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SUSTAINABLE RURAL LIVELIHOODS AND BIODIVERSITY CONSERVATION IN SWAZILAND

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"Simply to tell those on the margin of existence not to cut down trees in the forest or not to have children, when they see both as necessary to their survival, is not only insensitive, but downright provocative. We can only help endangered people to help rescue the environment if we link the Earth's salvation to their own."

(Our Planet, UNEP magazine, Vol. 6(1))

"Ecology compels us...to ask if there is a decent future for any, if there is not a decent future for all'

(Athanasiou 1999:161)

SUSTAINABLE RURAL LIVELIHOODS AND BIODIVERSITY CONSERVATION IN SWAZILAND

An integrated Conservation and Natural Resource Management approach as an alternative livelihood strategy for Swazi Nation Land

University of Cape Town

By

B.J. Corcoran

Dissertation submitted in partial fulfilment of the requirements of the Degree of Masters of Philosophy in Environmental Science.

University of Cape Town

January 2000

ABSTRACT

The Shewula Community in North-eastern Swaziland has been pro-active in setting aside part of their land for conservation in the hope of enhanced benefits from the area. However, in assessing the Shewula Reserve formation and development process, a number of flaws were identified. This dissertation examines these flaws and proposes possible solutions to enable a more sustainable and viable process.

This dissertation, in taking a holistic approach, seeks to use the Shewula community initiative as a pilot project for establishing more effective biodiversity conservation and natural resource management initiatives/programmes on Swazi Nation Land (SNL). A new conceptual framework is proposed for integrating community-based conservation (CBC) and community-based natural resource management (CBNRM) on SNL Swaziland, namely Managed Natural Environments (MNEs).

The dissertation concludes that an integrated CBC-CBNRM programme should be promoted as an innovative and essential aspect of the Swaziland Biodiversity Strategy and Action Plan (BSAP). More importantly, this programme should be used as an innovative tool in promoting sustainable rural livelihoods through an effective policy framework. Although the focus of this integrated approach is on communal lands, it should be promoted in partnership with more sustainable land use approaches on state and private land.

The dissertation recommends a principles-based approach in implementing an integrated CBC-CBNRM programme on SNL, as opposed to a model-based approach. To be effective in practice, the programme facilitators would need to overcome the history of ineffective implementation of policy in Swaziland.

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List of Acronyms

ADMADE - Administrative Management Design
BSAP - Biodiversity Strategy and Action Plan
CAMPFIRE - Communal Areas Management Programme for Indigenous Resources
CBA - cost-benefit analysis
CBC - community-based conservation
CBCA - community-based conservation area
CBED - community-based ecotourism development
CBNRM - community-based natural resource management
CBNRMA – community-based natural resource management area
FAO - Food and Agricultural Organisation
GIS - Geographic Information Systems
GLMD - Grazing Land Management Demonstrations
GoS – Government of Swaziland
IIED - International Institute for Environment and Development
IGA - Income-generating Activity
IKS - Indigenous Knowledge Systems
IUCN - World Conservation Union
LIRDP - Luangwa Integrated Rural Development Programme
MEPD - Ministry of Economic Planning & Development (Government of Swaziland)
MNE - Managed Natural Environment
n.d. - no date
NDS - National Development Strategy
NGO - non-governmental organisation
NPWS - National Parks and Wildlife Service
NR - natural resource
NRM - natural resource management
PNE - Protected Natural Environment
PPF - Peace Parks Foundation
RDAP - Rural Development Area Project
SBoT - Shewula Board of Trustees
SDI - Spatial Development Initiative
SEA - Swaziland Environment Authority
SNL - Swazi Nation Land
SNTC - Swaziland National Trust Commission
TBNRM - Transboundary NRM
TDL - Title Deed Land
TFCA - Transfrontier Conservation Area
UNEP - United Nations Environment Programme
WCED - World Commission on Environment and Development
WMA - Wildlife Management Area
WRI - World Resources Institute
WWF - World Wild Fund for Nature

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To Jesus Christ, the Lord of Lords and King of Kings, may Your creation always give glory to You. Thank You for Your strength and Your wisdom in this time.

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To my colleagues on the MPhil course (1998-1999) -- thank you for many lessons learned that have integrated socio-cultural, political and institutional issues into my training as an ecologist-conservationist;

To the Shewula community -- thank you for the privilege of sharing in your lives and in your dreams – may these dreams become reality;

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CHAPTER 1

INTRODUCTION

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1. INTRODUCTION

1.1 Background

The world's biodiversity is being lost at a tremendous rate, resulting in a decrease in ecological integrity[1], which in turn has undermined the livelihoods, health and well-being of rural people (Waak n.d., McNeely & Ness n.d.). Environmental resources are being consumed at various levels of society, which can be broadly classified as local, national and global levels. Local level resource use has resulted in losses of biodiversity with implications for livelihoods strategies at both the local and higher levels of society (Lutz & Caldecott 1996). Although this local level environmental exploitation has, in the past, generally been the result of the impacts of colonial and nationalist rural development and settlement policies, it has also resulted in protected areas being established to prevent humans destroying "pristine"[2] ecosystems. In assuming that humans are inimical to nature, policy-makers and conservationists have erred, and still are erring in isolating rural communities from the source of their livelihoods, and in ignoring indigenous knowledge systems (IKS) for sustainably managing and using natural resources (McNeely & Ness n.d., Lewis & Carter 1993, Anderson & Grove 1987a).[3] In addition, rural people have been isolated from the most arable lands through rural settlement and resettlement schemes. Commercial enterprises and protected areas often occupy the best possible land, thus further undermining rural livelihoods.

Of even more concern is that the majority of biodiversity occurs in human-managed ecosystems outside protected areas, as protected areas only cover 6% of the earth's surface (McNeely & Ness n.d.). This emphasises, supports and justifies the call for the conservation, management and sustainable use of all natural resources to be key foundations of all human activities outside of protected areas, in a holistic, integrated approach.[4] Hence, biodiversity conservation and natural resource management (NRM) should be promoted as a positive development strategy for rural people, through the consolidation of existing livelihoods and through seeking to increase local biodiversity and NR management capacity (Brown 1998).

[1] The term "ecological integrity" is used to refer to the dynamics of ecosystem structure and functioning.
[2] The term "pristine" is in inverted commas to emphasise the fact that most of the world's ecosystems have had some anthropological influence.
[3] The technical expertise for conservation is generally known. The key aspect that requires deeper understanding is people's behaviour in their interaction with each other and with their natural environment.
[4] People's lifestyles need to be approached from an integrated and holistic point-of-view, and not from one that is unaware of consequences of their actions. All of humankind, from the CEO of the multinational corporation to people with subsistence livelihoods, need to be educated on the impacts of their individual actions in how they contribute to humankind's accumulative effect on its, and the rest of creations' life support systems.

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1.2 The Case Study: the Shewula Community in Swaziland

In 1998, a conservancy was proposed for North-eastern Swaziland, with the aim of amalgamating three separately managed, but contiguous reserves, namely Mlawula Nature Reserve, Hlane Royal National Park, and Mbuluzi Game Reserve (Sandwith 1999) (See Map 1.1). As part of the conservancy formation process it was suggested that the Shewula Community set aside part of their land for conservation purposes, with the aim of integrating it into the Lubombo Conservancy, and thus for the community to benefit from conservation and ecotourism initiatives through improved partnerships. Chief Mbandzamane Sifundza, chief of the Shewula Community, took ownership of the idea, and proposed the community reserve's boundaries. The new reserve includes pristine hardwood forests on steep mountain slopes and is about 2700ha in extent. The overall aim of the Lubombo Conservancy is biodiversity conservation and equitable benefits for all stakeholders in the area. The long-term goal is to be integrated into the Maputaland Transfrontier Conservation Area (TFCA), a proposed regional conservation area incorporating land from eastern Swaziland, southern Mozambique and South Africa (northern KwaZulu Natal) (See Map 1.2).

A separate, but parallel intervention was a proposed ecotourism development initiative, funded by the British Council (Swaziland).[5] A conservation non-governmental organisation (NGO), Peace Parks Foundation (PPF),[6] in supporting the TFCA formation process, funded the facilitation of the Lubombo Conservancy initiative (Sandwith 1999), and provided funding towards a feasibility study of the proposed ecotourism development (Segar *et al* 1999).[7] The community, through the vehicle of a participatory process that was a key element of the feasibility study, raised some issues and concerns regarding the process towards the establishment of the conservation area on community land. A key finding of the feasibility study was that the community's (mis)understandings of the reserve could impact the future management of the reserve (Segar *et al* 1999).

[5] The community were assisted by some of the role-players in area, namely Mlawula Nature Reserve, Mbuluzi Game Reserve, Tambankulu Sugar Estate, and the Umbuluzi Catchment Association.
[6] Peace Parks Foundation is a NGO that focuses on promoting and facilitating the establishment of transfrontier conservation areas, with the aim of enhanced biodiversity conservation, peace between neighbouring countries through such co-operation, and the integration of local/rural communities in such initiatives.
[7] This feasibility study was undertaken by a study team from the University of Cape Town.

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The Government of Swaziland (GoS) has realised that there are a number of key issues that need to be addressed in order to promote the conservation and sustainable management of Swaziland's biodiversity. In addition, the GoS has recognised the need to formulate new policies and programmes aimed at the conservation of biodiversity, in an effort to overcome the ineffectiveness of existing legislation and the low priority afforded to conservation issues by government (de Vletter 1997). One of these policies, a biodiversity strategy and action plan (BSAP), is one of the obligations of Swaziland in signing and ratifying the Convention on Biodiversity (CBD) in 1994 (Monadjem 1998). However, the BSAP falls short of seeking to empower local communities in the effective management and sustainable use of their natural resources for biodiversity conservation and sustainable rural livelihoods (SRL). Although the Ecotourism Working Group[8] identified that a biodiversity programme should "*assist communities on SNL to develop nature-based tourism*" (Monadjem 1998:20) through encouraging them to develop community reserves where appropriate, the Legislation and Institutional Review Working Group (Monadjem 1998:15) failed to recognise that communities could be effective institutions for the management of their NR base, and hence for biodiversity.

Without the effective devolution of the control and management of natural resources to local level multiple-scale institutions in Swaziland, a key part of the rural landscape is being ignored for its value in biodiversity and ecosystem structure and functioning. In the context of this dissertation, the newly established Shewula Reserve in Swaziland is an example of how communities could implement initiatives to contribute towards biodiversity conservation management and sustainable use. However, the broader Shewula Community does not have a sense of ownership of the process, and this, together with various other weaknesses in the reserve formation process, could undermine the long-term viability of the reserve.

Ultimately, this dissertation attempts to highlight that local communities, under certain circumstances and given ownership of conservation and NRM programmes, can be effective institutions for biodiversity conservation and for strategies for sustainable rural livelihoods.

[8] Various working groups were formed in order to focus on specific sections of the BSAP.

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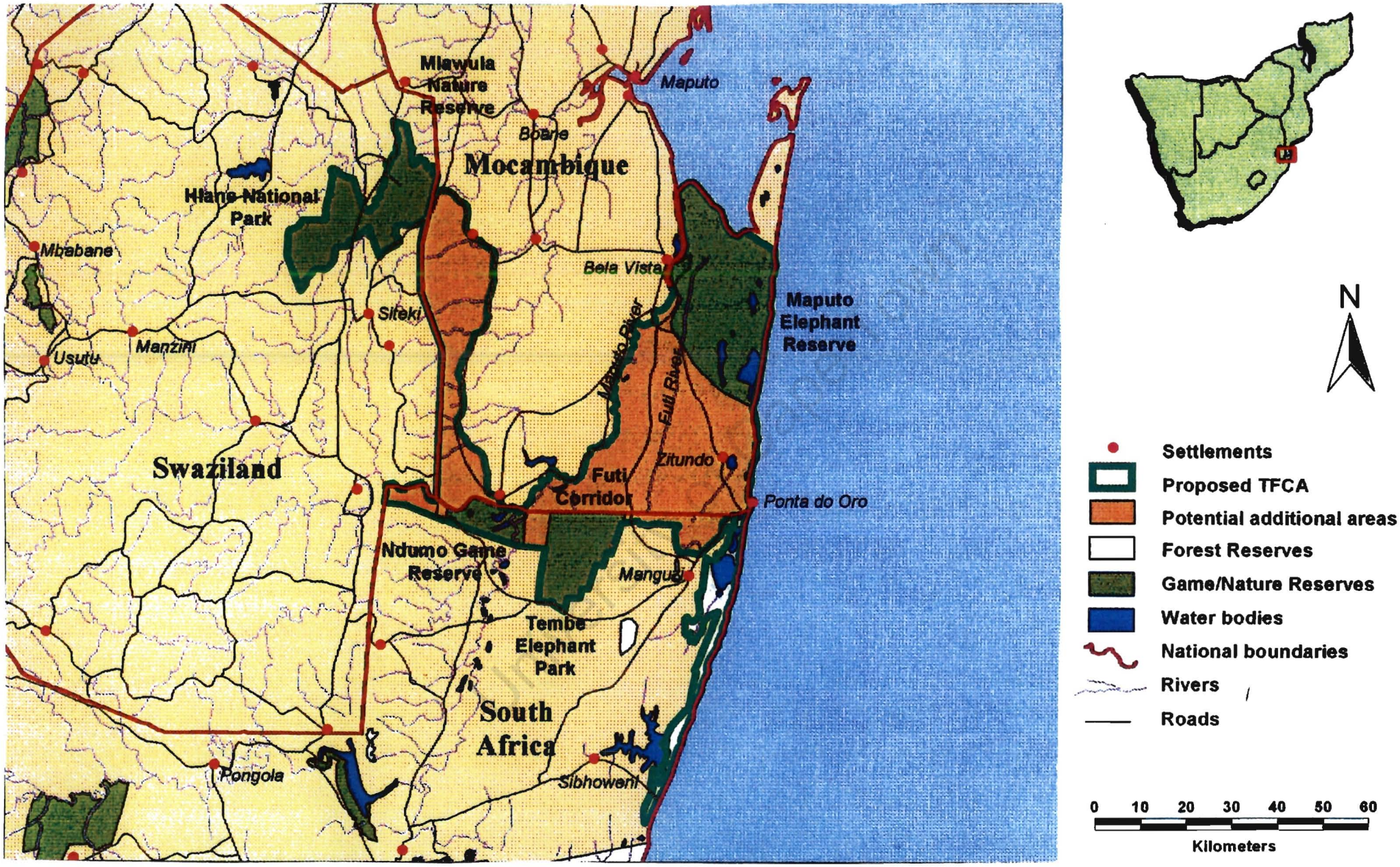

MAP 1.2: The proposed Maputaland Transfrontier Conservation Area

Hence, this dissertation suggests that local communities should be empowered, in appropriate circumstances, to take more responsibility for the management and sustainable use of natural resources on communal lands (i.e. Swazi Nation Land) in Swaziland. It will be shown that community based conservation (CBC) should be integrated with community based natural resource management (CBNRM) on communal lands, in a co-ordinated, cross-sectoral approach to rural environmental management and rural development. This holistic approach emphasises the need to identify and understand the intricate linkages between humankind's behaviour and their environment. It is emphasised that any policy around biodiversity conservation and NRM on communal lands should be focused on effective implementation of such a policy, as the history of a large gap between effective policy and effective implementation in Swaziland is a cause for concern.

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1.3 Statement of the Problem

With the increasing demand for land in Swaziland, protected areas are being more threatened (SEA 1997a). In addition, the majority of biodiversity resources occur outside protected areas (Masson 1996). These conservation areas are scattered and are surrounded by land use, both private and communal, that is unsustainable. Hence, in this ecological isolation and population pressure, the present protected areas network may be unable to sustain genetically viable plant and animal populations. Since up to 75% of the country is under communal tenure (SEA 1997a), financial and technical resources should be focused on empowering rural communities to manage their land in a sustainable manner to achieve the objectives of biodiversity conservation and sustainable rural livelihoods.[9] However, it has been suggested that these local-level institutions, at whatever scale (Leach *et al* 1999), will only manage their resources sustainably if they secure tenure of the land and the natural resources (NR), and if the benefits of conservation management exceed the costs (Murphree 1993).

In the Shewula Community area in North-eastern Swaziland, there is lack of an effective NRM regime for communal areas, due to ineffective common property institutions being in place. Hence, an open access management regime has developed (Bromley & Cernea 1989), with potential negative long-term consequences for the biodiversity, ecological integrity and resultant productivity of these communal lands. The lack of

[9] It will be shown in Chapter 2 that "*sustainable rural livelihoods*" is an improved concept in the dialogue on rural development.

security of land and natural resource tenure, the inadequate implementation of policies at the local level, the lack of ownership of process by the broader community, and the lack of an integrated, holistic approach to rural land management could undermine the long-term sustainability and viability of the Shewula Reserve (SEA 1997a, Segar *et al* 1999).

As representatives of the community sit on the Lubombo Conservancy Committee (LCC), the various land-owners/managers are assuming that the broader community is in full agreement on the establishment of the reserve on communal land, and is supporting the participation of the Shewula Community in the conservancy process. However, as the participation of the community in the decision-making over the establishment of the Shewula Reserve and its inclusion in the Lubombo Conservancy was severely limited, there are misunderstandings about the objectives of the two initiatives.

This dissertation therefore analyses the reserve formation and conservancy formation processes in order to assess the levels of community ownership over these initiatives, and how to mitigate the weaknesses and to enhance the strengths of the Shewula Reserve process. In addition, the dissertation suggests how the lessons learned from these two processes could enable an integrated CBC-CBNRM programme to be established in Swaziland for the promotion of sustainable rural livelihoods and biodiversity conservation, possibly within the framework of the BSAP. The rationale is that communities, given the institutional capacity and authority over biodiversity conservation and natural resource management, will invest in environmental conservation if they can utilise natural resources more efficiently and sustainably for their own benefit (Murindagamo 1990), thus potentially enabling biodiversity conservation and poverty alleviation. Lessons have also been drawn though an analysis of various case studies on natural resource management (NRM) and biodiversity conservation programs in southern and east Africa.

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1.4 Aim and Objectives

1.4.1 Aim

The overall aim of this dissertation is to assess the Shewula Reserve and Lubombo Conservancy initiatives in North-eastern Swaziland, as an example of CBC on SNL in Swaziland. In doing so, it effectively seeks to contribute to the discussion on biodiversity conservation and natural resource management on Swazi Nation Land (SNL) in Swaziland, such that biodiversity conservation may contribute towards the establishment of sustainable rural livelihoods.

1.4.2 Specific Objectives

The specific objectives of this study are:

- to present a conceptual framework for the integration of sustainable rural livelihoods with ecosystem and biodiversity management, namely Managed Natural Environments;
- to provide a rationale for two potential biodiversity conservation and SRL initiatives on SNL, namely CBC and CBNRM;
- to provide a brief analysis of the strengths and weaknesses of the Shewula Reserve and Lubombo Conservancy processes;
- to provide possible solutions for enhancing the strengths and mitigating the weaknesses of the Shewula Reserve initiative;
- to identify the various issues that could impact the successful implementation of an integrated CBC-CBNRM programme in Swaziland;
- to propose guidelines as a starting-point for addressing these issues; and
- to propose a principles-based approach to implementing an integrated CBC-CBNRM programme in Swaziland.

1.5 Description of the Study Area

Swaziland is located in southern Africa, surrounded by South Africa in the north, west and south, and bordered in the east by Mozambique (See Map 1.3). Swaziland can be divided into four agro-ecological regions (See Map 1.4), based on differences in geology, soils, prevailing climatic conditions, aspect and altitude. This diversity in physical attributes is reflected in the corresponding diversity in fauna and flora (de Vletter 1997, de Vletter 1999).

However, the natural resource base is rapidly being depleted through unsustainable land use and poor land management. Consequently, and compounded by a 3.4% population growth rate, there has been a significant degree of land degradation - such as deforestation, loss of biodiversity, soil depletion, and range deterioration (SEA 1997a) - which in turn has resulted in declining productivity. For example, natural vegetation is being depleted through a reliance on fuelwood for energy needs (between 75 and 90% of the rural population uses fuelwood), loss of habitat and alien plant invasion. Wildlife is also threatened (SEA 1997a). The resultant social impact is reflected in the increase in rural poverty.

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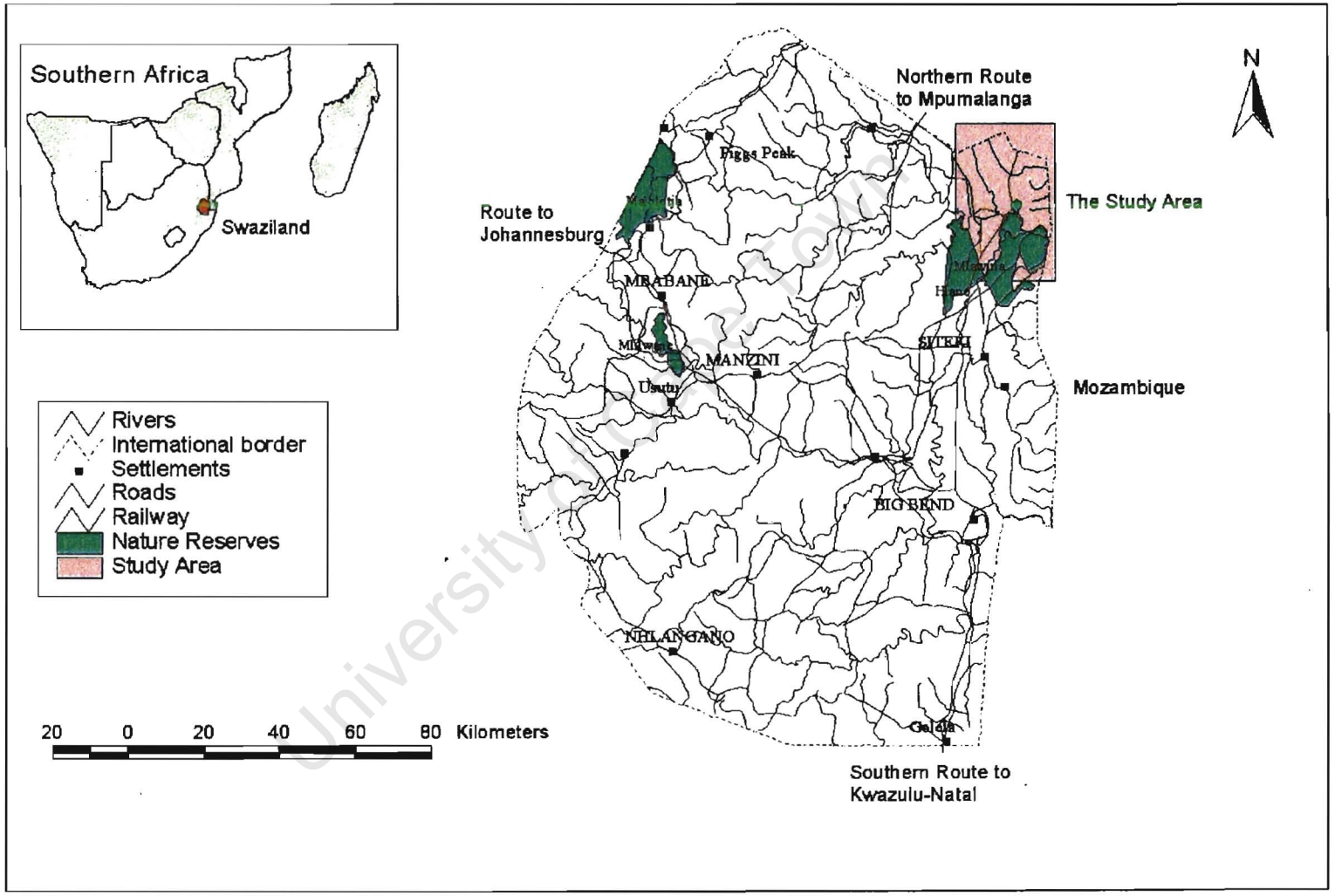

MAP 1.3: Swaziland in southern Africa

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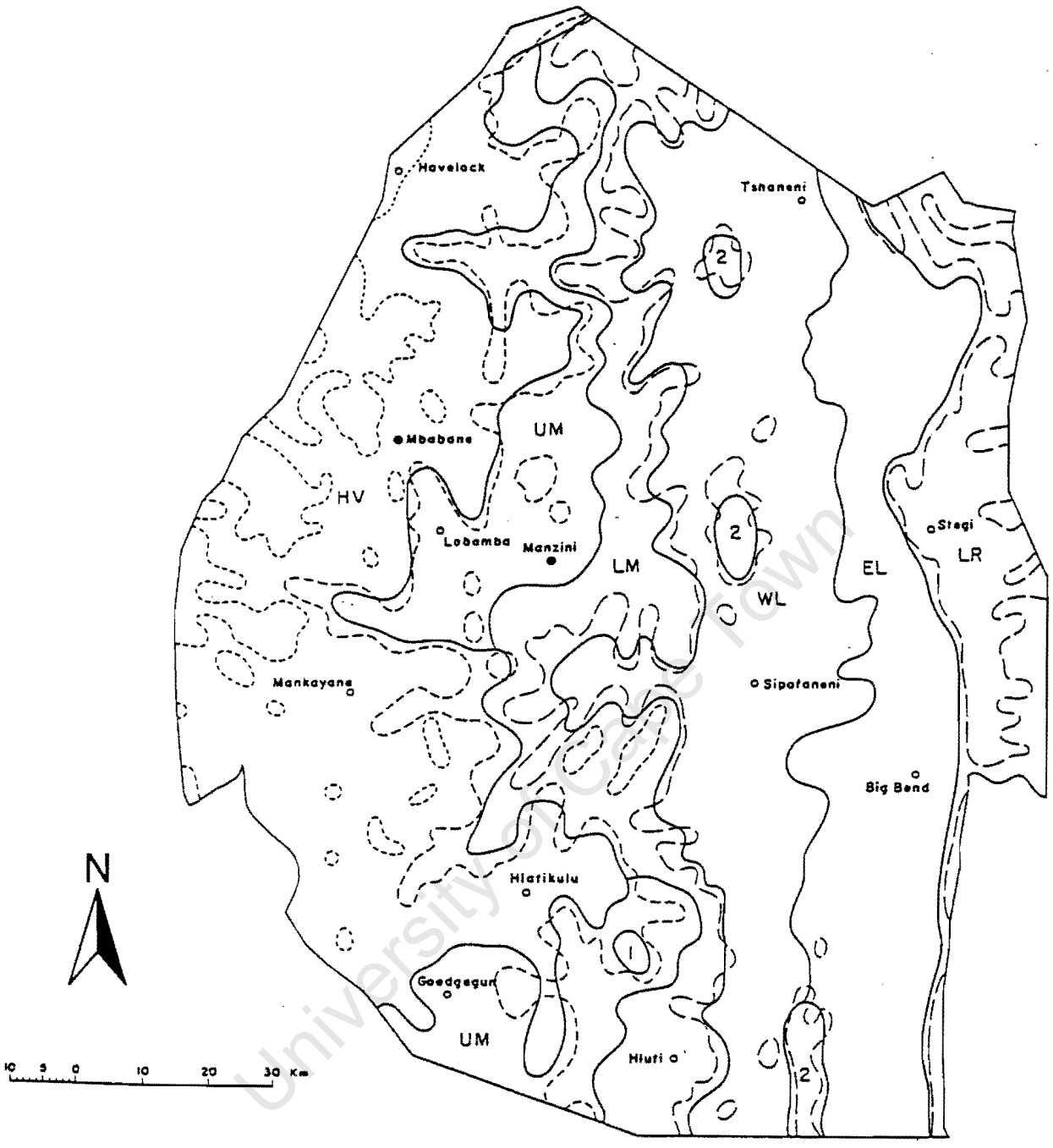

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Key:

LR = Lubombo Range

EL & WL= Lowveld (eastern and western)

UM & LM = Middleveld (upper and lower)

HV = Highveld

Source: Murdoch (1968)

MAP 1.4: Agro-ecological zones in Swaziland

The eastern areas of Swaziland are part of the Maputaland Centre of Plant Diversity, which is a regionally and globally significant site for biodiversity (Masson 1996, de Vletter 1999). This eastern most region, also known as the Lubombo region, is characterised by the biodiversity-rich corridor of the Lubombo Mountains, a rhyolite-dominated intrusion, with a diverse range of short broad-leaved savannas, bush-clump grassland and forested ravines (de Vletter 1999).

The study area is located alongside the border with Mozambique in north-eastern Swaziland. It is a "pristine" area, both in terms of its cultural and natural assets. The Shewula Community is resident along the plateau of the Lubombo Mountains (See Map 1.5 and Plate 1.1), which form a natural border between Mozambique and Swaziland. Although situated in a landscape that is rich in natural resources and biodiversity (Masson 1996), the community is characterised by poverty (MEPD 1997) and has a history of political and economic marginalisation.

The Shewula Community is in a unique situation in that it is in a proposed TFCA (Maputaland), it has been identified as one of the communities to benefit from the proposed Lubombo Spatial Development Initiative (SDI)[10], it is included as one of the communities in the proposed Biodiversity Conservation and Participatory Development Programme (BCPDP)[11], and it has recently established a reserve on communal tenure land. In the process of establishing a tourism development in the Shewula area, a Trust has been established to specifically manage the issues around the tourism development and other initiatives in the community. The election of the Trustees is unique in that the selection approach combined both top-down (Chief's selection) and bottom-up (democratic/participatory selections) selection methods (Segar *et al* 1999).

The Shewula Community is poverty stricken due to the loss of cattle through drought and cross-border stock thefts, and a high rate of unemployment. However, this rural community, like others in Swaziland, grows some or most of their own food, and thus have some form of subsistence livelihoods. Some members of the community have found employment in the sugar industry, while a few others are employed further afield in Siteki, Manzini or Mbabane.[12]

[10] The Lubombo SDI is a tripartite agreement between the countries of South Africa, Mozambique and Swaziland. The aim is to promote economic development through tourism and agriculture in eastern Swaziland, southern Mozambique and northern KwaZulu Natal (South Africa).
[11] The BCPDP is funded by the World Bank, with the aim to promote biodiversity conservation and rural development through promoting effective tourism development corridors along the eastern and northern regions of Swaziland.
[12] These are urban centres in Swaziland, with Mbabane being the national capital, and Siteki being the Lubombo regional administrative centre.

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The community's land use activities are primarily agricultural, with a focus on small-scale cash (e.g. cotton) and food (e.g. maize) crops, and on cattle. Cattle play a vital role in the livelihoods of the community, as they are a source of funds when required (e.g. for school fees), and are also culturally significant (e.g. for paying *lobola* before marriage). Of even more interest is that the men of the community are more focused on cattle, while the women of the community are more focused on alternative income-generating activities (Segar *et al* 1999). It is therefore suggested that women would more easily buy into the indirect entrepreneur activities that should result from the proposed tourism development and reserve formation initiatives (Segar *et al* 1999).

1.6 Methodology of the Ecotourism Development Feasibility Study and the Dissertation

1.6.1 Approach to Ecotourism Development Feasibility Study

The methodology for the feasibility study research included a literature review, six weeks of fieldwork, and a period of collation and analysis of data. As the initial ecotourism development proposal was deemed unfeasible during the early stages of the feasibility study, a pre-feasibility study was undertaken, resulting in far more effective groundwork amongst the broader community.

1.6.1.1. A preliminary visit

In November 1998, a preliminary visit was undertaken to the study area, during which discussions were held with community representatives on the Lubombo Conservancy working group, and various stakeholders and role-players in the area. A preliminary proposal for the feasibility study was presented to a workshop of role-players and stakeholders, and agreement was reached on moving forward with the proposed study.

1.6.1.2. Literature review

A conceptual framework was developed for the tourism development and conservation area initiatives. By conducting a general literature review, an understanding of the range and nature of issues pertaining to these initiatives was gained.

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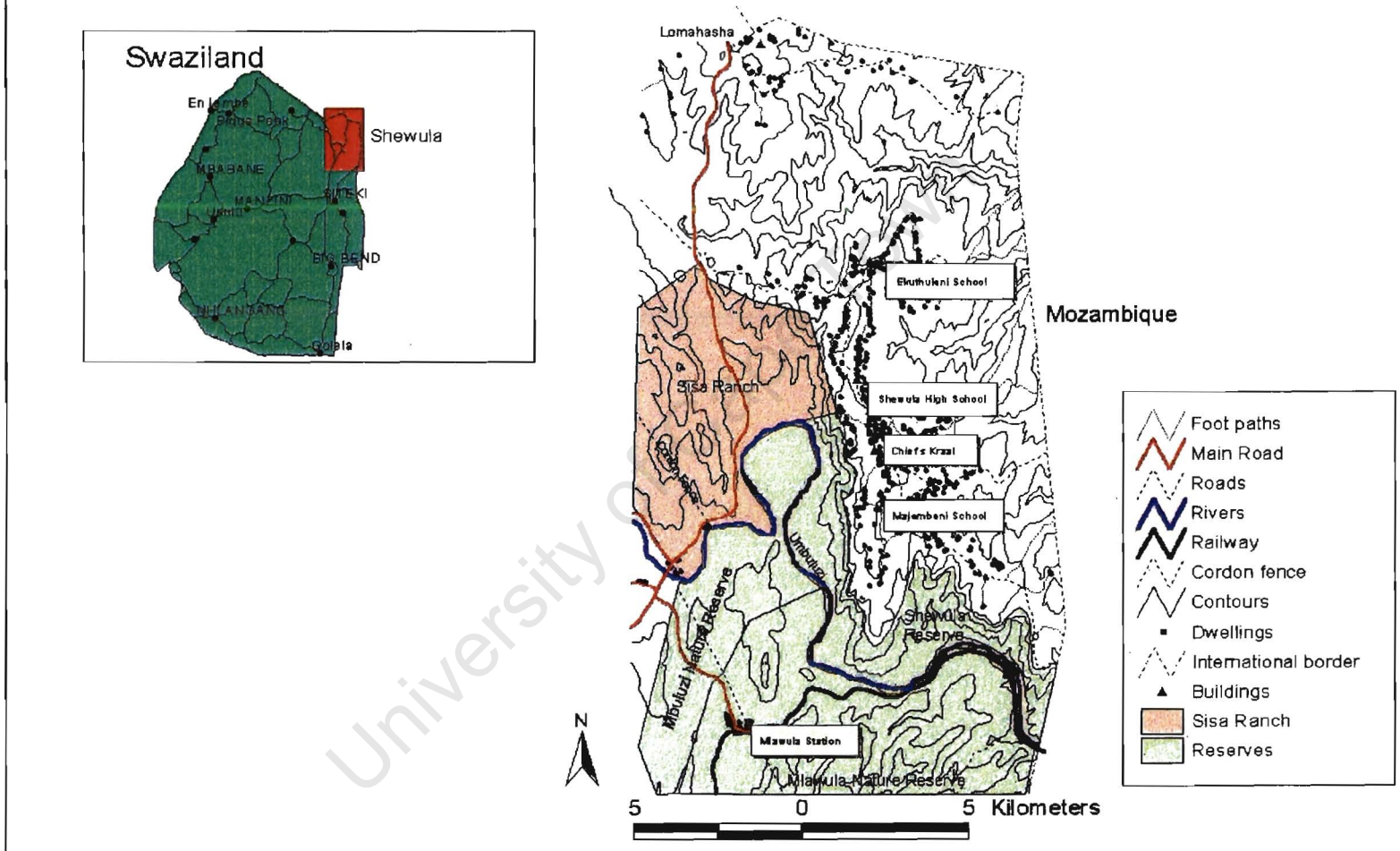

MAP 1.5: The Shewula Community in relation to adjacent properties

University of Pretoria

PLATE 1.1: CATTLE-DIPPING DAY IN THE SHEWULA COMMUNITY

PLATE 1.2: MEMBERS OF THE SHEWULA COMMUNITY

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1.6.1.3. Fieldwork

The majority of the fieldwork was carried out among the Shewula Community. It included site visits, meetings within the community, and meetings with other interested and affected parties (I&APs). Volunteer researchers from the community played an important role in data collection. Essentially, participatory rural appraisal techniques were employed, whereby the study team acted as facilitators, with the help of local translators.

- **Site visits**

Visits were undertaken to the locations selected by the chief and various community leaders as potential sites for the tourism development. The general reserve area was also assessed from the angle of neighbouring reserves. In addition, visits were also undertaken to the neighbouring Goba community in Mozambique, and to the Makuleke community in South Africa (i.e. who are located adjacent to the northern section of the Kruger National Park), where CBNRM and CBC/tourism development initiatives, respectively, were being implemented.

- **Meetings within the Shewula Community**

Qualitative research was the foundation for group and informal meetings in the community. These took the form of workshops, information-sharing meetings with the broader community as well as regular meetings with the traditional leadership. Informal meetings included social gatherings, visiting the homesteads of Shewula residents, and holding impromptu discussions with residents.

- **Meetings with other I&APs**

Semi-structured and informal interviews were conducted with various role-players.[13] Parties interviewed included members of the Shewula Community, representatives from the Government of Swaziland (GoS) departments, specialists and professionals in the fields of tourism and conservation (in Swaziland, South Africa and in Mozambique), representatives from neighbouring properties, and representatives from donor agencies and NGOs (local and international). Group meetings were held with the Shewula Trust Working Group[14], the Goba community in Mozambique, and members of the Makuleke Communal Property Association in Northern Province, South Africa.

[13] See Appendix 4 in Segar *et al* (1999) for a list of role-players consulted.
[14] The Shewula Trust Working Group was formed from various role-players in the area, in order to assist the Shewula Community during the tourism development process.

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A workshop was held at the end of the fieldwork research period where the preliminary findings were presented to various I&APs. The participants were able to provide feedback and comments on the preliminary findings.[15]

- **Volunteer research**

Members of the community volunteered to gather community's perceptions of the tourism development and reserve initiatives. In addition, the volunteers engaged community members in discussions around various topics, such as tourism, poaching and development needs. This approach enhanced the community's participation in the tourism development process.

1.6.2 Approach to the Dissertation

This dissertation has used some information collected during the feasibility study. The author collected additional information pertinent to this dissertation during the fieldwork phase of the feasibility study. A follow-up visit was undertaken to the Shewula Community in May 1999, as an independent consultant assisting Legambiente and COSPE (Italian NGOs) in a preliminary assessment of the feasibility of implementing a CBNRM approach in the Shewula Community (Isola *et al* 1999).

During this follow-up visit, various Swaziland government officials were interviewed, as well as key figures in the European Union (EU) office in Mbabane. Discussions focused on the Ministry of Agriculture's policy for rural development and for NRM on SNL, as well as on funding opportunities for the CBNRM initiative. As part of this assessment, a visit was undertaken to Mozambique, where leaders and members of the Goba community were interviewed. Information was obtained with regard to the level of community ownership of the CBNRM initiative (community forestry), and resident's perceptions of the initiative. In addition, meetings were held with the Mozambican government officials responsible for the CBNRM project in Goba, as well as with various I&APs associated with CBNRM and TFCAs in Mozambique. Discussions addressed the methodology that was used in proposing and implementing CBNRM in the Goba community, and on the criteria used for selecting communities as pilot projects in implementing CBNRM nation-wide in Mozambique.

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[15] A summary of the workshop is contained in Appendix 1 of the feasibility report (Segar *et al* 1999).

Further information was collected in September 1999, when a visit was undertaken to the Shewula Community in order to re-establish the tourism development process.[16] During this visit, members of the BSAP Steering Committee were interviewed on the issue of conserving biodiversity on communal lands.

The methodology undertaken during this dissertation can be summarised as follows:

- an analysis of the Shewula Reserve formation process;
- an analysis of the results of the community participation process in the tourism development feasibility study (based on Segar, *et al* 1999);
- an analysis of the Lubombo Conservancy formation process (Sandwith 1999); and
- an analysis of the literature on CBC and CBNRM projects and programmes from southern and east African countries.

Due to the repeated interchanging between the use of the concepts of CBC and CBNRM in the literature, a framework attempting to discern the similarities of, and differences between, the two concepts is presented in this dissertation (See Chapter 3). Furthermore, a "new"[17] concept for managing communal lands, namely Managed Natural Environments (MNEs), is developed.

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1.7 Assumptions and Limitations

1.7.1 Assumptions

The original rationale for the Shewula Community agreement of the conservation initiative in the Shewula area was based on the following assumptions (Segar *et al* 1999):

- that the remaining cattle in Shewula could be protected by placing them in a reserve that could serve as a sanctuary for them;[18]
- that the security of the cattle would be ensured because there would be rangers to guard the natural resources, who could then also guard the cattle; and
- that it would be possible to have cattle and wildlife in the same area.

[16] The recommendations of the feasibility study were meant to be implemented over a six-month period leading up the funding deadline set by the British Council. Unfortunately, very little progress was made and the UCT study team had to facilitate the re-establishment of the process.

[17] Many of the ideas for managing natural resources in the rural landscape have been around for a while, especially in indigenous knowledge systems. Thus the concept of holistic management is, in essence, the re-iteration of the need to adopt an integrated or ecosystem approach as a foundational success factor for sustainable natural resource management and biodiversity conservation.

In contrast, the following are the assumptions made by the proponents of the Lubombo Conservancy concept (i.e. adjacent landowners to that of the community reserve) with regard to the Shewula conservation and tourism initiatives (Sandwith 1999):

- that the land earmarked for a reserve was lying idle and could be better used;
- that it was and/or is necessary to conserve this land, or manage it sustainably, especially if this could occur in conjunction with alternative land-use options such as tourism, which could generate benefits for the community; and
- that tourism would stimulate local/rural economic activity and would help to improve the livelihoods of the Shewula people, since it provides benefits in the form of direct and indirect incomes, and other benefits such as improved infrastructure.

The contrast in the two sets of assumptions shows that the issue of cattle is a priority for the community members, while the issues of biodiversity conservation and community development were priorities to adjacent landowners. This divergent set of assumptions may be a cause for conflict between community members and the surrounding land-owners in the future.

For CBC and CBNRM to be successful,[19] the following assumptions should characterise the programmes:

(1) **Natural resource sustainability,** whereby the use of the biophysical environment does not result in its degradation;

(2) **Economic sustainability;** whereby some of the needs of the people are satisfied;

(3) **Enhanced institutional capacity;** such that the community is in control of NR management and use.

This dissertation assumes that by empowering local communities to take more responsibility for biodiversity conservation and NRM, biodiversity will be conserved, ecological integrity will be enhanced, and rural people's livelihoods will be improved. However, if this empowerment is not accompanied by the promulgation of an enabling legal environment, by the strengthening of the multiple-scale institutions within the community, and by promoting a landscape-wide approach to rural environmental management, then successful biodiversity conservation may be difficult to achieve. Hence sustainable rural livelihoods may not result as people won't experience the true benefits of biodiversity conservation.

[18] The Shewula community has lost most their cattle to cattle rustlers from Mozambique.

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In using some of the information from the feasibility report, it is assumed that the information is a true reflection of the situation in the Shewula Community area and in Swaziland. It is also assumed that there were no misinterpretations by the study team or the translators during the field-work.

1.7.2 Limitations

In not only this proposed integrated CBC-CBNRM programme, but in all their activities, as well as in the assumptions of humankind's behaviour, people need to adopt precautionary approaches to natural resource use. This is due to the imperfect knowledge of the complexities of biodiversity, the functioning and complex linkages of ecosystems, and humankind's intricate role and dominant position in these systems.

Criticism was levelled at the way in which the Shewula Reserve formation and Lubombo Conservancy processes were initiated, which some people described as '*not people-driven*'.[20] Such comments referred to the role of the traditional leadership in initiating plans for the two processes and the lack of participation by the broader community. This contrast in approaches reflects the broader socio-political and cultural context of Swaziland.[21] Another limitation was the resistance encountered in attempting to separate the initiatives from the socio-political and cultural dynamics, for the purpose of clarity in understanding the pros and cons of the reserve and conservancy initiatives.

Due to the limited time in which to undertake the research for the dissertation, the author as an outsider may not have fully understood the dynamics of the socio-political and cultural context of the community and country. In addition, case studies for implementing participatory CBC and CBNRM approaches are limited in that there are few success stories (Crook 1996), and that the time period of the case studies is too short to see if they will succeed in the medium- to long-term. Various other limitations pertaining to working with the Shewula Community were identified (See Segar *et al* 1999:28-32).

It is argued that unless national, regional and local role-players and stakeholders, in promoting community-based biodiversity conservation for sustainable rural livelihoods, undergo a mindset change or sea change in value systems and in avoiding self-serving interests, then a disabling environment is created and these initiatives are doomed for failure from the very start.

[19] An unsuccessful programme is defined as one that is unsustainable and discontinues (Crook 1996).
[20] Manyoro Mabila, Shewula Community member, *pers comm.*

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1.8 Structure of the Dissertation

This dissertation is presented in seven chapters. Chapter 1 outlines the aims and objectives of the dissertation as well as the methods used in compiling the information for the feasibility study and the dissertation. Assumptions and limitations of the dissertation are then highlighted.

Chapter 2 provides a theoretical and conceptual foundation for biodiversity conservation, sustainable rural livelihoods and natural resource management in southern Africa and in Swaziland. Chapter 3 seeks to identify a new conceptual framework for environmental management on Swazi Nation Land in Swaziland, namely Managed Natural Environments (MNEs). Chapter 4 describes the socio-economic, cultural, political, and biophysical context of Swaziland, and how the community-focused initiative proposed in this dissertation should fit into the conservation policies of Swaziland.

Chapter 5 identifies the strengths and weaknesses of the Shewula Reserve and Lubombo Conservancy formation processes, and how these strengths and weaknesses could be enhanced and mitigated, respectively. Chapter 6 describes how the lessons learned through the Shewula Reserve and Lubombo Conservancy formation processes, the case studies in the literature, as well as the Makuleke and Goba communities in South Africa and Mozambique respectively, could be a foundation for a potential integrated CBC-CBNRM programme for Swazi Nation Land.

Chapter 7 summarises the conclusions of the dissertation, and then outlines the recommendations for strengthening the Shewula Reserve process, as well as for developing an integrated CBC-CBNRM approach for Swazi Nation Land in Swaziland.

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[21] The socio-political and cultural dynamics of the country are being played out at the local level.

CHAPTER 2

UNDERSTANDING THE CONCEPTS OF SUSTAINABLE RURAL LIVELIHOODS AND BIODIVERSITY CONSERVATION

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2. UNDERSTANDING THE CONCEPTS OF SUSTAINABLE RURAL LIVELIHOODS AND BIODIVERSITY CONSERVATION

This section seeks to explore the theory, and the reality, of local communities in natural resource management, biodiversity conservation and rural development. Furthermore, the linkages between ecological integrity and sustainable and effective rural livelihood strategies are examined.

2.1 Common Property and Open Access Management Regimes

The debate around the "Tragedy of the Commons" (Hardin 1968) has resulted in more in-depth studies of the different types of property regimes. Bromley & Cernea (1989) and Murphree (1993) show that, theoretically, natural resources can be held under any one of the four types of property rights regimes, namely state property, private property, communal property or open-access (See also Arnold 1998).[22] In practice, natural resources are rarely managed solely within any one of these types (Murphree 1993).

There is another view of the commons, which is different to the one that shows resource degradation to be the ultimate fate of the commons. Bromley & Cernea (1989) determined that common property regimes are not the free-for-all as perceived by some, but are structured ownership arrangements within which management rules are maintained, generally through traditional authority mechanisms. Consequently, any resource degradation that has taken place in the commons is due to the break-down of local/rural-level institutional arrangements that were ensuring the sustainability of NR use patterns on common property. The communal contexts created by colonialism are not common property management regimes, since they've been stripped of the necessary entitlements (Leach *et al* 1999).[23]

The undermining of the traditional authority structures during the colonial and nationalist periods of Africa has resulted in common property regimes being converted into open access regimes, resulting in the "Tragedy of the Open Access". Compounding these problems, the colonial and post-colonial nationalist governments did not adequately substitute for these institutions, resulting in centralised planning failure (Bromley &

[22] Open-access regimes, in allowing access to everyone, are not strictly a property rights nor a management regime.
[23] Environmental entitlements means effective access to, and control over, the use of natural resources by social actors in a power relations continuum (Leach *et al* 1999).

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Cernea 1989, Child 1995, Lutz & Caldecott 1996). As an aggregate of diverse multiple-scale institutions (Leach *et al* 1999), communities could become effective institutions for sustainable NRM. One way is through being granted genuine proprietorship, i.e. the right to use resources, determine the mode of usage, benefit fully from their use, determine the distribution of such benefits, and determine the rules of access (Murphree 1993).[24]

Institutions can be defined as "*regularised patterns of behaviour between individuals and groups in society*" (Leach *et al* 1999:226), rather than as community-level organisations. These institutions are mediators of people-environment relations (Leach *et al* 1999). Practitioners in CBNRM and CBC have tended only to focus on community-level organisations as the institutions in common property management. This view tends to be weakened due to ecological dynamics (high variability in time and space) and social dynamics (whereby local communities are dynamic and internally differentiated). Hence there may be conflicts between the NR claims and environmental priorities of social actors positioned differently in power relations. Leach *et al* (1999) proposed that institutions need to be diverse in operating at multiple-scale levels (from micro to macro). The environmental entitlements approach focuses on highlighting how the ecological and social dynamics influence the NRM and conservation activities of diverse groups of people and its associated impacts on the receiving natural environment (Leach *et al* 1999).

Instead of environmental degradation being related to population pressure on a limited resource base, the environmental entitlements approach seeks to consider the role of diverse institutions, at different levels and with different influences on power relations, on mediating the relationship between different social actors and different components of local ecosystems. This differentiation within communities should be integrated into project planning and implementation. If biodiversity conservation programmes are to be successful, they need to consider issues at the household/individual level, and the diversity of formal and informal groups (Leach *et al* 1999). At these levels, the benefits of NRM and conservation should exceed the costs of forgoing opportunities. However, an integrated CBC-CBNRM approach should aim not to forgo other opportunities, through seeking to minimise the impact defined as loss of opportunities.

[24] As shall be seen in the discussion in Sections 4.2-4.4, and 6.4.2, Swaziland is in a dilemma, as the very authority of the King is established in the *Tinkhundla* system, whereby the Chiefs are the allocators of land, i.e. proprietorship is not stable, unless allegiance is shown to the Chief in question.

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2.2. *Rural Development, Sustainable Rural Livelihoods, and Natural Resource Management*

2.2.1 *Rural development*

"*Development is not about placing facilities among the poor or creating infrastructure. Development is about releasing the community of the poor from the poverty trap so that they can take responsibility for their own destiny*" (Swanepoel & de Beer 1997:xiii). In another way, development can be defined as "*transforming the needs of the community into rights*" (Ruas pers comm. 1999). Such definitions offer a realistic and sustainable concept of development, in seeking to empower rural people towards ownership of decision-making, such that they are working in equal partnership with other role-players or are leading the way (Strum 1994). In essence, a strong definition of development should be directly integrated with a strong definition of participation (Arnstein 1969) in seeing management authority decentralised to local communities, thus enabling greater community ownership in determining the end-product of programmes and policies.[25]

Such definitions aim to give a more balanced and sustainable perspective of development, than the many weak, economic growth-centred definitions offered up for sustainable development (SD) or development. Weak definitions focus on things rather than on people. A clarification of competing interpretations of the terms SD and sustainability and a critical evaluation of the assumptions which underlie them (Rigby & Caceres 1997) can help to separate strong and weak definitions. As a result, a new concept, '*sustainable livelihoods*', has been offered up to overcome the abuse of the term sustainable development for the sake of economic growth.

2.2.2 *Sustainable Rural Livelihoods*

Rural people diversify[26] activities, and multiply linkages and supports, to exploit the diverse opportunities offered through the products and services of local resources (Chambers 1997:162-187). Cousins (1999) confirms that the reailties of rural people are "*local, complex, diverse, dynamic and unpredictable*" (Chambers 1997:162), in investigating the contribution of communal rangelands to rural livelihoods. Many direct and indirect natural resource uses are valued by the community, but are often not valued

[25] Arnstein (1969) developed an 8-level definition of the various forms of participation. It highlights the ineffectiveness and weaknesses of many so-called participation processes.
[26] Carney (1998) recommends that the traditional conceptualisation of the term "rural" should be expanded by referring to livelihood diversification and rural-urban linkages.

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in monetary terms and hence their true social and economic value is underestimated. The result is inadequate cost-benefit analyses when assessing and comparing rural development or biodiversity conservation projects (Cousins 1999).

Communal rangelands are important for food security, nutrition, income, medicine, fertiliser, fuel, building material, spiritual health and aesthetic satisfaction. As a result, policies and programmes aimed at addressing poverty in rural areas need to show a full understanding of these multiple resource uses in order to increase their effectiveness in meeting people's real needs (Cousins 1999). Hence, for programmes and policies to be effective in enhancing the positives of rural livelihoods and minimising the negatives, programme facilitators need to adopt a sustainable rural livelihoods approach as opposed to an integrated rural development approach (Carney 1998). Rural livelihood strategies are essentially aimed at managing risk, reducing vulnerability and enhancing security (Cousins 1999).

Livelihoods should be strongly defined as a concept "*which unites economic development, reduced vulnerability and environmental sustainability, while building on the existing strengths*" (Carney 1998:18) of the rural poor. By adopting this approach, new programmes should still be founded on the principles of integration and partnerships (Carney 1998:21).[27] In essence, adopting a SRL approach to interventions in rural communities, based on the principles of participation and capacity-building, focuses the need more on empowering local people at their level, rather than through imposing western or northern ideas of development and value systems (Carney 1998). Thus, SRL approaches would appear to be more open to incorporating biodiversity conservation, and hence the maintenance of ecological integrity, as one alternative income-generating activity in adding value to existing natural resource use (See Brown 1998).

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2.2.3 *Natural Resource Management in Agriculture*

An integral aspect of calling for a stronger conceptualisation of the terms "development" and "participation", is the call for agriculture to become more sustainable (Rigby & Caceres 1997). In promoting rural development, unsustainable and inappropriate policies and technology have been implemented. For too long, the protection of natural ecological processes, such as soil formation, water infiltration and nutrient recycling has been ignored in practising agriculture. Not only are present commercial and subsistence

[27] Partnerships between the micro (local) and macro (national) levels should be encouraged through building on the

activities undermining their own medium-term viability and hence rural livelihood strategies, but the indirect impacts on biodiversity, ecological integrity, and their associated income-generating activities (IGAs) are also being negatively impacted (Rigby & Caceres 1997). Instead, in the process of adding value to present resource use in the form of agriculture, crops should be produced that are economically viable, while preserving the short- and long-term integrity of local, regional and global ecology (Fuggle & Rabie 1996).[28]

Agro-ecology, integrated pest management (IPM), low input sustainable agriculture (LISA), low external input sustainable agriculture (LEISA), biodynamic farming and organic farming are different schools of "alternative" agriculture which have been concerned with environmental issues and food safety (Rigby & Caceres 1997), rather than on the prospects of exploitation (Fuggle & Rabie 1996). Agro-ecology is particularly applicable when considering the linkages between CBNRM and CBC. Agro-ecology seeks to understand and work with natural processes, in order to maximise sustainable net yields (i.e. incorporating all environmental costs), with management decisions based on resource constraints (Fuggle & Rabie 1996).

Agrarian specialists have proposed that subsistence farmers should be encouraged to adopt collectively organised village production as opposed to individual based family plots. The reasoning is that this would promote a diversified form of agriculture, whereby the best arable land is cultivated intensively (where economically viable and ecologically sustainable) and the marginal land used for grazing and other more sustainable land uses (Rigby & Caceres 1997). The aim of such an approach to agriculture is to promote more sustainable livelihood strategies and hence biodiversity conservation and maintenance of ecological integrity.

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various principles of the SRL approach.

[28] Food crops need to be maintained in order for rural people to feed themselves.

2.3. The Impact of Conservation Science on Rural Livelihoods

Biological diversity can be defined as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part, this includes diversity within species, between species, and of ecosystems" (UNEP 1992). Biodiversity and its complexities[29] are intrically linked to ecological integrity, and hence humankind's livelihood strategies and resultant survival.

The current mosaic of habitats in southern Africa reflects the complex destructive and productive processes of humankind's interaction with the environment (McNeely & Ness n.d., MacDonald 1989). Not only can the human-environment dynamic lead to habitat destruction and thus the reduction of biodiversity, but it has often resulted in an increase in biodiversity. This anthropological influence as a disturbance regime in ecosystem structure and functioning has raised a question-mark over the effectiveness of protected areas in maintaining biodiversity without a productive sustainable natural partnership between local people and their natural environment in areas outside of protected areas (McNeely & Ness n.d.).

Various biodiversity conservation, NRM, and rural development approaches have been adopted over the years in the rural areas of developing[30] and third world/underdeveloped countries. However, many of these efforts to conserve biodiversity, manage NR, and develop rural communities have been socially unsustainable, through having been centralised, top-down, and through ignoring diversity in and between communities by attempting to apply "blueprints" to projects (Wells *et al* 1992:29). [31] This has resulted in an increase in the ecological unsustainability of such projects. As a result, more recent approaches have been influenced by a paradigm shift (over the last 15-20 years) in conservation management from "protectionism" / top-down to "participation" (Anderson & Grove 1987a, Kiss 1990, Wells *et al* 1992, Lewis & Carter 1993, IIED 1994, Brown 1998, Attwell & Cotterill n.d.), in seeking to integrate local people and their indigenous values and management systems in resource use and conservation.[32]

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[29] Biodiversity is a complex concept, as defined by its compositional, structural and functional components (Monadjem 1998).
[30] Developing countries are of the great concern, in that capitalism has boomed, but with resultant ecological catastrophes (Athanasiou 1998).
[31] This is not to say that overdeveloped countries are not at fault in their own livelihoods. In fact, they are even more unsustainable in their use of natural resources, but at a different scale and with a different focus, i.e. global warming, etc.
[32] However, Attwell & Cotterill (n.d.) are of the opinion that the postmodernist deconstruction approach to conservation science in Africa through promoting participation has been more detrimental to biodiversity in rural landscapes that the

The history of conservation approaches since colonialism began in Africa is one of poor policy choices and misguided and inappropriate rural development, resettlement, and conservation programmes. This history is also representative of the development of the various NRM and rural development policies and programmes of southern Africa (i.e. a transition in approaches from top-down to bottom-up). Essentially, five periods of conservation management approaches can be identified (Kiss 1993, Anderson & Grove 1987, Lewis & Carter 1993, IIED 1994) (See Table 2.1).

Table 2.1: History of Conservation and NRM Approaches in Africa

PERIOD		TYPE OF MANAGEMENT APPROACH
Historical	pre 1850	Traditional
Pre-colonial (Classical)	1850-1900	Marginalisation
Colonial (Neo-classical)	1900-1950s	Protectionist / top-down
Post-colonial / Modern / Nationalist	1960s-1980s	Protectionist (top-down), Participatory with limited benefits
Post-modern	1990s	Participatory, Decentralisation

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Various case studies have shown that traditional conservation and NRM systems have tended to fail (Lungu 1990; Simbotwe 1993, Nsanjama 1993), due to:

- the marginalisation of communities onto lands that are less arable,
- the exclusion of communities from NR use;
- forced sedentary policies causing a loss of nomadic, and hence adaptive livelihoods;
- population pressure;
- a lack of appropriate technology;
- the centralisation of decision-making and financial benefits;
- the undermining and breakdown of traditional authority structures;
- changes in value systems, and in social structure and functioning;
- economic underdevelopment.

previous exclusionary practices tried to manage.

Hence, threats to biodiversity, to the NR base, and hence to ecological integrity are on the increase, including (Simbotwe 1993):

- habitat losses due to high livestock densities;
- massive deforestation for woodfuel, charcoal, cultivation and commercialisation;
- overexploitation of vegetation, resulting in increased erosion and hence severe siltation of rivers and wetlands; and
- inappropriate centralised rural development and resettlement schemes with resultant excessive exploitation of natural resources (i.e. the effects of colonial and nationalist policies).

Another paradigm shift has been the change in conservation science and NRM approaches from single species focus to ecosystem focus (Attwell & Cotterill n.d.). In some ways this has encouraged the shift of conservation and NR management from centralised-protectionist approaches to decentralised-participatory approaches. Other conservation and NRM issues have also helped to encourage these changes in conservation and NR management regimes from "protectionist" / top-down to "participatory" in Africa. For example, most agencies for protected areas have encountered various ecological problems in managing these areas. These ecological problems include (1) the inadequate representation of habitats and ecosystems in protected areas; (2) park boundaries that do not adequately cater for ecosystem protection (which affects processes, such as the seasonal migration of large mammals); and (3) the ineffectiveness of park size[33] in relation to ecological isolation and effective population size[34] (Cumming 1993). More recently, declining finances and thus fewer staff, and increasing pressure from subsistence farmers have also been the key points of contention.

Hence, with the focus of biodiversity conservation and NRM having shifted to the interdependencies between ecological integrity, biodiversity, and sustainable rural livelihood projects (Carney 1998) (See Figure 7.1), there is now a realisation that rural people around protected areas are vital for biodiversity conservation and NRM programmes to succeed in their goals (Lewis 1993, Wells, *et al* 1992).

[33] Animal body size is generally related to the size of the area within which a population may be regulated without destroying or drastically altering its environment, as well as within which sufficient numbers are established to remain genetically viable. Alternative views emphasise the importance of disturbance such as drought, fire and disease in maintaining species diversity in non-equilibrial savanna systems.

[34] The fragmentation of populations and their subsequent reduction contribute to the loss of genetic diversity, thus making many of these species vulnerable to extinction.

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2.4. *Sustainable Rural Livelihoods through an Integrated CBC-CBNRM Programme*

2.4.1 *Biodiversity Conservation Strategies*

The Convention on Biodiversity (UNEP 1992) emphasised the value of biological diversity to humanity, the role of government's responsibility in facilitating the conservation and sustainable use of biodiversity, and the need to incorporate local/rural level society in this process (McNeely & Ness n.d.). Consequently, biodiversity conservation has been redefined as being concerned with the protection and sustainable use of natural resources (UNEP 1992), i.e. resource biodiversity (Brown 1998). The aim in this approach is to allow the diversity of genes, species, and ecosystems to be available to present and future generations as insurance for food security and livelihoods, and as potential solutions for diseases, such as AIDS or cancer.

The majority of the world's remaining biodiversity is located in developing countries (Masson 1996, Brown 1998), which paradoxically also have the highest population densities and highest population growth rates. As a result, overdeveloped countries are becoming more involved in rural biodiversity conservation initiatives in developing countries,[35] to assist them in maintaining biological diversity for the sake of global livelihoods (Kiss 1990, Brown 1998). **Ultimately, however, it is the rural people of southern Africa who will determine the fate of biodiversity (Kiss 1990), due to the important role that natural resources - and hence biodiversity conservation and ecological integrity - play in local cultures, and livelihoods (Cousins 1999).**

Poor rural people are generally primarily concerned with daily survival, due to inadequate access to resources and land. In addition, whatever resources they have access to are being degraded at a tremendous rate, as a result of population pressure (Attwell & Cotterill n.d.), harmful rural development policies (Wells *et al* 1992:28), harmful international aid policies,[36] and/or lack of local-level capacity. As a result, the loss of biodiversity is on the increase in the rural areas of developing countries, resulting in a decrease in ecological integrity, and hence decreased food security. Consequently, rural communities need to adopt integrated biodiversity conservation and NRM strategies, as the greater part of their livelihoods are dependent on maintaining ecosystem integrity (Brown 1998, Judah 1999).

[35] This is not to say that the first world countries should not attempt to halt or to reverse this trend. They have a responsibility for their own countries for the sake of global food security, environmental health, and sustainable livelihoods. In essence, developed countries are often more unsustainable than developing countries.
[36] For example, structural adjustment programmes. However, Blaikie (1995) notes that a relationship between adjustment

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2.4.2 *Rural people and the Costs and Benefits of Conservation Approaches*

In seeking to resolve the conflict between people and their environment through promoting more sustainable use of natural resources and hence the conservation of biodiversity (Kiss 1990, Morse & Stocking 1995), various conflicts have arisen between overdeveloped[37] and developing / underdeveloped countries.

> *"You destroyed your environment and got developed, now you want us to stop doing it! What do we get out of it? You have your TVs and your cars, but no trees. People want to know what they can gain by conserving the forest"*
> (Francois Bikoro, deputy editor Africa Express, Judah 1999).

This argument is indicative of the need for rural people to see direct and indirect benefits for themselves, in terms of day to day survival, in order for them to support conservation and NRM approaches (Brown & Wycoff-Baird 1992, Owen-Smith 1993, Judah 1999). For too long, rural people have borne the costs of living in and around biodiversity-rich areas and protected areas, without obtaining the real benefits from them (Kiss 1990). It therefore seems that the development discourse has failed to resolve the tension between conservation as preservation of existing biodiversity and conservation as sustainable exploitation. In other words, there is tension between two groups of people seeking to manage and utilise the environment - one managing natural resources because it improves their livelihood conditions (developmentalist perspective) and the other managing natural resources because environmental degradation is a threat to life-sustaining processes or to people's aesthetic values (Brown 1998). Generally, people will seek to manage the environment when the benefits of management are perceived to exceed its costs (Murphree 1993).

2.4.3 *Integrating conservation, natural resource management and community development approaches*

Governments' decreased capacities to manage existing conservation areas, the need to conserve biodiversity in areas outside protected areas for the sustainability of protected areas, and the need to promote sustainable livelihoods for biodiversity conservation programmes to succeed (and vice versa), have resulted in conservationists seeking to integrate conservation (in the form of protected areas) and rural development approaches (Kiss 1990, Wells *et al* 1992, Brandon & Wells 1992, Lewis & Carter 1993).

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programmes and environmental degradation is difficult to prove, due to the complexities of such a relationship.

[37] The term 'overdevelopment" emphasises the fact that the western and northern countries are overusing resources at a rate that is unsustainable. The sooner the fight to overcome poverty is integrated with the fight to sustainably utilise resources in overdeveloped countries, the better the chances of actually succeeding at eradicating poverty. This concern is echoed in a quote from Jacques Attali (founding president of the European Bank for Reconstruction and Development) in 1991: *"In the coming world order, there will be winners and there will be losers. The losers will outnumber the winners*

Integrated conservation and development projects have been predominantly focused on communities around protected areas, in seeking to improve living standards and to mitigate poverty as a means of conserving biodiversity in protected areas.

In promoting integrated rural development and biodiversity conservation programmes, natural resources should be used sustainably, efficiently, and equitably (Kiss 1990, Wells *et al* 1992, Brandon & Wells 1992). This could be achieved through generating income and/or producing food in fragile marginal areas, which are unable to sustain productive agriculture or livestock husbandry. Approaches to achieve these goals include wildlife management and ecotourism (Kiss 1990, Lewis & Carter 1993). In areas that can sustain productive cultivation or pastoralism, ways need to be identified to add value to these activities (i.e. appropriate technology) (Brown 1998). By developing alternative income-generating projects based on sustainable NR use through effective NRM and biodiversity conservation by local communities, more effective rural economies should be developed through building on the foundation of rural people's complex and diverse livelihoods (Chambers 1997, Cousins 1999).

Various programmes have had limited success in that they have promoted more sustainable use of natural resources at the local level, especially where communities had been disempowered through exclusion from protected areas, and hence arable land. These initiatives include CAMPFIRE (Communal Areas Management Programme For Indigenous Resources) in Zimbabwe (Child 1995, Metcalfe 1994), ADMADE (Administrative Management Design) and LIRDP (Luangwa Integrated Rural Development Programme) in Zambia (Cumming 1993), WMAs (Wildlife Management Areas) in Botswana (Lawson & Mafela 1990), and community conservancy areas in Namibia (Owen-Smith 1993, Jacobsohn 1993, Jones 1997).

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by an unimaginable factor." Quoted in Athanasiou 1998: Dedication page.

2.5. Conclusion

There has been huge potential for CBC and CBNRM projects in recent years, either in supporting wildlife management in communal lands or in establishing conservation areas, but a failure to live up to their promise has resulted. The right words were being used -- local participation, empowerment, tangible benefits, sustainable development -- but some programmes were and are still failing. Problems that contributed to these failures included paying lip service to the goal of involving local communities, a short-term focus with no long-term management, an over-reliance on expatriate expertise, failure to work through or build up local institutions, and not being able to build sustainability into projects. In addition, there were no clear evaluation criteria to determine if local communities have benefited or if conservation is better off as a result of involving local communities (Western *et al* 1994b). The concern is that the Government of Swaziland (GoS) may make the same mistakes when seeking to establish an integrated biodiversity conservation and NRM programme for Swazi Nation Land (SNL).

In communal lands in Swaziland (i.e. SNL), a number of ways can be identified for promoting sustainable livelihoods in conjunction with biodiversity conservation, including:

- income from tourist revenues;
- development/enhancement of existing management strategies, in order to promote the conservation and sustainable and efficient use of natural resources;[38]
- sustainable resource extraction from forests and wildlife; and
- local livelihood enhancement (Brown 1998).

The more obvious solutions to the problem of integrating conservation and development -such as alternative income generating schemes, compensatory payments and the redistribution of tourism benefits - may be incapable of providing sustainable benefits to local communities in Swaziland. Hence, one other possible solution may have to be considered, namely constructive engagement with the existing economy through empowering local communities to be effective biodiversity conservation and NRM institutions. This can be in the form of involving rangeland-dependent communities in some kind of commercial production, such as timber exploitation in Cameroon (Brown

[38] In the Goba community in Mozambique, coal-manufacturing activities were made more sustainable through focusing on trees that were more abundant with similar coal-producing potential as the previously used rare trees. In addition, the design of the kilns used to produce coal were improved to ensure a higher rate of return from the same mass of wood. Hence, the conclusion is that many activities are not realising the full value of natural resources, due to inefficiency of use.

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1998), or coal production in Mozambique (Isola *et al* 1999). Or it can be in the form of enhancing livelihood strategies (Cousins 1999), an approach that recognises the dependence of local management systems upon sustainable use and the importance of maintaining ecosystem integrity. In this sense, local resource users are correctly seen as biodiversity's managers (Brown 1998). This approach should not be seen as a final solution for the problems of integrating biodiversity conservation and SRL initiatives, but should merely be the initial step towards developing a strategy that will require continuous support and adaptive management (Brown 1998).

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CHAPTER 3

A CONCEPTUAL FRAMEWORK FOR COMMUNITY-BASED CONSERVATION AND NATURAL RESOURCE MANAGEMENT IN SWAZILAND

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3. A CONCEPTUAL FRAMEWORK FOR COMMUNITY-BASED CONSERVATION AND NATURAL RESOURCE MANAGEMENT IN SWAZILAND

This section seeks to introduce a conceptual framework for understanding what community-based conservation areas (CBCAs) and community-based natural resource management areas (CBNRMAs) are, and how they could enable more effective and sustainable management and utilisation of Swazi Nation Land in Swaziland.

3.1 Introduction

The ecology of southern Africa has been, and continues to be influenced by the dynamic interaction of people and the multitude of their activities, wildlife, vegetation, geology, rainfall patterns and temperature, as well as by aspect and altitude (McNeely & Ness n.d., MacDonald 1989). As such, various arid and semi-arid areas are being unsustainably utilised for subsistence cropping and extensive livestock production, while forests and woodlands are being transformed into agricultural lands. Fuelwood and charcoal are being unsustainably harvested from the woodland resources (Ruas *pers comm.* 1999), while there is a battle to provide sufficient water for the people and for the ecological needs of the southern African landscape (Davies & Day 1998). Whether it is for subsistence or for commercial activities, rural livelihood and development activities are becoming or have become ecologically (Judah 1999) and socially unsustainable.

Along with the present trends of resource degradation, there is the ever-increasing threat to protected areas, as well as the loss of protection-worthy areas. Thus, there is a need to implement land use policies and production systems that are more adapted to such resource threats and that are more socially sustainable (Mather & Chapman 1995). Such action aims at reversing the trend of transforming habitats, displacing and losing biodiversity[39] and undermining ecological integrity,[40] for the sake of the livelihoods of the most vulnerable rural people. Appropriate institutions need to be established to encourage rural people to adopt production systems (i.e. wildlife production, ecotourism, forestry) that are adapted to the aberrations of the sub-continent's weather patterns, and to the resource limits in the face of excessive population growth.[41]

[39] See Global Biodiversity Strategy (WRI, IUCN, UNEP 1992) and the Convention on Biodiversity (UNEP 1992).
[40] See the World Conservation Strategy (IUCN, UNEP & WWF 1980), the Brundtland Report (WCED 1987), and the Caring for the Earth Strategy (WWF 1991)
[41] This is not to say that rural people are the only ones to have reached limits to use. Urban communities, in the context of an integrated approach, need to understand that their livelihoods are excessive in resource use, and hence indirectly

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A holistic and integrated approach for rural environmental management is recommended in seeking to integrate rural development schemes and biodiversity conservation programmes, within the framework of a holistic ecosystem management approach. The natural resources of the southern African rural landscape need to be effectively and sustainably managed for the benefit of local/rural people, who are the people impacted the most by conservation and rural development schemes and environmental degradation, and for the benefit of the global village.

3.2 *Towards the Integration of Biodiversity Conservation, Natural Resource Management and Sustainable Rural Livelihoods*

Protectionist conservation approaches have failed or are failing due to uncontrolled poaching and non-viable conservation areas (Lewis & Carter 1993, Anderson & Grove 1987a) that are merely islands in a sea of habitat loss and/or change. The result is increased enforcement costs and the alienation of people from resources that they relied upon for subsistence. This, in conjunction with other colonial and nationalist (post-independence) policies, has resulted in rural poverty and thus one of the greatest threats to biodiversity (Owen-Smith 1993). Increased population numbers have only served to exacerbate the problems (IIED 1994, Kasusya 1998, Attwell & Cotterill n.d.).

Attwell & Cotterill (n.d.:1) concluded that the post-modernist thinking in adopting participatory approaches for conservation science in Africa has "*actively detracted from efforts to avert the crises facing African biota and ecosystems and their associated socio-economies*". Their reasoning is that all efforts over the past two to three decades have sidelined the major issue of population growth and its detrimental effect on resource degradation. They argue that the real issue is the finite limits to resource depletion and that these limits can only be addressed through confronting human population growth. Attwell & Cotterill (n.d.) have thus proposed that population growth be confronted head-on by defining roles for the ecologist,[42] for the social scientist,[43] and for the donor community.[44]

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are undermining ecosystem integrity in the very rural areas that are the focus of this dissertation.

[42] The ecologist should stand firm on the concepts of carrying capacity, and on population processes and their effects on resources, in the face of criticism of analysing human population growth along such lines.

[43] The social scientist should seek to understand the donor-recipient interface, and to clarify various cultural biases for or against utilitarianism and aesthetics. In addition, the social scientist should identify indigenous customs that are either beneficial or detrimental to conservation and sustainable use of natural resources through excessive population growth, and to identify alternatives with communities.

[44] The donor community should formulate an agreed population policy as a condition of donor support. An acceptable human rights record and an acceptable level of community participation are conditions to such support.

These participatory (Lewis & Carter 1993) and sustainable use (Lungu 1990) approaches in conservation and NR management, in seeking to empower and involve local communities in decision-making over NRM and use, should be tempered by the recommendations that Attwell & Cotterill (n.d.) have made for effective conservation and NRM in Africa. Hence, in the face of radical population growth and real limits to resource depletion, these recommendations should be integrated into the postmodernist participatory approaches to conservation and NRM to ensure the maintenance of ecological integrity.

3.3 The Development of the Conceptual Framework

3.3.1 *Managed Natural Environments (MNEs)*

There are numerous challenges in seeking to build a more positive relationship between people, their natural resource base, and protected areas. These are especially noticeable when attempting to mitigate the weaknesses of the exclusionary approaches used to establish conservation areas in colonial and nationalist periods of the history of the sub-continent (Anderson & Grove 1987a, Lewis & Carter 1993). One solution to overcoming these weaknesses is through the World Conservation Union's (IUCN) system of categorising protected areas (PAs) (IUCN 1994, Ceballos-Lascurain 1996), which recognises that humans and protected areas can co-exist productively under some management regimes.

The category "Protected Landscape" (Category V), encompasses protected areas mainly for landscape conservation and recreation. This includes areas of land "*where the interaction of people and nature over time has produced an area of distinctive character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area*" (McNeely & Ness n.d.). Furthermore, Category VI (a Managed Resource Protected Area) encompasses protected areas managed mainly for the sustainable use of natural ecosystems. It should include areas "*containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while providing at the same time, a sustainable flow of natural products and services to meet community needs*" (McNeely & Ness n.d.).

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Similarly, biosphere reserves can be described as areas that are managed for the present and future use of NR, for maintaining the diversity and integrity of biotic communities, and to safeguard genetic diversity of species on which continuing adaptive abilities depend. These biosphere reserves are then zoned according to the type of land use, the type of NR, and the type of interaction that people have with the specific environment (Fuggle & Rabie 1996).

However, in the light of increasing population pressure, the establishment of PAs may not be a feasible option anymore. Instead, the principles of categories V and VI could be integrated with those of biosphere reserves (Ingram 1990, Fuggle & Rabie 1996) in seeking greater integration between rural people and their livelihood strategies, ecological structure and functioning, and biodiversity conservation.

An approach to categorising communal lands in the rural landscape could be to classify each community area (self-defined) as a protected landscape / natural environment (PNE), or biosphere reserve (IUCN Category V), or as a managed resource protected area (IUCN Category VI). However, the concepts of "reserve" and "protected" may have negative connotations for community members and may bias the work of conservationists and NGOs. In addition, the proposed concept is not always about "reserve" and "protected", but is about biodiversity conservation and ecological management through the sustainable use and efficient management of natural resources (and vice versa). It is therefore suggested that the principles and objectives of IUCN Categories V and VI, as well as that of biosphere reserves, should be integrated and applied under the new heading of Managed Natural Environment (MNEs), based on the concept of zoning and multiple resource use and land use.

Figure 3.1 shows how the rural landscape of Swaziland can be conceptualised. The bold arrows are highlighting the emphasis of an MNE framework on Swazi Nation Land (SNL), i.e. communal tenure land. The figure also seeks to explain how an integrated CBC-CBNRM management strategy, in the framework of MNEs, could bring about sustainable rural livelihoods and hence biodiversity conservation on SNL. MNEs, by their very nature, imply the essential integration of rural people and their livelihood strategies in the functioning of MNEs. By establishing MNEs or managed landscapes in communal areas in Swaziland, a policy environment should be created to assist the process of implementing the objectives of CBC and CBNRM (See also Figure 7.1).

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In Figure 3.1, the concepts of CBC and CBNRM have been separated at the theoretical level for ease of understanding but may be seen as different forms of the same programme for biodiversity conservation and sustainable rural livelihoods. However, the separation of CBNRM and CBC as different forms of land management and use regimes is blurred. For example, biodiversity conservation is part of CBNRM in maintaining ecosystem integrity in CBNRM areas, which in turn should enhance the effectiveness of various conservation areas, through the provision of movement corridors, and through effective soil and water conservation.

Critics may argue that some communal areas may not have conservation-worthy land. However, it should be noted that MNEs are intended to bring about awareness of the importance of integrated land management for sustainability and efficiency in resource and land use. In addition, MNEs should promote poverty alleviation through rural development, the conservation of biodiversity through the enhancement of ecosystem integrity, and the health and well-being of rural people.

In the communal lands that do not have conservation-worthy areas, the landscape still needs to be sustainably and effectively managed for enhancing the productivity of existing resource use, and for the sake of the functional and structural biodiversity of surrounding lands. Private and state lands would do well to heed the principles proposed in this dissertation, because although the agricultural systems may be efficient in agricultural production from a economic point-of-view, these systems are all too often unsustainable from an ecological, social and/or biodiversity point-of-view (Fuggle & Rabie 1996).

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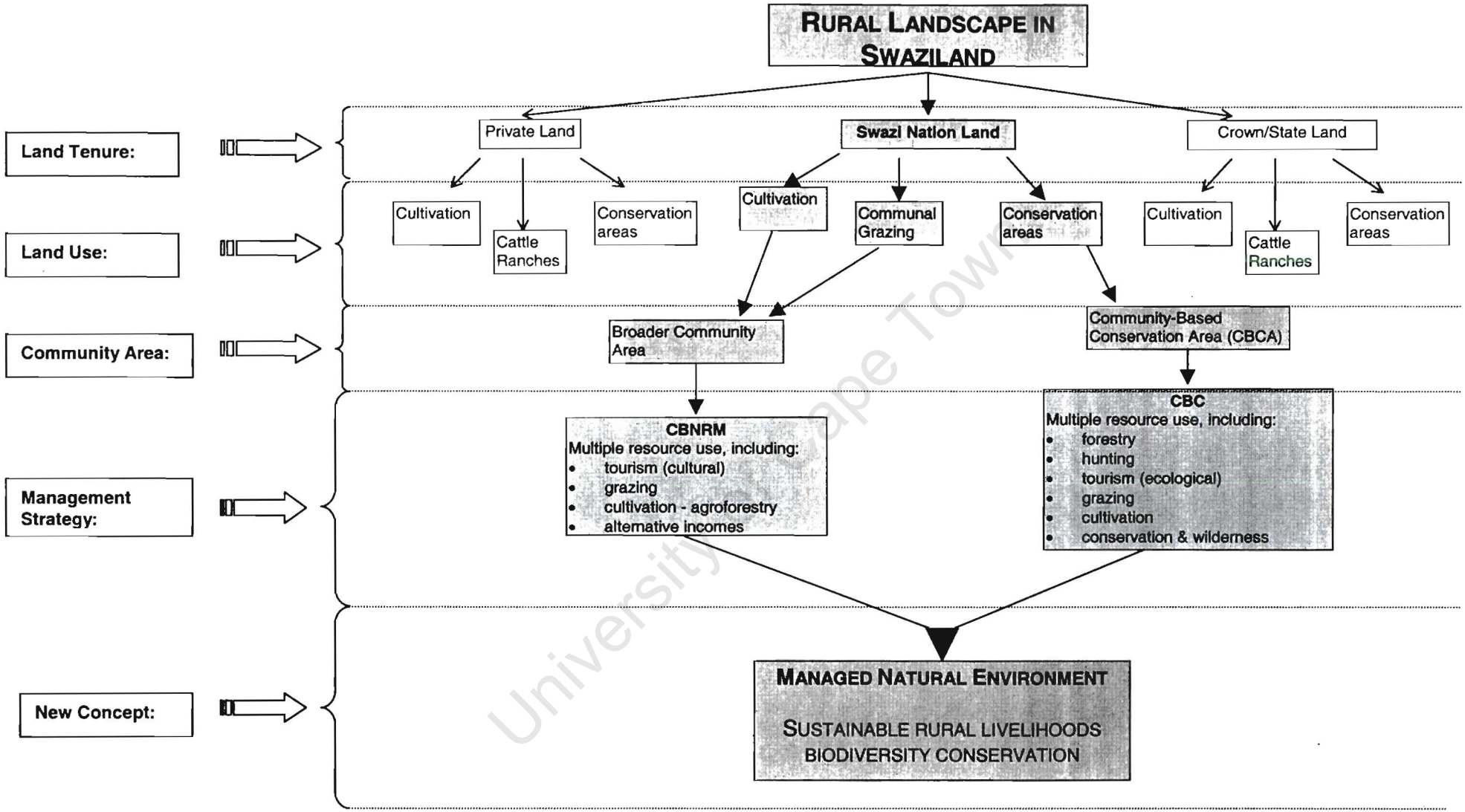

Figure 3.1: Conceptual framework for rural landscapes in Swaziland

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3.3.2 *MNEs applied to the Shewula Case Study*

Spatial planning or zoning for any community conservation area should be emphasised as follows, using the Shewula Community area as an example:

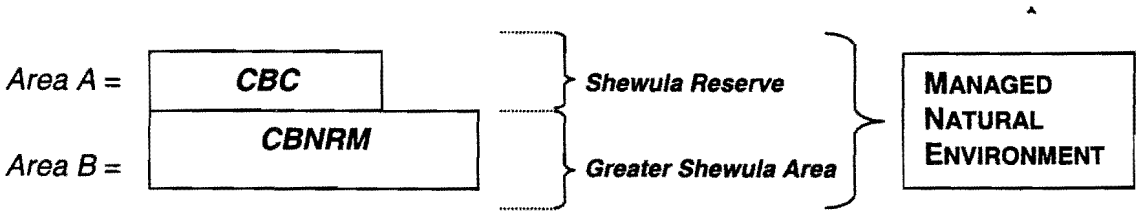

Figure 3.2: Conceptual understanding of the Shewula Community area

In Figure 3.2, the Shewula Community pilot project is used to illustrate a proposed MNE. Area A represents the Shewula Reserve, while Area B represents the greater Shewula area. Area A should be seen as the core area and Area B as the buffer zone of an overall MNE. Both Area A and B could be zoned for different uses, with Area A potentially containing a core of pristine wilderness, while the other zones within Area A would have single or multiple uses within each zone. Area B could have zones for grazing, cultivation, etc, with multiple uses per zone. Area A should be managed according to the principles of CBC, whilst Area B according to the principles of CBNRM.

This zoning approach, in the framework of a community MNE, could enable an understanding of the linkages between CBNRM and CBC. Management zones can be at different scales with regard to the Shewula Community situation. These scales range:

- from the reserve,
- to the reserve within the greater Shewula area, and
- to the reserve and the greater Shewula area in the context of the Lubombo Conservancy and the proposed Maputaland TFCA, which could include Transboundary NRM (TBNRM).

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Thus at the primary level, a wilderness area within Area A is seen as a core area, with various other zones in the rest of reserve. At the secondary level, the reserve as a whole (i.e. Area A) would be conceptualised as is seen as a core area, and the greater Shewula area (i.e. Area B) as zones for different use. Another key factor of this zoning approach is the establishment of linkages or movement corridors between the various zones of utilisation, so as to facilitate the maintenance of ecosystem integrity. For example, in the Goba community in Mozambique, a zoning approach has been undertaken to prioritise and control land uses for various areas.

To make the present network of protected areas in Swaziland more viable, and to add to the area under some form of enhanced environmental management for the sake of ecological integrity and hence structural and functional biodiversity (Monajdem 1998), the following approach is recommended:

(1) establish more efficient forms of NR and land use, through CBNRM, with ecological management principles as its foundation (i.e. Area B);

(2) establish some form of community-based conservation areas (CBCAs) on communal lands (SNL) (i.e. Area A).

In essence, a radically new rural environmental management policy should be implemented in seeking to link protected areas through more effective environmental management, biodiversity conservation, and enhanced rural economies. Thus, the MNE approach, in being holistic and integrated by nature, should be intersectoral, and multidisciplinary, in promoting co-management through partnerships.

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3.4 Conclusion

The aim of CBC and CBNRM is to contribute to the cycle of poverty being broken (at the household level) through the promotion of sustainable livelihoods (direct NR use and/or alternative income generating projects) and to enable the conservation of biodiversity. An integrated CBC-CBNRM approach, as being advised for the Shewula Community area, could be replicated in other communities where it is deemed to be feasible (See Chapters 6 and 7).

In promoting MNEs in communal areas of Swaziland, established yet unsustainable production systems should not be replaced with other production systems, such as tourism or biodiversity conservation. Instead, the established systems should be made more efficient and sustainable in NR management and use, thereby adding value to this resource use. Alternative income-generating projects, that will be more sustainable, efficient and equitable, should be identified.

In strengthening the MNE concept at policy level, more financial, technical and human resources could be injected into the management of community lands in Swaziland. In addition, this concept should facilitate the strengthening of local multiple-scale institutions which, in turn, could result in the sustainable and effective management of NR by the community, for the community and for the nation.

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CHAPTER 4

BIODIVERSITY CONSERVATION AND RURAL LIVELIHOOD ISSUES IN SWAZILAND

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4. BIODIVERSITY CONSERVATION AND RURAL LIVELIHOOD ISSUES IN SWAZILAND

Conservation management approaches in Swaziland have followed a similar development to those in southern Africa since the early 1800s, as highlighted in Table 2.1. However, to get a better understanding of rural development, sustainable rural livelihoods, and conservation and NR management issues in Swaziland, one needs to understand the political structures, the promotion of tradition, and their influence on land tenure issues, and thus environmental management in the customary tenure areas (i.e. SNL) of Swaziland.

4.1. Political Structure and Functioning

After independence in 1968, Swaziland was governed as a constitutional monarchy until 1973, when King Sobhuza II suspended the Constitution and banned all political parties. The bicameral parliament was restored in 1978 as a *Tinkhundla* system[45] of government, with representatives from the rural centres of administration.[46] King Mswati III strengthened the *Tinkhundla* system with electoral reforms in 1992,[47,48] while Chiefs have recently been empowered with certain administrative functions (Courier 1999).

Reforms to the country's political system are presently being "encouraged" through internal and external pressure and criticisms (e.g. International Labour Office, US-Swaziland trade relations), with opposition organisations seeking a multiparty system in conjunction with the monarchy (Courier 1999). Various studies have suggested that the chiefdoms are poorly adapted to modern needs and are an obstacle to economic development in rural areas (Courier 1999, Levin 1997). For examples, the National Development Strategy (NDS), launched in September 1999, originally stated (in its draft form) that the *Tinkhundla* system is inhibiting economic development in the country.[49,50]

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[45] King Sobhuza II was a traditionalist and felt that the Westminster-style government was unsuitable for his country and that political parties were divisive in a one-culture nation. The *Tinkhundla* system was designed to be a blend between western democracy and Swaziland's own traditional structures.
[46] The *Tinkhundla* system was being promoted as a system of election, and not as a political ideology or philosophy.
[47] Parliament had little power during King Sobhuza's reign, due to him consulting the *Liqoqo*, or inner council, more than he did parliament.
[48] However, King Mswati III has maintained substantial influence over government policy and power through being able to appoint the prime minister and the majority of the members of the Upper House of Parliament or the Senate, through which all legislation has to be cleared.
[49] The question is whether this sort of pressure will cause a change in the social structure and functioning of the country at a rate faster than what society is going through in Swaziland (Steenkamp & Maluleke n.d.). Is it right the international community gets involved in this way? What guarantee is there that a new system of government (i.e. multi-party state) will bring about greater upliftment to the people of the country? In no way am I condoning the present political system in

4.2. Swazi Tradition

King Sobhuza II, in promoting tradition, tried to show that the Swazi 'way of life' is superior to 'western' lifestyles and practices. However, it has been argued that these traditions are recent in origin and have been invented (Hobsbawm 1983, Spiegel & Boonzaier 1988) for the continued enforcement of royal hegemony (Levin 1997). Levin (1997) and Mamdani (1988) have also maintained that this political form of state has to be linked to the agrarian question, of which the land question is an important dimension.

According to Levin (1997) the continual repression of "the masses", by keeping control over land and thus resources in the hands of the Chiefs, will continue to be a hindrance to rural economic development and poverty alleviation. Levin (1997) concluded that, in the abstract, "communal land tenure" allows for great democratic potential, while in the tribal context, communal tenure can be a misnomer as it conceals the power relations which underlie it and control land use and allocation. Although it is important not to destabilise traditional structure and functioning, there should not be entrenchment of tradition in the face of socio-political changes. Time is required to allow communities and the national government to prepare for potential political and tenure changes.

4.3. History of Swaziland Land and Rural Development issues

After occupying the present area in the 1820s, royal hegemony in Swaziland was consolidated through dominant lineages and through the strategic positioning of royal villages. However, between 1840 and 1890, a series of concession policies resulted in European settlers being given various grazing and mining rights. In the partitioning of the land in 1914,[51] the British favoured the settlers over the Swazi people, resulting in the Swazi people losing 60% of the most arable land and two-thirds of the country. At the same time, the colonial powers decreed that the aristocracy and the chiefs would continue to administer land tenure in Swazi areas (Levin 1997).

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Swaziland. What I am doing is sounding a warning that an intervention in the Swaziland political system needs to be carried out with caution, otherwise the present relative social and political stability could become chaos.

[50] In the final document presented at the launch of the NDS, all references to the proposed shortcomings of the political system in Swaziland had been removed.

[51] The British inherited Swaziland as a colony from the Boers in 1903.

By the early 1930s, the "reserves" where the Swazi people lived were characterised by resource degradation, which resulted from drastic overpopulation and serious overstocking and erosion. As a result agricultural activities were being undermined. Various rural settlement and development schemes were implemented by the British, but with little success. Since independence, a number of rural development programmes were implemented, also with little success, bar one or two projects (Hackel 1993, Critchley 1995, Levin 1997). Blame has been apportioned to the inability of the *Tinkhundla* system to facilitate rural development.

Currently, there are two schools of thought on the promotion of rural development in Swaziland. On the one hand, some people feel that to promote successful rural development projects, the land tenure system needs to be modified. On the other hand, the conservative opinion in the country is that the present land tenure system can enable successful rural development.[52] The conservative opinion within the present *Tinkhundla* government fears a loss of power over the allocation of land, and thus have a concern for the continued political and social stability of the country (Levin 1997, Lukhele *pers comm.* 1999, Courier 1999).

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4.4. The Land Tenure System

Land tenure arrangements play an important role in the management of land and the environment (SEA 1997a). The history of land tenure arrangements in Swaziland is very complex (Funnel 1991, in Levin 1997), although three systems of land ownership can be identified:

- *Title Deed Land* (TDL) or individual tenure land; where private ownership has been granted through various means (Levin 1997). TDL can be held by freehold title or concession.
- *Swazi Nation Land* (SNL); which is allocated by the chiefs (Critchley 1995), so that the power over land is controlled by the traditional system of governance (Levin 1997).
- *Crown (government) land.*

[52] The author is of the opinion that the real problem is lack of capacity and hence implementation at the local level. There is no guarantee that even with a new tenurial system in place for SNL, these barriers can be overcome.

SNL is held by the King in trust for the nation. There are different types of SNL holding, and thus the essential relations of customary tenure - the relationship between the chief and the people - does not exist in the same form from one type of SNL holding to the next (Levin 1997). Approximately 51% of land is designated SNL *senso stricto* (all land that was SNL land at independence) and approximately 23% of land is SNL *purchased* (all freehold land purchased after independence and returned to SNL status) (SEA 1997a).

SNL under customary tenure may not be bought, mortgaged, leased, or sold, and is under the control of the chiefs who allocate land to homestead heads in the areas which are under their control. Land is usually acquired through paternal inheritance, but may also be obtained through the traditional practice of *kukhonta*, which entails paying allegiance to a chief. The population densities of this form of land tenure are extremely high and thus conducive to degradation from overgrazing, and to insufficient food security during times of drought, as experienced during the 1992 drought (MEPD 1997, Hackel 1993). Though the Swaziland system of land tenure, communities in Swaziland have a say over land allocation at the traditional leadership level, but not at the individual household level. Hence, institutions around the commons tend to focus only on land allocation and not on land and NR management. The challenge is to strengthen these institutions in order for them to become more effective managers of the existing NR base.

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4.5. Cattle and Land Degradation

Traditionally, cattle play an important role in the Swaziland agricultural sector, due to its prominence in local/rural custom and due to its value for livelihoods. The significance of cattle is shown by Swaziland having the highest bovine/human ratio in Sub-Saharan Africa. Communal grazing is a dominant form of cattle keeping, and is characterised by very little organised control and hence rangeland degradation in the form of declining carrying capacity (or exceeding limits of acceptable change). Erosion often results, thus decreasing the capacity of the soils for cultivation (Critchley 1995).

Sipho Mabila (pers. comm. 1999), a member of the Shewula Community, noted that the Shewula Community area was degraded before and during the drought of 1992. Cattle were overstocked in the area, resulting in resource degradation. A decrease in the number of cattle in the area due to the drought, and due to cattle rustling, brought about

a recovery of the rangeland. It was deduced that the local/rural institutions had failed to keep control of the commons (i.e. the grazing lands and forest areas), thus causing them to become open access management regimes. Some of the cultivated lands around homesteads are individually managed and cultivated.

Various programmes, policies and projects intended to bring about a change in this trend of landscape degradation have generally failed to rectify these problems, such as the destocking programme of the late 1940s, and the Rural Development Area Project (RDAP) of the 1970s. Factors contributing to these failure include a top-down approach to rural development combined with little sensitivity to the needs of local/rural people. In addition there was inadequate technical guidance (Critchley 1995). To date, interest groups (NGOs), government authorities and rangeland specialists often have been unable to reconcile different priorities and to develop workable management regimes for communal lands or open access areas.

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4.6. Poverty in Swaziland

Environmental problems are usually the result of a combination of biophysical and socio-economic factors. A review of the socio-economic situation in Swaziland shows a declining economy and a consequent drop in the standard of living. These have been adversely affected since 1990 by three key issues:

- two droughts causing a strong negative influence on subsistence agriculture, thus necessitating food aid;
- political changes in the southern African region, especially South Africa, which has reduced public revenue and constrained the growth of the formal private sector; and
- a high population growth rate (3.4%), the dualistic nature of government (traditional and western), the ambiguity of property rights, and the minority status of women, which are serious constraints to sustainable development in Swaziland (SEA 1997a).

A participatory poverty assessment was carried out in Swaziland in 1995 by the Ministry of Economic Planning and Development (MEPD 1997). Only a small number of rural residents were seen to be secure from the poverty threat. The majority of households were susceptible to poverty through crop failure, the death/disability of the husband, or by the failure of children to support elderly parents. Various factors, such as drought, lack of access to adequate agricultural land, cattle theft, rising costs, bias against rural areas (in terms of investment in infrastructure), and isolation from mainstream markets

and information sources, have all weakened the ability of local rural people to overcome the poverty threat through the diversification of their sources of income.

Coping strategies involve food rationing, curtailing expenditure on education and health, selling livestock and other assets to pay for immediate consumption needs, generating additional income through casual labour, handicrafts and petty trade, and inter-household borrowing and begging. These coping strategies have become more and more ineffective as an increasing number of households resort to them, thus depleting the existing resource base. This results in increased workloads for women[53] as they are the ones most involved in co-operative income-generating activities and infrastructure projects. In addition, the most important safety nets, such as the extended family, voluntary community-level institutions, food and local and central government programmes, are considered ineffective in protecting the most vulnerable from extreme poverty and distribution (MEPD 1997).

Infrastructure and service development needs that were identified during the poverty assessment included, access to water (drinking, livestock, cultivation), access to quality health care, transport and education. Problems of crime and cattle rustling were high priorities in the Lubombo region, in which the Shewula Community is situated. Individual households focused on the problems of hunger and food security, costs of schooling and health care, and lack of employment opportunities.

The aim of poverty alleviation schemes should be to improve incomes from agriculture, diversify people's sources of income, and to strengthen family and social relationships to enable more effective coping strategies. Actions that could be taken in this regard include stronger support for the agricultural sector of SNL, higher priority to rural infrastructure and the provision of services, and the strengthening of social and family relations. An integrated CBC-CBNRM approach within a MNE could be a foundation and framework for meeting some of these goals, because such an approach should strengthen multiple-scale institutions (through capacity-building) and local-national communication.

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[53] Women are the most vulnerable social group in all communities due to their minority status denying them ownership of and access to resources (MEPD 1997).

4.7. Conservation in Swaziland

Swaziland lies within the Maputaland centre of plant diversity, an area with the one of the greatest species diversity ratings in southern Africa and one of the highest world-wide.[54] Swaziland has four physiographic regions providing a wide variety of habitats within a small area, further enhancing the capacity for biological diversity at the species and ecosystem levels (Masson 1996).

However, less than 4% of the land lies within protected areas (Masson 1996, de Vletter n.d.), which is well below the internationally accepted proportion of 10% (IUCN 1994). The present network of conservation areas is further lacking in that key ecosystems have been inadequately represented inside protected areas, and inadequately managed outside of protected areas. In addition, there are inadequate resources to manage and protect the existing reserves (Masson 1996). Conservation is generally perceived to be only of minor significance to the country's economy, whilst national parks are perceived to be depriving people of grazing or agricultural land. Education and capacity-building is needed to overcome these barriers (SEA 1997a).

There is a large degree of fragmentation of protected areas in Swaziland, with movement corridors being severely limited by the types of land use between these areas. Furthermore, these reserves are not genetically viable as they are too small in size for the maintenance of ecosystem integrity (de Vletter 1999). Consequently, in order to promote the maintenance of ecosystem structure and functioning, the management systems for NR outside of protected areas should be improved. In being a signatory of the Convention on Biological Diversity (UNEP 1992), the Government of Swaziland (GoS) is obliged to develop a national strategy for the conservation and wise use of Swaziland's biodiversity. In developing the National Biodiversity Strategy and Action Plan (BSAP), the GoS is aiming to integrate the conservation and sustainable use of biodiversity into sectoral and cross-sectoral plans, polices and programmes (Masson 1996, Monadjem 1998). The rationale for the BSAP is that the long-term survival of agricultural activities on communal tenure lands, state land and private lands, as well as present and future options for alternative land use, are dependent on the maintenance of ecosystem processes and resources (Masson 1996).

[54] Note the paradox: the wealth of biodiversity and natural resources, contrasting with the striking poverty of rural communities.

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Rising population numbers in SNL are placing increasing pressure on a limited resource base. The result is the inappropriate management of the natural resource base in the form of overgrazing, veld burning and alien invasion. This has resulted in landscape degradation and the loss of biodiversity in SNL (Masson 1996). In addition, various agricultural (sugar) and forestry practices have resulted in massive clearing of indigenous vegetation and planting of mono-species crops, decreasing the potential for biodiversity.

Other problems for the conservation and management of the natural heritage of Swaziland are as follows:

- there is a lack of financial resources, appropriate legislation, and sufficient trained staff;
- alien plant control programmes are lacking;
- most natural resources are inadequately evaluated in assessing development options;
- there is an absence of a comprehensive data base on the occurrence, abundance and conservation status of species and the natural environment, thus hindering the process of identification and proclamation of conservation-worthy areas;
- adequate zoning procedures are hindered from being implemented at a regional and local/rural level, so as to guide development in an appropriate and sustainable manner; and
- there is a low priority afforded to conservation issues by government (Masson 1996).

If these problems are not attended to by making the conservation and wise use of biodiversity a higher priority in government policies and programmes, then Swaziland could be undermining its present economic sectors as well as losing the options for the development of other lucrative income-generating programmes.

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Various strategies were proposed by the Biodiversity Working Group in 1996 to work towards a biodiversity conservation approach for the benefit of Swaziland and the region. These were discussed by the BSAP Steering Committee, resulting in various recommendations being made, some of which related to CBC and CBNRM:[55]

- Increased protection should be afforded to areas outside of reserves;
- An increased understanding of the composition and status of indigenous forests and the vegetation of the Lubombo Region should be established;
- The development and implementation of management plans should be undertaken for indigenous forests in the region;
- The commercialisation of biodiversity products should be encouraged;
- Various role-players should share in the benefits to be derived through collaborative national and international tourism and conservation strategies, i.e. Lubombo Spatial Development Initiative (SDI), the Maputaland Transfrontier Conservation Area, and the Biodiversity Conservation and Participatory Development Project (BCPDP) (de Vletter 1999);
- Legal protection should be obtained for conservation-worthy areas of differing size, conservation objectives and management requirements;
- Improved management systems should be adopted for natural resources on private and communal land, and should be encouraged through incentives;
- Monitoring of biodiversity should be undertaken to ensure that protection policies are being implemented, and to assess whether they are effective; and
- Uncontrolled and unplanned development in community areas should be prevented through adequate planning processes based on zoning through databases on biodiversity (Masson 1996, Monadjem 1999).

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[55] The BSAP report captures these recommendations (Monadjem 1998).

4.8. Conclusion

The present two-pronged Swazi approach to political structure and functioning, to ensure that Swazi tradition is respected, could be detrimental to the medium- to long-term livelihood strategies of rural people. Of major concern is the paradox of these communities, in being poverty-stricken in a biodiversity and natural resource rich landscape. Various rural development and conservation management approaches have been recommended in previous years. However, the history of poor implementation of policy on the part of the Government of Swaziland (GoS), has resulted in ineffective biodiversity conservation, NRM and rural development plans and programmes at the level of the rural communities, thus reinforcing their poverty.

The proposed Biodiversity Strategy and Action Plan (BSAP) is a policy within which the proposed integrated CBC-CBNRM approach could be implemented on SNL in Swaziland. The aim would be to achieve the goals of biodiversity conservation, natural resource management and poverty alleviation within a single policy and initiative. In order to achieve this, the capacity of the multiple-level institutions at the local-level should be strengthened, such that they may take ownership of the process, without undermining the relatively stable political and socio-cultural structure and functioning of the country.

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CHAPTER 5

STRATEGIC ASSESSMENT OF, AND SOLUTIONS FOR, THE SHEWULA RESERVE DEVELOPMENT PROCESS

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5. STRATEGIC ASSESSMENT OF, AND SOLUTIONS FOR, THE SHEWULA RESERVE DEVELOPMENT PROCESS

This section seeks to identify the strengths and weaknesses of the Shewula Reserve and the Lubombo Conservancy development processes (Segar et al 1999, Sandwith 1999). In addition, this section seeks to recommend possible solutions[56] to rectify the weaknesses and to maximise the strengths of the Shewula Reserve and Lubombo Conservancy formation and development processes. The quotes in italics are the comments obtained from the broader community during their participation in the ecotourism development feasibility study.

The solutions are not exhaustive, in that they can and should be added to. In addition, these solutions should be dynamic in adapting to changing perceptions and circumstances in the context of the Shewula Community, the country of Swaziland and the eastern region of southern Africa.

The text in each of the sections of Chapter 5 is categorised by two types of bullets. The "dot" bullet emphasises an area of concern, whilst the "arrow" bullet emphasises solutions recommended to overcome these concerns.

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5.1 *Strengths of the Shewula Reserve and Lubombo Conservancy Development Processes*

The strengths of the Shewula Reserve and Lubombo Conservancy development processes are as follows:

- Both the Lubombo Conservancy and the Shewula Reserve are proactive initiatives that are leading the way for community participation and community/public/private partnerships (CPPPs) in promoting biodiversity conservation and sustainable livelihoods in Swaziland.

[56] Some community members proposed possible solutions for the challenges that were facing them.

- There was some representation[57] of the community's perspectives in the Lubombo Conservancy process.

- The tourism development feasibility study afforded the broader community the opportunity to give their input into the Lubombo Conservancy process, as well as into the Shewula Reserve and proposed ecotourism development processes.[58,59]

- Conservation area size normally would be an issue in terms of maintenance of genetic diversity, but with the proposed integration of the Shewula Reserve with neighbouring reserves, park size will be significantly increased. Hence the degree of active management should decrease due to increased self-maintenance of ecological structure and processes, thus enhancing the different levels of diversity.[60]

These strengths can, however, be enhanced to be even stronger foundations in the Shewula Reserve and Lubombo Conservancy processes. Hence, Table 5.1 recommends solutions to ensure that these strengths are far more effective in the respective processes.

Table 5.1: Recommendations to enhance the strengths of the reserve and conservancy formation processes

Issues	Recommendations
Participation in, and ownership of, process	• The respective stakeholders and role-players should ensure that community participation does not take the form of token representation. • More effective participation in, and ownership of, the processes would require capacity-building.
Participation by the broader community	• The broader community needs to be more effectively involved in the decision-making process. • More frequent report-back meetings should take place, to ensure that all people's needs and viewpoints are integrated into the process.
Capacity-building in conservation management	• Capacity-building should focus on conservation management, and how members of the community can contribute towards the genetic and ecological integrity of the reserve and the broader Shewula area.

[57] Representatives of the Shewula community were chosen by the Chief, but did not necessarily reflect the opinions of the broader community.
[58] However, this form of participation contrasted with the way that traditional authorities make decisions on behalf of the community, i.e. very little participation of the broader community in any community development process. *"The Chief should tell the people that he is now aware that he needs to tell them more...he must tell them what he is doing"* (Segar *et al* 1999:83).
[59] However, as each of the two conservation processes are now in the implementation phase, effective participation of the community will be limited, i.e. the foundation of the processes are faulty.
[60] The removal of internal fencing will result in decreased costs for maintaining habitat integrity and population viability in the form of harvesting programmes.

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5.2 Biophysical / Ecological Issues

5.2.1 Conservation Management

- The lack of data on the biodiversity of the reserve and of the greater Shewula area could result in the loss of genetically viable plant and animal populations, through uninformed land-use planning processes.

> *"What about the fences between the properties? If there are no fences, how will the benefits from the sale of game be managed?"* (Segar *et al* 1999:70).

  - A preliminary strategic conservation management and development plan for the conservancy and reserve is high priority. This should provide the foundation for the co-operative management and development of the conservancy area. In addition, it will assist the Shewula Community in establishing a plan for conservation management and the sustainable use of NR within the Shewula Reserve in relation to the Conservancy, the greater Shewula area, and the area across the Mozambican border.[61,62]

  - Capacity-building of community members is required on reserve management, the management of natural resources in the general community area, the sustainable and enhanced efficiency of NR use (i.e. in agricultural systems), the concept of ecosystem structure and functioning, and the role of biodiversity in sustainable rural livelihoods.

- There was a concern from members of the community that bringing the animals closer to the Shewula residential area, through the establishment of the reserve, could increase the potential for increased crop destruction by wildlife for households neighbouring the newly established reserve. This, in turn, could result in negative perceptions of wildlife, and hence increase the level of poaching.

> *"How are you going to prevent the baboons from crossing the fence and coming to eat my mielies, potatoes, cotton and peanuts?"* (Segar *et al* 1999:72).

[61] Any decisions made at the Lubombo Conservancy level need to be aware of the potential impacts on a fledgling and radically different reserve.
[62] See also key actions p. 32 - 33 Sandwith 1999 - the main categories being the management plan, conceptual development planning, security plan, community conservation programme, tourism facility, funding strategy, stocking rates for cattle.

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- Crop raiding or loss of domestic animals due to wildlife in the reserve (particularly for the households living in close proximity to the reserve) needs to be minimised, and compensated for. This can be achieved through establishing a strategic policy and plan for the management of the reserve.[63]

- The community would need to benefit directly from wildlife, as this would be an incentive to protect wildlife from poaching.[64] Sustainable harvesting under controlled conditions should be promoted, once the animal numbers on the reserve have increased to the levels of the Limits of Acceptable Change[65] (LAC) (See Section 6.2.2(a)).

- The management and administration of the reserve, as perceived by the community, is expected to be similar to that of the neighbouring reserves, without realising the costs involved. In addition, the reserve management is expected to operate in the military style of neighbouring reserves, thus enforcing the "exclusion" mindset.

  "*The Shewula Reserve will function like other game reserves and therefore has the same needs in terms of funding and infrastructure*" (Segar et al 1999:96).

  "*There will be a fence around the reserve*" and "*rangers on the Shewula Reserve would be armed*" (Segar *et al* 1999:98-99).

- The community needs to be aware of the need to establish a new form of management and administration for the reserve, as the costs of running the Shewula Reserve in a similar way to the neighbouring reserves would be prohibitive. In addition, the community needs to overcome the mindset of exclusion, possibly through capacity-building.

- Reserve enforcement and policing should be managed through partnerships in reserve management. These partnerships could result in a greater sense of ownership of reserve resources/processes by the broader community. The mindset of military-style action needs to be altered through awareness- and capacity-building.

  "*People are saying that if this thing is going to help them, then they have a responsibility to look after it, and then they will insist on no hunting and poaching*" (Segar *et al* 1999:75).

[63] Conservation management planning should note the needs of the community members living along the border of the reserve and how they have previously accessed resources in the area where the reserve has been established.
[64] In Zambia, there have been changes in perceptions of game amongst community members who have been benefiting from sustainable use of wildlife (Lewis 1993).
[65] The LAC are still to be determined for the Shewula Reserve and for the Lubombo Conservancy.

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- Community scouts (as opposed to rangers) should be introduced as a way to manage the reserve and to monitor activities within the reserve. They need focused training and their primary functions should be properly defined. Less enforcement and policing would be required if the community was given more ownership of the reserve (e.g. Goba and Zambia).

- Expectations need to be managed with regard to the sources and uses of funding, and with regard to the economic potential of the reserve. Funding for the management and administration of the reserve could be obtained from donors (initially) and then from tourism and/or sustainable resource management (i.e. the goal should be self-sustainability). The level of funding required for management should be kept as low as possible, in order to promote efficiency.

- The importance of the conservancy for global biodiversity conservation within the regional landscape context of Swaziland, southern Mozambique and northern KwaZulu Natal in South Africa should be evaluated and used as a basis for obtaining sustainable funding (e.g. from the Global Environment Facility, or within the BCPD Programme facilitated by the World Bank).

- A co-ordinated program of support needs to be established by integrating support from international organisations and NGOs in an united effort to meet the biodiversity conservation and rural development needs of the stakeholders in the area.

- The GoS should not forgo its local, regional and global responsibility in funding conservation activities for the benefit of the nation and of the region (See Section 6.3.4).

- The broader community seems to have different perceptions of potential relationships with Mozambican communities to that of the Shewula Board of Trustees (SBoT).

> "*It is acceptable to shoot poachers from across the border, but not from within the community*" (Segar *et al* 1999:100).

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- The community needs to understand that such differential policies could be detrimental to their relations with their Mozambican counterparts.

- The Shewula Board of Trustees (SBoT) should inform the community of its desire to improve working relationships with the communities across the border in Mozambique, for the sake of cattle security, fire management and the conservation of resources.

5.2.2 *Fencing: Cattle and Wildlife*

- The proposed boundaries of the reserve may not be ecologically viable or may conflict with the needs of the community. In addition, the various concerns about cattle and wildlife in the minds of the community could be detrimental to the long-term viability and sustainability of the reserve, and of the Conservancy. The Shewula Community views the proposed fencing of the reserve area as a means to protect their cattle from rustlers.

"*the wires are too near*" (Segar *et al* 1999:72).

'cattle and wildlife "*don't mix*" and "*can't go together well*" (Segar *et al* 1999:71).

"*Can the Conservancy be used to protect Shewula cattle?*" (Segar *et al* 1999:70).

- The Shewula Reserve fencing requirements need to be assessed within the framework of the objectives of the reserve and of the Conservancy, and the needs of the people. However, a more proactive approach would be to build relationships with communities on the Mozambican side of the border, so as to ensure that these improved relationships provide a foundation for improved security for cattle in the now under-utilised eastern grazing area in the Shewula Community. Thus keeping cattle on reserve/conservancy land would be a temporary measure.

- It has been strongly recommended that no cattle be allowed to cross into the Mlawula and Mbuluzi reserves due to potential disease and tourism implications. Thus, it would be essential to time the construction of the Shewula fence on the edge of the escarpment with the bringing down of the fences between the Shewula Reserve and Mlawula and Mbuluzi reserves. This delay due to the cattle rustling issue could result in little increase in wildlife from the rest of the Conservancy, via migration, into the Shewula Reserve. Some "neighbours" of the reserve may still need access to grazing within the reserve, once the fences have been established.

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- The boundaries for the reserve need to be established in consultation with the people and with conservation scientists, and measures recommended and implemented to overcome any chance of the ecological integrity being compromised. These measures could include adjusting the boundaries, applying CBNRM more intensively to the area of the buffer zone, or having no fences at all.

- There is a perception that a fence is used to keep people out of the reserve. Thus, for the Shewula Reserve, the concept of a fence that would be permeable for people, but would contain dangerous large animals and ensure the separation of cattle and wildlife, should be considered. However, this may not be possible, due to the potential endangerment of people's lives.

5.2.3 *Objectives for the reserve:*

- Present resource use[66] is undervalued, inefficient, and ecologically unsustainable. For example, the present use of rare hardwoods for firewood (i.e. energy needs) is unsustainable.

  - More common species should be identified that would provide similar energy supply capacities to that of hardwoods.

- The "game reserve" mindset of the community members suggests they have lost focus of the value of existing natural assets - such as forests, wilderness, scenery, and culture - in or adjacent to their reserve. Thus, alternative income-generating projects, such as forestry for hardwoods, sustainable harvesting of plants and timber for housing, and tourism, have been ignored.

  "*Game will be re-established in the area*" (Segar *et al* 1999:95).

  - The objectives of the reserve need to be clearly defined, in a participatory process with the community, and with the assistance of specialists. This partnership should be a reflection of the two goals proposed for the reserve, namely biodiversity conservation and equitable benefits through the sustainable multiple use of resources.

[66] Many of the resources are being harvested for subsistence and personal use.

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- Value should be added to existing resource use, and alternative income-generating activities should be identified and assessed for viability and sustainability.

- The broader community did not have the opportunity to inform, or agree to, the proposed objectives of the Lubombo Conservancy or the Shewula Reserve. There is thus a potential for conflict between what the community needs and the objectives of the reserve and the Conservancy (See Segar *et al* 1999 and Sandwith 1999).

  - The objectives of the Shewula Reserve should be informed by the needs of the community. If they are conflicting with the needs of the Lubombo Conservancy, the community's objectives should take preference where ecologically sustainable and economically viable. The Lubombo Conservancy committee[67] should be prepared for the possibility that the fences to the Shewula Reserve might never come down, due to cattle or for the safety of people who need continued access to resources.[68]

  - The following issues should be integrated into the objectives:
    - fencing and the integration of wildlife and cattle;[69]
    - primary land use functions should be defined to avoid conflicts;
    - activities and developments need to be identified and planned within a strategic framework for conservation and development;
    - the community needs to be made aware of the other assets of the reserve and the broader Shewula area, e.g. culture, scenery and wilderness;
    - wildlife re-establishment needs long-term planning (with community participation);[70] and
    - alternative income generating activities (sustainable forestry and furniture production, etc.) need to be identified.

[67] The committee is made up of representatives from each of the founding members of the Lubombo Conservancy. Their aim is to facilitate the way forward for the management of the Conservancy.
[68] To overcome these community concerns, for the sake of conservation, compensation should be paid to the people who lose the option of access to resource use in the reserve area.
[69] If the reserve remains separated from the Conservancy, then cattle and wildlife can be integrated, but if fences come down then dangerous animals will prevent cattle from being there.
[70] Wildlife re-establishment needs to be assessed from the perspectives of costs, the issue of cattle security situation, and the need for Lubombo Conservancy unity.

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5.3 Socio-cultural / Economic Issues

5.3.1 Participation:

- There is a lack of ownership of the Lubombo Conservancy and Shewula Reserve initiatives by the broader community. A lack of respect for the traditional functioning of the community by various community members, and the apathy of the majority of the community members, is hindering the effective participation of the broader community in the initiatives.[71] The traditional authority structures continue to make decisions alone, without actively involving the broader community in the discussions and reasoning behind these decisions, resulting in misinformation and thus unnecessary conflict between members of the community and their leadership.

  - Community leaders need to strengthen the participation of the broader community in determining the conservation and development objectives for the reserve, and in zoning primary land uses within the reserve. The Shewula Trust should be used as a vehicle for overcoming apathy.

  - The community members themselves should aim to set the objectives of the reserve, to identify primary use zones, to manage expectations, and to identify priorities for management and administration of the reserve. Only then will the community see themselves as integrated into the reserve process, in a way that promotes sustainable use and equitable benefits for all.

  - The traditional authority structures need to agree on a form of active participation that they are comfortable with, so that they do not feel that their authority being undermined within the community.

  - Community-based conservation and natural resource management programmes need to be promoted in the Shewula Community through capacity-building and environmental awareness training. Community interests should be developed by implementing an incremental approach that would manage expectations.

[71] Out of a community of 5000-10000 people, only 50-100 people attend the community meetings called by the chief and the *Libandla*, the inner council of the chief. Possible reasons include apathy, lack of respect for traditional structures, and costs in terms of time (distance) and finances in getting to the chief's kraal for the meetings.

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5.3.2 Economic:

- The "exclusion" mindset in the community's responses to the Shewula Reserve initiative is possibly the result of being excluded from resource use in the neighbouring reserves, as well as due to the prevalent military-style anti-poaching activities[72] of the neighbouring reserves. There is little understanding of possible access rights to the Shewula Reserve and, as a result, the potential change in resource use patterns, due to the formation of the reserve, could result in socio-economic disruption to households, especially those in the buffer zone.

  "Will people still be allowed to collect firewood and marulas?" (Segar *et al* 1999:69).

  - Social and economic disruption due to changing resource use patterns needs to be minimised through promoting equitable and fair replacement of subsistence incomes lost through the reserve establishment. For example, a policy could stipulate that those who lose the most use options should gain the most through alternative income-generating projects.

  - Markets should be identified to assess how present resource use could have added value such that the same amount of effort brings in greater rewards. For example, the harvesting of Marulas could be partially commercialised.[73]

5.4 Institutional / Political / Legal Issues

5.4.1 Political:

- There is a danger that community development initiatives, such as the reserve, may be hijacked for political purposes, possibly to the detriment of the initiatives.

  - Any representatives appointed by the Chief need to ensure that they will be representing the opinions of the people and not only those of the leadership.[74]

[72] Anti-poaching activities have resulted in one death in Mbuluzi Game Reserve. Ironically, the poachers death was, in fact, the spark that has resulted in the initiatives being propose for the Shewula Community. The death, and inquiry thereafter, resulted in the opening of communication channels between the reserve and the neighbouring community. The community has therefore been integrated into some of the local/rural institutions, for example the Umbuluzi Catchment Association. As a result of these open channels of communication, the ideas for a reserve and for tourism were able to be discussed with the leadership of the community.

[73] Adding value to resources through market identification or creation can aid sustainability but could also promote exploitation (i.e. some Marulas should be left for the natural cycling of biotic resources)

[74] The present political structures should be worked within. Hence, the aim of environment and development NGOs and donors should not be to change the political status quo to promote democracy. In the western world, there is a need to be aware that true bottom-up democracy doesn't always exist at the local community level in third world countries.

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- An effective legal framework at the national level for the establishment of community reserves is lacking. The need to clear such initiatives through the King could hinder the application of such initiatives in other communities.

  - Initiatives like the Lubombo Conservancy and the Shewula Reserve can help to bring about changes in the legal framework, thus enabling and facilitating similar projects in Swaziland.

5.4.2 *Management of relationships*

- Various relationships exist at the local, regional, and national level. These need to be managed to ensure that there is strong political support and will for the initiatives to succeed. These relationships include those between:
  - wildlife/natural resources and the community;
  - wildlife and cattle;
  - the Shewula Reserve and the Lubombo Conservancy;
  - SBoT and the community;
  - the SBoT and the traditional leadership;
  - the community (including the SBoT and the traditional leadership) and NGOs and other external parties;
  - the community and its traditional leadership; and
  - the community and the national government sectors.

5.4.3 *Land Tenure:*

- As all communal land is under the control of the King through the Chiefs, the Chiefs has responsibility for allocating particular land for different land uses. The Chief needs to obtain the King's sanction to allocate the land for nature conservation purposes.

  - Communal grazing lands should seek to establish strong resource management institutions. An integrated CBC-CBNRM approach should thus encourage more effective management of open access areas by transferring them back into common property regimes.

  - In strengthening the common property perspective of the reserve and the greater Shewula area, the management of the land and resources should be strengthened without the possibility of social and political disruption (See Sections 4.1 - 4.4).

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5.5 Conclusion

Overall, the misunderstandings and misconceptions identified from the community responses to the Shewula Reserve process and to the Lubombo Conservancy process indicate a lack of ownership over the process of establishing the reserve, including the decision as to whether it should have been established at all. To overcome these initial weaknesses in the two processes, improved communication between the community and the leadership or newly-formed Shewula Board of Trustees (SBoT) is required (Bromley & Cernea 1989). Brandon & Wells (1992:564) captured the essence of establishing a solid foundation for integrating conservation initiatives and local communities: "*in order for resources to be managed adequately, local/rural people must ultimately become the managers of the resource base*".

The importance of community ownership of the management of natural resources within the reserve, as well as in the greater Shewula area, is essential to overcome the old-school exclusionary conservationist approach[75] that has helped to produce isolated islands of protected areas. Through a process of capacity-building, Shewula Community members need to become aware that the formation of a reserve should not mean antagonism. Rather it should be seen as an opportunity to take up greater responsibility for their natural resources, and as a means of promoting alternative income-generating activities that are conservation-based.

Through implementing a CBNRM project, community ownership and sustainable management of natural resources throughout the greater Shewula area, together with responsible use and protection, should be promoted. The community needs to be aware of the link between their well-being and the maintenance of ecosystem integrity through the conservation and sustainable use of natural resources (especially biodiversity). Land use zoning should be participatory and should also be informed by specialists in the disciplines of NRM and conservation, so as to facilitate responsibility and to reduce potential conflicts between land use patterns. In addition, there is a general lack of understanding of tourism, and of nature conservation or natural resource management, and the possible links between the two. If it is not addressed, this misunderstanding could only have negative implications for the management of the reserve, and for the management and operation of the tourism development.

[75] This old-school exclusionary approach still exists in the minds of many conservationists in Swaziland.

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The community-public-private partnerships (CPPPs) being envisaged by the Conservancy is seen as a key strategy for conservation and for rural development in Swaziland, in that people within and outside of government will have to jointly consider conservation and development objectives. In these partnerships it is essential that community capacity is developed such that members of the community can participate on a more equal basis. The aim would be for the community to "get ahead", and to not always be in the position of followers.[76] This would involve a radical change in mindset of other role-players and in the poverty (i.e. inferiority complexes) mentality of the community, to ensure that perceptions that have taken years to build up are broken down such that new ones can be developed and acted out in relationships.

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[76] See Strum (1994).

CHAPTER 6

POTENTIAL GUIDELINES FOR IMPLEMENTING AN INTEGRATED CBC-CBNRM APPROACH IN SWAZILAND

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6. POTENTIAL GUIDELINES FOR IMPLEMENTING AN INTEGRATED CBC-CBNRM APPROACH IN SWAZILAND

The aim of this section is to discuss the various issues identified from the initiatives involving the Shewula Community in Swaziland, and how they may be mitigated or enhanced. A sustainable forestry initiative in the Goba community in Mozambique, and various other case studies consulted through the literature were also assessed for lessons that could be applied to the Swaziland context. In addition, various guidelines are recommended for the possibility of implementing an integrand CBC-CBNRM approach on Swazi Nation Land (SNL).

The various issues have been categorised according to a broad definition of environment, thereby including the following concepts: biophysical-ecological, socio-cultural/economic, political-legal-institutional, and historical (Fuggle & Rabie 1996). In attempting to categorise these issues, there will be overlap between categories, due to the complex and integrated nature of humankind, of their interaction with their environment, and of ecosystems, and due to the failure of humankind to fully understand this integration.

Each section in this chapter has the following format:

a) An initial discussion pulls together the lessons learned from the respective Shewula Community (Swaziland), Goba Community (Mozambique) and the Makuleke Community (South Africa) initiatives. In addition, the lessons learned from the theory and case studies in the literature are also integrated into the initial discussion of each section and subsection;

b) The series of guidelines in the tables of each section and subsection then seek to summarise the recommendations for implementing an integrated CBC-CBNRM programme, based on the issues raised in Chapters 1-5, as well as on those issues raised in the discussions referred to in (a).

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6.1 Introduction

By seeking to establish a new conceptual framework for the management of land, natural resources and biodiversity on SNL in Swaziland, Managed Natural Environments (MNEs) offer a framework within which more effective, efficient and sustainable community initiatives could be enabled. An integrated CBC-CBNRM approach, within the framework of MNEs, seeks to increase the returns from lands within the limits of sustainability and efficiency through enhancing present activities, and through establishing alternative income-generating activities.

According to Strum (1994), there are two things that are certain about CBC (or CBNRM), namely that it is possible and that it is difficult. To overcome the difficulties and to enhance the possibilities, every effort should be made to adopt an adaptive management approach to each specific project. By doing so, one is expecting factors, issues, and contexts to be different and dynamic, and hence one is prepared to change as the project develops.

The issues identified in this chapter are complex, while the series of guidelines are long. This is representative of the complex nature of people-environment relations in rural areas (Section 6.6 elaborates more on this).

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6.2 Biophysical / Ecological Issues

6.2.1 CBC-CBNRM project selection

Project selection should only take place once a more concrete CBC-CBNRM methodology has been conceptualised through an intensive participatory process. There should be a pilot project phase before a CBC-CBNRM approach is implemented in all the communities of Swaziland. This would enable most of the initial teething problems to be sorted out before implementation.

A process for selecting the "right" community for a community conservation project requires careful and rigorous analyses of prevailing economic and biophysical conditions within a given community (Matakala 1998). Matakala (pers comm. 1999) also noted that a project selection strategy is a continually evolving process. Margules & Usher (1981) warned that the strategy for identifying protection-worthy areas cannot be generalised, as each situation requires independent evaluation. Hence, such a strategy requires

careful design to ensure that the diversity between and within local contexts is integrated into the decision-making process.

Initial projects in Swaziland should focus on communities that are adjacent to some form of protected areas, as more short-term potential benefits may be available. Over time, other communities away from protected areas could be identified. One pilot project per region (Swaziland has four administrative regions and four agro-ecological regions) should be identified for communities adjacent to protected areas, and one pilot project per region for communities in a "stand-alone" situation in communal lands that would be protection-worthy.

In those communal lands that are deemed not to be protection-worthy for CBC, a CBNRM programme could be implemented. Thus, each community's land area would need to be assessed for its protection worthiness, and a CBNRM or CBC approach adopted accordingly. To make such a programme effective, the four regions of Swaziland should be subdivided along community and/or ecological boundaries to create smaller zones for investigation and implementation. Geographic information systems (GIS) could be used to effectively map the present resource use situation, and hence should be used as a tool for decision-making in the initial stages and as a monitoring and evaluation tool in the latter stages of a project. An example of the use of GIS in this way is a natural resources management project being implemented in southern Zimbabwe (CESVI 1998).

Biological criteria[77] should be considered when deciding which areas would be suitable pilot projects for an integrated CBC-CBNRM. However, biological factors are not the only variables that will inform decision-making in designing conservation and NRM projects on communal lands. Taking a broad view of the environment, socio-economic, cultural, political, historical and institutional factors should be integrated into the decision-making process. Brown & Wycoff-Baird (1992), Caldecott (1996), and Matakala (1998) contain examples of the attempts to identify selection techniques for conservation and NRM projects in rural areas.

[77] Various methodologies exist for selecting areas for conservation management. For example, BioRap is a methodology and a set of analytical tools for identifying priority areas for the conservation and sustainable management of biodiversity. It is a planning tool that focuses on biodiversity itself (Margules & Redhead 1995).

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Table 6.2(a): CBC-CBNRM Project Selection

Issues	Guidelines
Design	• A project selection strategy should be carefully designed to ensure sensitivity to diversity in local contexts.
Selection	• Criteria for selecting communities for CBC projects should include biological, ecological, socio-economic, cultural, political, and institutional criteria; • One pilot project should be identified per region; • Pilot projects should initially be identified near established protected areas, so as to enhance medium-term sustainability.

6.2.2 Conservation Management

a) Planning

Some of the communal lands in Swaziland could be protection-worthy areas, and hence have the potential for the establishment of CBCAs, whether for hunting concessions (e.g. CAMPFIRE, Child 1995), for subsistence offtake, for wildlife sales, for community-based forestry (Arnold 1992), or for ecotourism (Ceballos-Lascurain 1996). The remaining land area should implement a CBNRM programme.

There are various technical aspects critical to the planning and implementation of CBC-CBNRM projects, such as assessing existing NR status and population status, which may impact the long-term viability of CBC projects. The population dynamics of the species identified for resource use need to be understood and managed accordingly. Carrying capacity has been used to describe the capacity of an ecosystem to support healthy organisms while maintaining its productivity, adaptability and capability of renewal. However, there is a suggestion that the approach of traditional carrying capacity is at fault in asking the question "how much use is too much?" Some authors have suggested that the question should rather be "what natural conditions are desired here?" This shift in focus to a proactive approach is the basis of the theory of Limits of Acceptable Change (LAC) (Stankey *et al* 1985). The LAC need to be determined for populations and for ecosystems, such that communities may be aware of the resource limits on their area. In addition, the LAC[78] needs to be determined for multiple resource use to be sustainable.

[78] See Stankey *et al* (1985), Ceballos-Lascurain (1996), Segar *et al* (1999:125).

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Table 6.2 (b): Planning

Issues	Guidelines
Planning	• Protected areas should be managed as vital parts of the rural landscape, with the biosphere concept enabling differential use zones; • Management plans should cover all use zones, and should take into account all access and use rights of the community members; • Management plans should be accompanied by a timetable for implementation, but with flexibility and adaptation; • Tourism and other alternative IGA planning should be integrated into conservation planning and regional landscape planning; • The broader national political, socio-economic, and demographic framework should be integrated into the planning process; • The precautionary principle should be adhered to, whereby all actions in development, NRM and conservation are tempered by an acknowledgement of the imperfect understanding of ecosystem structure and functioning, the concept of biodiversity, and local communities.
Flexibility & adaptability	• All approaches to initiating CBC-CBNRM projects should be continually evolving processes; • An adaptive management approach should be implemented, whereby CBC-CBNRM projects should learn from their own and other's experiences and should adjust to changing realities; • Conservation and NRM efforts should evolve according to specific situational and subjective circumstances; in recognition of the fact that every situation is different and unique; • The transition from pilot project to broader programme for Swaziland should ensure that no prescriptive models are formed. Local priorities, resources, capacity, and motivations differ and thus need to be identified and acted on accordingly for initiatives to be effective and sustainable.
Precautionary principle	• There should be acknowledgement of the risk, uncertainty, and imperfect knowledge in all biodiversity and rural development approaches; • Resources, in terms of time, finances, etc., should be made available for unforeseen challenges that may arise.

b) Management Strategies through Participation

Management strategies should be based on a participatory natural resource inventory to determine the presence, quantity, and conservation status of the various plant and animal species. In the Shewula pilot project, a participatory management plan should be implemented in stages so as to allow time to address the cattle question and the issue of continued access to resources. The management plan should include an adaptable time-frame and adaptable goals, depending on how community attitudes to, and perceptions of, the issues of conservation and NRM change over the years to come (See Cumming 1993, Lewis 1993).

Although projects should seek to provide scientific and technical support for the management of natural resources in communities (Lewis 1993), western conservation approaches are often not compatible with the cultural values and goals of local/rural communities in Africa. The danger is often in ignoring the local/rural context, such as

poverty and population pressures, in the framework of aiming to improve standards of living (Simbotwe 1993). Projects should be simple and culturally adaptable. Conservation practices should not impose ideas and methods with preconceived notions biased towards views and values of a different culture or society (Lewis 1993). The way in which the local context is integrated in conservation and development projects will ultimately determine how successful those projects will become. Indigenous knowledge systems (IKS) (Posey & Dutfield 1996) in NRM and use should be integrated with western conservation science in providing a foundation for a participatory management plan. Traditional conservation principles, although possibly altered over time, need to be identified and explored by project/conservation managers. These traditional conservation principles may add value to western conservation approaches (Simbotwe 1993), and vice versa.

One of the keys to successful CBNRM (or CBC) is trying to achieve a balance between technical efficacy, social acceptability and ecological integrity (Critchley 1995). The Grazing Land Management Demonstrations (GLMD), which were established in Swaziland in the 1980s, differed from previous rural development schemes in aiming to reconcile the will and desires of the people with "proper"[79] rangeland management. There were some positive results in the form of the restoration of previously badly damaged areas, but more importantly, there were noticeable improved partnerships between government technical advisors and some local/rural communities.[80] However, farmers also tended to be more interested in the improvement of their cattle than in the improvement of the land. This reinforces the argument that conservation for its own sake is rarely a priority to land users. They therefore have to be made aware of the link between ecological integrity and improved production to accept biodiversity conservation or NRM systems (Critchley 1995).

Some critics of the 1992 Biodiversity Convention were of the opinion that the treaty was more about economics than about the need to preserve plant and animal life (Athanasiou 1998: 205). However, although biodiversity conservation needs to have some use value for rural communities, people need to be educated on the inherent importance of sustainable natural resource management and biodiversity conservation for their own livelihoods as well as those of future generations.

[79] The term "proper" is defined as the best available knowledge for rangeland management until new information or knowledge is gathered that can either change parts of an approach (species to ecosystem or habitat approach) or cause a paradigm shift as seen with the change from exclusive conservation management to inclusive community based and integrated conservation management.

[80] In Shewula, there seems to be some tension between the agricultural extension officer and the community.

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All subsistence activities thus need to be assessed for their impacts on the LAC of natural resources, in order to integrate biodiversity conservation into the livelihoods of local/rural people. For example, soil and water resources, which are key physical attributes, need to protected by means of an effective conservation and management programme.

Table 6.2(c): Management strategies through Participation

Issues	Guidelines
Participation	• A participatory NR inventory should be undertaken, including assessing present and past resource use patterns; • Capacity-building should be undertaken to ensure participation on an equal basis; • There needs to be provision of resources for communities to participate effectively in the CBC-CBRNM process, such as information, personnel/organisational skills and capacity, infrastructure, and finances; • The planning of management strategies should be participatory from conceptualisation to implementation.
Design of Management strategies	• Conservation management systems should be adaptable in their implementation,[81] based on the principle of a continual improvement cycle,[82] and the adaptive management approach; • Management strategies should be culturally adaptable; • IKS should be integrated into the design of management plans; • A balance should be achieved between technical efficacy, social acceptability, and ecological integrity.

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c) Ecosystem-based Conservation Management

Conservation and NRM approaches in and around existing and future protected areas needs to be participatory in nature, with full accountability and local/rural involvement (Nsanjama 1993, Simbotwe 1993, Lewis 1993, Owen-Smith 1993). In supporting this approach, communal areas could be set apart as biosphere reserves, such that multiple resource uses are zoned. Protected areas (private, state & community) could be seen as core zones within a larger biosphere reserve of differential use zones, including community land, private land, and state land. These conservation areas should also have differential use zones within the reserve boundary (See Ch. 3).

Generally, any human-made physical or conceptual boundary will conflict with some ecological dynamics. Protected areas and biosphere reserves should not be managed according to their physical boundaries but according to ecosystem "boundaries"[83] or

[81] Some communal lands may require strict exclusionary enforcement, due to the high conservation status of some areas in Swaziland.
[82] Refer to the principles inherent in the concept of Environmental Management Systems (EMS).
[83] "Boundaries" for ecosystems is another example of humankind's attempt to understand the integrated nature of the natural environment. In attempting to separate out ecosystems, project managers should be aware of the weaknesses of

"ecotones"[84]. For example, the Goba community project in Mozambique is delineated according to the local watershed boundaries. The Shewula Reserve boundaries and the Shewula Community boundaries need to be assessed with respect to the ways in which they compliment and/or conflict with ecosystem processes. Management strategies should be designed accordingly, especially in seeking to include the present transfrontier initiatives and possible inter-community co-operation.

Table 6.2(d): Ecosystem-based Conservation Management

Issues	Guidelines
Sustainability	• Planning should ensure that the future use of natural resources is ecologically sustainable and economically viable; • The intergenerational principle should be applied, whereby present resource use and rural conservation and development initiatives ensure that present needs are met while not undermining the ability of future generations to meet their own needs.
Ecosystem Management	• The boundaries of CBCAs should compliment ecosystem processes; • Human-made physical boundaries should allow for the integration of management strategies across these boundaries; • CBCAs should be managed according to ecosystem boundaries and not physical boundaries, hence the importance of implementing integrated CBC-CBNRM approaches in partnership.

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d) Monitoring and Evaluation

Community scouts (Cumming 1993), in establishing monitoring and survey systems, should be trained to be reliable sources of data on wildlife densities, population ranges, and crop damage from wildlife, as well as on sustainable and illegal resource use (Lewis 1993, Mansur *pers comm.* 1999). This would enhance the formulation of future policies for the management of species and of habitats (Lewis 1993).

Table 6.2(e): Monitoring and Evaluation

Issues	Guidelines
Monitoring and Evaluation	• Community members should be trained as community scouts to monitor the effects of the programme; • Evaluation criteria should be established at the start of the programme, based on what the community sets as development goals, in combination with western conservation management principles; • Community members should be trained as managers (decision-makers) of the CBCAs; • Harvesting methods should remain or should be restored to being sustainable, efficient and economically viable.

this approach.

[84] "Ecotone" can be defined as the transition zone between ecosystems, and hence normally incorporate species from both ecosystems, thus increasing biodiversity. An example is the transition area between forest and grassland.

6.2.3 Natural resource management

Generally, in Africa, the communal resource base (land, water, and vegetation) provides individual production, whereas the wildlife and forest resource assets are used for communal production. This situation is similar in the Shewula Community in North-eastern Swaziland. Individual homesteads have individual lands that they work, while broader grazing and forest areas are available for everyone.

- In this diversity of uses and benefits, rural people need to be educated about the real value of wildlife, forests (Murindagamo 1990),[85] and grasslands.

- Material and other benefits of a project should be clearly linked to its conservation actions (Wells *et al* 1992, Brown & Wycoff-Baird 1992), in order to promote community buy-in.

- CBC and CBNRM should offer viable, ecologically sound development alternatives when the conservation action requires a change in the existing extraction or production activities (Brown & Wycoff-Baird 1992).

A number of the case studies in southern Africa have focused on the tensions between communities, protected areas, and wildlife management in countries where large mammals are still free-ranging (Kiss 1990, Wells *et al* 1992, Lewis & Carter 1993, IIED 1994). Similarly, communities in Swaziland may have been marginalised as in other countries through reserve proclamation and the awarding of concessions to expatriates. However, wildlife seems to have been eradicated on communal lands in Swaziland through excessive hunting and habitat change and/or destruction. In addition, most of the communal lands are characterised by population pressure (as in most of southern Africa) (Attwell & Cotterill n.d.) and resultant agricultural pressure, which has reduced the economic potential of these living NR, as in Zimbabwe (Murindagamo 1990).

- In Swaziland, as large mammals are confined to existing conservation areas, there is a need to adapt an integrated CBC-CBNRM approach accordingly. The short-term focus should be on communities identifying additional value for the existing natural resource uses in their area. A long-term focus should then seek to re-establish wildlife in community based conservation areas (CBCAs).

[85] For example, CBC and CBNRM initiatives could include community-based ecotourism developments as one form of

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Table 6.2(f): Natural resource management

Issues	Guidelines
Wildlife	• Wildlife could be introduced, but preferably in the medium- to long-term;
Efficient natural resource use	• CBC and CBNRM should seek to effectively manage existing NR and to add value to existing resource use; • There should be clear linkages between material and other benefits of a CBC-CBNRM project, and the conservation actions themselves.

6.3 Socio-Cultural / Economic Issues

6.3.1. Diversity of contexts

The rural population of Swaziland is not a homogenous entity. It should be recognised that there is differentiation along socio-cultural-economic lines, including class and gender[86] differences, and thus programmes should be adapted to the specific socio-cultural-economic context. "Community" should be self-defined according to the people living in the area, and according to leadership of the area (Ruas pers comm. 1999, Lawson & Mafela 1990). A strength of the communal chiefdom system in Swaziland, in the context of population pressure, is that there seems to be exclusive use of communal lands by the community within each specific chiefdom. There also appear to be few conflicts over land between chiefs. If this system were to be destabilised, then radical resource degradation could result. The weakening of the common property management regime has already resulted in the inefficient management and control of communal lands (SEA 1997a).

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Table 6.3.1: Diversity of contexts

Issues	Guidelines
Diversity	• The heterogeneity of the community contexts should be respected in CBC-CBNRM project implementation; • The "community" should be self-defined, and internal differentiation, in terms of multiple scale institutions[87], should be recognised as integral to project success.

resource use to promote biodiversity conservation and sustainable rural livelihoods.

[86] Note that women are unable to gain access to land other than through their husbands. Therefore exploitation of women in Swazi society continues despite their pivotal role in the reproduction of the household, in the form of mass labour and in the management of large extended families. Women have an inferior status to men, and thus have remained outside the institutions in whose hands the fate of rural development projects lies. As key players in the households, some form of representation of women on biodiversity conservation and NRM programmes should be ensured in a way that does not destabilise social or political relations within the local/rural community.

[87] Environmental entitlements should not mean the diversification of responsibilities , as there is still the need for an overarching body.

6.3.2 Ownership through participation

There is often a failure to consult with local/rural communities in conservation programmes. Hence, conservation and development ideas should be communicated through existing traditional systems (IIED 1994, Simbotwe 1993), in promoting a bottom-up approach through local/traditional authority structures for decision-making (Strum 1994). In other words, biodiversity conservation and NRM programmes are not just about informing but are about ownership through effective participation and respect for traditional ideas (Strum 1994). Hence, development assistance, in whatever form, will only succeed if focused on the people whose livelihoods depend directly on the very resources that need to be conserved and sustainably managed (Bromley & Cernea 1989, McNeely & Ness n.d., Crook 1996).

To achieve local participation in conservation and management of natural resources, the institutional structures at the local/rural level, of which there may be multiple scales (Leach *et al* 1999), may need to be assisted in adapting to the sustainable use and conservation of the natural resources (Bromley & Cernea 1989). This is due to the fact that indigenous/traditional NRM systems may or may not be inherent in the actions of the local/rural people. It is therefore essential that whatever aspects of these indigenous knowledge systems (IKS) remain in the actions or minds of the people be identified through an intensive participation process. Even if Swazi "tradition" was invented,[88] Swazi cultural identity needs to be maintained by integrating it into the decision-making processes of NRM and biodiversity conservation (Strum 1994). Indigenous-knowledge systems (IKS) need to be recognised and have value added to them, with the aim of enhancing intellectual resource rights (Strum 1994, UNEP 1992, Posey & Dutfield 1996).

In addition, local/rural communities need to be aware that some of western society's knowledge and value systems can only be beneficial for them and their long-term livelihoods. The attitudes of both sections of global society to each other's ideas and issues can influence the success rates of CBC and CBNRM projects. Ecologically rational western ideas may be economically unreasonable or culturally unacceptable to indigenous people, and vice versa. Hence, different ideals or philosophies and values need to be respected and integrated where possible (Owen-Smith 1993). Any long-term solution for biodiversity conservation and NRM needs the full co-operation of the broader community, and may require some form of investment by the community in the sustainable management of natural resources, such as time, skills, etc. (Crook 1996).

[88] See discussion in Section 4.2.

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Project design (specific to each local context) should be preceded by a deeper understanding of local/rural people's views and needs (Kiss 1990, Crook 1996).[89] This understanding can be gained through a survey of the local/rural socio-economic situation in relation to the economics of legal natural resource use (Brown & Wycoff-Baird 1992:13, Lewis 1993). Conflict resolution mechanisms need to be established, preferably at the local/rural level,[90] to assist decision-making on key sensitive issues (Owen-Smith 1993).

It is essential that local people develop a custodial interest in their natural resources (Lawson & Mafela 1990). In fostering ownership of NR, and of NRM and conservation programmes, the community should play a major role in project design from the start. Furthermore, conservation objectives should be consistent with the community's priorities (Brown & Wycoff-Baird 1992). Communities may need to (re)learn how to participate and to create dialogue (Strum 1994). This is essential in Swaziland due to the non-participatory decision-making by the traditional authorities (Segar *et al* 1999).

Table 6.3(b): Ownership through participation

Issues	Guidelines
Participation	• True ownership of process and plan should be ensured through focusing on people themselves; • IKS should be integrated with western conservation science; • Project proponents and/or facilitators should seek a deeper understanding of cultural heritage, values and goals, and of indigenous knowledge systems; • Project proponents and/or facilitators should give identity to and add value to cultural characteristics; • Local communities need to develop a custodial interest in their NR through ownership of project design and implementation; • Local participation in decision-making and proprietorship of natural resources should be developed at the local level.
Ownership	• There should be ownership of process through the active involvement of the local/rural community members from the start of such processes; • There should be institutional strengthening and capacity-building for efficient ownership of process to take place; • Externally driven processes should be limited, even to the point of building capacity and awareness such that the community starts to drive the CBC initiative in their specifically adapted way.
Time	• Time should be set aside to let the community participate in meetings, due to the community situation of a lack of transport and of time needed to carry out their subsistence lifestyles; • A time frame for the project/programme/process should be established, in consultation by the community.

[89] This should include the present communal management of natural resources, community attitudes and relations to natural resources, authority structures, and patterns of resource use (Kiss 1990).
[90] Note the assumption that members of the local/rural, regional, or national level of society will have in their own agendas

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6.3.3. Socio-cultural Dynamics

One reason for the failure of people in Africa to live within ecological limits of acceptable change (LAC) is the undesirable or too rapid social change brought about by colonial/western influences on traditional African cultural values. These values include customs of disciplines, codes of conduct, socialistic materialism, and the customary sense of respect and responsibility within local/rural communities (Simbotwe 1993) and between local/rural communities and their natural resources.

Steenkamp and Maluleke (n.d.) wrote, with reference to the Makuleke community in Northern Province (South Africa) and their land claim in the Kruger National Park, that society is dynamic and ever-changing and adapting in response to various stimuli. The only danger is the influences or interventions that may speed up this change to a rate faster than what the people can actually adapt to, resulting in social disruption and instability. One of the biggest problems in Africa is that the overdeveloped[91] world is expecting Africans to suddenly change their perceptions and values, whereas the overdeveloped world has taken a long time to get to where it is today. Change is inevitable as it is part of life (Strum 1994). However, change should be at the pace that each specific community determines, and in the direction that they want. Global goals should not be imposed upon rural communities, unless they are of absolute urgency.

Mere economic wealth and material development can not be the only solution to the social problems of poverty, health, education, and to the conservation problems of protection, management and sustainable use. These potential solutions need to be integrated with the holistic communal structure of traditional African society (Crook 1996), which could contain alternative solutions to present problems, e.g. sanctions against abuse of natural resources by local social pressures.

Projects for biodiversity conservation and rural development should be aware of the political context of Swaziland, and how the national power struggles are being played out at the local/rural level (Segar *et al* 1999). Hence, these projects should not become a forum for any power struggle. Every decision/action within the project or programme should be assessed for its social, political and cultural implications, through the process of impact assessment, and monitoring and evaluation. NGOs and government should ensure that outside interventions are not altering the dynamics of political and social change at the local/rural community level. Proprietorship of NR should still be

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in conservation initiatives.

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established at the local level (Kiss 1990), but without undermining present political and social structure and functioning.[92] In no way must conservation and NRM initiatives become a vehicle either for undermining the present political and social status quo, or for the present political and social status quo to be entrenched. Outside interventions should ensure that impacts on the social and political structure and functioning of the affected community are minimised and mitigated against, so as to maintain the present rate of change that the community determines (Steenkamp & Maluleke n.d.) (See Section 6.4.5).

Table 6.3(c): Socio-cultural dynamics

Issues	Guidelines
Socio-cultural dynamics	• Projects should be culturally adaptable; • The issue of population control needs to be addressed with cultural sensitivity, yet with honesty about real resource limits; • Existing social pressures should be used by project facilitators and community institutions for sanctions against resource misuse/abuse; • Socio-political dynamics need to be identified and understood. • Impact assessment techniques can help identify areas where social change could be negatively impacted.

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6.3.4 *Economic costs and benefits*

Conservation and rural development in Africa should start with the premise that management of a natural resource includes deriving benefits for present and future generations. Therefore, the conservation of biodiversity should contribute to the productivity of other forms of land use, as it inherently does, such as agriculture, watershed management and forestry. Conservation and NRM should look to provide food security and other services/products (either through direct reliance or indirect reliance through salaries), generate local/rural employment opportunities and cash revenue for community development, and enhance environmental stability (Nsanjama 1993).

The biodiversity crisis in the world today is partly a result of natural capital being undervalued and thus degraded due to lack of responsibility for effective NRM in communal areas (Bromley & Cernea 1989, McNeely & Ness n.d.). The disjunction between those who benefit from NR use, and those who pay the cost of the irresponsible use of NR, results in the poorest communities paying the cost of the

[91] "Overdeveloped" refers to those countries that people normally refer to as developed.

resulting environmental degradation (Strum 1994). CBC and CBNRM aim to rectify one aspect of this skewed relationship, by providing local communities with an increased share of the benefits of NR use, while still maintaining the goals of biodiversity conservation. These benefits may be in many forms, but are unique in that they need not be great by western standards. Initially, there need to be short-term benefits if an integrated CBC-CBNRM approach is to succeed (Strum 1994).

Social and economic disruption due to changing resource use patterns needs to be minimised by promoting an equitable and fair replacement of subsistence incomes lost through the reserve establishment.[93] Those who lose the most use options should gain the most through, for example, alternative income-generating projects (i.e. equity). A major issue is the perception of individuals, the ultimate decision-makers, of the benefits derived from NRM/conservation initiatives relative to the opportunities that have been forfeited. Tangible rights for the individual and the household should be the prerogative of the local institutions (Murindagamo 1990). Therefore, an appropriate system of distributing benefits should be decided upon within each unique local context (Lawson & Mafela 1990). People should always be able to link conservation activities with their benefits. In addition, NRM should be viewed as a complimentary system which is compatible with the established production system, yet makes it more efficient and sustainable (Murindagamo 1990).

Real and tangible benefits to local/rural people need to be created or enhanced (Kiss 1990), while costs (e.g. opportunity costs) need to be mitigated and reduced. Nsanjama (1993:3) states that "*the acceptability of using land...is...measured in economic terms...therefore...wildlife (and plant resources) must be utilised, either consumptively or non-consumptively, to produce significant economic returns*". These benefits must be perceived to be linked to conservation actions by the people themselves and not only by conservationists (Owen-Smith 1993, Kiss 1990). New or traditional incentives and sanctions could be used to influence the individual/household behaviour of the local/rural people (Bromley & Cernea 1989).

As biodiversity is inherently the foundation of humankind's lives, biodiversity conservation should not be expected to be totally self-financed. This is due to the inherent reliance of humankind on the integrity of ecosystem structure and functioning, resulting in the need to conserve for the sake of humankind's own lives - this issue

[92] This may involve the distribution of authority and benefits away from centralisation (Kiss 1990).

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should be part of the sustainability equation. Conservation should seek to protect aesthetic, scientific, cultural and recreational values, as well as the reservoir of genetic resources (future foods or healing, as well as evolutionary or adaptive capacity) (Nsanjama 1993).

The inherent value of ecosystems in Africa should be put in economic terms (Dixon & Sherman 1990), so as to educate people on the true value of biodiversity conservation. Education and capacity-building, before any project commences,[94] is required to make people aware of the economic value of wildlife and natural resource utilisation, whether this is through land tenure reform or through other methods.[95] Local communities also need to regain legal access to the true value which wildlife and other natural resources represents (Strum 1994). In other words, these benefits should be accompanied by increased responsibility, through capacity-building, for managing the resource in a sustainable way. For example, more rational uses of wildlife are being practised in the ADMADE programme in Zambia, resulting in employment, direct revenue earnings (for costs of wildlife management and for promotion of community projects) and increased (responsibility for) conservation of wildlife and habitat (Lewis 1993). In developing opportunities for alternative and multiple resource use, appropriate marketing structures and initiatives should also be developed to enable new forms of land use to compete with or compliment existing land uses (Kiss 1990).

Revenues generated from wildlife[96] (or tourism) in the area of the local/rural community should contribute towards the costs of supporting a natural resource management (sustainable) scheme and the development needs of the community (Lewis 1993). In other words, there should be limited subsidisation such that dependency relations are not developed and that infrastructure established can be maintained by a self-funding programme (Crook 1996). However, there may be a need for substantial funding, often over a large period, before a project can be expected to be self-sufficient. To minimise the time for dependency, a full cost-benefit analysis (CBA) should be carried out to compare conservation and its associated income-generating projects with alternative land uses (Kiss 1990, See Cousins 1999).

[93] Social impact assessment should be used as an efficient tool in attempting to mitigate negative impacts.
[94] The Makuleke model for non-governmental organisation (NGO) and donor project interventions, and for community development initiatives around nature conservation, recommends that capacity-building take place before tourism and other initiatives are implemented (Steenkamp & Maluleke n.d.). This enables the community to get ahead in terms of ownership of process (Strum 1994).
[95] Various community leaders visited to the Natal Parks Board game auction of 1998 (Sandwith 1999), in order to expose the members of the Shewula community to the potential benefits from wildlife,.
[96] Harvesting methods need to be identified and implemented, with capacity-building, to ensure maximum financial return within the limitations of the environmental factors (Kiss 1990).

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NR utilisation has significant potential as an alternative form of land use, especially in ecological habitats with low productivity for standard agricultural practices. Hindrances to fully realising the benefits from NR are:

- subsidisation and preference for cattle from an economic, policy, and traditional[97] point-of-view;
- diminished animal and plant populations;
- a poaching mentality;
- degraded habitats; and
- an inadequate knowledge of technical, marketing, and sociological aspects (Kiss 1990).

There is a widespread perception that Swazi Nation Land (SNL) is used inefficiently, largely as a result of traditional systems of land tenure and social customs (Levin 1997). A new approach could be one of multiple resource use (including wilderness, tourism, grazing and harvesting of resources) through a system of zoning (See Ch. 3 and Section 6.2.4(b)). In this way, SNL could become more economically viable for local/rural people, with the potential for the development of commercial activities. CBC and CBNRM on SNL could facilitate the integration of, and partnerships between, different government sectors and local/rural communities for economic benefit (with alternative forms of income being identified) as well as for biodiversity conservation. Through legislation, local communities could be given the right, and hence the impetus to manage natural resources for their own benefit, thus providing an economic and legal rationale to reinforce the scientific, aesthetic, and moral justifications for biodiversity conservation (Murindagamo 1990). The reasoning is that local proprietorship of wildlife and forestry resources is likely to promote investment (of land, money and time) for the efficient and sustainable management of these resources (Kiss 1990). The interests and needs of all people with a legitimate claim need to be addressed. The greatest challenge is to stop individuals from overexploiting the commonly held NR for short-term personal gain at the expense of long-term community stability and ecological integrity (Kiss 1990).

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[97] The argument that strong cultural traditions in respect of livestock are the reason for mismanagement of rangelands (high stocking rates) and inefficiency of commercial exploitation, has been questioned. It is becoming more evident that livestock do not only have cultural value, but represent an insurance policy against sudden economic crises at the individual and household levels (Kiss 1990).

Table 6.3(d): Economic costs and benefits

Issues	Guidelines
Viability	• The NRM and use programme should be viable from an economic/financial point-of-view; • Cost-benefit analyses (CBAs) should be carried out for each specific proposed project to determine feasibility, to define expectations, and to determine the period for which external funding will be required; • The programme should aim for non-dependency on external subsidies, within the framework of the need for sustained funding before self-sufficiency develops; • Communities and project facilitators should strive to minimise costs and to maximise outputs; • Costs should be distributed between the national and local levels of the programme.
Distribution of Benefits	• The individual is the ultimate decision-maker and hence he/she needs to gain greater benefits than those lost because of the opportunities foregone in promoting conservation and NRM; • Benefits may be distributed communally or to the individual households, depending on the decision by the community itself; • Synergy should be ensured, whereby the benefits of an holistic approach are greater than the sum of the previously uncoordinated approaches.
Linkages	• A link should be forged between living NR and economic benefits so as to promote CBC and CBNRM; • Communities need short-term benefits to understand the links between conservation management and the benefits derived therefrom; • Value should be added to present resource use and livelihood strategies through promoting technical efficiency in use and production, and through identifying and implementing alternative income generating products and services.
Capacity-building	• The inherent value of ecosystems should be put in economic terms.
Marketing	• Appropriate marketing structures and mechanisms for agricultural and for conservation initiatives should be identified and implemented.

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6.4. Institutional and Legislative Guidelines

6.4.1 *Introduction*

Many of the natural resource-rich areas in southern Africa are located within or adjacent to areas that used to be under common property management systems, and are now deemed to be open access management systems (Bromley & Cernea 1989, Leach *et al* 1999). The reality for many communities is that colonial and centralised nationalist policies have resulted in marginalisation from arable lands, and in the dislocation of cultural and ecological boundaries from that of administrative, conservation, commercial and political boundaries (Anderson & Grove 1989a, Simbotwe 1993, Strum 1994). For many local communities, CBC and CBNRM should be daily realities, with the indigenous knowledge systems providing a basis and foundation for environmental management. Unfortunately, many of the institutions governing sustainable resource use in rural areas have been undermined, and thus IKS have been rendered ineffective due to loss of responsibility and authority over rangeland management.

Various questions remain unanswered: Is there a need to modify the land tenure system in Swaziland for the successful implementation of CBC and CBNRM at the local/rural/rural community level, or are the commons in Swaziland being successfully managed? Is it possible to decentralise responsibility to the local/rural/rural community for NRM and biodiversity conservation without modifying the land tenure system? These questions need to be answered, but within the following framework: intervention that seeks to achieve biodiversity conservation, whether in the form of CBC and/or CBNRM, should not undermine the social and political stability of the country, but it should not contribute to repression either (See Section 6.4).

Rural communities are often marginalised politically and economically, with little political influence at the national level. If any initiatives for sustainable natural resource use are to succeed, project proponents need to match the needs, aspirations, motivations and capabilities of the members of the community (Kiss 1990). The international community also has an important role in terms of technical and financial assistance (Nsanjama 1993), but without dictating the way forward, and timing of spending, to the detriment of the community and its natural resources.

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6.4.2 *Land tenure*

ADMADE, CAMPFIRE, LIRDP, and various other programmes in the last decade represent the post-modern trend toward the re-integration of rural communities into livelihoods based on the sustainable use of NR. However, in learning lessons from other countries, the objectives may be the same, but with institutional and technical differences (Lungu 1990). For example, parallels between other countries and Swaziland can be drawn on the issue of land tenure. The management of natural resources on SNL is the responsibility of communities in Swaziland, although not in ownership of land and NR. However, there is little control over the utilisation of land and NR, and hence an open access management regime (Bromley & Cernea 1989, Murphree 1993) has developed, instead of a stronger common property management regime.

Land tenure systems in Swaziland need to be assessed to determine whether or not control of land allocation by chiefs is hindering rural development and biodiversity conservation. A study should be commissioned to sensitively explore the issue of modifying the land tenure system without destabilising the socio-political structures of the country (Lukhele pers comm. 1999). Since the land tenure system and power base of the King are so interconnected, it would be sensible to move forward with the proposed integrated CBC-CBNRM programme, instead of waiting for what could be a long drawn-out process to be completed. In essence, the issue may not be about tenurial rights, but may involve the re-establishment of common property regimes (Bromley & Cernea 1989) where open access regimes exist. The question is whether tenure rights to land and NR need to be vested in the individual or homestead for open access management regimes to return to common property management regimes. Thus the best option may not be individual ownership or some exotic tenure system, but may be to work through using traditional systems (Strum 1994). This may show that the land tenure system may not need changes to enable effective integrated CBC-CBNRM programmes to be implemented.

Multiple-level community institutions (Leach *et al* 1999) should be established and/or strengthened, so as to manage the resource and to resolve conflicts that may arise (Crook 1996). This should mean strengthening these local institutions such that open access property regimes may be converted back into common property regimes (Bromley & Cernea 1989, Mather & Chapman 1995). Ostrom (1990) recommends guidelines on the characteristics of stable, resilient and adaptive common property regimes.

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Table 6.4(a): Land Tenure

Issues	Guidelines
Empowerment	• Local communities should be empowered by providing them with access to, control over, and responsibility for land and NR management; • Multiple-level community institutions need to be strengthened, through capacity-building, to be more effective common property institutions; • Local communities should be the first to receive benefits from utilisation of NR in their area; • Communities should have the right to make decisions regarding natural resource use and conservation, and any activities that may affect them, but with respect to the *Tinkhundla* system of governance.

6.4.3 *Institutional Functioning*

The question is whether it is best to strengthen existing institutions and policies, or to create/establish new institutions and policies. Strum (1994) believes that both old ones should be fixed and new ones need to be established as CBC is "*revolutionary in its shift of focus*" (p. 520). Existing institutions and policies are expected to be inadequate in the adoption of CBC, and hence new ways of doing business may be required (Strum 1994). However, in acknowledging the uniqueness of each situation, some traditional authorities may be effective institutions for CBC and CBNRM. It is advisable that, if establishing new institutions for NRM and CBC, the traditional authorities should not be sidelined in the process. The new institution should always be sub-ordinate to the traditional authority in points of conflict.

Institutional successes around NRM should be enhanced by establishing forums of communication between SNL users and authorities over SNL (i.e. chiefs), and between the chiefs and conservation/NRM professionals. To enable this, the various stakeholders and role-players should seek to establish partnerships in working together for rural development and rural environmental management. This two-way dialogue should seek to exchange ideas and information on habitat and wildlife conservation and management. The process of dialogue should also allow time to digest and discuss each others ideas and information.

Local/rural views on plants and wildlife need to be expressed at the same time that western scientists place these issues in their broader context.[98] Social scientists should be part of the process to ensure that all cultural value systems around conservation and NRM (i.e. traditional and western) are correctly interpreted (Owen-Smith 1993, Strum

[98] Partnerships should be built with academic institutions and nearby or neighbouring game reserves so as to facilitate the integration of the strengths of western science and of traditional knowledge.

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1994). Communities need the means and capacity, through capacity-building and skills training, to fulfil their responsibilities when recreating these at the local level (Strum 1994). Even if values have been restored, rights have been enhanced and responsibilities have been re-allocated, enforcement may still be necessary as individuals may fail to conform (Strum 1994).

Technical and financial assistance by the relevant government sectors should be seen as playing a catalytic role for CBC and CBNRM. Such assistance may also be provided by local NGOs or by any other body willing to work with local communities (Murindagamo 1990). Other factors to take into account for effective institutional management include the transparency and style of the administration and management of a conservation area (Lewis & Carter 1993).[99]

Table 6.4(b): Institutional functioning

Issues	Guidelines
Empowerment	• Institutions or structures should not be imposed on people. Rather, institutions should be empowered to evolve in their own time on the basis of real needs; • Traditional authorities should not be sidelined when establishing new institutions for CBC-CBNRM; • Western and traditional approaches to institutions around conservation and NRM should be integrated through effective dialogue.
Transparency / Accountability	• Local stewardship for NR should be maximised within the framework of balancing long-term collective (national, regional, global) interests with short-term (individual/household) interests of the resource users; • Accountability is important to ensure that a process is transparent, and to ensure that the process is not hijacked for political or financial gain.
Capacity-building	• Capacity-building (C-B) should be a priority before project conceptualisation, design, planning, and implementation in order to enhance the potential for sustained and equitable partnerships; • Equality should be pursued in order to negotiate, enter into agreements, and to see those agreements implemented and managed; • C-B of all government sectors is necessary to enhance the understanding of the concept of resource limits, the need for decentralisation, and for community-based projects; • C-B exercises should seek to manage expectations, to build business, entrepreneurial and other skills, and to build an understanding of key NRM and conservation concepts, possibly through experiential training; • Local, multiple-scale institutional functioning should be identified, understood and strengthened.[100]

[99] This includes number of staff, how paid, control of poaching, integration of sustainable use, zoning or planning, development, private sector partnerships, tenure issues, decentralisation and thus support from national and regional government for local/rural communities

[100] External agencies should bear in mind that institutions are not only community-level organisations, but are present at all scales of activity within the community (Leach *et al* 1999).

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6.4.4 *Legislation and Policy*

For CBNRM and CBC to be successfully re-implemented,[101] some people believe that there need to be key changes in the legislation governing the management of wildlife and rangelands (Nsanjama 1993, Crook 1996). Others believe that pro-active pilot projects can help to bring about these changes (Lutz & Caldecott 1996). For example, in the ADMADE programme in Zambia, nature conservation officials now enforce legislation for wildlife management in partnerships with rural people, such that the views and ideas of both local/rural communities and technical staff are effectively combined (Lewis 1993).[102] All national policies need to be assessed to determine their impact on devolving responsibility for NR to the local level, and on the long-term efficiency of programmes (Crook 1996). The focus of policy and legislation should be on the communal level as it should help to balance individual rights and responsibilities (Strum 1994) with that of all community members and national citizens.

Restoring a positive balance between costs and benefits of NR use and management may require an enabling legal-policy environment for community conservation initiatives and sustainable NR utilisation, through education, policy reform and investment (Kiss 1990). This is presently not the case in Swaziland as the policy environment is not favourable to biodiversity conservation in general (Masson 1996, SEA 1997a), and as conservation has a low priority on government's agenda (Masson 1996, Monadjem 1998). Latest studies have recommended that the plethora of outdated and unenforced legislation and the fragmented nature of environmental management need to be overcome for effective biodiversity conservation and natural resource management (SEA 1997a). In addition, the gap between policy formulation and effective implementation in Swaziland needs to be closed, because political will, policy implementation, and good governance appear to be lacking and ineffective in Swaziland. For example, various GTZ community forestry guidelines recommended in 1990 for Swaziland have not been implemented (Masson 1996). Monitoring and evaluation can play a role to ensure that implementation is effective and that policy/legislation is changing where necessary in response to lessons learned from practical implications of such policies and legislation.

The implementation and enforcement of policy should be jointly planned and jointly carried out. Action in conservation initiatives should be community owned, even if intensive and extensive capacity-building and institution-building is required to do so

[101] The term "re-implemented" refers to the existence of natural resource management and conservation management regimes at community level before being disempowered with regard to decision-making over land and its resources.
[102] Policy changes are often deemed necessary so as to facilitate direct training and employment of people in NRM (Lewis

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(Owen-Smith 1993).[103] However, it should be remembered that communities do not exist in isolation. Local action may only be effective if linked to the larger network of power and policy (Strum 1994), but only when maintaining a sensitivity to the integrity of each local context. CAMPFIRE has managed to achieve this in scaling up the programme from a few locations to the rest of the country (Metcalfe 1994).

Table 6.4(c) Policy and Legislation

Issues	Guidelines
Policy & Legislative environment	• The impacts of relevant policies and legislation should be reviewed, with the aim to provide an enabling policy and legal environment; • Necessary changes to policies and legislation should enable and enhance project success (without impacting other programmes/projects).
Implementation	• Implementation of integrated CBC-CBRNM programmes and projects needs far greater emphasis than just policy-making; • The GoS needs to overcome a history of poor policy and legislative implementation; • Policies should be flexible to allow for diversity in contexts; • Policies should seek efficient implementation, and good governance thereafter; • Monitoring and evaluation should be implemented as part of a continual improvement cycle.

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6.4.5 *Decentralisation*

Government control of programmes and of the natural resources can be detrimental to programmes (Lutz & Caldecott 1996), often due to factors such as corruption and political interference (Crook 1996). Hence, decentralisation for local control over natural resources should take place (Kiss 1990, Lutz & Caldecott 1996) through being legally empowered for decision-making at the local level (Strum 1994). Ideally, decentralisation should evolve, with local communities gradually assuming responsibility for natural resources (Nsanjama 1993, Strum 1994).

Local communities need to be given the capacity for such responsibility before project implementation or even before project planning. Hence, such a policy of decentralisation should not be about standing alone or about short-term assistance, but should be about long-term integration and participation in decision-making processes and partnerships between the various stakeholders, i.e. co-management. Localised control and ownership of natural resources should be promoted, so that the benefits

1993).

[103] There are still some people feeling the costs of conserving wildlife through the loss of crops to elephant, etc. (Lewis 1993).

from sustainable resource use may accrue to those who bear the costs (Crook 1996). Examples of co-management and of localised control being relatively successful include LIRDP/ADMADE (Lewis 1993) and CAMPFIRE (Murphree 1993, Child 1995).[104]

Table 6.4(d): Decentralisation

Issues	Guidelines
Decentralisation	• There should be decentralisation of responsibility in decision-making; • Effective decentralisation requires C-B of local communities; • Decentralisation could occur with or without legal framework;[105] • Decentralisation should be a gradual process, with the emphasis on partnerships in projects; • A balance should be achieved between high-level political support, and ownership and self-determination at the local level.

6.4.6 *Co-management through partnerships*

It is essential that, in initiating projects/programmes in local communities, outside agency's projects/programmes take a step back in process to work with local communities to decide, plan and implement the relevant programmes and projects. This should include discussing rationales and potential benefits, as this will enable the community to take more ownership of the process. In other words, the sooner their ideas, thoughts and values are integrated into the relevant process, the sooner ownership may result, and hence the sooner the direction of the initiative is determined by the community (Strum 1994). In some ways, this has happened in the Shewula Community by the Chief taking ownership of the reserve idea and then driving it, unfortunately with very little participation by the broader community.

In addition, donors, NGOs, and other outside agencies must understand that their roles and responsibilities will change over time as the community acquires the skills and capacity and as the project develops. Too often tensions arise when outsiders are reluctant to give up power and control once the project develops its own momentum (Strum 1994). It is therefore essential that outside agencies have this release as a goal. This does not mean abandonment (another source of project failure), but rather adopting the role of supporting and advising, rather than driving and directing. A good example is the Makuleke community, where the Friends of Makuleke (FoM) sat on an advisory forum and not on a decision-making forum (Steenkamp & Maluleke n.d.). Conservatism

[104] "Co-management" or co-operative management tries to achieve more effective and equitable systems of resource management through the sharing of power, knowledge and responsibility between user groups, scientists and government agencies <www.orst.edu/instruction/anth481/ectop/ecco-m.html>.
[105] "without" means harder work and focus by implementing agencies and by community members in establishing

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and rigidity in the actions of external agencies are additional factors that cause conflict and hinder sustainable rural livelihood and conservation initiatives (Wells et al 1992). Hence, flexibility and time are key principles when working with local communities.

The proponents of community conservation programmes need to understand the plural and complex nature of society and natural resource relationships in rural areas (Mather & Chapman 1995). NRM specialists need to establish a solid "walking with" relationship between themselves and land users. This is often best carried out with extension officers. In the case of CBC, these should be nature conservation officers, either formally appointed by the government, or as partners in the process in the form of an advisory role from local/rural conservationists, even before supporting legislation is implemented. In Swaziland, agricultural extension officers are already resident in the communities. These existing structures could be improved through capacity-building, infrastructure development, and monitoring and evaluation.

For example, formal village scouts, with the express purpose of conserving wildlife, are an integral part of a new partnership between technical extension officers of the National Parks and Wildlife Service (NPWS) and traditional leaders in Zambia (Lewis 1993). Community scouts have also been trained in the Goba community in Mozambique to prevent the harvesting of rare tree species. The Swaziland National Trust Commission (SNTC) has a community outreach section and an environmental education section. These need to be strengthened so as to bring about partnerships between government and local communities in biodiversity conservation and NRM, i.e. co-management.

Conflict management around local/rural issues and wildlife management problems should be delegated to local/rural leaders and to the local/rural conservation extension officer (Lewis 1993). Conflict resolution mechanisms need to be designed according to the context. Mechanisms include outside arbitration, identifying community needs or problems to build consensus for joint action, and through partnerships and co-management between communities and other stakeholders. The aim is to minimise antagonism and to dissipate the "us-versus-them" mentality and to create an "us-and-them" mentality for problem-solving (Strum 1994).

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principles without an enabling legal and policy framework.

Conservation programmes in Africa must be pragmatic in that socially integrated management policies need to be developed for conservation areas and NRM. Simbotwe (1993) recommends that problems should be solved communally - the African way - thus there should be a use of African traditions, ideas, language, and terms that communicate where local/rural communities are at. In addition, western technology should be used where it is appropriate to particular problems. There is a need for the training of African conservation managers and researchers. Nsanjama (1993) is of the opinion that foreign experts have neither understood nor appreciated the African conservation systems, which are linked in complex ways to cultural and traditional rights and value systems. In addition, African managers are more likely to stay long-term, and are therefore more likely to promote project continuity.

Brown (1998) emphasised the need to resolve the tension between conservation as the preservation of the existing biological capital and conservation as sustainable exploitation, when undertaking rural development programmes. Both "sides" need to realise the importance of both aspects of conservation, and hence need to learn from one another, for the sake of future generations as well as for the daily livelihoods of the rural poor. Whether this tension can be resolved is another question. But a step in the right direction is through healing the wounds of the past and through a sea change. A sea change is a change in mindset, in the perception of needs and wants, and thus in value systems that need to be the key foundation of any intervention project (See Kleymeyer 1994).

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Table 6.4(e): Co-management through partnerships

Issues	Guidelines
Partnerships	• Community public private partnerships (CPPPs)[106] should be encouraged to facilitate effective CBC and CBNRM programmes; • Closer co-operation between government and community should be fostered, such that other needs (health, education, well-being) can be identified and communicated to the relevant government sectors; • There should be open, two-way communication regarding fears, mistrust, conflicts, hopes, questions/answers, in the principle of honesty; • The sovereignty of individuals and multiple-scale institutions needs to be recognised such that they have power, control and authority over their own livelihoods, but in balance with community, regional, national, transboundary and global needs; • A methodology for maximising the participation of the community in the process should be followed with the aim of ensuring that the process is internally driven; • Local/rural knowledge and scientific knowledge should be integrated, through building on the foundation of indigenous knowledge systems;

[106] See the latest literature on this new concept for CBNRM.

	• Flexibility is needed, in that donors and NGOs should change their mindset of being programme fixated. Hence they should move from focusing on physical results (infrastructure) to focusing on results orientated towards people development and empowerment; • Shared experiences of relying on one another in small tasks should be built, so that stakeholders/role-players can come to rely on one another in the future on bigger tasks; • All role-players need to be aware of, and be able to tolerate differences;[107] • Project promoters should play an increasingly advisory role (i.e. only acting when asked to by the community) as the project develops.
Integration	• CBC-CBNRM approaches should be multidisciplinary and intersectoral; • The various disciplines in government and private sectors should work in partnerships with the local communities.[108]
Conflict resolution	• Strategies should be developed to identify and solve the root causes of conflict between stakeholders, role-players and their environment.
Mindset change	• A sea change (i.e. mind-set and value change) at all levels of governance and society is an essential pre-requisite for CBC-CBNRM programme success; • Sea change can occur through capacity-building at all levels; • Time should be allowed for the change in mindset and actions, in order to slow down and to reverse NR degradation.

6.5. *Historical*

Much can be learned from the past in terms of the successes and failures of previous rural development, biodiversity conservation, and NRM programmes and policies in Swaziland. In addition, historical issues of colonialism, nationalisation, and international policies, need to be understood and integrated into present and future policies for biodiversity conservation, NRM, and rural development. Levin (1997) has warned against positivism as it risks ignoring key historical and structural factors that have shaped Swazi society. Hence, no discussion on the present problems with conservation and poverty in rural areas, and the potential solutions, is complete without first understanding the history of these problems in Swaziland, the region, and in sub-Saharan Africa.

Table 6.5(a): Historical issues

Issue	Guideline
Historical	• Historical policies and programmes shaping local communities' and policy-makers' perceptions of the natural environment need to be identified, evaluated for influence, and integrated into each project process.

[107] This includes differences in capacity, in socio-economic and legal issues, and in policy. There are also different practices and different value systems for individual groups and institutions.
[108] CBNRM should add value to CBC and community-based ecotourism developments (CBED), and vice versa.

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6.6. Conclusion

Initiatives for biodiversity conservation in rural areas should have the objectives of facilitating sustainable livelihoods and the conservation of biotic and abiotic resources,[109] through the integration of rural development and rural environmental management initiatives. In adopting an integrated holistic approach, it should be realised that all activities and processes are interconnected in acknowledgement of the principle of ecosystem structure and functioning. In addition, in having a holistic picture, one should aim to include private, state, and communal lands in the same programme to bring about integration on all levels and in all government sectors. A big task maybe but, given sufficient resources, it may well be achievable.[110]

Communal lands are just one part of the Swaziland rural landscape, with the largest land area, but not necessarily the most arable land (SEA 1997a). In this regard, biodiversity conservation, through maintaining ecosystem integrity, emphasises the need for communities to adopt sustainable agricultural systems within present resource limits, to adopt alternative livelihood strategies, or to enhance and add value to present livelihood strategies, so as to alleviate poverty through empowerment. This is CBNRM. Alternative livelihood strategies could mean setting aside part or all of a community's land for conservation, whether for wildlife management through commercial and/or subsistence hunting, tourism, or through game sales, or whether for forestry through commercial and/or subsistence harvesting, or through tourism. This is CBC.

In adopting this holistic approach, an integrated CBC-CBNRM approach is acknowledged as being only one of the many potential alternative income-generating activities (IGAs). **The difference is that biodiversity conservation should be achieved as a result of striving to meet people's needs in rural areas.**[111] Each proposed IGA needs to be assessed for its social and ecological sustainability and then adapted accordingly.

It is acknowledged that the list of guidelines is long and may complicate the establishment of a CBC-CBNRM approach to SNL management and development.

[109] NRM is focused more on abiotic resources in agriculture and pastoralism and less on wildlife, forests, veld for conservation - therefore CBNRM should not refer to CAMPFIRE but to agriculture projects - although linked they need to be separated at theoretical level. For example CBNRM in Zimbabwe is focused on sustainable harvesting of wildlife, while CBNRM in other areas is focused on sustainable agriculture and sustainable livelihoods.

[110] CBC project proponents in Swaziland should consult the latest report from USAID on Transboundary NRM in southern Africa (in progress) for relevant lessons that may be learned.

[111] In the light of population pressure, the exclusionary form of biodiversity conservation may be ineffective, and hence resource biodiversity initiatives should be promoted.

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However, it does confirm the complex nature of people-environment relations, especially at the local-rural level. Instead of simplifying these complexities through prescriptive models, one should seek to identify key principles that can help point a CBC/CBNRM programme in the right direction in meeting the key goals of sustainable rural livelihoods and biodiversity conservation. The set of principles identified in this dissertation are likely to be lacking, yet they are suggested to be the first step towards establishing an integrated and effective biodiversity conservation and NRM approach on SNL in Swaziland (See Section 7.3.2).

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CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

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7. CONCLUSIONS AND RECOMMENDATIONS

This section seeks to summarise the conclusions and recommendations for enhancing the Shewula Reserve process. In addition, the conclusions and recommendations from assessing the feasibility of applying an integrated CBC-CBNRM approach to Swazi Nation Land are summarised.

7.1 Introduction

This dissertation has identified various problems in the Shewula Reserve and Lubombo Conservancy formation and development processes. As a result, various solutions have been proposed, in an attempt to enhance the long-term viability and sustainability of these the processes. During the process of assessing these initiatives, a new framework for managing communal areas in Swaziland's rural environment[112] from a livelihoods[113] perspective has been conceptualised, namely Managed Natural Environments (MNEs).

MNEs are suggested be an effective means of facilitating the implementation of a "new"[114] approach to biodiversity conservation that has been proposed for communal lands, within the policy framework of the proposed Biodiversity Strategy and Action Plan (BSAP). The aim of this "new" approach is to establish CBCAs and to enhance CBNRMAs[115] in community areas suitable[116] to such an initiative, in an integrated approach to NR management and to the use of communal grazing and cultivation areas. This dissertation concludes that the "new" approach should encourage local communities, biodiversity conservationists, regional development planners, NGOs, and the various government sectors, in the spirit of co-management through partnerships, to facilitate the sustainable conservation and management of the natural assets of Swaziland, whilst promoting the establishment of sustainable rural livelihoods (SRL).

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[112] A broad definition is proposed, thereby integrating people, their behaviour, and their interaction with their natural environment (i.e. including biodiversity and ecosystem structure and functioning).
[113] "Livelihoods" is a strong definition for the term "development".
[114] The term "new" is in inverted commas to emphasise that communities' activities used to be sustainable, before colonial policies and population pressure impacted their inherent sustainable NR management and use strategies.
[115] CBNRMA - community-based natural resource management areas.
[116] This suitability would be based on various key selection criteria - broadly defined as social (i.e. cultural, political, historical and institutional), ecological, and economic criteria from a sustainability, equity and efficiency perspective.

7.2 Conclusions and Recommendations - the Shewula Reserve

The latest developments[117] in the Lubombo Conservancy (LC) process are representative of the problems that exist for the long-term viability of the Shewula Reserve and hence the LC. The LC Committee (LCC), in prioritising fencing, security and law enforcement as short-term actions, has ignored the findings of Segar *et al* (1999) and Sandwith (1999) concerning the fencing of the reserve, cattle security, and various other key issues from the perspective of the Shewula Community.

In other words, the priorities for action in the LC continue to show a lack of strategic planning around the real issues for the community (i.e. continued access to natural resources, cattle security, etc.), due to the continued top-down and old-school conservation, NRM, and development approaches of the private and state sectors.

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7.2.1 *Conclusions*

The initiative to establish a reserve on communal lands of the Shewula Community is pro-active in integrating a local community into a conservation project. However, the limited involvement of the broader community has resulted in a lack of ownership of process, which, in turn, continues to reinforce the top-down driven nature of these initiatives. In addition, this ineffectual participation of the broader community is due to the apathy of the broader community, as well as due to the top-down functioning of the traditional leadership.

The latest developments in the functioning of the LCC reveal that various reserve representatives continue to have different objectives to that of the community, and continue to ignore the fact that the Shewula Reserve is still community land and has many sensitive issues attached to it. This is reinforced by a lack of capacity amongst the broader community on issues such as tourism (i.e. an example of an alternative IGA), business acumen, conservation management, ecological integrity, and sustainable NRM and use. In this lack of capacity with regard to NRM and use, the community continues to undervalue the existing assets of their area, resulting in the inefficient use of such assets for sustainable livelihood strategies.

The continued top-down functioning of the traditional leadership and SBoT has resulted

[117] December 1999-January 2000, after the fieldwork for this dissertation was completed.

in these bodies not communicating their relationship-building efforts with the neighbouring Mozambican communities to the broader community. Hence, these bodies need to adopt a more participatory form of functioning to ensure that all multiple-scale institutions work co-operatively towards solving the issues of transboundary NRM and cattle security. The top-down style of leadership that is prevalent could result in the political dynamics, which are otherwise being played out at the local level between the progressives and the traditionalists (See Chapter 4), being a threat to the tourism, conservation and NRM initiatives.

In addition, the existing legislation of Swaziland is not conducive to local communities taking more responsibility and authority for NRM and conservation. The time-consuming efforts to obtain the King's permission to establish conservation areas on community land could be detrimental to the Shewula conservation initiative. However, the issue of land tenure is sensitive and needs to be addressed in innovative ways to maintain the rate and direction of social and political change at the national and local levels. The introduction of title deed land on SNL would most likely be more detrimental to NR degradation than the present communal land tenure system. Hence, this dissertation concludes that the strengthening and capacity-building of the multiple-scale institutions in each community would be a more effective method for transferring the open access management regimes of the communal lands in Swaziland back to common property management regimes.

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7.2.2 *Recommendations*

In effect, the recommendations for mitigating the problems associated with the latest developments in the LC process are generally the same recommendations for strengthening the potential for the long-term viability of the reserve and LC. In the light of this, it is strongly recommended that the LCC re-assess their priorities and the process that is going to be followed for integrating the various communities and other land-owners into this initiative.

The LCC should be criticised for expecting the Shewula Community to participate at the same level as them in conservation and development planning and implementation. The representatives of the various landowners on the LCC need to adjust their thinking (i.e. a sea change is required), to ensure that the community is effectively participating in the management of their reserve, and in the functioning of the LCC. Even though the community is struggling with various internal issues that are preventing their full participation in the LCC, it should be the responsibility of the LCC to ensure that the

community representatives can participate on an equal, effective and sustainable basis in the LC initiative.

Other recommendations for strengthening the reserve process are as follows:

- The Shewula Community should be seeking to adopt an integrated CBC-CBNRM approach, within the framework of the community MNE concept. This should strengthen the reserve formation and development process, by facilitating the mitigation of its potential weaknesses and the enhancement of its potential strengths.
- The Shewula Community should be used as a pilot project for expanding the MNE concept (i.e. in an integrated CBC-CBNRM programme) to other communities in Swaziland.
- Neighbouring landowners (private and state), in the buffer zone around the LC, should adopt an integrated conservation-NRM approach to their land-use activities.
- Funding should be raised to meet the short- to medium-term financial needs of the reserve, until the Shewula MNE programme achieves financial viability and sustainability.
- Ownership of process and project/initiatives by the broader community should be facilitated through capacity-building, devolution of authority over NR management, and through general information-sharing meetings (by the SBoT).
- The SBoT needs to ensure that the broader community stays informed of, and has sufficient opportunities for input into, NRM, biodiversity conservation and community development initiatives.
- Partnerships in the spirit of co-management should be established and grown, with the community receiving capacity-building, such that they may start to drive these relationships (i.e. bottom-up driven initiatives should have a better chance of succeeding).
- Specific capacity-building of the community representatives on the Shewula Board of Trustees and Lubombo Conservancy Committee should focus on empowering them to participate more effectively and equally in these forums.
- Capacity building for the broader community, should take place around gaining an understanding of the importance of biodiversity conservation and ecological integrity, for their livelihoods.
- The poverty/inferiority mindset of the community members needs to be overcome, possibly through capacity-building. This is especially relevant to the representatives of the community interacting directly with the neighbouring landowners (i.e. the participation should be on an equity basis).

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- The neighbouring landowners should seek a mindset change through capacity-building, with regard to their relationship with the community, such they have the patience, flexibility and humility in working with the community.
- A new approach (cost effective as well as being conservation effective) to reserve management should be designed, e.g. through using community scouts.
- This new management system should enable the continued access to NR within the reserve.
- A strategic conservation management and development plan should be designed for the reserve and for the conservancy, founded on an intensive participation process.
- Relationships between community and their land, their NR and wildlife should be managed in such as way as to promote sustainability (i.e. sustainable harvesting; compensation for animals/crops lost, etc).
- The fencing and cattle security issues should be addressed, to enable the integration of the Shewula Reserve into the LC to be facilitated, but on the basis of the community's objectives.

The SBoT, the traditional leadership, and the LCC should integrate these recommendations, together with those identified in Segar *et al* (1999) and Sandwith (1999), with the reserve and LC initiatives.

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7.3 *Conclusions and Recommendations – Managed Natural Environments as a conceptual framework for Swazi Nation Land*

7.3.1 *Conclusions*

Biodiversity conservation and NRM are essential if ecological integrity and hence SRL are to be maintained and enhanced. There are various third world (i.e. underdeveloped) and developing countries that support NR exploitation, based on the argument that '*the developed world did it so why can't we do it*'. However, they need to face up to the reality of changing times and new knowledge that informs humankind of the detrimental effects of uncontrolled resource use on local/rural people, as well as on people world-wide. Hence, a balance between conservation and development should be achieved within the framework of rural sustainable livelihoods and rural environmental management. Anything less can only bring about increased poverty, and problems for the structure and functioning of ecosystems that maintain humankind's life-support systems.

The overdeveloped world should be willing to pay towards conserving third world and developing world resources, as well as investing in the restoration of their own environments. Only when the two extremes (haves and have-nots)[118] learn how to work together in the principles of equity and justice can the goals of biodiversity conservation and SRL hope to be achieved. This change in working relationships may only come when values change (i.e. a sea change), and when people become more radically aware of the dependence of humankind's survival on ecosystem structure and functioning through biodiversity conservation and management in the form of sustainable livelihood strategies.

The argument is not about emotionalism around conservation anymore; it is about a real concern for long-term food security. The question is not about whether to conserve natural resources and whether to sustainably use them; it is about how to do so. **Ultimately, the threats to people and their livelihoods are ecological in that, as a result of the loss of biodiversity outside of protected areas, there is a decrease in the efficiency and long-term viability of protected areas set aside for the conservation of biodiversity.**

[118] See Athanasiou (1999).

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For protected areas and conservation-worthy areas in Swaziland to be enhanced in their effectiveness, a Biodiversity Strategy and Action Plan (BSAP) is being developed. However, local communities have been sidelined by ignoring them as potential managers of the local NR base for biodiversity conservation and SRL. Hence, a conservation and sustainable use strategy is suggested for SNL in the form of a two-pronged approach, namely CBNRM and CBC, in the framework of MNEs. Each community, with its multiple-scale institutions, should be encouraged, aided, and empowered to take more responsibility for the sustainable management and use of natural resources, including biodiversity, in their area. The goal would be the establishment of sustainable livelihoods for themselves and for future generations, with resultant regional, international (transfrontier), and global biodiversity and ecological benefits.

An integrated CBC-CBNRM approach could be futile if the rest of the land tenure types are not sustainable, efficient, and equitable. Communal lands cannot be targeted in isolation, in that private and state lands would also need to come under close scrutiny for more effective biodiversity conservation and sustainable/effective NRM on their lands. Thus, as much of this dissertation has been on biodiversity conservation, and the enhancement of the sustainable livelihoods of rural people on SNL, Swaziland needs efficient protection on title deed land and crown land, as they are often the more arable and more biodiversity-rich areas of the country.

It is up to the decision-makers in Swaziland, in all sectors and levels of government, to take responsibility for mitigating the impact of the activities of the country's people on NR management and use, and biodiversity conservation. It is time that political power battles are put aside for the sake of the present and future generations of Swazis and members of the global village. In the political ecology of this generation (Blaikie 1995), it is time that greed does not play a driving force in the way decisions are made. Instead, the driving force should be a desire to see equity, justice and efficiency as key elements of poverty alleviation and biodiversity conservation projects. In addition, this desire should be seeking far more effective implementation of policies, thereby overcoming one of the major weaknesses of national governance in Swaziland.

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7.3.2 *Principles for an integrated CBC-CBNRM approach*

The discussion on the feasibility of implementing an integrated CBC-CBNRM programme in Swaziland's communal areas has led to the proposal of a principles-based approach for such a programme, instead of an approach based on a prescriptive model. A generic approach, in the form of a prescriptive model, should be avoided due to the problems associated with the inability of such models to respect, and hence integrate the heterogeneity of communities and the complexities of the contexts of rural communities into such initiatives. This complexity is reflected in the length of the list of guidelines identified in Chapter 6.

The proposed principles, all of which address at least one or more of the issues and their respective guidelines, are perceived to be potentially critical to the success of the these NRM and biodiversity conservation initiatives. Hence, these principles should be the foundation for implementing an integrated CBC-CBNRM programme in Swaziland. These principles may overlap, due to the complex nature of the situation at hand. In addition, each principle is not fixed, but should be seen as dynamic, evolving, and adaptable to the specifics of each local context, and to the integration of evolving knowledge around biodiversity conservation, NRM and SRL strategies.

The key principles that should underpin the designing of integrated CBC-CBNRM projects in Swaziland, so as to enhance their potential for success, are as follows:[119]

- **An ecosystem approach to communal lands**
  Integrate CBC and CBNRM, in order to achieve biodiversity conservation and sustainable rural livelihoods, in a holistic approach to the rural landscape in the form of MNEs. Such an approach acknowledges humankind's integral role as top of the food chain and hence an integral part of ecosystems.
- **Co-management and participation through partnerships**
  Identify and actively involve all stakeholders to contribute to the success of the proposed programme, and to share in its benefits.
- **Strengthen multiple-scale community institutions**
  A multiple-scale perspective should be adopted when working with local communities, as opposed to the concept of community-level organisations. This should promote a deeper understanding the complexities of local communities' interaction with their environment, and how these institutions should be strengthened for effective and sustainable management and use of the NR base.

[119] These have been listed in no order of importance.

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- **Sustainability**

  The principle of sustainability should inform the use of natural, financial, human and institutional resources, and in the livelihood strategies of rural households.

- **Efficiency**

  Programmes should build upon and add value to existing natural, financial, human and institutional resource management and use.

- **Equity**

  Equitable benefits should be ensured for the community members, through building the capacity of communities to participate on an equal level with government, private, and NGO partners.

- **Positive cost-benefit analyses**

  Each specific project should be able to be self-supporting in the long-term.

- **Respect and integrate diversity within and between communities**

  Respect the heterogeneity, dynamism, and uniqueness of each context. Identify, understand, and integrate the ecological, social, political, economic, cultural, institutional, legislative and historical context of each community MNE into their specific integrated CBC-CBNRM management strategy.

- **Programme adaptability through flexibility**

  Not only should the programme be adaptable to the internal heterogeneity of each local context, but it should allow for changing socio-economic, political, cultural, and institutional circumstances.

- **Manage expectations**

  Expectations should be managed to ensure that each community knows the risks and uncertainties of these approaches, and that biodiversity conservation and NRM (and their associated income-generating activities) are not the only solution to their livelihood problems and challenges.[120]

- **Change in mindset**

  If a mindset change (i.e. sea change)[121] does not take place from the local community level through to government and international levels, in terms of value systems and ecological limits, then all efforts to conserve biodiversity and to promote sustainable rural livelihoods could be ineffective.

- **Effective implementation**

  The overarching CBC-CBNRM programme should focus on effective implementation of biodiversity conservation and SRL policies in each specific community.

[120] An integrated CBC-CBNRM approach is only one of the various possible solutions to community livelihood problems.
[121] See Kleymeyer (1994).

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These principles are essentially about how human beings act, react and interact (human-society-environment dynamic). Hence, the emphasis of the guidelines (see Chapter 6) and of the principles is on institutional, social, political, and cultural factors. Essentially, the technical (i.e. economic, ecological and conservation management) elements are "known" (i.e. in terms of the latest available knowledge) and hence fewer lessons can be learned in this area (Strum 1994). An integrated CBC-CBNRM programme should be about creating the right focus and attitudes, which should enable the technical knowledge to be effectively transferred for efficiency of implementation project viability, and for tangible benefits.

The paradox is that ultimately the end result may not be measured in terms of empowerment, participation, economic/livelihood benefits or any other measure of the human dimension of the conservation-community dynamic, but instead in terms of real conservation improvements (Western 1994a).[122] However, in promoting an MNE approach to SNL, the project facilitators should also seek to meet the goals of SRL, and not only those of biodiversity conservation.

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7.3.3 *Recommendations for an integrated CBC-CBNRM approach*

The various recommendations for establishing an integrated CBC-CBNRM programme on in community MNEs in Swaziland are as follows:

- The aim of an integrated CBC-CBNRM programme in community MNEs should be two-pronged:[123]
  a) to contribute towards the cycle of poverty being broken through the promotion of sustainable rural livelihoods (i.e. through direct natural resource use and/or alternative income-generating projects); and
  b) to enable the conservation of biodiversity, and hence the maintenance of ecological integrity.
- An integrated CBC-CBNRM approach should be developed and concretised, using the guidelines and principles identified in this dissertation as a foundation/starting-point for such an approach. An intensive participation process, with effective local, regional and national input (through capacity-building), should be ensured.

[122] Ultimately, participatory conservation approaches are just that - if they do not succeed in promoting biodiversity conservation and ecosystem integrity, then alternative approaches should be identified and implemented, for the sake of global livelihoods.

- The MNE approach should be dynamic, with the concept and methodology continually evolving through adaptive management.
- A pilot project phase, including the Shewula Community initiatives, should be developed to ensure that most of the teething problems are addressed, before the MNE approach is implemented nation-wide.
- A project selection system should be developed through consulting the literature, case studies and the specific context of Swaziland.
- A strategic integrated conservation and development plan, based on the MNE concept, should be developed for each selected community.
- Community scouts should be used for effective monitoring and evaluation of the implementation of this integrated conservation and development plan.
- The heterogeneity of each local context, including the multiple-scale institutions within each community, should be identified, understood, and integrated into each specific community MNE design.
- All interventions, at whatever stage, should not alter the rate and direction of change in the socio-political-cultural dynamics of each specific community.
- Capacity-building and participation should be undertaken to increase a sense of ownership of NR and of process, with the aim to make such a initiative community-driven.
- Indigenous knowledge systems and western conservation/NRM science should be integrated with sustainable and appropriate technology, to enhance programme development and the implementation of such initiatives.
- The focus should be on managing the existing NR use, to promote sustainability and to add value to existing resource use, and to identify alternative income-generating activities (including wildlife) for implementation at a later stage.
- Alternative income-generating activities (IGAs), which are either conservation/NRM or non-conservation/NRM linked, should be identified and evaluated for enhancing rural livelihood strategies. These may vary from one context to the next, depending on the NR base, and situation with regard to the various markets for the products from these IGAs.

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[123] The overlap between the concepts of CBNRM and CBC are emphasised in commonality of these aims.

The following methodology encompasses key guidelines for the effective implementation of an integrated CBC-CBRNM programme in establishing a MNE framework for each selected community:

- A capacity-building programme should be conceptualised, planned, and implemented in a constructive participatory manner, such that the participation of the community in the CBC and CBNRM processes can be maximised. Only then should the details of each specific CBC-CBNRM programme be conceptualised, planned, and implemented.

- The CBC-CBNRM programme needs to be carefully implemented through an approach sensitive to the needs of the local/rural people. The programme should identify the community's needs, and how they could be met through biodiversity conservation and NRM initiatives.

- A situational and needs analysis should seek to gain insight into the present livelihoods and resource use patterns, and the true economic value thereof (See Cousins 1999), as well as to identify and understand the past and present socio-political-cultural dynamics of the specific context.

- A participatory NR inventory (to identify species/population presence, quantity, and quality) should take place before the participatory zoning process to ensure informed decision-making in the zoning process.

This proposed integrated CBC-CBNRM programme may not be considered by decision-makers in Swaziland to be relevant to biodiversity conservation or NRM on SNL, or it may not be successful in implementation. If such a scenario becomes reality, then conservationists, planners, politicians, and communities in Swaziland should identify alternative solutions to protect, conserve, and sustainably manage NR on SNL.

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7.4 The Central Theme of the Dissertation Consolidated

The central theme of the dissertation can be consolidated as follows: rural communities, with their multiple-scale institutions, could be effective managers of the NR base to enable effective biodiversity conservation, and to promote sustainable rural livelihoods. It is proposed in this dissertation that the overarching and enabling policy of Managed Natural Environments (See Figure 3.1 and 3.2), based on the key principles of an integrated CBC-CBNRM approach, should be the vehicle to achieve this theme.

Figure 7.1 seeks to consolidate the general theme of the dissertation. It shows, in using the Shewula Community as an example, that through an enabling MNE policy, an integrated CBC-CBNRM programme (1) could be implemented for the proposed community reserve and for the broader community area (a). Furthermore, through effective multiple-scale community institutions, either in co-management through partnerships (2), or by the community alone (3), the community's natural resources should be sustainably managed and used. This, in turn, should provide a foundation for effective biodiversity conservation (4) and sustainable rural livelihoods (5), thus resulting in the maintenance or enhancement of ecological integrity (6). In a process of negative feedback loops (7), this enhanced ecological integrity will reinforce the already improved biodiversity conservation and sustainable rural livelihood initiatives.

However, the reverse could be true, whereby the unsustainable management and use of NR could decrease biodiversity wealth, and could cause rural livelihoods to become unsustainable. This, in turn, would undermine ecological integrity which, in the process of negative feedback loops, would thus further undermine biodiversity conservation efforts and rural livelihood strategies. The result could be increased poverty and possible endangerment for the lives of rural people.

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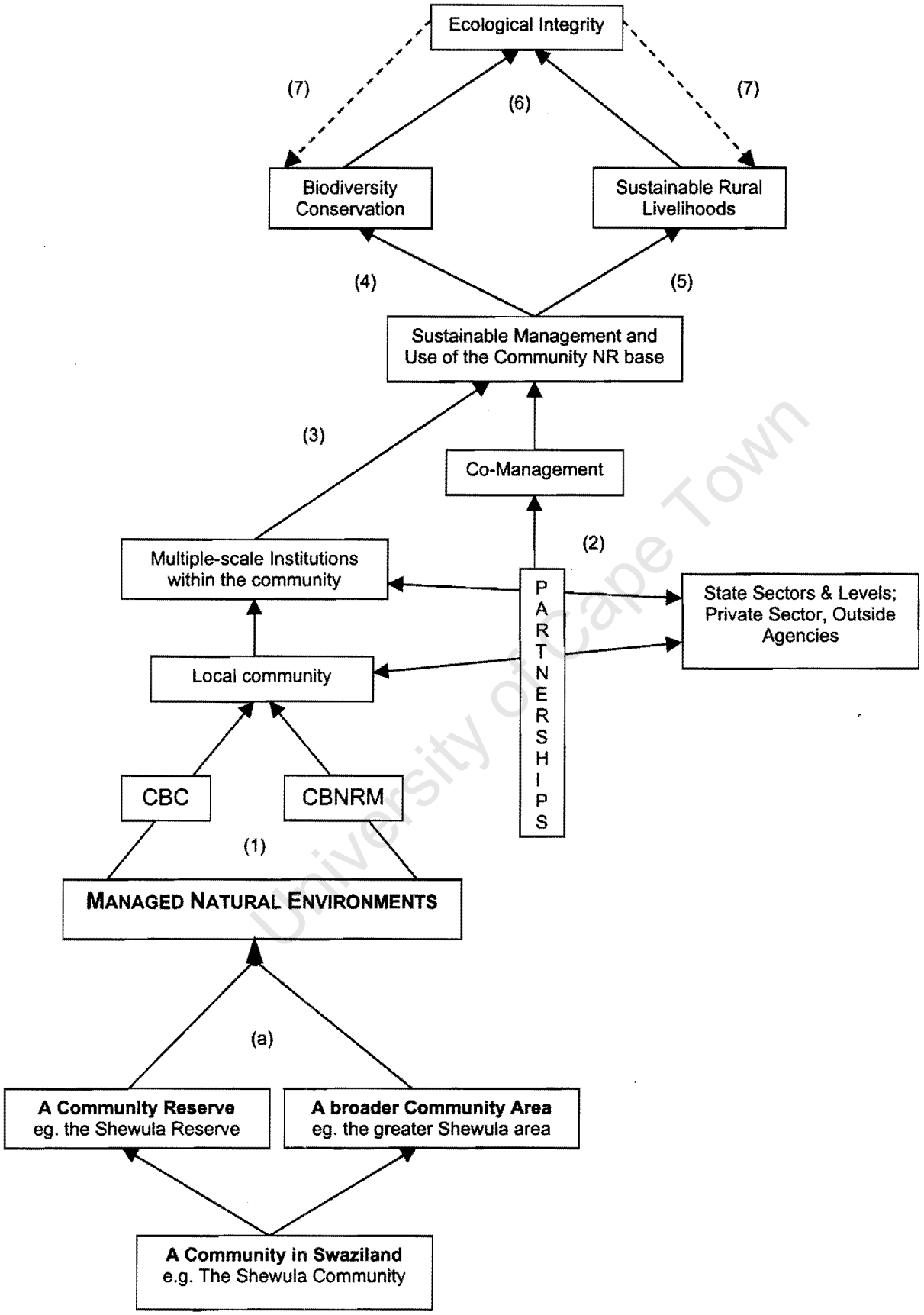

FIGURE 7.1: An understanding of the theme of Managed Natural Environments

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Fuggle & Rabie (1996) argue that the effect of environmental degradation through unsustainable actions is to deprive communities of environmental amenity services and consequently, cause a reduction in the standard of the living of rural people. The cause is for concern is when such degradation no longer takes place in large "stable" ecosystems, but in unstable fragmented areas which may not allow for the reversal of such degradation. Therefore, the central aim of conservation and NRM strategies for the rural landscape of Swaziland should be to ensure that such unstable fragmented areas do not result. Unfortunately, some areas in Swaziland seem to have reached this level of environmental degradation, and will thus require innovative and costly initiatives to rectify the situation for the sake of rural people's livelihoods.

7.5 A Final Comment

A CBC and CBNRM programme for SNL could have direct and indirect benefits for the whole of Swaziland and the region, in that biodiversity conservation and NRM would be promoted in an integrated manner. This would effectively enhance the conservation status of the present network of protected areas, adding significantly to the area under protection, as well as providing movement corridors through different types of land tenure and land-use. In other words, the present fragmentation of ecosystems, a weakness undermining ecological integrity, could be overcome.

However, it must be noted that in all the policy documents for natural resource management and for biodiversity conservation in Swaziland, as in this dissertation, the right language has been spoken. "Integration", "participation", "empowerment", "poverty alleviation", and "sustainable use" are all words that mean much in theory, but ultimately mean very little if not effectively implemented in reality. The GoS, together with international and local NGOs and the people of Swaziland need to work in partnerships towards solving the problems of poverty, rural livelihood strategies, biodiversity conservation, and landscape degradation. Without this co-operative effort, these policies all would have been "hot air" and a waste of valuable natural, financial and human resources.

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U.S DOLLAR	6.9800	6.7800	6.7434	6.7278
EURO	6.7176	6.4586	6.4328	6.4211
POUND STERLING	10.6012	10.2120	10.1620	10.1405
JAPANESE YEN	15.0700	15.6700	15.6900	15.7200
SWISS FRANC	0.2322	0.2410	0.2418	0.2421

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AUSTRALIAN DOLLAR	0.2349	0.2450	0.2462	0.2476
AUSTRIAN SCHILLING	2.0484	2.1305	2.1391	2.1430
BOTSWANA PULA	0.7050	0.7750	0.7836	0.7872
CANADIAN DOLLAR	0.2091	0.2171	0.2182	0.2186
CONVERTIBLE BELGIUM FRANC	6.0100	6.2500	6.2700	6.2800
DANISH KRONE	1.1104	1.1533	1.1583	1.1603
DEUTSCHE MARK	0.2912	0.3028	0.3040	0.3046
FINNISH MARKKA	0.8851	0.9206	0.9243	0.9260
FRENCH FRANC	0.9765	1.0156	1.0197	1.0216
GOLD	1,996.9800	1,939.7600	1,939.7600	1,939.7600
HONG KONG DOLLAR	1.1130	1.1530	1.1590	1.1658
INDIAN RUPEES	6.3451	6.6390	6.7087	6.7386
IRISH POUND	0.1172	0.1219	0.1224	0.1227
ISRAELI SHEKEL	0.5816	0.6062	0.6104	0.6154
ITALIAN LIRE	288.2400	299.8000	301.0000	301.5500
KENYAN SHILLING	10.7000	11.7000	11.9118	12.0019
LESOTHO MALOTI	1.0000	1.0000	1.0000	1.0000
MALAWI KWACHA	7.4000	8.4000	8.6352	8.7360
MAURITIAN RUPEES	3.6700	3.8700	3.9095	3.9265
NAMIBIAN DOLLARS	1.0000	1.0000	1.0000	1.0000
NETHERLANDS GUILDER	0.3281	0.3412	0.3426	0.3432
NEW ZEALAND DOLLAR	0.2977	0.3113	0.3129	0.3148
NORWEGIAN KRONE	1.2276	1.2746	1.2812	1.2840
PORTUGUESE ESCUDO	29.8443	31.0411	31.1656	31.2224
SEYCHELLE RUPEES	0.7775	0.0000	0.0000	0.0000
SINGAPORE DOLLAR	0.2468	0.2568	0.2575	0.2584
SPANISH PESETA	24.7700	25.7600	25.8700	25.9100
SWAZILAND EMALANGENI	1.0000	1.0000	1.0152	1.0217
SWEDISH KRONA	1.2319	1.2790	1.2839	1.2859
ZIMBABWE DOLLAR	5.0000	8.7500	8.9819	9.0816

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Effective Date: 20/6/2000

U.S DOLLAR	6.9800	6.7800	6.7434	6.7278
EURO	6.7176	6.4586	6.4328	6.4211
POUND STERLING	10.6012	10.2120	10.1620	10.1405
JAPANESE YEN	15.0700	15.6700	15.6900	15.7200
SWISS FRANC	0.2322	0.2410	0.2418	0.2421

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AUSTRALIAN DOLLAR	0.2349	0.2450	0.2462	0.2476
AUSTRIAN SCHILLING	2.0484	2.1305	2.1391	2.1430
BOTSWANA PULA	0.7050	0.7750	0.7836	0.7872
CANADIAN DOLLAR	0.2091	0.2171	0.2182	0.2186
CONVERTIBLE BELGIUM FRANC	6.0100	6.2500	6.2700	6.2800
DANISH KRONE	1.1104	1.1533	1.1583	1.1603
DEUTSCHE MARK	0.2912	0.3028	0.3040	0.3046
FINNISH MARKKA	0.8851	0.9206	0.9243	0.9260
FRENCH FRANC	0.9765	1.0156	1.0197	1.0216
GOLD	1,996.9800	1,939.7600	1,939.7600	1,939.7600
HONG KONG DOLLAR	1.1130	1.1530	1.1590	1.1658
INDIAN RUPEES	6.3451	6.6390	6.7087	6.7386
IRISH POUND	0.1172	0.1219	0.1224	0.1227
ISRAELI SHEKEL	0.5816	0.6062	0.6104	0.6154
ITALIAN LIRE	288.2400	299.8000	301.0000	301.5500
KENYAN SHILLING	10.7000	11.7000	11.9118	12.0019
LESOTHO MALOTI	1.0000	1.0000	1.0000	1.0000
MALAWI KWACHA	7.4000	8.4000	8.6352	8.7360
MAURITIAN RUPEES	3.6700	3.8700	3.9095	3.9265
NAMIBIAN DOLLARS	1.0000	1.0000	1.0000	1.0000
NETHERLANDS GUILDER	0.3281	0.3412	0.3426	0.3432
NEW ZEALAND DOLLAR	0.2977	0.3113	0.3129	0.3148
NORWEGIAN KRONE	1.2276	1.2746	1.2812	1.2840
PORTUGUESE ESCUDO	29.8443	31.0411	31.1656	31.2224
SEYCHELLE RUPEES	0.7775	0.0000	0.0000	0.0000
SINGAPORE DOLLAR	0.2468	0.2568	0.2575	0.2584
SPANISH PESETA	24.7700	25.7600	25.8700	25.9100
SWAZILAND EMALANGENI	1.0000	1.0000	1.0152	1.0217
SWEDISH KRONA	1.2319	1.2790	1.2839	1.2859
ZIMBABWE DOLLAR	5.0000	8.7500	8.9819	9.0816

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