying	1
They are law enforcers who are mostly in conflict with the local people	2
They are tolerated as a source of employment	3
They are more interested in tourism than community development alongside the forest	4

2. What is your view about the future of the Thathe-Vondo plantation?

Thathe-vondo forestry should be degazetted and land be given to the local communities.	1
It should remain under pine plantation, but in partnership with the local communities in terms of management, job opportunities and profit shares.	2
It should be maintained in order to supply the Northern Province with soft wood.	3
Maintain the forest for its tourism potential	4

C. Recreational Attributes:

1.1. Do you sometimes go to Thathe forest for recreation? Yes No

1.2. If your answer to the previous question(1) is yes, how often do you go to Thathe forest per year?

Once	Twice	Three times	Four times	Five times	six times
1	2	3	4	5	6

1.3. What interests you most about the forest?

Its scenic beauty, tranquillity, and uniqueness	1
Nothing special, I am just interested in visiting the forest	2
It is a thoroughfare to either Tshidzivhe or Tshitangani	3

1.4. Do you pay for going(visiting) to the Thathe forest? Yes No

1.5. Is it worth paying to visit the Thathe forest and the environs? Yes No

1.6. What would you like to see happening at (or around) Thathe forest?

A mega-hotel with the following facilities	casino	1
	conference	2
	boarding / lodging	3
	recreational	4
Development of	cultural tourism	5
	adventure tourism	6
	ecotourism	7
Simply leave the area alone		8

1.7. Based on your knowledge of the Thathe forest, can you lead a visitor who has permission to the forest? Yes No

D. Economic Attributes:

1.1. How many members of your family are employed?

None	1
One	2
Two	3
Three	4
Four	5

1.2. Where are they employed?

Thathe-vondo forestry	Sibasa/Thohoyandou	Gauteng	other places(specify
1	2	3	4

1.3. Please indicate your total household income per month:

No income	R500	R1000	R1 500	R2000	R2500	R3000	R3500 +
1	2	3	4	5	6	7	8

1.4. What source of energy do you use for :

1.4.1. cooking:

wood	cow-dung	coal	solar	other
1	2	3	4	5

1.4.2. warming:

wood	cow-dung	coal	solar	other
1	2	3	4	5

1.5. Do you have to walk in order to get the source(s) of energy you have mentioned in 1.4.1. and 1.4.2. Yes No

1.6. How long does it take you to walk to the place where you get the source of energy?

Nil	Half of an hour	one hour	one and half of an hour	two hours	more than two hours
1	2	3	4	5	6

2. Benefits from Thathe forest and the environs to you, please tick:

- 2.1. Hunting----- Yes No
- 2.2. Water collection----- Yes No
- 2.3. Thatching grass-----Yes No
- 2.4. Employment-----Yes No
- 2.5. Recreation-----Yes No
- 2.6. Education-----Yes No
- 2.7. Spiritual -----Yes No
- 2.8. Grazing -----Yes No
- 2.9. Collecting wood and medicinal plants---Yes No

3. Are the benefits you have indicated above for----- purposes:

subsistence	commercial	both commercial & Subsistence
1	2	3

4. Which problems do you experience concerning Thathe forest and the environs?

Destruction of crops by animals from the forest	1
Loss of land to the Dept of Forestry, without compensation	2
Inaccessibility to the forest due to restrictions from forestry management	3
Loss of products previously important to generating income	4