

THE IMPLICATIONS OF TRANSFRONTIER CONSERVATION
AREAS (TFCA's): A COMPARATIVE POLICY ANALYSIS STUDY OF
SUSTAINABLE DEVELOPMENT IN SOUTH AFRICA BETWEEN
THE GREAT LIMPOPO TRANSFRONTIER CONSERVATION AREA
AND LUBOMBO TRANSFRONTIER CONSERVATION AREA

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BETWEEN THE GREAT LIMPOPO TRANSFRONTIER CONSERVATION AREA AND
LUBOMBO TRANSFRONTIER RESOURCE AREA

By

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BROAD OVERVIEW OF THE DISSERTATION

The dissertation is rooted in the implications of the policy on Transfrontier Conservation Areas. It is a comparative policy analysis study of sustainable development in South Africa between the Great Limpopo Transfrontier Conservation Area and Lubombo Transfrontier Conservation Resource Area.

Qualitative research methodology and theoretical analysis are used in this research. Qualitative research answers the question, "what is going on here?" (Bouma, 1996: 169). The research on the two Transfrontier Conservation Area is investigated through literature review and to a lesser extent by conducting face to face interviews with government officials dealing with the two Transfrontier Conservation Areas.

The approach in the research is the Managerial approach. "The focus of the management approach is the improvement of the efficiency, effectiveness and economy of the public sector by the utilisation of techniques which were once regarded purely appropriate to the private profit sector" (Parsons, 1995: 479).

The dissertation also examine the effects of the two TFCA's in question on Ecotourism, Economic growth and the conservation of biodiversity for sustainable development in South Africa within the New Partnership for Africa's Development (NEPAD) initiative.

Chapter one is the introduction, the rationale for the dissertation, background and objectives of the study. Chapter two is the theoretical framework in detail which define the managerial approach technique used in the research. Chapter three explain Sustainable Development. It looks at various arguments by the different school of thoughts. It also explains the link between the economy and the environment.

In chapter four Environmental Economics and the TFCA's are looked into as part of the aim of the dissertation to establish whether the policy of the TFCA's on economic growth and sustainable development is viable or not.

Chapter five examine Ecotourism as one of the sub-themes of the dissertation. Ecotourism is defined and the value of ecotourism is examined. Integrated tourism plan is also discussed in the chapter in order to determine the effects of TFCA's in question on ecotourism.

Chapter six deals with the case study no. one of the dissertation which is the Great Limpopo Transfrontier Conservation Area. It is an indepth study on this TFCA i.e. history of the region of these protected areas, management structures, zonation rivers, diseases etc. Chapter seven is a further expansion on the case study no. one and looks at the developmental aspects of the TFCA.

Chapter eight deals with the second case study of the dissertation which is the Lubombo Transfrontier Conservation and Resource Area. It describes in detail the composite parts of this TFCA. It also looks at sociological, cultural and historical resources of the TFCA in question. Opportunities for development and the activities that can boost the economic growth of the region and the surrounding communities.

Chapter nine is the concluding chapter of the dissertation which gives findings and recommendation of the dissertation.

GLOSSARY

TFCA	Transfrontier Conservation Area.
NEPAD	New Partnership for Africa's Development.
SADC	Southern African Development Community.
RISDP	Regional Indicative Strategic Plan.
WTO	World Tourism Organisation.
WTTC	World Travel and Tourism Council.
SDI's	Spatial Development Initiatives.
ZRA	Zambezi River Basin.
NPM	New Public Management.
WCED	World Commission on Environment and Development.
IUCN	International Union for the Conservation of Nature.
UNCED	United Nations Conference on Environment and Development.
WBCSD	World Business Council for Sustainable Development.
ILO	International Labour Organisation.
CDF	Comprehensive Development Framework
GLTP	Great Limpopo Transfrontier Park
KNP	Kruger National Park.
DNAC	Direccao Nacional da Areas de Conservacao.
LNP	Limpopo National Park.
IEM	Integrated Environment Management.
KNPRRP	Kruger National Park Rivers Research Programme.
GNP	Gonarezhou National Park.
ZESA	Zimbabwe Electricity Supply Association.
PPF	Peace Parks Foundation.
NGO	Non Governmental Organization.
EKZNW	Ezemvelo KwaZulu-Natal Wildlife.
NTFTFCA	Ndumo-TembeFuti Transfrontier Conservation Area.
NTF	Ndumo-TembeFuti.
GSLWP	Great St Lucia Wetland Park
GSLWPA	Great St Lucia Wetland Park Authority.

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INTRODUCTION

There is a worldwide concern that human activities such as pollution, habitat destruction, overexploitation and foreign plant and animal invasions are resulting in the ever-increasing loss of the earth's biological wealth. The implications of this are considerable if continued unabated, crucial life-support systems will be lost through the loss of important habitats, livelihoods undermined, especially rural with the degradation of the natural resource base on which people depend and it will diminish economic opportunities as options for developing medicines and foods are reduced and the natural resource base for tourism is damaged.

"South and Southern Africa have long been associated with unsurpassed wildlife and wilderness assets and eco-tourism possibilities and experiences. It is generally believed that tourism and its associated industries could become the locomotive for economic growth in the region. The establishment of "peace parks" that straddle the borders of states is seen as key to increasing tourism to the region, modernising conservation policies and developing rural economies (De Villiers, 1999: 1).

The Great Limpopo Transfrontier Conservation Park Management Board document states:

"State managed nature conservation in Southern Africa is only more than 100 years old. In its formative years the concept of nature conservation implied little more than arresting the rapid population declines of specifically herbivorous species. Tourism was not even a consideration. However, from this small beginning it has grown in stature to a position where it can now compete as economically viable and sustainable form of land use" (The Great Limpopo Transfrontier Park Management Board, 2002: Joint Policy and Management Guidelines for the Great Limpopo Transfrontier Park).

By mid-century systematic research had commenced and together with a sustainable database of observation by field staff, paved the way for an acceptance of the interdependent and interactive management of the natural environment. Climate changes (especially rainfall), with associated floods and droughts and vegetation responses with varying frequency and intensity of bush fires, animal population fluctuations and the role of carnivores and diseases were acknowledged as integral attributes of natural ecosystems. This resulted in the acceptance of the multi-faceted and integrated nature of ecosystems and the adoption of a holistic and dynamic approach towards wildlife management.

However, it soon became apparent that the conservation of the intrinsic qualities of ecosystem and the full spectrum of biodiversity i.e. composition, structure and function, required expansive areas. One option of achieving such a goal was the consolidation of state and privately owned land and the establishment of joint ventures. On a greater scale, the integration of land across international borders in similar joint ventures also offered exciting possibilities.

Similar to the development of conservation tourism and the commercial value of conservation areas also got off to a slow start. This was further influenced by the Second World War in 1939 - 1945. However, early in the second half of the 20th century a rapid growth in tourism became evident for most of the formal conservation areas. This further coincided with the opening of the first private game lodges in private nature reserves, an initiative that was largely based on overseas visitors and rapidly grew with improved travelling opportunities.

In the formal and private sectors, facilities and opportunities for tourists increased sharply towards the close of the century and as this also occurred in wildlife management, immense advantages were envisaged with the integration of the two sectors. This optimism is further endorsed by the possibilities offered by cross-border initiatives.

Ecotourism is presently widely heralded as one of the major future economic pillars of Southern Africa and of crucial importance as its sustainability. The natural environment, apart from any other consideration is the primary product on offer for tourists in Southern Africa.

It is therefore, of great importance that the intrinsic qualities of the natural attributes be preserved in their original state as far as possible. This thesis is therefore intended to provide the basic structure to underpin the policy analysis on the Great Limpopo Transfrontier Conservation Area (GLTP) and Lubombo TFCA as comparative study.

1. Research Themes and Problem Statement

The aim of the dissertation is to examine the effects of the policy framework for Transfrontier Conservation Areas (TFCA's) in South Africa in respect of sustainable development and use of natural resources with reference to two case studies (the Great Limpopo TFCA) and Lubombo TFCA. It will also examine the effects on ecotourism, economic growth and the conservation of biodiversity in South Africa and the affected TFCA's within the spirit of New partnership for Africa's Development (NEPAD).

Against the background of the Southern African development Community (SADC) framework for integration including its vision and mission, the dissertation is rooted in the policy analysis related to this. The Regional Indicative Strategic Plan (RISDP) of SADC is underpinned by the vision, which charts the direction for the development of the region. The Declaration "Towards the Southern African Development Community" adopted in Windhoek, Namibia on 17 August 1992, by Heads of State or Government of Southern African States, calls upon all countries and people of Southern Africa to develop a *vision of shared future, a future within a regional community*.

The SADC *vision* is one of a common future, a future in regional community that will ensure economic well-being, improvement of the standard of living and quality of life, freedom and social justice and peace and security for the people of Southern Africa. This shared vision is anchored on the common values and principles and the historical cultural affinities that exist between the peoples of Southern Africa.

The Regional Indicative Strategic Development Plan (RISDP) is also underpinned by the SADC *mission* statement. From the 1992 Declaration and the Report on the

review of the operations of SADC institutions, particularly from the objectives and strategies spelt out in Article 5 of the Treaty, the SADC Mission Statement is: "To promote sustainable and equitable economic growth and socio-economic development through efficient productive systems, deeper co-operation and integration, good governance, and durable peace and security, so that the region emerges as a competitive and effective player in international relations and the world economy". The SADC Common Agenda as spelt out in Article 5 of the Treaty as amended, as well as in the Report on the Review of Operations of SADC Institutions and consists of the policies and strategies of the organisation. The policies of SADC among others are to:

- Achieve sustainable utilisation of natural resources and effective protection of the environment.
- Create appropriate institutions and mechanism for the mobilisation of requisite resources for the implementation of programmes and operations of SADC and its institution;
- Harmonise political and socio-economic policies and plans of member states; among the challenges in current policies and strategies of SADC is:
- Prioritising the promotion of good land management through land use planning and most relevant to the dissertation, the
- Transboundary conservation of natural resources to mention but a few.

Flowing from the SADC treaty and its objectives, the Transfrontier Conservation Areas is one of the vehicles utilised to realise one of SADC objectives. It is against this background that the dissertation will be presented.

It is also against the background of New Partnership for Africa's Development (NEPAD) which is a pledge by African leaders based on a common vision and a firm and shared conviction, that they have a duty to eradicate poverty and to place their countries, both individually and collectively on a path of sustainable growth and development and at the same time to participate actively in the world economy and body politic. The programme is anchored on the determination of Africans to extricate

themselves and the continent from the malaise of underdevelopment and exclusion in a globalising world.

1.1 The Rationale for the dissertation on TFCA's

The rationale for the policy analysis and the study on the effects of the TFCA's (The Great Limpopo TFCA and Lubombo) on sustainable development, economic growth and ecotourism, is to answer the following questions: Is there a need for TFCA's? What effects there is on the communities surrounding the TFCA's? What the costs and benefits are there for the establishment of the TFCA's? What lessons if any could be learned and what recommendations from the outcome of this policy-framework can be made, the impact and expected results on policy-making, now and in future.

The answer to the questions above are as follows: Yes there is a need for the creation of TFCA's for various reasons i.e. the conservation of natural resources, for realisation of ecotourism and economic growth etc. The lessons to be learned are many i.e. the managing aspects of TFCA's, the effect of co-operation between countries involved etc.

1.2 Background of TFCA's and objectives of the study

The livelihoods of most people in Southern Africa are dependent on the use of natural resources and the environment. Consequently effective management of natural resources is essential for long-term sustainable development in the region. Yet these resources are under increasing pressure from human population growth, poverty resulting from inequitable distribution of resources and macroeconomic changes associated with globalisation. National governments in the region have struggled with management of natural resources within their borders but many now have effective policy and legal frameworks. Commercial poaching of some wildlife species such as elephant and rhino, for example has been effectively countered in recent years. Unfortunately many resources in the region cannot be managed at state level alone because they "straddle" international borders (De Villiers, 1999: 1). Major rivers form

the boundaries between several SADC countries, and numerous valuable wildlife populations migrate across borders. Activities in one country often have effects on neighbouring countries and in an era of increasing resource depletion and scarcity, the need for collaboration in management of these resources is growing e.g. in Zimbabwe there were unsubstantiated reports of the killing of wild animals with impunity by the so-called war veterans. Efforts at rhino conservation provide a practical example of the importance of cross-border collaboration. In some cases rhino range states find themselves in a situation where all their rhino have been poached and hence they are totally dependent on neighbouring countries for breeding animals and expertise.

1.3 Economic Growth and Tourism

There is also an economic justification for the TFCA's in Southern Africa. Natural resources are a significant basis of economic activity in the region. In particular, ecotourism and other resources is considered to be an industry with high growth potential, especially in areas which have marginal value for agriculture. The World Travel and Tourism Council has forecasted that annual economic growth in tourism in the SADC region should be 5.9% over the next decade with appropriate policy framework and implementation like the TFCA's and the World Tourism Organisation predicts a 5.4% average annual increase in the number of tourist arrivals to the region over the next 20 years (WTTC 1999). In addition to tourism, transboundary initiatives such as Spatial Development Initiatives (SDI's) are expected to boost regional trade. Different TFCA's initiatives are expected to attract direct foreign investment as well as cross-border investments. As the tourism sector flourishes and industrial activities increase, it is assumed that other stakeholders such as local communities will benefit through employment and trade opportunities.

1.4 Commonalities across boundaries

There is a strong rationale for the need for formal management of transboundary resources based on the theory of common property and the so-called "tragedy of the

commons". The theory was proposed by Hardin, 1968: 1243 - 1248 and hold that resources such as rivers, oceans and grazing lands that are privately owned controlled are susceptible to overexploitation because individual resource users gain the full benefits of using the resource but only bear a portion of the costs of overuse. Individual users acting rationally will continue to use the resource even if the collective rate of the resource uses it unsustainably. In reality, the theory does not reflect the complexity of human use of the environment and overuse of the commons may or may not occur in particular circumstances depending on numerous social and other factors (Goldman, 1998: 20 - 53). Still, there is no doubt that common property resources have in many cases been overexploited as human populations have grown and technology has improved our ability to harvest or otherwise use resources.

As with resources in communal areas surrounding national parks, natural resources, which are shared across international borders, can also be characterised as commons because users cannot control use or impacts caused by actors on the opposite site of a border. As pressure on natural resources increases in the region due to human population growth, poverty and other factors, there is growing concern about sustainability of transboundary resource use. Many resources are shared across international borders in the region. For example, virtually every country in the SADC region, with the exception of the two island states, shares a major river basin with at least one other country. The Zambezi River Basin alone spans eight countries in the region. Resources such as drinking water and fish are therefore held in common among nations. Other resources such as wildlife populations are also shared across borders because of migratory behaviour and other characteristics. Even resources that are stationary such as forests must often be regarded as transboundary if they have traditionally been accessed by cross-border communities.

Unfortunately, overcoming commonalties through management is a daunting task for several reasons. First, while national governments generally have the authority and power to regulate resource use within their borders, they do not have authority or power to regulate resource use across borders. Thus TFCA's resource management requires cooperation among governments, which is voluntary and not mandatory. In the case of the Zambezi River Basin, the Zambezi River Authority (ZRA) was established between Zimbabwe and Zambia to manage the Kariba dam and to develop

other dams along the river where it flows between the two countries. The activities of ZRA do not include other countries such as Mozambique, which will surely be impacted by upstream developments. Second, actual perceived inequities in resource use between nations can be difficult to overcome and inhibit cooperation (Ingram et al. 1994: 6-). Third, scientific uncertainties about the status of and trends in resource abundance hinder decision-making and therefore often contribute to overexploitation. For example, a common cause of the collapse of fish populations historically has been optimism about the size and productivity of population. Data regarding transboundary resources are incomplete and uncertain. Fourth, uncertainties also complicate attempts at international cooperation over environmental issues because nations are unsure about and disagree over the consequences of agreement for themselves and other nations (Helm, 1998: 185-). Fifth, international law for management of transboundary resources is poorly developed (Hammer and Wolf 1997: 157). In Southern Africa it is believed that weak policy and legal framework are largely responsible for poor historical management of shared resources.

1.5 Globalisation of the commons

As part of modernity and the emerging new environment, there is a growing global commons movement whose perspective is that the world is becoming small and interconnected in a manner that requires global responses to what they term the global commons (Goldman 1998: 20-53). The advocates of global commons argue that local environmental problems have global impacts and consequently are considered transboundary in nature. The response to such transboundary problems, according to their logic, requires global science to understand and global institution and experts to manage them. In response, there is a growing culture of responsibility to an external constituency such as international conventions, donors and academic peers. Increasingly academics and policy-makers are striving to direct supranational decision-making on the global commons hoping to discover the perfect commons mode, (Goldman 1998: 20-53).

The global commoners argue that continued dependence on natural resources will result in overexploitation and pollution. They argue that there is already uncontrolled

deforestation, reduced habitats for wildlife, threatened water and climate change due to greenhouse gas emissions that require global action. This type of thinking has major implications for Southern African where at least two thirds of the region's population resides in the communal lands. The global commoners further argue that a global commons institutions can regulate access to global resources in such manner as to reduce or minimise conflicts amongst nations or other interest groups, promote equity and support efforts at sustainable resource use (Goldman 1998). The growing culture of responsibility to the global commons agenda is a key driver in the development of TFCA projects in the region, as evidenced by the leading role played by international and northern institutions and organisations.

1.6 Promotion of peace and security

A further justification for TFCA's initiatives is peace and security. TFCA's could provide a non-military model for addressing conflicts and promoting stability in the region. While some of the factors contributing to human insecurity in the region are natural disasters such as cyclones, floods and drought, many are human induced such as pollution and natural resource degradation. Inter-state conflict and competition over control of and access to natural resources such as water that are central to national and regional economic development are likely to escalate as the region's population increases. The situation is complicated by a history of civil wars and destabilisation that has displaced many families within their countries and at times forced many others into refugee camps in neighbouring countries. Involuntary migrations across the region's borders result in human and environment insecurity due to degradation of the environment and conflicts with host communities.

While the Southern African region has emerged from a protracted period of liberation-inspired armed struggles in Angola, Mozambique, Namibia, South Africa and Zimbabwe, military conflicts have not entirely disappeared. The region has been experiencing violent and often protracted post independence military conflicts. Namibia has seen the Angolan civil war spill over its borders following its official backing of Angola's ruling party, the Popular Movement for the Liberation of Angola (MPLA). Prior to this, Namibia was itself threatened by civil war in August 1999 when

a separatist group attacked the town of Katima Mulilo in the Caprivi Strip demanding cessation.

South Africa's destabilisation of Angola and support for Unita caused destruction of natural habitat, for example the elephant and rhino population in order to fund the war (Ellis in Schutte et al, 1998: 439ff).

In September 1999 a combined force of South Africa and Botswana forces entered Lesotho to prevent the overthrow of the government at that time. This followed an attempt by mutinous soldiers to overthrow the government that was accused of election irregularities. The battle between the rebels of the Lesotho army and the combined SADC forces met with resistance resulting in the destruction of the capital, Maseru (Democracy fact file, 2000: 1-20).

A potentially volatile and acute conflict is that between Mozambique and its upstream neighbours on the Zambezi River. Mozambique is unique in the sense that at least 50 percent of its land is drained by eight international shared rivers and 54 percent of all its surface water resources come through its borders with neighbouring countries. In addition, the Zambezi River alone contributes almost 50 percent of the surface water resources of the country. Increased upstream activities such as the proposed dams between Zambia and Zimbabwe will decrease the rivers flow causing severe environmental degradation and sanitation of water supplies. This can result in a wave of environmental refugees as has been experienced on the Ganges between India and Bangladesh (Wolf and Hammer, 2000: 55-66).

While the region is connected in many ways ranging from shared cultures and traditions to infrastructure (roads, rail and electricity grids), trade and shared resources, many SADC countries are now openly competing for shared natural resources. At least 15 of SADC's major river systems are shared by two or more riparian states. These rivers define the international boundaries of most of these countries adding yet another potential point of conflict since it is sometimes difficult to define the precise location of international boundaries located along river systems. Examples of such boundary dispute include the Sedudu/Kasikili island between Botswana and Namibia which was found by the International Court of Justice in December 1999 to legally

belong to Botswana. Hangula (1993:161) reports on the border disputes in the Caprivi between Namibia and Botswana. Similarly, South Africa and Namibia agreed to relocate their international boundary along the lower Orange River to the deepest channel of the river (Ashton, 2000: 86-106).

These realities are worrying developments for natural resources management. The region is clearly highly militarised due to its past history of armed struggles and armed conflict point to a growing tendency towards the use of military force rather than conflict management mechanisms to resolve political and resource-based conflicts. TFCA's natural resources management is an option with potential to broaden the benefits from natural resources management and facilitate a culture of non-military approaches to natural resources based conflicts.

1.7 **Opportunities for Redistribution of land and resource benefits**

TFCA's also offers a potential opportunity for resolving some of the inequity with regard to the distribution of land, resources, and associated benefits. The history of land in most Southern African countries is one of expropriation from local people during the colonial period. The land resources continue to be inequitably distributed and dominated by few landowners with a growing tendency towards privatisation (Moyo and Tevera, 2000: 3-24) Colonial settlers in many countries forced indigenous people into marginal and often crowded communal areas. In Zimbabwe, for example 49 percent of the land was contained in communal areas as of independence in 1980 (Vudzijena 1998 : 76-89). The Communal Areas generally located on land of poor rainfall and productivity, yet they are expected to support a disproportionately large human population. It is no surprise that resources have been overexploited and degraded in many Communal Areas due to competition and ineffective management. Resource depletion has led to increased human insecurity in many countries and in many cases to resource based conflict (Moyo and Tevera 2000). In turn, those conflicts have prevented governments from regulating resource use and have therefore exacerbated resource degradation (Katerere and Hill 2000: 40-70). Broadening the benefits to the region's rich natural resources is unlikely to happen without addressing the skewed nature of land ownership. For many, the TFCA initiative might represent

and opportunity to address this issue of distribution of land, resources, and associated benefits.

In many countries in Southern Africa, TFCA's are being promoted under the banner of the "African Dream" that assumes that expanding areas under tourism will deliver broad benefits to the region's poor people. The success of this model further assumes that development will be private sector driven. Such an approach is dependent on the prior allocation of resource rights, an arrangement that many people are increasingly objecting to.

1.8 Donor Imperatives and the Evolution of Community – Based Natural Resource Management (CBNRM)

International donors have generously supported natural resource management initiatives over the past years, largely in the form of Community-Based Natural Resource Management (CBNRM). Recently, many donors have focused more effort on natural resource management at the larger transborder scale in response to perceived needs and opportunities in the region many donors and others see TFCA's as an opportunity to apply lessons learned at a larger scale. The donor imperative must be completed by legitimacy. If there is legitimacy, then we end up with "choices" partnerships and failed but expensive experiments.

1.9 The Conservation Imperative

One of the important drivers for TFCA's is conservation, based on the belief that large protected areas such as parks are essential for biodiversity conservation and can pay for themselves through non-consumptive utilisation. Hence the larger the conservation area, the more biodiversity that can be conserved and more tourists can be accommodated at any one time. The conservation drive is based partly on the concept of ecosystem management. Ecosystem Management seeks to manage natural resource at the ecosystem level (Piro, Meynell and Elder 2000) and recognises that an area of ecosystem might overlap with administrative political and international

boundaries. By creating mega-parks such as Great Limpopo Transfrontier Park, it is hoped that a single management plan and approach can be adopted in order to minimise competing management objectives and administrative arrangements.

There is a long tradition in Southern Africa of promoting conservation through protected areas. The conservation sector through wildlife departments has provided the foundation for community-based natural resource management (CBNRM) initiatives giving rise to initiatives such as Communal Areas Management Programme for Indigenous Resource in Zimbabwe for example.

1.10 The structure of the dissertation

1.10.1 The research design of this study and methodological aspects

The research design followed is mostly descriptive but adds an analytical component. It reflects a case study approach. "Some limit the term to exploratory study in which no hypothesis is tested" (Bouma, 1996: 89). However, not all case studies are descriptive only. It is argued that some case studies may be aimed at providing a tentative test of hypothesis (Bouma, 1996: 90). This implies some analysis. While this study make use of description, it has qualitative elements and it will be exploratory. The dissertation will also reflect a comparative element as part of the explanatory research.

A meta-analytical approach with regard to policy making and the policy process is deployed where applicable. Meta-analysis considers the methods and approaches used in the study of public policy and the discourse and language it employs. Meta analysis is analysis concerned with the activity of analysis. (Parsons, 1995:1). However, where necessary, the dissertation makes use of meso-analysis or intermediate analysis regarding policy-making and implementation. Meso (from the Greek 'mesos': Middle) analysis is a middle-range or bridging level of analysis which is focused on the linkage between the definition of problems, the setting of agendas and the decision-making and implementation process (Parsons. 1995: 85).

Conclusion

In summary, this chapter clearly indicates the aims and objectives of the study which is to examine the effects of the policy framework for Transfrontier Conservation areas, the sustainable use of natural resources, ecotourism, economic growth and the conservation of biodiversity with the TFCA's as a vehicle for the achievement of these goals. It also explain the design of the thesis and gives a brief background of the TFCA's and gives the rationale for the thesis. It also gives some benefits to pursue the TFCA'S as a policy within the NEPAD spirit.

The next chapter deals with theoretical framework and the approach to be followed in the dissertation.

CHAPTER 2

THEORETICAL FRAMEWORK

- 2.1 The study compares and analyses the Transfrontier Conservation Area's (Great Limpopo Transfrontier Conservation Area (GLTP) and Lubombo TFCA through the use of the analytical managerial framework approach (Parsons 1995: 38). "The focus of the management approach is the improvement of the efficiency, effectiveness and economy of the public sector by the utilisation of techniques which were once regarded purely appropriate to the private profit sector". "The development of the techniques in delivery which are no longer 'purely' public or administrative marks the predominance of managerialist values (concerned with efficiency and effectiveness) in shaping the mix of delivery instruments" (Parsons, 1995: 479).

The structure and management of the Great Limpopo Transfrontier Park and Lubombo TFCA is analysed using the theoretical framework approach. The elements of the managerial approach are tested – e.g. how they are applied, if applied at all – and the shortcomings, are examined and reported upon.

Qualitative research and theoretical analysis are utilised in order to determine the effects of the TFCA's on sustainable development and suggestions as to how policy on the TFCA's can be improved in South Africa. The issue is investigated through a combination of mainly literature review on the history of the TFCA's elsewhere and interviews with some officials dealing with the Great Limpopo Transfrontier Conservation Areas and Lubombo TFCA from the Department concerned in South Africa. The interviews are unstructured and aimed at gathering information and the policy process/processes involved and experience regarding the GLTP Transfrontier Conservation Area and the Lubombo TFCA.

According to the Preamble of the Lubombo and the Great Limpopo Transfrontier Conservation Areas: It states that:

“As an affiliation of nations steeped in a common tradition of close association with our sustainable earth, Mozambique, South Africa, Zimbabwe and Swaziland join in recognition of our mutual responsibility to protect and preserve our natural resources for the common good of all. We embrace this responsibility as partners and undertake to develop a wildlife sanctuary across political boundaries, where animals may freely roam and flourish in keeping with natural ecological processes.

We do this because as sure as the flower and the bee depend on each other for survival, so too the well-being of humankind is bound to our effective custodianship of the natural heritage entrusted to us.

We furthermore undertake to uphold high ideals and standards in jointly managing this natural treasure, for the spiritual and social upliftment of our people and for succeeding generations to come.”

It is against this Treaty Preamble that the selected case studies are contextualised and analysed.

On the question of sustainable development as one of the sub-themes, the World Bank Environment Paper (number 10) by Mohan Munasinghe and Wilfrido Cruz, (1997) states, “in recent years, [a] conceptual framework for sustainable development has emerged which seeks to combine economic efficiency, social concerns and environmental protection. Environmental economics play a key role in helping integrate the elements into conventional decision-making”. (Singhe & Cruz, 1997: 1).

The evolution of sustainability concerns within countries parallels the training process in the environmental and development community – a process that has resulted in significant actions, primarily in the treatment of the direct environmental impacts of projects or initiatives.

There is a growing acceptance – especially after the 1992 Earth Summit in Rio de Janeiro, the adoption of Agenda 21 by the community of Nations and more, recently the World Summit on Sustainable Development (WSSD), held in Johannesburg in

2002 – that sustainable development has not only economic, but also environmental and social implications and that policy and managerial approaches need to accommodate this.

Since environmental protection is a key requirement for maintaining a sustainable way of life, countries must ensure that adequate measures are taken to avoid the depletion and degradation of natural resources. Hence the need for South Africa to implement the TFCA policy framework.

Rather than creating an illusory wealth by depleting natural capital, it is necessary to employ all factors of production (including environmental ones) in the most efficient way possible, so that human society can sustainably derive benefits. In purely economic terms, the production of a good is economically justified when the total benefits exceed the total costs. The research analyse the efficiency of this policy framework by using managerial approach and make deductions and where possible will provide some policy pointers as added value to the study.

2.2 An overview of managerialism

“The first *practical* application of management theory did not take place in a business but in non-profits and government agencies. Frederick Winslow Taylor (1856 – 1915), the inventor of “Scientific Management” and “Consultant” in their present meaning. On his calling card he identified himself as “Consultant to Management” and he explained that he had intentionally chosen these new and strange terms to shock potential clients into awareness of his offering something totally new but Taylor did not cite “a business” but the “non-profit clinic” (Drucker, 1999:6).

The evolution of the New Public Management movement has increased pressure on state bureaucracies to become more responsive to citizens as clients. Without a doubt, this is an important advance in contemporary public administration, which finds itself struggling in an ultra dynamic market place. However, together with such a welcome change in theory building and practical culture reconstruction, modern societies still confront a growth in citizen's passivism, they tend to favour the easy chair of the customer over the sweat and turmoil of participatory involvement.

Vigoda, 2000 argues that Modern public administration involves an inherent tension between better responsiveness to citizens as clients and effective collaboration with them as partners. This tension stems from tangible differences between the nature of responsiveness and the essence of collaboration while responsiveness is mostly seen a passive, unidirectional reaction to the people's needs and demands, collaboration represents a more active, bi-directional act participating, involvement and unification of forces between two (or more) parties. Moreover, responsiveness is based on the marketplace view of better service for citizens as clients or customers. Answering their needs is seen as vital for government and public administration systems that seek extensive legitimisation and high performance on the other hand, collaboration highlights a moral value of genuine cooperation and teamwork between citizens and government and public administration where each party is neither a pure servant nor master, but a social player in the theatre of state.

The difference between responsiveness and collaboration/partnership are not merely conceptual or terminological. In fact, they represent an intensifying paradox that emerges in both the theory and the practice of contemporary public sector management. The paradox increases because of an ongoing consensus on the necessity of both responsiveness and collaboration for moving government and Public administration systems toward future reforms. Thus it is quite surprising to find that most of the current theoretical thinking in public administration deals with these values separately, neglecting the mutual benefit of integrating them in a useful manner.

The article by Fredricson: *The Recovery of Civicism in Public Administration* argues that expanding the orientation of Government and Public administration systems toward responsiveness, as prescribed by New Public Managerialism, is frequently accompanied by lower willingness to share, participate, collaborate and partner with citizens. This paradox is identified as theoretical as well as a practical rift in the present array of the New Public Management (NPM) approach. While the article applauds the recent trend in public managerialism that fosters manager-customer relationships in the true public arena, it also criticises such leanings for resting solely on a unidirectional pattern of relationships where citizens are covertly encouraged to remain passive clients of government. The role of customer or client denotes a

passive orientation of citizens toward another party (Government and Public administration), which is more active in trying to satisfy the customer/clients needs. Such a pattern of dependency is likely to create serious obstacles to reforms in public agencies and interrupt the emergence of better public service. The paradox between serving clients and collaborating with citizens needs to be resolved on the way to creating a high performing type of public organisation, one that will work better for societies as well as for individuals in generations to come (Exworthy & Halford, 1999: 1-17).

2.3 Managerialism analysed

Management and managerialism have stimulated intense and comprehensive literature in economics, industrial relations, organisations and management studies as well as sociology and political science. It is difficult and dangerous to generalise from such diverse fields, but it is essential to focus on some defined features of managerialism as a set of beliefs and practices and on management as a distinctive social group. Some of the most important questions concerning this are: What is management for? What are its goals and values? Does it constitute a countervailing social force in opposition to professionalism? Can management be compatible with organisation and delivery of professional services?

Management as a separate function within the work process emerged with the development of mass production in industrial capitalism (Clegg and Dunkerley, 1980: 20). It is inextricably connected with the development of bureaucracy and indeed derives its importance from the need for strategic planning, coordination and control of large complex decision-making processes (Dandeker, 1990: 17). In modern capitalist enterprises, maximising profits (or output or productivity) for owners and shareholders necessitated an exploitative division of labour in which sub-directorate workers were expected to comply with super-ordinates' demand and instruction. It also led to the belief that industrial and other work organisations could be more efficient in responsibility for policy and planning and overall control was separated from implementation, routine operations and production tasks. Cadres of specialist managers and systems of surveillance and control were thus established to monitor

workflow and quality and to discipline the workforce, while other functions were also created (Finance, marketing, corporate management) to plan investment and to assist companies with strategic intelligence about their products, customers and competitors. It is this cluster of activities and occupations we now label “management”.

Reed (1989) has noted that management has been studied as a system of authority, as a set of skills and as a social class or sectional interest group. He suggested a generic and apparently neutral working definition in which management is a best of activities and mechanisms for assembling and regulating productive activity (Reed 1989:ix), but like Clegg and Dunkerley, he also reminds us that management and managers assert the right to determine resource allocation, to resolve conflict within an organisation and to impose ultimate authority by virtue of their role and delegated mandate from owners/shareholders.

In the public sector, the question of owners and shareholders is not directly comparable (since the state is the collective owner of public assets and resources) and it is commonly assumed that most managers and staff share similar (and until the advent of quasi-markets, non-profit) objectives in pursuit of the public interest in legal terms, public sector managers derive their legitimacy and purpose from legislation and government policy, and are accountable bureaucratically to higher level officials and politicians. However, in the new quasi-market system with multiple purchasers and providers in competition, public accountability has become more opaque and it is unclear where goals and interest will shape the behaviour of local managers.

The important point, nevertheless, is that whatever their ultimate goals, managers in both private and public sector organisations have a primary orientation to *corporate* success and endorse strategies which they themselves are instrumental in defining. Managers routinely exercise prerogatives of supervision and control over subordinates and usually subscribe to the discourses of efficiency and enterprise. Their primary objectives are to ensure organisational survival (and usually growth) and their basic allegiance is to the company or organisation. But the crucial point remains that managers assert the right to manage subordinates in those organisations in which they have executive authority, whatever methods are adopted. Management, whether in

the public or private sector is an authority relation and embodiment of organisational power.

Nevertheless we should not exaggerate the extent of managers' power-subordinates may challenge and evade managerial direction and despite the apparent weakening of workplace trades unionism, employees of all kinds may explore various means of resisting managerial control. Even the most Foucauldian analysis must acknowledge that disciplinary power in Modern Corporation is contested (Deetz 1992: 30) and as Reed (1993: ix) implied in his account of postmodernism in organisation theory, deterministic and mechanistic models of surveillance and control should be rejected in favour of more complex relations of agency and structure.

2.4 **Managers in the public sector**

There have been longstanding debates within political science and public administration about who runs government – elected politicians or appointed officials? There is a particular uncertainty about public sector managers and professional accountability and decision-making power. Many writers, from different political standpoints, have challenged the expansion of influence by non-elected officials in wide range of public policy areas. There have been criticisms of bureaucratic rigidities and departmentalism, professional incompetence and malpractice and paternalistic attitudes towards clients, which were argued to be pervasive in the welfare state. Some sociologists also argued that local state officials were 'increasing' 'important independent variables' in the creation of new types of social inequality based on access to collective consumption and welfare services, constituting a form of urban managerialism Pahl et al. 1983, Saunders 1986 (quoted in Exworthy and Halford, 1999: 1-17).

During the 1980's a series of measures were to control public expenditure and redesign the civil service and local government, emphasising the virtues of the three Es' – economy, efficiency and effectiveness. In doing so, it challenged many taken for granted assumptions about the working practices and organisation of traditional public administration.

As Pollit (1990) and others argued, this new generic managerialism embodies a number of different assumptions and values, which are assumed to be unproblematic. These include the idea of progress through greater economic productivity, technological innovation, and worker compliance and 'managers' freedom to manage. It is a diffuse ideology, which privileges commercial models of organisation and management practice and insists that these can (and must) be transplanted to public sector services. It presumes management to be both a technical matter and to be inherently virtuous. But as Gray and Jenkins (1994) also observe, although managerialism pretends to be neutral and value free, this ideological claim is coming under increasing challenge, not just from political responses by citizens but also from attempts to (re) define public management theory.

During the late 1970s and the 1980s a new school of thought and new set of remedies, called 'The New Public Management' or NPM, sometimes also called the 'public service orientation' (Exworthy, and Halford, 1999: 1-17) appeared, promising the prospect of a fusion of 'best practice' in the private and public sectors (Clarke et al). According to Hood (1991, 1995a, 1995b) this is an international trend in public administration, as governments in different countries attempt to slow down the expansion of public spending and stimulate private market forms of provision in formerly public services. Its essential components include: more active and accountable management; explicit standards, targets and measures for performance; a stress on results, quality and outcomes; the break-up of large units into smaller decentralised agencies; more competition and a contract culture; more flexibility in the terms and conditions of employment; increased managerial control over the workplace and efficiency in resource allocation.

Hood (1995a, 1995b) argues that while the principal goals of NPM are cross cutting and doing more for less, there is little empirical evidence that increases in outputs and most importantly *qualitative* improvements are actually achieved or have been attributed to the implementation of NPM alone. Moreover, as Pollit (1990) and Gray and Jenkins (1994) have stressed, while no one could object to NPM's insistence on more efficient use of resources and greater responsiveness to consumers, this

sidesteps the question of efficient for whom, and accountable to whom. It also ignores the question of whether efficiency or consumer responsiveness are to be the only or the dominant-values and goals in the public sector. It fails to recognise the fundamental difference in the forms of accountability entailed by, and the difference between, consumers in a private market exchange and citizens with social and political rights.

Indeed, ends and means are often confused in the managerialist ideology and political choices are obscured in managerial jargon. Is efficiency the ultimate *objective* of public policy or is it rather a prerequisite for the means to attain that objective? Most importantly, new public management says very little about resource allocation and rationing and their distributional effects – the fundamental parameters for all decision-making. The emphasis on cost effectiveness alone does not solve the permanent dilemmas of arbitrating between numerous and conflicting demands.

These questions of goals and values and accountability are thus unavoidable in deciding whether public management can usefully borrow and adopt private sector models. They are also important in understanding the implications of quasi-market competition in the public sector.

2.5 The importance of management

“Only superior management competence and continuously improved management performance can keep us progressing, can prevent our becoming smug, self-satisfied and lazy” (Drucker 1969:5).

“Management, which is the organ of society specifically changed with making resources productive, that is with the responsibility for organised economic advance, therefore reflects the basic spirit of the modern age. It is in fact indispensable and this explains why, once begotten, it grew so fast and with so little opposition” (Drucker 1969:4).

The emergence of management as an essential, distinct and leading institution is a pivotal event in social history. Rarely, if ever has a new basic institution, a new leading group, emerged as fast as has management since the turn of the century. Rarely in human history has a new institution proven indispensable so quickly, and even less often has a new institution arrived with so little opposition, so little disturbance, and so little controversy.

Management will remain a basic and dominant institution perhaps as long as Western Civilisation itself survives. For management is not only grounded in the nature of the modern industrial system and in the needs of modern business enterprise to which an industrial system must entrust its productive resources both human and material. Management also expresses basic beliefs of modern society. It expresses the belief that economic changes can be made into the most powerful engine for human betterment and social justice.

This belief that material can and should be used to advance the human spirit is not just the age – old human heresy 'materialism'. In fact it is incompatible with materialism, as the term has always been understood. It is something new, distinctly modern, and distinctly western. Prior to and outside of, the modern west, resources have always been considered a limit to man's activities, a restriction on his control over nature. They have always been considered God-given and unchangeable. Indeed all societies, except the modern West, have looked upon economic change as a danger to society and individual alike, and considered it the first responsibility of government to keep the economy unchangeable (Drucker, 1969:4).

It is against this managerialism theoretical approach within which the GLTP and the Lubombo Transfrontier Conservation Area that the policy is analysed upon with regard to the structure, management and performance to date of the policy framework.

Conclusion

The theoretical framework within which the thesis is structured was discussed here as well as the approach that will be followed. Managerialism is used as a tool for a comparative approach to the dissertation.

The next chapter will look at Sustainable Development as a sub-theme of the dissertation and also other related issues of sustainable development.

CHAPTER 3

3.1 SUSTAINABLE DEVELOPMENT

Origins of the concept

It was under the World Commission on Environment (WCED) that “sustainable development” was coined as a key concept for our age. Drawing on a consultation process that included governments, experts and industries from nations around the world, the WCED supplied the most often quoted definition: “Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of the future generations to meet their own needs” (WCED 1987/8). The commission’s report attacked many common myths and plotted an alternative path for future global development. It called for cooperation between government and business and for the use of technology to address the pressing problem of balancing social and economic needs with those for healthy ecosystems. A new era of economic growth was projected *if* economic and technological development would shift direction and become less resource intensive. Equally important for the WCED, global planning and legal systems would need attention to ensure effective global management of society-ecology interactions. If we would follow the path, the commission was confident that humanity could reverse the antagonism between economic growth and the environment, remove the threat of poverty and satisfy both North and South interests. Resource limits and the carrying capacity concept were extended by the International Union for the Conservation of Nature (IUCN) in its *World Conservation Strategy* (IUCN 1980). The IUCN articulated a vision for conservation that recognised human activity in an ecological setting. Conservation therefore, meant that other species, ecosystem and ecosystem services had to be protected as well.

In many ways, the task, scope and process of the WCED were unprecedented. Despite the number of initiatives in this field since the WCED and the criticisms that its proposals have received, *Our Common future* (1987) represents a remarkable effort in global consensus building.

Sustainable use refers only to renewable natural resources; it means using them at a rate within their capacity for regeneration. Sustainable development implies increasing human productivity and the quality of life while keeping within the carrying capacity of supporting ecosystem (IUCN, 1991:10)

3.2 Three competing perspective on sustainable development:

- **Advocates of growth-within limits**

In many respects, sustainable development has been a highly successful concept, taken up by governments and other institutions around the world since the 1992 “Earth Summit”. Sustainable development planning has become a routine part of government operations programs for national action is embraced under the guidance of the Summit’s Agenda 21(an action plan and blueprint for sustainable development accepted at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992). Commissions and councils to promote the concept are embedded in the institutional fabric of Northern and Southern countries. In brief, rhetoric of “sustainable development” is widespread.

Central to the support of sustainable development is the belief in mutability of existing institutions and economic practices to signals and directives based on environmental circumstances and values. Many advocates of sustainable development find great encouragement in “ecological modernisation” – a reform of economics, institutions and technologies in response to ecological needs that is based on the idea of “green” society realised by the application of appropriate legal, policy, and management tools (WCED 1987: 14).

Ecological modernisation addresses the function of market economics and liberal democratic politics in a global scale. As to the former, the modernist formulation of sustainable development maintains the need for economic growth- the lubricant of globalisation but advocates also recognise its tendencies to create social inequalities and ecological harms. Democratic guidance is sought to keep markets from reproducing unsustainable patterns of consumption and production.

When the two strands are fused, sustainable development become a reform of and corporate activity within *a regime of market liberalisation*. Hawken (1993), Hawken et al. 1999) and others have identified the many ways in which market signals can be applied to the task of environmental protection and the observance of carrying capacities.

- **Sceptics: beyond growth**

Sustainable development has wide but, many believe thin support (e.g. Lafferty 1999: 20: 123-28). The difficulties of making sustainable development a reality are a key source of concern but as (Meadowcraft, 2000, 370-87): “Sustainable development was not formulated as either a logical construct or an operational maximum – but rather as a potentially unifying political meta-objective, with suggestive normative core”. It is this “normative core” that has formulated the idea into the policy arena.

For an important minority, the normative commitment of sustainable development raises serious doubts about its efficacy and value. Led by Herman Daly (1991,1996) an objection has emerged to the continued reliance by the sustainable development camp on a rhetoric and practice of pro-growth economics. How can ecological limits be accurately observed, it is asked, while sustaining an indefinite commitment to economic growth? Efforts to justify continued expansion of the global economy on the grounds that only such as commitment can give hope for a resolution of North-South inequity is unconvincing to these sceptics. For example, Daly argues that this appeal is false because it represents the “angelised” view of GNP increase that drew us into the era of unequal development that now defines the world economy. (Daly, 1990: 45)

A parallel concern is raised by Dryzek (1996), Eckersley (1992) and others that sustainable development seeks management solutions to political problems. Because current nation-state based political systems cannot, or will not, be forced by their citizens to observe ecological limits, these sceptics suggest that a panacea is sought in supra-national form; the “planet’s future” obligates action that currently is politically unpalatable. In reply to accusation, Dryzek (1996, 1999) proposes redress in politics directly, calling for an “ecological democracy” movement that pressures the state and

the international community to demand action beyond the boundaries corporatists and liberalist reform (Dryzek, 1996: 20-30).

Instead of the institutional repairs and win-win strategies favoured by champions of sustainable development like the WCED (1987), the World Bank (2000) and the World Business Council for Sustainable Development (WBCSD 2001: 1-30). Daly pushes for population and resource use policies that adhere to the measured carrying capacities of our earth's ecosystems. The aim is to realise a "steady-state" social order in which economic activity is held in check (Daly 1996), rather than giving business "incentives" to make money on a "Greene" future (Rich 1994: 3-20). Similarly, Dyzek (1996, 1999) espouses a political movement that is clear-minded about the normative choices facing us, so that the idea of democracy is revised to require a relationship that operates the same time between ecological health and political development.

- **Ecological justice**

A third group in the debate singles out the preoccupation with development – either of the growth or steady-state variety-as the basic flaw in the sustainable development position. Critics such as Khor and Lin (2002: 3-40), Sachs (1999: 4-30) Sachs et al. 1998: 41-50 and Shiva 1991: 3-20) challenge the view that development is a remedy for poverty and environmental degradation. Instead, this camp anchors the challenge of sustainability in the achievement of social and environmental justice.

A core theme for this approach returns to one of the original problems of sustainable development – the commons and their management. While the conventional and reform versions of sustainable development cede control of the commons to the forces of economic development, critics have sought to reinforce models of community-based commons governance where they are still flourishing and to explore the application of commons strategies for new settings and problems). In contrast to Hardin's argument that the commons are a source of social and environmental "tragedy" (Hardin 1968), this research suggests that commons style governance can produce solutions to the causes of degradation, mostly notably in the cases of such global commons as biodiversity and climate. Ecological justice movements are highlighted in this position

as the means to understand and act on a wide variety of environmental conflicts (e.g. Guha and Martinez – Alier 1997: 10-30). These social movements are increasingly effective in pressing governments and challenging corporations to adopt alternative approaches for a “just” use and management of ecosystems.

The ecological justice position points to the inadequacies of the liberal democratic state and its foundation in individualism attitude toward the environment (e.g. Byrne and Yun 1999: 493) with environmental problems – especially those affecting climate and biodiversity – appearing to transcend the abilities of liberal democratic governance and developmentalism to respond adequately, these participants in the sustainable development debate argue for a greater role for civil society and for commons-focused agendas to realise a sustainable future.

3.4 The links between the Economy and the Environment

The environment and the economy of a country are inextricably linked. Attempts to maximise the growth of an economy without reference to the environment is doomed to fail. Economic growth and development will not be sustained. Conversely, attempts to solve the problem of environmental degradation without examining the impacts of economic policies of the environment are unlikely to succeed. Following the 1992 UN Conference on Environmental Development, many countries are in the process of developing and implementing comprehensive national plans for sustainable development. It is vital to integrate economic and environmental policies in the development of these plans (Centre for Social Economic Research on the Global Environment, 1996: 1)

The economy is a material processing and product transformation system. Useful materials are drawn from the natural environment into the economic system (e.g. non-renewable resources such as fossil fuels) and then undergo a series of changes in their energy and usefulness. Unless recycled, all materials eventually return to the environment.

3.5 An overview of sustainability

Sustainable development was defined by the 1987 Brundland Commission as: “the meeting of the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987). An economic interpretation of this definition is that for an economy to be on a sustainable development path, the well-being of the present generations should not be increased at the expense of the welfare of future generations. In other words, society’s well-being should not decline over time. Unsustainable development therefore implies that human well-being will decline at some point in the future.

Sustainable Development and the need for Strategic Responses

3.6 The opportunity for a strategic approach to transfrontier development.

There has been unprecedented progress in development over the past few decades. It is said that life expectancy in developing countries has risen by more than 20 years, infant mortality rates have been halved and primary school environment rates have doubled. Food production and consumption have increased around 20 percent faster than the population growth. Improvements in income levels, health and educational attainment have sometimes closed the gap with industrialised countries. Advances have been made in the spread of democratic, participatory governance, and there have been forward leaps in technology and communications. New means of communication support opportunities for mutual learning about national development processes and for joint action over global challenges (Centre for Social and Economic Research on the Global Environment, and Economics for this Environment Consultancy 1996: 3)

Notwithstanding this remarkable progress, there are also pressing constraints on development, and entrenched negative trends. These include: economic disparity and poverty; the impact of diseases such as HIV-AIDS and malaria, over-consumption of resources in the industrialised countries, contributing to climate change, and environmental deterioration and pollution of many kinds, including the impacts of

intensive farming depletion of natural resources and loss of forests, other habitats and biodiversity.

Negative trends – and the complex, dynamic and therefore, difficult to grasp interactions between them – represents a vast range of challenges of efforts at national development in all countries, whatever their level of economic development. Nations have agreed, through processes such as the 1992 Earth Summit, that development should be sustainable; hence the need for TFCA's as one of the vehicle to ensure the conservation of natural resources across the borders. This means, that in a straight forward definition, that nations are able to achieve positive economic and social development, without excess environmental degradation, in a way that both protects the rights and opportunities of coming generations and contributes to compatible approaches elsewhere.

The achievement of sustainability in national development requires a strategic approach, which is both long term in its perspective and integrated in linking various development processes so that they are as sophisticated as the challenges are complex. A strategic approach at the national level implies:

- Linking long-term vision to medium-term targets and short-term action;
- Horizontal linkages across sectors, so that there is a coordinated approach to development;
- Vertical spatial linkages, so that local national and global policy development efforts and

governance are all mutually supportive, and genuine partnership between government, business and community and voluntary organizations since the problems are too complex to be resolved by any group acting alone. Over the last decade; governments the private sector and civil society in countries across the world have struggled to meet the challenges of sustainable development through a wide array of approaches to develop such visions, linkages and partnerships at national and local levels.

The TFCA's are one of the attempts by governments' strategic tool or concept to realize sustainable development especially with regard to natural resources and conservation of resources.

The challenges of environment and development

3.7 Economic Disparity and Political Instability

The economic fortunes of most nations are said to have risen in the past 20 years but still too many nations have experienced economic decline and falling per capita incomes. Disparity in incomes between the rich and poor within nations, between wealthy and poorer nation, and between many multinational companies and the countries in which they operate, continues to widen.

This means that a relatively small percentage of the world's people, nations and corporations control much of the world's economic and natural resources. This, as well as the marginalization of ethnic and other minorities from processes of governance and economic opportunity, contributes to instability. Political instability sometimes, leading to violent conflict, further hinders socio-economic progress in many countries and regions (Dalal-Clayton and Bass 2002: 7).

3.8 Extreme Poverty

Even in these prosperous times, extreme poverty still ravages the lives of one out of every five persons in the developing world. In 1993, more than 1.3 billion people were living on less than one US dollar per day – nearly one billion of these in the Asia and Pacific region. The highest proportion of the poor and the fastest growth in poverty are both in sub-Saharan Africa where half the population was poor in 2000. The social ills associated with the poverty are on the rise in many countries with high rates of poverty. These include disease, family breakdown, endemic crime and the use of narcotic drugs (Dalal Clayton & Stephen Bass 2002: 8).

3.9 Marginalization

Many countries are struggling under the combined pressure of slow economic growth, a heavy external debt burden, corruption, violent conflict and food insecurity. These problems can be

exacerbated by action taken in the North, such as trade protectionism. Many of the residents of these countries suffer from a lack of access to social services, energy supplies and infrastructure. Their ability to develop their potential economic assets is also hampered by lack of access to resources, to credit or to the means for influencing national policy. At best, some become refugees or economic migrants. As a result of these processes, poor countries and poor people are continually marginalized from the opportunities presented by the global economy.

3.10 Population Growth

Population growth is expected to exacerbate these pressures, although it is usually people's localized concentration or their resource consumption levels that matter more than their mere numbers. World population is estimated at 6 billion and, while it is growing more slowly than predicted a few years ago, it is still expected to increase substantially before stabilizing. Ninety-seven per cent of the estimated increase of 2 billion people over the next 20 years will live in the developing world (Dalal Clayton & Bass 2002: 8).

Conclusion

It is clear from this chapter that in order to achieve sustainable development and realize the economic growth, it is necessary that environmental issues must always be attended to. Natural resources are the cornerstone of realizing the economic growth. The TFCA's are an opportunity and a vehicle to use for the attainment of the goal of sustainability. Economic growth is vital in the attainment of the objective of the TFCA's. The eradication of poverty is rooted in the use of natural resources which must be utilised in the sustainable way to cater for generations to come.

In the next chapter Environmental Economics and TFCA's will be discussed in more detail.

CHAPTER 4

ENVIRONMENTAL ECONOMICS AND TFCA'S

Introduction

Environmental economics help identify the costs and benefits of projects and given the costs and benefits, help select the best alternative option.

Environmental economics identify the costs and benefits (negative and positive environmental impacts) not taken into account by economic agents (external costs). In addition there are those cost and benefits the producers and consumers do take account of (private costs). The sum of private and external costs is known as the social cost (DEAT, 2004 Environmental Economics, Integrated Environmental Management, Information Series 16: 4 – 5)

The added value of an application of environmental and resource economic tools in the assessment of environmental impacts have been spelled out clearly in the literature on economics and the environment (Dixon et al, 1994: 2-30). The key point is that the scarcity of natural and environmental resources often forces a choice between development, or at least an assessment of the best alternative options available.

Natural and environmental issues may be critical to the success and failure of a project, programme or policy. Given that the purpose of integrated environmental management (ICM) is to resolve or to lessen any negative environment proposals, environmental economic tools provide a better understanding on the trade offs between competing uses of natural and environmental resources specific environmental economic valuation tools and techniques to integrate quantifiable environmental, economic and social effects are used to inform these choices.

Economics is concerned about the satisfaction of man's unlimited wants with the scarce resources available. It is this concept of relative scarcity that imparts economic value to a good or service. Environmental economics is a branch of welfare theory – it focuses at the design of interventions that help attain economic efficiency when the market mechanism (or the invisible

hand) is not working properly or when market failure occurs. Market failures do occur when property rights are not well defined (e.g. air, ocean), when rights to the use the resources cannot be transferred, or when the costs of bargaining exceed the benefits of doing so. Once such externalised values are quantified they are included in standard decision analysis tools like cost benefit analysis and multi-criterion decision analysis. The valuation of environmental impacts is a skill used by environmental economists to inform such an integrated evaluation (Kirk Patrick 2000 : 111 - 123).

4.1 Background to environmental economics

A basic premise of economics is that a free market will allocate scarce resources in the most efficient possible way. It can happen, however that the markets fail in this function, Such market failure can have many causes (incomplete information, government intervention, costs of performing transactions etc). Environmental economics is concerned with failures caused by missing or incomplete information. For example, because there is no direct value (i.e. market) for clean air, the market system cannot be relied on to internalise the impacts of air pollution, these impacts manifest themselves as non-market goods and services called externalities (unpaid and uncompensated impacts). An externality is the impact that a person or company's economic activity has on other parties. For example, a factory may discharge pollutants into a water source, which is used by farmers for irrigation. The cost of the decline in water quality (as a result of the factory's polluting activity) is not accounted for by the factory, however, the impact of the poor water quality will affect the farmers agricultural output and earnings. The cost of the decline in water quality (externality) is therefore borne by the farmers (Hottelling, 1931 : 29, 137 - 75).

Resource economics focuses on the efficiency, sustainability and social welfare implications of natural resource extraction or harvesting (Hottelling, 1931). Ecological economics is a newer discipline that has emerged out of a concern that the conceptual framework used in environmental and resource economics is flawed. The argument against environmental and resource economics is that the focus is unduly on conventional measures of growth rather than sustainable development. These fields fail to adequately identify the role of the environment as a sink for wastes and by-products of production and consumption. Ecological economics advances more stringent notions of sustainability, going beyond the treatment found in

conventional neoclassical economics. This includes reduction in population growth, minimization of raw material and energy throughputs and aims for systemic efficiency, much of it was informed by Kenneth Boulding's "Spaceship Earth" (Boulding, 1966: 12) and by Georgescu – Roegen's extension of the laws of thermodynamics into economic theory. Both environmental and resource economics are built on concepts in welfare economics, the underlying question being whether an economic policy will improve human welfare (Dinwiddy and Teal, 1996 : 77). By applying economic analysis, environmental economists are attempting to measure people's preference for a change in environmental quality and in turn the welfare (i.e. Social benefit) gained from improved environmental quality (Pearce et al, 1989 : 52).

4.2 Ecological sustainability and economic development

Sustainable development is a concept recently proposed as a guiding principle for economic development planning (IUCN 1980, WCED 1987). It is applicable in both developed and developing countries. The most widely promulgated defining of sustainable development is that given by the world Commission on Environment and Development: development is sustainable if it satisfies present needs without compromising the ability of future generations to meet their own needs (WCED 1987).

In the above definitions, there is no direct or exclusive reference to the ecological viability of particular patterns of development. Implicitly, however, a major ingredient in the concept of sustainable development is the need to maintain yields from renewable natural resources over long periods of time. Ecosystems can thus be expected to play an important role in policies and planning aimed at achievement of the goal of sustainable development. This chapter gives a fuller interpretation of the concept of sustainable development, noting the economic significance of the biosphere in providing part of the economy's capital stock. From an economic viewpoint, key questions that must be answered includes:

- What is the optimal size and composition of the economy's environment capital stock?
- How successfully can the tools of economic analysis be applied to environmental management?

- To what extent should goals other than economic efficiency be taken into account when making decisions on exploitation rates and preservation constraints in natural resource decision?

4.3 Two perspectives on sustainability

The emphasis in the two definitions of sustainability given above is on the phenomenon of development or growth, which is to be continued. The WCED, 1987 does refer explicitly to the limitations of the environment to meet present and future needs, but these depend partly on the state of technology and social organisation. The report states that “in essence, sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations” (WCED, 1987: 46). This is essentially an economist’s approach to the concept of sustainable development. It is the level of welfare that is to be sustained or perpetuated through economic institutional and technical change.

Other approaches of the concept of sustainable development focus on the physical or natural resource base of an economy. According to some economists, sustainable development implies maintenance over time of aggregate resource stock, such that the potential to generate welfare is not permitted to fall below the current level (Pearce 1986: 6, RePetto 1986: 17). The World Conservation Strategy (IUCN 1980) pleaded for utilization of the biosphere in such a way that life support system essential ecological processes and species diversity be maintained and improved. Such an approach might be labelled the environmental approach, in contrast to that of the economists.

4.5 Environment as Infrastructure

Underlying the concern over sustainability is the notion that the environment provides an infrastructure without which the economy could not survive. All materials and energy

transformed by production activities into economic goods and services originate from nature. For flows of materials and energy to continue, ecological systems and processes must remain in operation and may also need to be reinforced. Biogeochemical cycles should continue to circulate materials in the biosphere, ecosystems should retain their capacities for the assimilation and degradation of wastes, and renewable resources such as fish populations, forests, and soil should maintain their regenerative potential. These may be referred to as the “productive infrastructural functions” of the biosphere. In simple terms they represent the economy “storeroom”. (Archibugi & Nijkamp 1990 : 28-29).

Apart from these productive functions, the biosphere serves as a habitat for Homo Sapiens (human beings). It provides shelter, including protection from radiation, and amenities such as landscapes, scenery and biotic diversity, that add to human welfare. These can be called the “consumptive infrastructural functions” of the environment. In this capacity, the biosphere can be said to represent the “living room”. (Archibugi & Nijkamp 1990 : 29)

The biosphere is also close to a large number of species apart from Homo Sapiens. There may be a connection with human welfare in that satisfaction is derived from the existence of larger species diversity, but here is meant something much wider, namely the provision of a life support system for other species. The greater the intrusion of economic activities into the biosphere, the less hospitable becomes the environment for these species. It is estimated that, at present, human activities are responsible for species extinction at a rate of 10 to 100 times the natural rate. (Archibugi, Nijkamp 1990: 30).

Below, focus is on the infrastructural functions of the biosphere and assume that its “integrity”, as indicated by species diversity and the size of biotypes, is maintained at acceptable levels. Given those levels, the patterns and levels of economic activities and their environmental impacts, and also given the prevailing state of technology, the environment provides a range of resources, including capacities and services, that form a multidimensional “resource utilisation space” (Siebert 1982: 4-6, Opschoor 1987: 1-20). Some of these resources do not diminish as they are consumed (and are thus described as public goods), but most do. Other resources serve demands that are non-essential (thus constituting luxury goods). Many, however, provide the infrastructure for the production of goods and services to satisfy basic needs. Welfare and development depend strongly on this last category of natural resources. The continued

functioning of natural processes to support such requirements takes place within structures described here as ecosystems. In the discussion that follows the concentration is on those parts of the productive and consumptive environmental infrastructure that relates to essential resources, materials and services. (Archibugi & Nijkamp 1990 : 29).

4.5 Environmental Capital and Welfare

Welfare depends on the availability over time of an adequate environmental utilisation space. What economists used to call "land" consists of a black box that is better referred to as "environmental capital". Looking only at the outputs from the box as a resource flows or yields, the box contains a set of "resource regeneration systems". Environmental capital would then be conceived as an aggregate of all individual resource stocks and their regeneration systems.

Welfare depends on more than environmental capital. Other preconditions include a man-made physical infrastructure, a productivity-related stock of knowledge and skills and an institutional infrastructure governing decisions affecting welfare. Classical economics concentrated on the welfare implication of land, labour and man-made capital, and neo classical economics on man-made capital and human capital. Neoclassical environmental economics has reintroduced land as environmental capital, although essentially as a single-output, single process system. A growing number of economists (Kapp 1970: 4-68, Norgaard 1984: 160-173, Daly 1973: 20) approach society environment interactions from an integrated systems viewpoint, attempting to provide more detailed, realistic analyses of the environmental infrastructure, assess the significance of the institutional structure and make suggestions for improving it.

Welfare depends on all types of capital. Physical, environmental and human capital are all interdependent and can, to a certain degree, serve as substitutes for each other in terms of providing flows of production factor into welfare generating process. Neoclassical economists in particular rely on these substitution possibilities and on the role of technology to maintain welfare levels. Solow, 1986 : 1 - 24, therefore holds that the present generation does not so much owe future generations a certain share in the stock of environmental capital, but rather:

“access to a certain standard of living or level of consumption” regardless of the form in which this is bestowed. Such a view, however could comprise a blank cheque on future technological possibilities and hence a laissez – passer for the overexploitation of natural resources. It also disregards the hierarchical dependence of one form of capital on another.

Man-made capital, for example, is bounded by the availability of environmental capital, and human capital may be bounded by both forms of capital. In fact, only environmental capital has in its (semi) renewable resources and regeneration systems, an autonomous base for extended existence (Archibugi, Nijkamp 1990 : 30).

It is fallacious to suggest that human welfare has become less dependent on environmental resources and is already responsible for large overdrafts on the environmental capital account. Anticipated population growth and rising per capita real income over the next few decades imply even heavier demands on the environment. It can be shown that even if the materials content of real income is reduced by 80 per cent over the next six decades, the global impact of human activity on the environment will more than double. Worse still, such development may trigger irreversible trends towards species extinction and ecosystem destruction on a scale never previously seen (Archibugi & Nijkamp 1990 : 30). It is therefore important that TFCA's be seriously encouraged for the survival of both human beings and other species and for economic growth.

Two important counteraction factors influencing the size of the environmental capital stock should be noted. The first is possible enhancement of the productivity or welfare generating capacity of environmental capital, especially the further evolution of human knowledge and skills, the discovery of new resources and the development of new ways of using existing resources. Each “unit” of environmental capital may thus yield more welfare, or conversely, the same level of welfare may be reached with a smaller input of environmental capital. Good examples are energy conservation, recycling, and materials substitution. The second factor is the indirect and long-term effect of degradation of environmental capital on regenerative systems and buffering process comprising the environmental infrastructure. Such mechanisms often involve long time lags between initiating actions and subsequent responses. Actions or decisions taken now may significantly reduce the environmental utilisation space in the future.

Finally, the influence of institutional structures should be considered. The use of environmental resources depends on the formal and informal organisation of society and on prevailing social values. Any alteration of institutional patterns may lead to an alteration of activity pattern with respect to the use of environmental capital. Reductions in environmental impacts can be achieved through improved environmental awareness, new instruments of environmental policy, and more powerful national and international institutions for curbing environmental degradation, unless technological innovation and improvements in national and international resource management are greatly accelerated, the environmental utilisation space is in serious danger of shrinking rapidly (Archibugi & Nijkamp 1990 : 31).

4.6 Valuation of Environmental Capital

The total value of the environmental capital stock in principle can be measured as the present value of future net benefits derived from use of the stock in future years. But whose values should be used to achieve such a measure? Should individual values be weighed according to income distribution (the willingness and ability to pay) or should some more egalitarian set of weights be adopted? Should the measure depend only on the values of present generations or should those of future generations somehow be taken into account? If the latter are important, what time horizon should be chosen, and how much weight should be given to each future generation, answers to these questions by definition imply a social value judgement regarding the distribution of resources over time.

A second problem to be addressed is determining which functions of the environment have value for individuals. Typically, these consist of user benefits and non-user benefits. The user benefits are composed of the net market value of environmental attributes, consumers surplus, and the value that the individual places on retaining the option for use of the environment in the future. The non-user benefits. The user benefits are composed of the net market value of environmental attributes, consumer surplus, and the value that the individual places on retaining the option for use of the environment in the future. The non-user benefits reflect the individual's preference for leaving certain environmental attributes for future generations (bequest value) and estimate of the "existing value" or intrinsic value of preserving such attributes, even if there is no associated use value. Purely functionalist and egoistic individuals would count only user benefits. Bequest values reflect individual positions in relation to the

preferred levels of intergenerational solidarity. Existence values reflect individual's preference towards nature conservation. It is apparent that non-user values are difficult to determine empirically. However, they also involve more fundamental problems. For example, society as a whole may take a different view on bequest values, with a different solidarity weighting, and societal values may also differ for existence values or even for user values on "merit" grounds (Opschoor 1974, Janes et al, 1978, Siebert 1987). This simply means that individuals may not be accepted as the sole and best judges of societal values of the environmental infrastructure. Societies taking this view must derive their values on the basis of merit considerations.

"Finally, if societal values are based on a simple aggregation of individual monetary values, a rather strong value judgement is made. One of the critiques of the Neoclassical economic approach, for example by the institutionalist or evolutionary economists, is that such an assumption is unwarranted. People and societies typically have values structures and value hierarchies, which means that ethical positions taken at one level of values may pose restrictions on the range allowed for other values. In terms of environmental management, this may imply that rather than basing decisions on calculated functions of solidarity or merit values, use of the environmental capital stock is physically restricted. If this approach is preferred by society, then the rate of use or depletion of a single resource or of the entire environmental capital stock, cannot be determined on economic efficiency grounds alone. Simple comparisons of benefits and costs are inappropriate under such circumstances" (Archibugi & Nijkamp 1990 : 32 - 33).

4.7 The optional Level of Environmental Infrastructure.

To ensure that future generation's needs can at least be met at today's levels it is necessary to decide how much environmental capital should be preserved and what its composition should be. The following factors should be considered.

- ethical notions such as the level of solidarity owed to future generations;
- the present and future degree of (riskless) substitution between the various elements of the environmental capital stock;
- the present and future degree of (riskless) substitution between elements of environmental capital, man

- made capital;
- the degree of robustness of the biosphere in accommodating different spatial distributions of economic activities and the associated environmental impacts;
- the future institutional capacities for managing or adapting to environmental changes.

It is assumed here that rising material welfare claims can be expected from a rapidly rising world population and that this should be of moral concern of societies today. Assuming this, and also taking a risk – average approach to the future role of science and technology, a policy of conserving the present environmental infrastructure can be advocated. Such a policy might, for practical reasons, be initially based on arbitrary judgements about the requirements for sustainable development. Ideally, judgements would be supplanted by more sophisticated analyses addressing interdependencies within the environmental infrastructure, projections of technological and institutional change, population growth, and likely patterns of economic inequality on a global scale. (Archibugi, Nijkamp 1990:32-33).

Conclusion

As earlier stated in this chapter, environmental economics help identify the costs and benefits of the environmental projects like the TFCA's. This chapter is important in the dissertation because it looks at various aspects of the environmental economics and the profitability or non-profitability of engaging in the project like the TFCA's as a means to achieve economic growth and sustainable development in the SADC region.

This chapter will also help in the examining and analysing the viability of the GLTP and the Lubombo TFCA with regard to the attainment of the objectives of the policy study on TFCA's in general.

The next chapter deals with Ecotourism. It is relevant in the dissertation because one of the objectives of the establishment of the TFCA's is to attract tourists to the parks and thereby boosting the economy of the communities surrounding the ecosystems or national parks.

CHAPTER 5

ECOTOURISM

Introduction

One of the main reasons for the creation of the Transfrontier Conservations areas is to open up unlimited tourism ventures through ecotourism. It is therefore necessary that this phenomenon be looked into in depth and be understood in its context in relation to TFCA's and sustainable nature conservation and economic growth.

Around the world, ecotourism has been hailed as a panacea: a way to fund conservation and scientific research, protect fragile and pristine ecosystems, benefit rural communities, promote development in poor countries, enhance ecological and cultural sensitivity, instil environmental awareness and a social conscience in the travel industry.

5.1 Defining and measuring eco-tourism

In 1991, the Ecotourism Society coined an encompassing definition of ecotourism: "responsible travel to natural areas that conserve the environment and improves the well-being of local people." According to Martha Honey (1999: 6), ecotourism is often claimed to be the most rapidly expanding sector of the tourism industry, but when its growth is measured, ecotourism is often lumped together with nature, wildlife, and adventure tourism. In fact, she says that ecotourism should be viewed as distinct from these other categories. Nature tourism involves moderate and safe forms of exercise such as hiking, biking, sailing and camping. Wildlife tourism involves travel to observe animals, birds, and fish in their native habitats.

Adventure tourism is "nature tourism with a kick" Honey, 1999: 4 she says it requires physical skill and endurance (rope climbing, deep sea diving, bicycling, or kayaking) and involves a degree of risk taking, often in little-charted terrain. Whereas nature, wildlife and adventure tourism are defined solely by the recreational activities of the tourists, ecotourism is defined as well by its benefits to both conservation and people in the host country. Real ecotourism is

more than travel to enjoy or appreciate nature. It also includes minimization of environmental and cultural consequences, contributions to conservation and community projects in developing countries, and environmental education and political consciousness raising, such as the code of conduct for travellers as well as the various components of the travel industry.

She says that there is at present no systematic effort to gather data world wide on ecotourism as a category distinct from nature, wildlife, and adventure tourism. Therefore, estimates of ecotourism vary depending on the definition used. The 1992 survey conducted by the U.S. Travel Data Center estimated that 7 percent (8 million) of U.S. travellers had taken at least one ecotourism trip and noted that another 30 percent (35 million) said they planned one during the next three years. The survey described ecotourism as travel during which travellers learn about and appreciate the environment, a definition that encompasses nature and wildlife travel as well (Honey, 1999 : 6).

A 1994 study found that 77 percent of North American consumers had already taken a vacation involving nature, outdoor adventure, or learning about another culture. Estimates of ecotourism's annual growth in demand range from ten to thirty percent, and the ecotourism society projects that no drop off is foreseen as we head into the 21st century.

Ecotourism earnings soared as well, although estimates varied widely. A 1989 estimate put the annual amount earned by developing countries at 2 – 12 billion U.S. dollars, and subsequent estimates have been as high as 30 billion U.S. dollars per year (Honey, 1999 : 6).

Ecotourism, or at least a revamped version of nature and wildlife tourism is at the core of many Third World nations' economic development strategic and conservation efforts it is said. Nearly every developing country is promoting some brand of ecotourism. For example South Africa has started a project/campaign called Sho't Left whereby they encourage domestic travel and tourism. Pre-arranged trips to specific destinations are arranged at a discounted fare by tour operators.

International lending and aid agencies, under the banner of sustainable rural development, local income generation, biodiversity, institutional capacity building, and infrastructure development, pump millions of dollars into projects with ecotourism components. It is said that

major travel industry organisations have set up programs, developed definitions and guidelines and held dozens of conferences on ecotourism, and many of the leading corporate players have tried to “green” their operations.

5.2 Origins of Ecotourism

According to Martha Honey (1999), the word tourism – describing travel as a leisure activity – first appeared in the Oxford English Dictionary in 1811, but the concept goes back as far as the ancient Greeks and Romans, whose wealthy citizens vacationed at thermal baths and explored exotic places around Europe and the Mediterranean region. A French monk, Aiméri de Picaud, is credited with writing the first tour guide. His book, published in 1130, was intended for pilgrims travelling Spain. Early travel was often combined with religious pilgrimages, scientific investigation, geographic exploration, or conquest, but from the beginning travellers have also sought out places of natural beauty for exploration and relaxation. Until the second half of the twentieth century, the number of travellers was small and their pace was slow. They traversed the globe by foot, sailing boat, horse, mule, and camel and more recently, by ship, train, car and plane.

In the eighteenth and nineteenth centuries, European aristocrats, British gentry, and gradually, wealthy Americans took leisurely “grand tours” of the continent’s natural and cultural features, including the Swiss Alps. With the Industrial Revolution, the first holidays and cheaper travel by railroad combined to create an annual mass exodus to seaside resorts in Europe. In 1841, Thomas Cook organized the first tourist excursion, a train ride through the English Midlands taking groups to temperance rallies, and by the mid 1850’s, he was offering railway tours of the continent. About the same time, in the United States, the American Express company introduced traveller’s checks and money orders (Honey, 1999 : 7).

Nothing, however, has altered tourism as profoundly as the airplane. Air travel for pleasure dates from 1948, when Pan American World Airways introduced tourists class mass international tourism really took off with the opening of commercial airplane routes between the United States and Europe, and in 1957, jet engines made air travel more accessible to the public not until the 1970’s, 8 percent of all tourists were from developed countries, travelling

on holidays to developing countries. By the mid-1980s, the number had jumped 17 percent, and by the mid – 1990s it had climbed to 20 percent (Honey, 1999 : 8).

International tourism to the Third World is increasing at 6 percent annual compared with 3.5 percent to developed countries. About 80 percent of these foreign travellers come from just twenty developed countries, with destinations in Africa, Asia and Americas growing at the expense of those in Europe. Between 1992 and 1997, the number of international tourists worldwide grew from 463 million to 594 million, a jump of 30 percent, and it is projected to double between 1990 and 2010, according to the world Tourism Organisation (WTO). Four to five times as many people travel inside their own country.

(Honey, 1999 : 8).

Changing work patterns, like improved modes of transportation, have also altered how and where people spend their leisure time. "In the past," Karen Ziffer, an ecotourism expert with Conservation International, points out, " people spent their limited free time relaxing from a gruelling work week." Leisure time at paid vacations have been increasingly recognised by the International Labour Organisation (ILO) and other bodies as a fundamental human rights. The ILO's first convention on holiday with pay, passed in 1936, provided for merely one week's leave per year; a 1970 convention expanded holidays to minimum of three weeks with pay for all workers. With paid vacation time, shorter hours of work, less physically taxing jobs, and better education, vacationers began to demand personal development as well as relaxation. In the early 1990s, studies of U.S. consumers found, for instance, that 40 percent of U.S. travellers wanted "life enhancing" travel, compared with 20 percent who were "seeking the sun" (Honey, 1999 : 8).

By the 1990s, tourism vied with oil as the world's largest legitimate business. In 1995, Worldwide spending on travel totalled 3.4 trillion U.S. dollars, and it was expected to reach 4.2 trillion by the year 2000. Tourism itself is the world's number one employer, accounting for 10 percent of jobs globally. (Honey, 1999 : 8).

For economy and convenience, most people on vacations opt for prepaid packages on cruise ships and at beach resorts. Over the past four decades, mass tourism has become synonymous with the "four S's," Sun Sea, Sand, and Sex, and has given rise to derogatory and

often accurate – stereotypes of the typical tourist. Host countries, as well as tourists, began growing disappointed with this type of tourism. Although mass tourism was originally embraced by many countries as a “smokeless” (non-polluting) industry that could increase employment and gross national product, evidence quickly grew that its economic benefits were marginal and its social and environmental costs high. Much of the money did not stay in the host country, and often the only benefit to the local community was found in low-paying service – level employment as maids, waiters, and drivers.

Mass tourism often brought overdevelopment and uneven development, environmental pollution, and invasion by culturally insensitive and economically disruptive foreigners. In 1980, popular opposition within developing countries crystallized into a strongly worded statement drawn up at a conference in Manila convened by religion leaders. The Manila Declaration on World Tourism stated unequivocally that tourism does more harm than good to people and to societies in the Third World (Honey, 1999 : 9).

5.3 From Nature Tourism to Ecotourism.

In the United States, organised nature tourism that is, travel to pristine places, usually involving physical activity probably started with Sierra Club Outing program. Begun in 1901, the first such expedition involved 100 hikers, who trekked to the backcountry wilderness of the Sierra Nevada. The High Trip, as these large annual outings were known, continued until 1972. Although their purpose was to take Club members into the Sierra to show them the natural wonders so that those persons could become active workers for the preservation of the forest and other natural features of the Sierra Nevada Mountains, these enormous caravans, which grew to an average of 115-125 people, were anything but eco in terms of their effects on the environment, said Charles Hardy, director of Sierra Club Outings, in 1996 interviews.

The rapid growth of nature tourism within the United States and overseas has been facilitated in recent years by the same ease and accessibility of modern transport that has fuelled the rise in conventional tourism. The increasing number of people to whom these formerly remote natural areas are now available has resulted in serious damage to some of the most popular destinations.

Turned off by overcrowded, unpleasant conditions and spurred by relatively affordable and plentiful airline routes, increasing numbers of nature lovers began seeking serenity and pristine beauty overseas. Between the late 1970's and mid – 1980s, the new field known as ecotourism gradually took shape. The definition has often been vague: it is frequently referred to as “responsible,” “sustainable,” or “low-impact” tourism and is often listed by the travel industry in the category of nature or adventure tourism. Almost simultaneously but for different reasons, the principles and practices of ecotourism began taking shape.

5.4 Conservation Organisations: Better Protection of Natural Areas

Most typically, ecotourism involves visits to areas that are under some form of environmental protection by governments, conservation of scientific organisations, or private owners or entrepreneurs. Around the world, many protected areas have been modelled after U.S. National Parks System, which was created in the late nineteenth century by drawing boundaries around specific areas to preserve them in their natural state and free them of direct use. The United States Congress decreed these national parks: Australia (1879), Mexico (1898) Argentina (1903) and Sweden (1909) since the 1970s, more protected areas have been established worldwide than during all preceding periods. By 1989, about 4,500 sites, totalling about 4.79 million square kilometers, or 1.85 square miles – 3.2 percent of the earth's surface had been placed under some type of protection (Honey, 1999: 10-11).

But there is a downside to this impressive trend. By the late 1960s, the large international conservations, together with environmentalists and scientists working in Latin America and Africa, began to reach two related conclusions. In Africa, they began to realise that “preservationist” conservation methods of separating (often forcibly) people and parks were not working.

Most national parks and reserves in Africa were originally established for hunters, scientists, or tourists, with little or no regard for the local people. Park management emphasized policing – “fences and fines” – which forcibly evicted and kept out local community members, who are often politically and ethnically marginalized rural poor. These people, who received little or no benefit from either the parks or tourism, deeply resented being excluded from lands of religious

and economic value and being restricted to increasingly unsustainable areas around the parks. Poaching, degradation of resources, and local hostility toward the parks and tourism were on the increase. The “preservationist approach” one study concluded, “requires an essentially militaristic defence strategy and will almost always heighten conflict.” (Honey, 1999: 6-19).

Some scientists, conservationists, park officials and environmental organisations concerned about this clash between parks and people began to rethink the protectionist philosophy guiding park management. They began to argue that protected species, areas and ecosystems would survive only if those people living nearest them benefited financially from both the parks and tourism. As David Western, Director of the Kenya Wildlife Service (KWS) between 1994 and 1998 and first president of The Ecotourism Society, writes, these “conscientious concern for nature were soon extended to local (usually indigenous) people. Implicit in the term is the assumption that local communities living with nature can and should benefit from tourism and will save nature in the process” (Honey, 1999: 11). It was in Kenya that Africa’s first official experiments with this new approach began. In the early 1970s, the government agreed to put several reserves, including Maasai Mara Game Reserve and Amboseli National Park, under the control of local county councils, which began receiving revenue from both park entrance fees and hotels and other tourism facilities.

This “Stakeholder” theory – that people will protect what they receive value from – has dovetailed with economic development theories holding that the road out of poverty must begin at, not simply trickle down to, the local community level. In the mid 1980’s, as the concept of ecotourism began to take hold in East and Southern Africa, the stakeholder theory was broadened to encompass environmentally sensitive, low – impact, culturally sensitive tourism that also helped educate visitors and local community members.

In 1980, the IUCN issued the *The World Conservation Strategy*, which reflected the views of a growing number of organisations in stressing that protected area management must be linked with the economic activities of local communities. In 1982, conservationists at the IUCN’s World Congress on National Parks in Bali endorsed this concept, arguing that conservation programs need to be community – friendly and promote economic development. The congress called for increased educational programs, along with revenue - and management – sharing schemes. A decade later, at its fourth World Congress on National Parks Protected Areas in

Caracas, Venezuela, the IUCN reaffirmed and expanded on these concepts making a policy recommendation that “in developing greater cooperation between the tourism industry and protected area the primary consideration must be the conservation of the natural environment and the quality of life of local communities” (Honey, 1999: 10-13).

Based on the above elaborate discussion on Ecotourism, it is now necessary to find indicators of how to identify Ecotourism, what are some of the criteria that can be identified to reflect Ecotourism principles. One can point out several criteria and draw conclusions in this regard: Ecotourism so described is a relative fledgling, but it has unleashed a great deal of experimentation and creativity among tour operators, travel agencies, hotel builders and owners, park and tourism officials, scientists, environmentalists, NGO's and community activists, and more than anything else, has given effect to the concept of Transfrontier Conservation Areas TFCA's. Real ecotourism then, has the following characteristics:

Involves travel to natural destinations

These destinations are often remote areas, whether inhabited or uninhabited and are usually under some kind of environmental protection at the national, international, communal or private level.

Minimises impact

Tourism causes damage. On the contrary Ecotourism strives to minimise the adverse affects of hotels, trails and other infrastructure by using either recycled or plentifully available local building materials, renewable resources of energy, recycling and safe disposal of waste and garbage, and environmentally and culturally sensitive architectural design. Minimisation of impact also require that the numbers and mode of behaviour of tourists be regulated to ensure limited damage to the ecosystem. Ecotourism is generally classified as a non-extractive or non-consumptive industry.

Builds environmental awareness

Ecotourism means education, for both tourists and residents of nearby communities. Well before departure, tour operators should supply travellers with reading material about the country, environment and local people as well as a code of conduct for both the traveller and the industry itself.

Provides direct financial benefits for conservation

Ecotourism helps raise funds for environmental protection, research and education through a variety of mechanism, including park entrance fees, tour company, hotel, airline, and airport taxes and voluntary contributions.

Provides financial benefits and empowerment for local people

Ecotourism hold that national parks and other conservation areas will survive only if as Costa Rican – based scientist Daniel Janzen puts if there are “happy people” around the perimeters. The local community must be involved with and receive income and other tangible benefits (potable water, roads, health clinics etc.) from the conservation area and its tourist facilities. Campsites, lodges, guide services, restaurants, and other concessions should be run by or in partnership with communities surrounding a national park or other tourist destination. More important if ecotourism is to be viewed as a tool for rural development, it must also help to shift economic and political control to the local community, village cooperative, or entrepreneur.

Respect local culture

Ecotourism is not only “greener” but also less culturally intrusive and exploitative than conventional tourism. Whereas prostitution, black markets, and drugs often are by – product of mass tourism, ecotourism strives to culturally respectfully and have minimal effect on both the natural environment and the human population of a host country. This is not easy, especially since ecotourism often involves travel to remote areas where small and isolated communities have had little experience in interacting with foreigners. And like conventional tourism, ecotourism involve an unequal relationship of power between the visitor and the host and a commodification of the relationship through exchange of money.

It is therefore, necessary that Southern African Transfontier Conservation areas align themselves with these requirement and principles in order to accomplish their goals and objectives. It is upon these principles that an analysis and comparison is made by this study.

5.5 Integrated Tourism Development Plan

Background

Tourism is a highly competitive global business. It is estimated that in the year 2000 it generated 476 billion US dollars income according to World Trade Organisation report. It is also said to be one of the largest global economic sector and is an important link between other sectors (e.g. film, media, information technology, music, fashion etc.) as well as a catalyst for delivery of infrastructure in developing countries. Travel and tourism is said to be a key driver for economic growth in the new millennium and the competition to participate and gain share of the international market will be increasingly intense (Integrated Tourism Development Plan Final Report May 2002).

Africa combines the romance of an unspoilt environment, superb wildlife, rich culture, adventure, sun and sea as well as a divergence of commercial and business opportunities. The seed capital exist upon which to build a vibrant and sustainable economic sector. Growth has however been slow. Tourism to Africa is of a small scale by global standards. The continent is said to receive only four percent of the total global market (WTO, 2000). African market share has increased by one percent over a period of fifteen years. These statistics do not make a positive reading for a continent that has placed tourism as a priority sector for the last decade. "The reality is that tourism planning in Africa has been fragmented, ad hoc and unrealistic. There has been a minimal recognition that creative and imaginative use of natural resources, regional and continental co-operation and focused product and market development are essential to global competitiveness. Both tourists and investors have many choices in today's global market place. If Africa is to compete as a destination for tourism then a quantum leap is required from many on the continent. Focus must be placed on the real requirements of the marketplace rather than local, provincial and national agendas and perceptions – whether public, private or community based" (Integrated Tourism Development Plan Final Report, May 2002 : 3).

The vision of the New Partnership for African Development (NEPAD) is directly in line with the guidelines for development as promoted by Comprehensive Development Framework (CDF), NEAPD seeks to promote and develop sustainable African development and growth through co-operation, participation and assistance from the rest of the world whilst Africans take the

lead in focusing implementation and delivery. Tourism has been identified as a priority sector. The Transfrontier parks concept has an integral role to play as a catalyst for wider economic and social development under the umbrella of NEPAD and must be presented and delivered in this light (KPMG, Integrated Tourism Development Plan Report, May 2002 : 3).

Sustainable development is best achieved on the basis of product strength, infrastructural linkages and the ability to generate complimentary or additional products. The TFCA's are best suited vehicle to achieve this goal.

5.6 Leadership and responsibility

The movement of the world towards globalisation creates opportunities for countries and agencies across the globe to share knowledge, resources and expertise. The Comprehensive Development Framework (CDF) as advocated by the World Bank is a holistic approach to development in the 21st century and a way forward for many developing countries, particularly those on the African continent. There are four pillars on which the CDF is based.

- Structural – competent governance, honest legal and judicial system and transparent financial system;
- Human – education and healthcare system
- Physical – the provision of infrastructure and preservation of the physical and cultural environment; and
- Sectoral – integrated rural strategies, strong urban management approaches and enabling environment for private sector.

As a planning and management tool aimed at overcoming bottlenecks and meeting development goals, CDF promotes the following principles:

- National development strategies – devised and owned by the country;
- Partnerships – between governments and private sector, communities, NGOs, and assistant agencies;

- Vision – for long-term needs and solutions that will draw sustained national support; and
- Structural and societal concerns – in conjunction with macroeconomic and financial concerns. (Integrated Tourism Development Plan Report, May 2002)

According to the above report, the development world is passing responsibility to Africa for the achievement of its own destiny. The mixed record of development programs and history of wastage has resulted in caution. Emphasis is now on sustainable development owned and delivered at grassroots level. Focus is being placed on proactive rather than reactive leadership. Development aid and assistance remains available. It is however the responsibility of Africa to find solutions, identify and package projects and deliver strategies. These are exciting times for African nations with the imagination to grasp the available opportunity. This is a reality accepted by the African Renaissance movement which advocates a focus on the unification of African states with the strategic goal of “doing it for ourselves” in order to achieve desirable social upliftment.

The Transfrontier park conservation areas has an integral role to play as a catalyst for wider economic and social development under the umbrella of NEPAD.

5.7 The benefits of tourism

According to the KPMG report, over the past thirty years there has been a global decline in the job creation potential of traditional sectors of the economy i.e. manufacturing, mining, agriculture. This has led to a phenomenon known as “jobless growth” in which the creation of employment has become a challenge for government across the globe. Travel, leisure and tourism have emerged as drivers of a “new economy” based upon services, (e.g. information technology, financial services, advertising, fashion, media, music, etc.). Tourism is labour intensive and skills required to enter the industry are low, making it possible to absorb large volumes of people quickly. In terms of the TFCA’s, the following additional benefits are especially relevant:

- **Income** – no single transaction but a wide range of purchases of goods and services across the economy;
- **Foreign exchange** – for developing countries the generation of forex through tourism is essential;
- **Prestige** – positive international reputation and ultimately a place on the destination “wish lists” has positive commercial and economic implications;
- **Creation of small business** – tourism is an agglomeration of sectors and therefore creates small business opportunities throughout the economy. (Integrated Tourism Development Report, May 2002).

One issue that can either be a benefit or alternatively a major threat is the conservation of natural resources. The achievement of a balance between environmental conservation and resource optimisation are important for the TFCA's if desired economic tourism and conservation benefits are to be reaped. Additionally, the establishment of a park that links countries across the borders presents political benefits, in that it can create closer relations between the countries, and act as a stepping-stone towards achieving the objectives of NEPAD (e.g. political and social stability, good governance, regional economic growth etc.)

Any influx of tourism, however small, will make some impact. The following highlights key negative impacts of tourism:

- **Environmental** – there can be conflicts in the requirements of tourists to visit areas of natural importance and the desire of conservationists to limit access and numbers;
- **Social** – changes in the quality of life of local residents ranging from migration of workers to change in culture, from increases in crime rates to prostitution;
- **Leakages** – including imports of goods and services, international marketing and repatriation of profits;
- **Over-reliance** – tourism is volatile and responds quickly to external influence; and terrorism for example.

Tourism does have a negative impact as shown above but it would appear that the sector meets regional requirements for employment creation, growth generation and foreign exchange. The challenge is to grow tourism to such an extent that it makes an economic and social difference and to manage the influx in such a way that change is limited and acceptable.

Many such challenges are beyond the control of humans and are unavoidable. However responsible tourism planning, development and management by public and private sector can serve to minimise environmental and social losses incurred. The cost-benefit assessment between positive and negative aspects of tourism in relation to the TFCA's are subject to debate. The desire for conservation has been matched by a requirement for employment, investment and economic growth. Recognition that without employment, investment and economic growth, the long term objectives of conservation in Africa will become difficult to achieve is key to the success of the TFCA's conversely, without conservation, there is little to differentiate from elsewhere (e.g. beach, culture, adventure etc.).

5.8 Tourism in Southern Africa

Travel, tourism and hospitality represent an economic opportunity for Southern Africa. The seed capital exists upon which to build a vibrant and sustainable economic sector. The SADC region has experienced relatively consistent tourism growth in recent years. The majority of travel is intra-regional, followed by arrivals from Europe, America's and the East Asia/Pacific region. According to the World Tourism Organisation (WTO) tourism arrivals to SADC countries totalled 13.4 million in 2000, constituting 46.5 percent of all arrivals to Africa. Over the next decade, 1.6 million new jobs are forecast to be created as the impact of the sector flows through the regional economy. The future growth of tourism in Africa and SADC region is projected to be significantly higher than the world average – growing its market share from 4.2 percent in 2000 to approximately 5.0 percent of international tourism arrivals by the year 2020. the strongest growth is forecast to take place in Southern Africa, with South Africa expected to receive approximately 30.5 million arrivals by the year 2020 (WTO 2002).

A broad spectrum of tourism product lines exist in the region, captured in a kaleidoscope of urban, coastal, wildlife and rural setting. However, whilst the Southern Africa experiences can be mapped across the entire basket of tourism product lines, “icons” are spread relatively thinly across the tourism landscape, overall product linkages are weak, new tourism areas remain untapped, marketing effort has yet to position a distinct regional image, and destination differentiation has not been achieved (Integrated Tourism Development Plan Report, May 2002: 3).

A fragmented approach to continental and regional planning and development, a lack of integrated marketing and unfocussed tourism investment promotion strategies has resulted in the failure to deliver on inherent potential. The reinforcement of spatial patterns, creation of critical mass, understanding of target markets, swift, responses to market requirements, alignment and coordination of policies and initiatives is essential if the region is to position itself as a world class tourism destination. The opportunity to combine and package these various elements is key to the future of tourism in the region.

Action need to be dramatic to make a difference. One may argue that the concept of TFCA's has given both tourism and conservation in Southern Africa a common agenda. There is a genuine desire to deliver and progress has been made in many areas of environmental planning and co-operation. There is growing recognition that the TFCA's can best assist tourism growth through focus on product linkages (i.e. bush, beach and culture) and destination packaging. Wildlife and conservation are not the solution to the challenges facing tourism in Southern Africa from an economic development perspective. They do however provide a framework upon which tourism planning can be refined, product linkages maximised and bankable projects delivered. The TFCA's brings together countries, people, destination and many of the products required to position Southern Africa as a competitive global destination. The establishment of a project of this scale hold significant benefits for the countries involved as well as the sub continent as a whole.

As indicated earlier on in the dissertation, tourism is identified as one of priority sectors in Africa. Tourism is recognised as a vehicle to drive economic interaction of the 14 SADC countries and the most concrete manifestation of this integration thus far has been cross-border spatial development initiatives, many of which focus on tourism. Participants agree that it is a priority to build awareness of the SADC region as a tourism destination.

South Africa, Mozambique, Zimbabwe and Swaziland are all at differing stages of economic and tourism development. There are however a number of common issues impacting upon the tourism section. These include:

- Requirement for solutions that will address poverty alleviation;
- Lack of investment in new products;
- Lack of coherent marketing strategy,
- Minimal involvement in global corporate tourism and the lack of engagement with the world of multinational tourism companies and hospitality real estate investors;
- Lack of focused linkages between product and market;
- Poor alignment and integration of institutional arrangement, and
- Requirement for financial and human capital to deliver on desired outcomes.

There is growing recognition that in isolation the three countries mentioned above including Swaziland are not global players. However, in combination there is a opportunity to bring together the best in each destination and build upon common strength such an approach can achieve competitive advantage. The TFCA's are catalytic projects because they bring together the product portfolio of the countries involved and focuses attention on achievement of critical mass, market positioning, infrastructure delivery and community participation. It is quite possible that the legacy of the two TFCA's under review will impact on tourism in the surrounding areas and the creation of spatial linkages.

A strong shift in thinking is required in delivering on these TFCA's the wildlife theme provides a strong base on which to build upon. However Africa as a tourism destination is not only about wildlife. It is also about fun, food, wine, luxury, culture, adventure, beach, scenery distinguished rural settings etc. A broader vision to the development of GLTP and Lubombo TFCA can ensure the packaging of a new and exciting attraction that will attract investors and visitors alike.

5.9 Role of local communities

In order to realize the objectives of the TFCA's in general it is critical that the surrounding communities in all affected areas be involved in all the stages of the processes. A cross-section of stakeholders including communities, local, district and provincial authorities, private sector and NGO's emphasised the requirement for a more integrated approach in the alignment of relevant local/provincial tourism and economic development plans, initiatives and opportunities.

In South Africa there has been an anchor tourism attraction for years and yet minimal benefits to communities were forthcoming. In the GLTP for example the willingness of surrounding communities to participate is encouraging. Structures have been put in place to plan, manage and deliver not only on tourism, but agricultural and commercial opportunities as well. A community Representative Committee (CRECO) has been established to develop broad strategic plans for the economic development of communities lying adjacent to the Kruger National Park (KNP). Community forums have been identified whose aim is to drive future development at grass-root levels with assistance of government, NGO's and private sector. The challenge is to filter this process down to communities through these Forum Areas and focus opportunities and required strategic interventions to make participation meaningful and communication real.

In Zimbabwe participation in tourism development is not new to most of the Zimbabwean communities and local governments involved in the GLTP. Partnerships exist for example with private sector in the form of ventures in small-scale tourism lodges. Safari hunting is an important income generating activity with hunting quotas allocated through a specific programme in the communal lands. Tourism plans exist for the region e.g. the Development Plan for sustainable community Base Tourism.

In Mozambique the human settlement issue within the Park dominates the discussions. There is concern about the future park policies and implications to relocation of the resident population. In both Zimbabwe and South Africa, human settlements are not allowed within national parks.

It is believed that there are in the region of 20 000 inhabitants within the Park in Mozambique. There has been deliberations between the Government and communities regarding the future of the resident population.

In all the affected countries community related issues include among others: capacity building, assistance in providing user right in the Park i.e. gathering of wood and medicinal plants, addressing land tenure rights to give communities land rights, empowering of tourism departments at local and provincial level i.e. decentralisation of decision making processes and strengthening of links with communities etc. (Integrated Tourism Development Plan Final report May 2002).

Conclusion

Communication must be an ongoing process and undertaken in the most appropriate manner to ensure that communities understand and support the value of conservation of natural resources. Care must be taken in balancing the promises offered by tourism and the required investment in building human capital to make the business work. The type of future private sector investment and partnership developed will be important to drive tourism development and gradually communities will receive direct benefits. Communities do not want to hinder development and creation of economic opportunity but they would like to have greater consideration and involvement in the process.

The Management of the TFCA's must ensure community participation in all activities that affect them. They should form partnerships with them in order to empower them and make the TFCA policy a success.

The next chapter deals with the Great Limpopo Transfrontier Conservation Area as a case study number one of the dissertation.

CHAPTER 6

THE GREAT LIMPOPO TRANSFRONTIER PARK (GLTP): CASE STUDY ONE

The TFCA's: An international Phenomenon

Introduction

Since the advent of the modern states, international co-operation between states is almost inevitable especially in neighbouring states. It is because of insufficiencies with regard to resources that states are interdependent. In the same way that individuals conclude contracts to their mutual benefit, states also engage in agreements for furthering their own interests. Transfrontier co-operation in matters affecting the environment is one example of state co-operation for the conservation of natural resources and promotion of ecotourism for economic growth of their countries.

The notion of TFCA's is not new to the international community. The first international agreement to form one was signed in 1925 between Czechoslovakia and Poland. However, the first park was established only after the Second World War; (De Villiers, 1999 : 9). According to De Villiers the first effective TFCA was that of the USA-Canadian Waterton-Glazier agreement in 1932. Various TFCA's have since then been established in other parts of the world – be it through formal treaties or *ad hoc* agreements between states or through informal co-operation across national boundaries with between 70 to 136 such ventures worldwide and Europe as a region having the most, namely 24 involving 20 countries. (De Villiers, 1999 : 9).

Despite a wide range of experience with TFCA's the available literature on the practical affairs of these areas from a comparative point of view and detailed analysis of case studies are still underdeveloped. This may be attributed in part to the fact that many TFCA's operate on a basis of mutual trust and good neighbourliness rather than of detailed legal agreements. As Brunner observes: "At the moment, legally sanctioned or written agreements are exceptions, while good personal contacts play an important role" (De Villiers, 1999 : 10).

6.1 TFCA's in the African context

According to (De Villiers, 1999), the African continent has more than 200 national parks and nature reserves of which close to 40% lie on international boundaries with 18 protected areas situated on boundaries of SADC countries. Almost a third of all African boundaries have at least one national park on one or both sides (De Villiers, 1999 : 13). This can be explained by the fact that national parks are in many instances situated alongside water sheds, mountains and rivers, or are associated with inaccessibility, long distances from urban centres, low density of population, disease etc. boundaries, with few exceptions, also tend to repel economic development, which leads to a further marginalisation of border areas and national parks (De Villiers, 1999 : 13).

It is only in recent years with the popularisation of eco-tourism that some parks have become the focal point of infrastructural development and linkage by road, rail and air with the urban centres (De Villiers, 1999 : 13).

Examples of widely known parks situated on both sides of international boundaries are those of the two Kalaharis between South Africa and Botswana, Kenya and Tanzania and of course the Great Limpopo TFCA which shares borders between South Africa, Mozambique and Zimbabwe.

This brings us to the first case study of the thesis: The Great Limpopo Transfrontier Conservation Area (GLTP).

6.2 History of the Region and its component protected areas

Early inhabitants were San, who left numerous rock-painting scattered across the region. Bantu people arrived about 800 years ago, gradually displacing the San. The available evidence suggests that humans occurred at a low density and were mostly confined to the more permanent river-courses. The arid nature of the environment, together with an abundance of predators and disease (e.g. malaria) would have played a role in preventing large scale human population growth and settlement.

Nevertheless, sophisticated cultures already existed by the 16th century as evidenced by Thulamela and other ruins near Pafuri.

As early as 1505, the Portuguese established a permanent presence in what is now Southern Mozambique but they confined themselves mainly to the coastal areas. The influence on the remote interior and that of the Arabs who controlled the coast, was limited initially to gold trading routes with the Munhumatapa Empire in DZimbabwe (now Zimbabwe) large scale ivory trading from the 16th century onwards and slave trading up until 1860 (The GLTP joint management Board, 2002)

The discovery of gold around Baberton and Pilgrims Rest in the latter half of the 19th century attracted large numbers of Europeans to the region. This brought sustained and increasing hunting pressure on wildlife for food, sport and trade. The massive destruction of game, together with the effects of the Rinderpest outbreak of 1896, led to the proclamation in 1898 of the Sabie Game Reserve in the Zuid-Afrikaansche Republiek (later Transvaal). In 1926 this Reserve was renamed the Kruger National Park and was the first national park proclaimed in South Africa. (The GLTP joint management Board 2002)

In 1998, as a result in a successful land claim, an area of 24 0000 hectares between the Limpopo and Levuvhu rivers was returned to the Makuleke people. The Makuleke Communal Property Association, legal owners of the land, entered into a contract with SANParks where by the area was proclaimed as a contractual National Park with guarantees that the land would be used in such a way that is compatible with nature conservation, including sustainable resource use.

In 1934, the Gon-re-zhou Game Reserve, was proclaimed in Zimbabwe and was later upgraded in 1975 to National Park status. Gona-re-zhou means Home of the elephant and as the name implies, it provided habitat to a large elephant population. In later years community based natural resource management in the form of the Communal Areas Management Programme (CAMPFIRE) initiative was established with varying degrees of success in communal areas around this Park. Also, large areas of commercial land in Southeast Zimbabwe adjacent the Gonarezhou, have been

consolidated into conservancies and have been successfully managed as viable destination for ecotourism and safari hunting.

In Mozambique, the Banhine and Zinave National Parks were originally proclaimed as hunting areas (Coutadas) in 1969, but both were upgraded to National Park status in 1972. Coutada 16 remained a hunting concession from 1969 until as recently as November 2001 when it was proclaimed the Limpopo National Park.

Civil war in Mozambique during the 1970s and 1980s resulted in a complete breakdown in the protection of these wildlife sanctuaries and the local extinction of most larger mammal species due to unrestricted hunting. The habitats remain in excellent condition, so the reintroduction of animals from other areas will be successful, provided effective wildlife protection measures can be implemented. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

6.3 The Management structures of the GLTP

The current situation

Different administrative systems, independent of each other and with little direct interaction, operate within each of the areas comprising the GLTP.

In Mozambique, the Direcção Nacional da Áreas de Conservação (DNAC) within the Ministry of Tourism is responsible for Limpopo National Park (LNP). Previously a hunting concession area, and with its large mammal fauna decimated during the protracted civil war, this area was proclaimed as a National Park in November 2001. Initial direct management of LNP will be achieved through a Project Implementation Unit, comprising a Project Manager, a Park Warden, a Finance Officer and a Community Relations Officer. As development of the Park proceeds, it is envisaged that this structure will change to accommodate the increasing complexity, the added responsibilities and the various organisational needs.

Within South Africa, the Kruger National Park (KNP) is part of the parastatal SANParks organisation, ultimately responsible to the Minister for Environmental Affairs and Tourism. The KNP has its origins with the establishment of the Sabie Game Reserve in 1898. This was subsequently enlarged and proclaimed as a National Park in 1926. A staff of 2000 personnel is said to run this Park, with infrastructure and support structures. The Makuleke Region of the Kruger National Park is a communally owned portion of land between the Limpopo and Luvuvhu Rivers, administered as a contractual National Park. Wildlife management aspects within the Makuleke Region are managed by its own Joint Management Board composed of Makuleke and KNP representatives. The Makuleke CPA retains full rights and sole discretion over tourism and related developments within the Makuleke Region.

Within Zimbabwe, the GNP forms part of the Department of National Parks and Wildlife Management estate. The Department falls under the Minister for Environment and Tourism. The park was declared a Game Reserve in 1934 and the proclaimed a National Park 1975.

(The Great Limpopo Transfrontier Park Joint Management Board, 2002 : 44)

The GNP has a small staff in keeping with the objective of low density wilderness based tourism. However, the density of Game Scouts (Field Rangers) is higher than that in the KNP the Malipati and Manjinji Pan adjoining GNP areas are concession areas also with low level of development and low staffing. The corridor area linking the GNP with the KNP and LNP is moderately populated by rural Sengwe community people, with administrative responsibility residing with several Rural District Councils. Community leaders retain certain traditional authority at the village and ward level.

6.4 Future Administration of the Great Limpopo Transfrontier Park

Each of the component parks comprising the GLTP is said to retain its own administrative structures and the right to administer its own area in whatever way it deems fit, provided that it does not wilfully contravene the SADC Protocol on Wildlife Conservation and Law Enforcement (1999). However, in order to achieve the objectives of integrated biodiversity management and harmonised joint developments

within GLTP, new structures are required to ensure appropriate joint management in matters of mutual concern and impact.

In terms of the International Treaty signed between the three governments in 2002, the harmonising of policies and procedures between component areas will be the responsibility of a Joint Management Board (JMB). The composition and functions of this board, as stipulated by the terms of the treaty are as follows:

The JMB shall consist of the following representatives

- a) Two from each of the National Implementing Agencies of the Parties;
- b) One from the national institutions responsible for borderline control of the parties;
- c) One appointed as deemed fit by each of the parties.

The JMB shall

- a) Be responsible for the implementation and periodic revision of the joint policy and management guidelines for the Transfrontier Park;
- b) Determine mechanisms for administering funds received specifically for the Transfrontier Park;
- c) Be responsible for identifying financial needs and sourcing such funds as are required to achieve the effective implementation of the management guidelines;
- d) Establish such committees as may be necessary;
- e) Provide reports to the Ministerial Committee.

The JMB shall:

- a) Be chaired and hosted on a rotational basis; and
- b) Shall meet quarterly
 - Decisions of the JMB shall be taken by consensus
 - A quorum at all meetings of the JMB shall consist of six representatives of whom one shall be an appointee of the Mozambican National Implementing Agency, one from the South African National Implementing Agency, one from the Zimbabwean National implementing Agency and one other representative each from each of the parties.

On – site management of joint issues

The actual implementation of management decisions and plans will be undertaken at levels that are answerable to the JMB. It is essential that management committees be formed to handle the day-to-day issues without having to always refer them to the JMB. These management committees should be formed when necessary, some will be permanent whereas others may have a brief lifetime sufficient enough to accomplish the objectives of a specific project. To ensure continuity, a member of the JMB must chair each of the management committees.

The management committees that are likely to be permanent are:

- Conservation committee
- Veterinary committee
- Community relations committee
- Security committee
- Finance committee
- Tourism committee
- Human Resources committee

The importance for the JMB to be involved in the future planning that takes place in the catchments of the rivers that traverse the GLTP is emphasized. It is strongly recommended that the JMB approach the Ministers in each country that is responsible for water affairs with the invitation to appoint a representative onto the JMB. (The Great Limpopo Transfrontier Park Joint Management Board, 2002)

6.5 Description of the GLTP (Physical and Biological component of the systems)

On completion, it is said that the GLTP will comprise more than 3.5million centres or 8.6million acres. The three areas comprising involved are; the newly proclaimed Limpopo National Park (LNP) that was formerly known as Coutada 16, situated in the Gaza Province of Mozambique, the Kruger National Park and the Makuleke region (KNP) of South Africa and the Gonarezhou National Park (GNP) including Manjinji Pan Sanctuary and Mal'pati Safari area in Zimbabwe.

Location and size

The LNP is triangular in shape, with the Limpopo river as the eastern boundry, the Olifants river as the southern boundary and the KNP as the western boundary. It comprises an area of

1 123 316ha. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The KNP is a long narrow area stretching from the Crocodile River in the south to the Limpopo River in the north and includes the Makuleke region between the Levubu and the Limpopo rivers as a contractual park. The eastern boundary is the international boundary with Mozambique and the western boundary is a fence line more of less on the 2200E longitude. Excluding a number of private nature reserves on its western boundary, the KNP covers as area of

1 948 528ha. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The GNP comprises 505 300ha in the south eastern Lowveld of Zimbabwe. On the east it borders Gaza Province in Mozambique and the Sengwe and Malapati communal lands to the south and west to the northwest and north , it borders on the Gonakudzingwa, Matibi II, Chiredzi, Malilangwe transit, Mahenye and Ndowoyo areas.

The GNP has no common boundaries with either the KNP or LNP. However, it is envisaged that a corridor (the Sengwe corridor) will be established between the KNP/LNP and the GNP to enhance the tourism potential of the GLTP. Until there is control of the bovine tuberculosis infection in the KNP buffalo, there will be no free movement of large mammals into Zimbabwe. On completion the GLP will comprise some 3 577 144ha (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

6.6 The biophysical description of the GLTP

The description of the natural attributes of the GLTP presented is broad-based and will suffice to serve as an essential guide for joint decision-making. It is accepted that the degree of information for the various areas to be incorporated into the GLTP varies considerably.

The GLTP has a physical area and range of biodiversity unlikely to be equalled in any other tropical or sub-tropical ecosystem. The GLTP represents one of the most exciting initiatives.

6.7 The management of the natural resources of GLTP

Common operating principles

There are several guiding principles that the GLTP embraces in the conservation of natural resources and development of the area; not only for joint issues but also for each of the component parks. These are:

6.7.1 Biodiversity as the primary objective

The conservation of biodiversity is the primary objective of all three parks, and its definition is accepted here as that adopted from the keystone Dialogue on Biodiversity in Federal Lands (Noss and Cooperrider, 1994: 13).

“Biodiversity is the variety of life and its processes. It includes the variety of organisms and the genetic differences among them, the communities and the ecosystems in which they occur, and the ecological and evolutionary processes that keep them functioning yet changing and adapting.”

This definition captures the important concept that biodiversity is hierarchical in that it is present at the genetic species ecosystem, and landscape levels and that interactions within and among levels all contribute to biodiversity.

Biodiversity is valued in the following ways:

- Utilitarian values (i.e. medicine use of plants as agricultural gene stocks, and wild animal and plants as food source.)
- Indirect utilitarian values (i.e. ecosystem services such as air and water quality and climate amelioration)
- Recreational and aesthetic values
- Intrinsic, spiritual and ethical values

6.7.2 Adaptive management

Ecosystem management is now known to be a more complex process than it was though a decade or two years ago, largely because of an increased understanding of the multiple pathways through which processes take place, and because of the multiple temporal and spatial scales operating. The only way in which such a complex

dynamic system can be managed is by using an adaptive management. Adaptive Management is accepted as being the basis on which vegetation and wildlife populations are managed in all three protected areas (Bell, 1976: 20).

This is a systematic approach to management where, based on present and often incomplete knowledge of the operation of the system, a clearly defined objective is chosen and to most appropriate management is implemented to achieve the objective. The management procedure is recorded and evaluated and the results are monitored; because the outcomes of management are not always certain, the results are evaluated against the assumptions on which the management was based. Divergence from the expected results will provide knowledge that enables greater understanding of the system. Alternatively the objective may have to be reviewed of the management procedure changed where appropriate.

In other words the adaptive management approach ensures that set objectives are implemented but also ensure that the “feedback loop” is professionally retained through monitoring and evaluation.

Such a management system reacts as the ecosystem changes and evolves via the multiple pathways, the management system nudging, teasing and coaxing it in the desired direction. In order to have a clear picture of the “desired state” (which is for all the above reasons, never static) the management should also be forward looking, towards an agreed-on set of conditions and objectives for the area and the ecosystem it encompasses. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

6.7.3 Limits of acceptable change

The way in which a conservation organisation checks whether it is on track with its expectations in managing the ecosystem, is to set ecosystem endpoints which reflect

the desired state. These are known under various names: limits of acceptance change (LAS), Receiving Water Quality Objectives (RWQO's) or as in the KNP – “Thresholds of Potential Concern” (TPC's) (Rogers and Biggs, 1999 : 439 - 451)

These reflect pre-agreed on “worry levels” or thresholds which, when exceeds (or confidently predicted to be exceeded) become official impetus for consideration of management action (Rogers and Biggs, 1999). They also represent targets to which management must aim to return, before action is considered as having been effective. In this was monitoring and management action (and indeed research supporting these) become sensibly and meaningfully linked to a common set of objectives.

6.7.4 Integrated Environment Management (IEM) in all developments

Integrated Environment Management (IEM) is a process designed to ensure that the environmental consequences of development propels are understood and adequately considered in the planning, development and management of infrastructure. The purpose of IEM is to resolve or mitigate any negative impacts and to enhance the positive aspects of all stages of development processes.

6.7.5 Development and management appropriate to regional values and priorities

The conservation of many protected areas in Africa has failed to effectively address African values, priorities and practices. (Biodiversity Support Program, 1983: 149). International, and generally Euro-centric values, have dominated biodiversity conservation efforts – when these conservation areas were well funded and the density of local communities was comparatively low, these operations were successful. These conditions have changed for most of Africa, and poorly funded conservation agencies are faced with conserving biodiversity with ever-increasing impoverished communities on their boundaries. Planners, developers and managers have to adapt goals, plans and management operations to take this into account. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

6.7.6 Sustainable consumptive utilization

Each party accepts the principle of sustainable utilization of renewable natural resources. Whether this becomes policy, and to what degree this is implemented in each of the GLTP parks, is an internal issue that the joint plan does not address. While the principle may be applied to renewable resources in protected areas. This principle is particularly important in relation to the rivers that flow through the GLTP which are all being over-utilized upstream.

6.7.7 Community participation and capacity building

The vision of improving the quality of life of the people around the GLTP can only be achieved if the communities are brought into the process of developing and managing the GLTP in a meaningful way. Employment is the greatest need by all the communities around the park, and hence should be one of the manifold objectives to be kept in mind.

6.7.8 Private sector participation

The vision for the GLTP is that it will contribute towards improving the quality of life of the people in Mozambique, South Africa and Zimbabwe. This can be achieved through sound management of the area and careful development into one of Africa's premier tourist destinations. In the development of the areas, particularly the LNP where most change will take place every effort must be made to involve local people and the local private sector (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

6.7.9 An equitable framework for benefit sharing

The GLTP is a joint project, yet in practical terms most of the development has taken place in South Africa and most visitors will come from South Africa or enter the park from South Africa. Notwithstanding this imbalance, a fair means of cost and revenue sharing is needed.

6.8 ZONATION

The zoning system discussed here only address those parts of the individual protected areas that adjoin one another. At this interface, it is desirable to merge management zones of one park with those of the neighbour rather than to have conflicting forms of use in zones adjacent to one another. The GNP does not make direct contact with either of the other parks, so it is only necessary to blend the zones for the LNP and the northern half of the KNP.

The criteria on which the zones are established are:

- The park objectives
- Legislation and agreements
- Landscape and vegetation
- Development outside the park
- Existing zonation any neighbouring park
- Existing development
- The socio-economic status of neighbouring park
- The regional economy
- The current and forecast tourist markets
- Tourism development strategies
- Resource utilisation

(The Great Limpopo Transfrontier Park Joint Management Board, 2002).

6.9 Rivers and Water Resources

An overview

The SADC heads of state signed the revised protocol on shared water resources on 7th August 2000. the general principles (Article 3) of the agreement do not prejudice the sovereign rights

of each country, but focus on the principles of sustainable utilization, conservation and enhancement of the environment, cooperation in research, data sharing and the execution of projects related to shared water courses.

The agreement specifies that where there are shared watercourses, the watercourse states shall undertake to establish appropriate institutions such as watercourse commissions or boards. The responsibilities of these institutions shall be determined by the nature of their objectives, which must conform, with the principles of the protocol.

Ten major rivers flow in an easterly direction through the GLTP. All these rivers originate outside and to the west of both the GNP and KNP and all are heavily utilized. They are crucially important for the conservation of the natural environments of the GLTP. Perhaps the greatest single threat to the GLTP is the deterioration of the once perennial rivers, all of which have their headwaters outside and to the west of the GLTP.

The human population growth in the catchments and the eastern lowveld of South Africa and Zimbabwe during the four decades brought with it the rapid expansion of irrigation farming exotic afforestation and domestic stock, as well as the establishment of large towns, mines, dams and industries. Along with these developments came overgrazing, erosion, over-utilization and population of rivers, as well as clearing of indigenous woodlands from large areas outside the borders of the both GNP and KNP. All these developments have an impact on the GLTP rivers and cause severe problems in the conservation of these ecosystems.

The degradation of the rivers varies in character and intensity, but is mainly due to unsustainable human activities upstream. Although provision is made for sustainable utilization of rivers in the goals of the IUCN, the heavy usage-taking place upstream is not sustainable and has degraded most of the rivers into seasonal and polluted waterways.

The conditions of three of the ten rivers, namely: the Letaba, Olifants and Sabie are briefly described as examples of (1) an overutilized river, (2) a polluted river and (3) a river that is still in a fairly good condition. The Runda, flowing through the Ganarezhou, falls into the same category as the Letaba as its catchments has large dams used to supply irrigation water for the sugar industry. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The Letaba River

The Letaba river, with a catchment of 13 400km², is highly utilized. More than 36 000 ha of land are irrigated and 47 000ha of Eucalyptus and conifer plantations have been established in the upper regions of the catchment areas i.e. the high rainfall escarpment.

The water allocated for irrigation amounts for more than 117million m³/a. In allocating this water, no provision was made for the maintenance of the natural environment down stream. This has altered the 103km of the river in the KNP from a perennial to an ephemeral river and no-flow situations now occur for prolonged periods.

The Olifants River

The Olifants River (Rio dos elefantes in Mozambique) drains a catchment area on 4,575km². Although abstraction for irrigation and other uses, as well as changes in the catchment characteristics, have decreased the runoff from the catchment, in recent history this river has only stopped flowing twice.

A large proportion of the 2,5 million people living in the catchment live in rural underdeveloped conditions, being concentrated mainly in settlements with limited infrastructure. Improvements in their living standards and increased urbanization will have a dramatic impact on the water requirements for domestic use. There are 30 major dams in the basin. Most are used mainly for primary water supply or for irrigation purposes. The decrease in runoff caused by afforestation is limited and restricted primarily to the Blyde River sub-catchment. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Mining activities and power stations are scattered across the upper reaches of the basin. The concentration of industrial development, power stations, rapid urbanization, irrigation activities, extensive soil erosion mainly due to overgrazing and runoff from rural towns and villages, all cause serious deterioration in water quality. Mining and industrial activities at Phalaborwa, just outside the western border of the KNP, are also a major source of pollution. Extremely low flows aggravate water quality problems and also cause certain aquatic habitats to disappear. High salinity, pollution by heavy metals and high silt loads are the main concerns for

conservation and have contributed to the disappearance of at least 5 fish species for the Olifants River (Deacon, 1994). The high silt loads are generated when sediment-laden releases are made from the Phalaborwa Barrage. These have been the cause of massive fish kills down stream in the KNP.

The Sabie River

The Sabie River (with a catchment of 7096 km²) is the only river in the KNP that has never stopped flowing. Furthermore, the water of the Sabie River is still of excellent quality shown by the high biodiversity present in the river. It provides an excellent example of a river that has been utilized for purposes other than nature conservation without serious effects to its ecology. In spite of the effects of gold mining, intensive irrigation farming (9 484ha) forestry (82 000ha), much cattle farming and high density rural populations in its catchment, it still remains a biologically rich river. It is considered to be the river that is the least affected by activities outside the GLNP.

During recent years however, flow became very low and the resultant drop in the general water table in the primary channel of the river led to tree mortalities in various reaches of the river. During the exceptionally dry period experienced during the 1991/92 and 1994/95 rainy seasons, flows of as little as 0,1m³ occurred in the eastern part of the river. This phenomenon is related to a combination of factors, namely: the exceptionally low rainfall experienced during these years, the presence of commercial irrigation farming and the increase of informal, uncontrolled irrigation from the river and the occurrence of very large areas of exotic forests in the upper catchment areas. As the pressure on the Sabie River increases, it can be expected that more storage dams in the upper catchment will be considered. Development is regulated and the forestry sector continues to clear wetlands of exotic timber plantations in the upper catchment.

6.10 The Kruger National Park Rivers Research Programme

The Kruger National Park Rivers Research Programme (KNPRRP) was initiated in 1988 as a co-operative undertaking. It addressed the water quality and quantity requirements of the natural environments of rivers flowing through the KNP. Key areas where the KNPRRP has

proved invaluable to the KNP include clear guidance on research issues, development of decision support systems, development of protocols to determine the desired future state of rivers (Rogers and Bestbier, 1997) and involvement with a wide range of scientists.

The programme includes regular fixed-point of the rivers (oblique as well as aerial photography), monitoring fish and micro-invertible populations, water quality and flow regimes, hippo census etc. This knowledge together with that generated by the KNPRRP, is freely available to managers and researchers throughout the GLTP which assist with management. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

This is perhaps the model on which to expand and develop a joint GLTP programme for all rivers in the TFCA. This will create synergy and should be a considerable cost saving.

Present River Management

Since the inception of water laws in Southern Africa, no country has had a central legitimate body to champion the somewhat voiceless needs that nature has for water. It is only recently that the needs of aquatic system came into the spotlight with the New National Water Act No 36 of 1998. Prior to this Act and due to the lack of management of river basins as units, the SANP had embarked on a strategy of (1) liaison with communities in the catchments (2) promoting the cause of the rivers amongst the general public and (3) political lobbying. A strategy for the overall positioning of the SANP with regard to the Lowveld river issue, wider than that covered by the KNPRRP is therefore being developed.

The overall effect of this initiative is that the SANP is well known in the catchments, invariably invited to attend meetings, and expected to make a stand for water for the environment. Local communities have largely accepted the need to allocate adequate quantities of water for the natural environments of rivers but some still need to be convinced of some concrete or intangible benefits accruing to them in order to support this cause. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

At Senior bureaucratic and political level, representation is inadequate in spite of there being some isolated champions of the cause. The plight of the GLTP rivers will need highlighting if politicians are to give more than token support to the GLTP and to act as its champions.

6.11 The importance of Rivers Ecotourism

The terrestrial and aquatic environments of the GLTP are intimately linked and it is not possible to achieve conservation of one without conservation of the other. Thus, threats to the associated terrestrial systems. Since the riverine systems are preferred sites for the development of tourism infrastructure and tourist activities, the industry is now threatened by further deterioration of the rivers.

6.12 Known Future Development

The rehabilitation of the sluice gates of Massingir dam is to take place soon, has been proposed to allow it to function at optimal capacity. This will increase the area of land downstream that can be cultivated under irrigation. It also raises the potential of producing hydroelectric power.

The major negative impact of this on the GLTP is that the rise in water level will push the reservoir back into the Olifants River Gorge. This will flood one of the most spectacular parts of the GLTP and will reduce the options available for visitor facilities in this area. It is also likely to cause extensive deposition of silt in this stretch of the Olifants River in the KNP. This siltation will have an impact on the aquatic organisms and the riverine habitat in general.

The component organizations of the GLTP endorse the principle of sustained utilization of natural resources as defined by the IUCN (IUCN, 1980) in its World Conservation Strategy. It therefore acknowledges the right of other water users along the course of the rivers. Because of the possible negative impact on the GLTP, the raising of the Massingir dam wall will be of concern to the JMB who must ensure that it is able to participate in the scoping report and Environment Impact Assessment (EIA) process. (The Great Limpopo Transfrontier Park Joint Management Board, 2002)

Artificial Waterpoints

Great care needs to be taken when planning for the provision of artificial water for wildlife. It must be remembered that much of this semi arid system was maintained as an open savanna by virtue of the scarcity of water, the natural movement of herbivores and the occurrence of

fires. The KNP has learnt the lesson of the well-meaning provision of too many water points and the consequent loss of biodiversity. The same mistakes should not be repeated throughout the GLTP.

The Present Situation

In the LNP, there are presently no artificial waterpoints. The purpose of the waterpoints is to provide water for animals that would be prevented from drinking at the Limpopo. This will be reviewed in the LNP management plan that is currently in progress. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Kruger National Park

The new water distribution policy for the KNP attempts to stimulate the natural distribution of water, with the positive consequences it will have on bioiversity, without detracting from the tourists experience. It is perceived that this revised water distribution policy for the KNP will assist in the restoration of intrinsic biodiversity at the landscape level through the simulation of the natural availability of water. It will however be necessary that a monitoring programme be implemented to assess the consequences of the proposed water distribution policy.

Until recently, the KNP had 280 artificial water points based on boreholes, of these 140 were closed in 1999, and more will be closed in the near future. The only artificial water points that will be permitted will be those that supplement natural ones.

The effects of the closure of the nominated artificial waterpoints in the KNP has increased the amount of feeding range that is only available to ungulates during the wet season; from 17,6% to 32,4% of the park. This is considered to be beneficial, especially for the low-density and are rare herbivores such as roan antelope (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Gonarezhou National Park

The GNP currently has 48 boreholes of which 11 are capped and only 14 are used to supply water for wildlife. It is considered in the GNP management plan, that only five boreholes are necessary to maintain dry season habitats for roan antelope.

Insofar as artificial water points are concerned, the GNP objective is to establish an appropriate system of artificial water supplies with each water point designated to meet specific objectives. A significant reduction in the number existing artificial water supplies is considered to be acceptable.

Invasive Alien Plants

The ultimate goal of the GLTP is that invasive alien plants will be brought under control and eventually eradicated from the GLTP. As with river management, this will require holistic land use strategies that often go beyond the boundaries of the GLTP.

The Present Situation

All three parks have invasive alien plants at varying degrees of infestation. Because it has the most comprehensively documented case history, the situation in the KNP is described below and will indicate the problem the GLTP is facing.

The history of settlement, and the many rivers that traverse the GLTP is vulnerable to colonization by alien plants. The problems of invasive alien plants (IAP) has been monitored and tackled in the KNP and the situation is described here, as it is considered to be representative of the position in most of the GLTP.

Fire and fire management

Fire is recognized as one of the most important agent capable of affecting change in African savanna ecosystem. The lowveld savanna is a fire-adapted system and its evolutionary history was considerably shaped by fire. The two primary sources of fire ignition both historic and

current are humans and lightning. Very little is known regarding the historic contribution of pre-industrial revolution humans to fire frequency, seasonality and extent. This is therefore a gap in the understanding of the primary condition to which the Lowveld savanna has adapted. Archaeological and other evidence suggests that pre-1900, the human occupation of the area currently represented by the GLTP was relatively sparse.

The rapid increase in the human population adjoining the KNP during the 20th century together with major changes in land-use, has resulted in greatly changed fire patterns to those that are likely to have prevailed previously. However, there is no idea of the nature and extent of this likely difference (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The Present Situation

Limpopo National Park

Currently there is no fire management policy or active fire management in the area. The recommendations in the draft LNP management plan are that in the short term, fire management should follow a *laissez fair* policy. During this period, an appropriate fire management and monitoring programme will be developed and will probably be a rotational patch work burning strategy with point ignition where possible.

Kruger National Park

Following forty years of rotational block burning, the KNP took a decision in 1993 to institute a lightning-driven system instead. Because of the contentiousness of this lightning system, an undertaking was also made during the Management Plan Revision in the 1990's to put aside large experimental areas for examining alternatives to lightning-driven system. However, it transpired virtually every year that illegal immigrant-caused fires dominated the fire pattern mainly because the veld is burnable from late autumn onwards, the lightning season only usually starting in late spring. This fundamental inability to keep sufficient veld unburnt till the lightning season, eventually led to changes in the way managers felt about the feasibility of this system. Not only did the monitoring system trigger a threshold of potential concern almost every year in this regard but managers felt powerless in that they were under an obligation to

try to put each and every non-lightning fire, even ones which seemed acceptable. In addition, they were not able to ignite any fires (other than back burns) according to their judgement. This led to the acceptance of key elements of the planned experimental alternatives, these being Integrated Fire Management system is now tabled for acceptance in place of the attempted lightning-driven system which lasted for nine years as policy. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Gonurezhou National Park

The frequency of man-induced fires in the GNP today is considered to be much greater than that which would represented a normal situation average, uncontrolled fires occur with frequency of four per year and burn about 25% of the park. Many of the fires are started by illegal hunters in the park 51% and most of the balance originates from the surrounding communal areas (22%) of Mozambique (19%) (Jones,1994). The impacts of fire in the park have not been studied and they are thought to have contributed to loss of mature canopy trees from the woodland, reduced rate of tree recruitment, reduction in herbaceous cover and increased rates of soil loss (Jones, 1994). For this reason, there is presently a no burning policy and any fires that do occur are extinguished. The need for a more considered fire management policy is recognized by management staff and will probably be addressed in future.

Wildlife

Each park will have its own wildlife management goals and objectives. (In the context of this thesis, wildlife refers to the larger fauna, but could include small fauna and flora where relevant)

The Present Situation

The GLTP contains some of the most significant wildlife populations on earth, and of particular significance are the elephant and rhino populations. In contrast to most protected areas in Africa, in both the GNP and KNP, the elephant populations are increasing and have reached levels where they are considered to be having detrimental impact on biodiversity of these

parks. For this reason, it is critical that the management bodies of these areas lobby their national policy makers to support the drafting and implementation of sustainable use policies.

The rhino populations in the KNP continues to increase and the white rhino population is the single largest in Africa. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The SADC Protocol on Wildlife Conservation and Law Enforcement

The SADC Protocol on Wildlife Conservation and Law Enforcement, which was ratified in 1999, acknowledges the need for co-operation between member states in enforcing laws governing wildlife, in sharing information about wildlife resources and wildlife law enforcement, and in building national and regional capacity to manage wildlife and enforce the laws that govern it.

Mammals

A total of 147 species are known from the area, none of which are endemic.

6.13 Veterinary Issues

The common vision of the national veterinary authorities is that, with the formation of the GLTP, the standards of monitoring and control of diseases that may be transmitted between wildlife and domestic livestock will be maintained at their present levels(October 2001) in South Africa and Zimbabwe and improved in Mozambique.

It is predictable that without international boundary fences, and with increasing wildlife populations, any infectious disease present in any one of the participating conservation areas will eventually spread throughout the entire transfrontier conservation area, unless containment or control measures are put into place. This will present challenges for the veterinary authorities to resolve.

The Present Situation

In general, animal diseases that have been identified in Sub-Saharan Africa, fall arbitrarily into one of three basic categories namely:

African endemic diseases, which are those indigenous to the continent and that can be maintained in free-ranging wildlife populations. Important examples are SAT types of Foot-and-Mouth diseases (FMD), African swine fever (ASF) African horse sickness *Theileriosis* *Thypanosomiasis* and *Alcelapine Malignant catarrhal* fever (MCF). This diseases that have an almost worldwide distribution on such as anthrax, rabies, *Encephalomyocarditis* (EMS) and certain *enteropathogenic and clostridial* diseases.

Allen exotic diseases which have been introduced onto the continent with animal imports, predominantly during the colonial era. Bovine *tuberculosis*, (BTB) Rinderpest, Bruellosis and canine distemper are good examples. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Emerging, re-emerging or truly novel diseases e.g. feline immune-deficiency virus (FIV) (GLTP, 2002).

6.14 Endemic Diseases and Parasites

With regard to their threat to domestic livestock, the important indigenous endemic diseases that are presently found in the GLTP are FMD, *Theileriosis*, AHS, ASF and MCF.

Many of the people living in the LNP have cattle, goats and pigs. It is important to note that there are currently no buffalo or wildbeast In the LNP and numbers of warthog and bushpig are assumed to be very low. For these reasons, livestock deaths due to *Theileriosis*, MCF and ASF may not be problematical at present. However, re-colonization of the LNP by these wildlife species is very likely to impact on livestock in the future. While Rabies has not been found in wild animals within the KNP, it is known to be present in dogs originating from the LNP of the stray dogs, which have entered the KNP from Mozambique more than 80% have been found to be rabid.

Anthrax outbreaks occur cyclically in wildlife in the northern KNP and are endemic on the Levubu river flood plains, where it periodically is responsible for wildlife deaths.

Tsetse fly (*Glossina spp*) still occurs near or on the north bank of the Save river in Mozambique. With the vector still present, the resident wildlife is assumed to be host to the *trypanosomes* that cause the disease Nagana in cattle. This area is on the periphery of what will become the greater TFCA and one can expect that as wildlife numbers recover and increase, there will be the likelihood of a gradual spread of both the fly and *trypanosome* both southwards and westwards.

Alien or Exotic Diseases

These diseases were probably introduced to the area with the importation of domestic species from Asia and Europe. The most important of these are: Bovine tuberculosis (BTB) Rinderpest, *Brucellosis* and canine distemper (Bengis et al, in press).

Bovine Tuberculosis is prevalent in the buffalo population in the KNP with the greatest incidence of infection in the Southern region and the lowest in the north. Lions have become infected as a result of feeding on infected buffalo, and again the greatest incidence of infection is in the south with the most northern incidence found in the area of Letaba. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Rinderpest last occurred in the GLTP area when the epizootic swept through Southern Africa between 1899 and 1905. A strain of the disease that is mild for cattle, but fatal in wild artiodactyls, still smolders in East Africa and should it move southward it would be of great concern to regional governments. This is a potential threat to most ungulates, particularly buffalo and the *Tragelaphines*.

Canine distemper, apparently introduced into Africa with domestic dogs, occurs in the region. This disease has crossed the species barrier and not only affects canids but has also been responsible for significant mortality in lions. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Conclusion

The chapter looked at the composition of the GLTP, the management aspects, the structures in place and all related aspects of the GLTP. In general one can summarise the chapter by commenting on the disparities that exists between the countries involved in this TFCA and the challenges that are facing them in order to realize the goals of the TFCA in general. These disparities imply that management in the near future for the Zimbabwe and Mozambique should strive for more developmental funding in order to conform to the well developed infrastructure on the South African side. The implications are that the tourist will tend to spend their time more on the South African side than Mozambique or Zimbabwe. These two less developed countries will lose out on revenue in terms of spending i.e. for accommodation for example. The next chapter deals with developmental aspects of the GLTP in detail.

CHAPTER 7

DEVELOPMENTAL ASPECTS OF GLTP

The Present Situation

7.1 Limpopo National Park

From 1994 to 2001, the concession to operate hunting safaris in Coutada 16 (now the LNP) was awarded to the company Gaza Safaris. The company's hunting focus was on trophy lions. The quota allocated was not based on the sustainable utilization of a resident lion population, but the company relied on lions dispersing into Coutada 16 from KNP. Several abuses of this took place, with hunters making gaps in the KNP fence then luring lions out using baits and tape recording and then shooting them. In 2001, no hunting quota was issued to the company and management of the company has since indicated that they wish to become involved in non-consumptive tourism. (The Great Limpopo Transfrontier Park Management Board, 2002:91)

There are at present no tourist facilities in the LNP and the management plan is still being prepared. However, the findings in the recently completed Intergrated Tourist Development Plan. (GLTP Technical Committee 2001) indicate that strong linkages between LNP (and therefore GLTFP) with existing and future beach resorts will make the project a success. Few destinations within Africa can offer the experience of a bush and beach experience within such proximity. The ability of a destination to combine the two considerably enhance the overall tourist experience of the GLTFP and Mozambique as a whole. Without such a combination it is unlikely that the incorporation of LNP into the GLTFP will deliver optimum benefits to Mozambique.

7.2 Kruger National Park

The park has 10 large camps, 8 medium camps and 5 small camps. These have a total of 4 500 beds. A further 4 000 beds are allocated to people who stay in caravans and tents, at specific sites demarcated at most of the 10 large camps.

Currently the KNP has approximately 1million visitors per annum and generates an annual income of approximately US \$40million. The bulk of the tourists are self drive visitors who stay in camps managed by the KNP. Apart from these camps, the park also offers wilderness trails, night drives and day walks. In the near future, the private sector will be developing six semi-permanent camps to cater for the exclusive end of the tourist market (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

7.3 Gonarezhou National Park

In terms of achieving its tourist potential, the GNP has been disadvantaged by the strengths of Victoria Falls, Hwange and Kariba in the north-west of Zimbabwe, and has taken a niche status as a result. The tourism development objective for the park is to develop and encourage activities and levels of park-use consistent with sustaining the remote natural character and features of the park (GNP management Plan). This means a low density of tourists and a low level of development.

Use of the area is confined to vehicle borne game viewing, but angling is permitted. Night drives, wilderness trails and day walks do not yet take place.

Between 1996 and 1998, the annual number of visitors to the GNP was about 6000. Approximately 20% of these visitors were foreigners, primarily from South Africa and Europe. In 2000, in tandem with the rest of the country's tourism industry, this number declined steeply to just over 2000. More than half this number were day visitors, suggesting that they were primarily locals or tourists using accommodation outside GNP (The Great Limpopo Transfrontier Park Management Board, 2002 : 92).

Since 1997, most of the visitors to the GNP have been Zimbabweans and South Africans. This indicates that the park is either poorly known or marketed outside the region, or that overseas visitors have more attractive options available.

There are two chalet camps in the Park in a poor state of repair. The 1998 plan proposes 13 underdeveloped campsites (toilets only) and 15 developed sites. There will be 20 day-visitor picnic sites and provision is made for hides, viewing points and picnic sites.

Adaptive management will determine the eventual carrying capacity of the GNP for tourists. Vehicles borne tourists will be restricted to the Wild areas and walking trails take place in the Wilderness zones.

7.4 Creating an Environmental Theme Attraction

After a detailed situation analysis, KPMG (2002) recommended that to achieve its development and tourism objectives, the GLTFP should be positioned as one destination in the tourism market place. It will however offer a diverse range of visitor experiences.

The theme should be a destination that offers something for everyone. It is thus fundamental that the project concept addresses the needs and desires of all visitors. Even though the main activity is game viewing, there is also a need to offer a diversity of attractions and activities, which will not only satisfy the individual, but will also diversify the product base and offer new experiences to all visitors. In addition to attracting a wider base of visitors, this could also induce an increased length of stay within or at the park activities wildlife, conferences, retail and dining, etc. (The Great Limpopo Transfrontier Park Management Board, 2002).

7.5 Linking Product to Market

Traditionally, conservation planners and managers have prescribed the criteria for tourism in their protected areas. A new approach is where the industry experts define what tourist products, and at what scale, are required to best meet the development objectives of the area. Thereafter, the managers can either develop plans to accommodate these recommendations, or reject them if they will compromise the conservation goals of the protected area.

The success of the GLTP as a tourism destination and agent of change in the light of different stakeholder requirements will have to be informed by market demand and the future investment opportunities in product and infrastructure created.

It will not be enough for this project to be yet another eco-tourism destination so much more is required to place South Africa, Mozambique and Zimbabwe on the tourism map. In order to begin to generate the required demand that will stimulate economic growth, the ability to create an eco-tourism product that appeals to the broader marketplace is a requirement, through the provision of an overall tourist experience, as opposed to a pure eco-tourism experience. The strength and size of visitor pull of the GLTP and the parks role in the broader tourism landscape will be dependent on the ability to cater for different market segments (both existing and future) which have varying profiles, desires and travel patterns. This approach has a direct correlation with the definition of areas of priority and strategic interventions that are required.

There is a need to build upon strength, identify catalytic investment opportunities and position according to market opportunity. The most powerful perhaps will be the delivery of a combination of wildlife i.e. GLTP, the beach experiences along the Mozambican coast (and even further south along the KwaZulu-Natal coast), adventure and culture. It is a fact for example that the majority of international leisure visitors from within the developed world remain focused on the traditional beach holiday.

7.6 Infrastructure development and management

Introduction

Although parks of the GLTP are well serviced in terms of access, there will be a need for substantial development of access points and routes to serve the needs of tourism. The primary difference is that at present, the management infrastructure is only developed and operated by the appropriate management agency yet the growing trend is for tourism infrastructure to be developed and operated by the private sector on a concession basis.

7.7 Existing Bulk Infrastructure

Railway lines

The only railway line traversing the area is that which runs from Maputo to Zimbabwe, running through the GNP. This line is not very busy, but it is anticipated that with the economic

recovery of Mozambique and Zimbabwe, that it will become more active and could eventually pose a security problem in the GNP. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

While elephant bulls and large carnivores cross the line, most ungulates and breeding herds of elephants are very reluctant to cross the rock ballast that supports the rails.

Along the western boundary of the KNP, the railway line from Phalaborwa that links with the Pretoria-Maputo line at Kaapmuiden provides a barrier to the free movement of most wildlife and the west-ward extension of the greater TFCA.

7.8 Roads

Limpopo National Park

Access to the LNP is by tarred road as far as Massingir. The other roads in the area are dirt roads and tracks that are only suitable for 4x4 vehicles. There are also a number of rudimentary tracks opened by Gaza Safaris for hunting. An access road from the KNP into the western side of the LNP has recently been opened, in order to bring in the materials for the elephant boma and for the subsequent introduction of the elephant. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Kruger National Park

The KNP is well served by roads. All the access roads to the parks entrance gates are tarred. Within the park, there are 900km of tarred roads and 200km of gravel roads. The gravel roads are of such a standard that permits their use by a normal sedan car. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Gonarezhou National Park

The access roads to the Gonarezhou at Chipinda pools and Mahenya are from the A10, which is tarred. These access roads themselves are not tarred and the bridge across the Runde at Chipinda was washed away during the floods caused by cyclone Eline in 2000. Efforts are

being made to encourage the government to construct a new bridge south of Chiredzi, rather than replace the Chipinda bridge. This would be consistent with developing the Chiredzi-Boli link, to fit in with the inter-government agreement to open a Maputo-Harare highway. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

A serious constraint is that once the GLTP is functional, Mabalauta, which has very poor access, will deal with the greatest increase in traffic, as it is en route to the KNP (Davison, 2001).

7.9 Airstrips

Limpopo National Park

There is an airstrip near Macandezulu that has been developed by Gaza Safaris for the use of their clients. At Massingir there is a tarmac strip approximately 1800m long and 40m wide.

Kruger National Park

The park has 2000m tarmac strips at Skukuza and Punda Maria, and four smaller gravel strips for small aircraft used by the KNP management.

Gonarezhou National Park

There are five airstrips in the park, but the strip at Fishans and the strip at Chipinda pools are no longer in use and should be closed.

Staff accommodation

The staff accommodation for field rangers(game scouts) and management staff in each park is summarised as follows:

Limpopo National Park

There is presently no staff accommodation in LNP. The provision of this is seen as being key to the success of deploying security and management related staff in the area. There is a house for the officer in charge in Massingir. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Kruger National Park

All KNP field rangers, and other management staff are provided with suitable accommodation.

Gonarezhou National Park

The accommodation available is barely adequate for existing staff, and will not accommodate the essential increase in security personnel. Most buildings are structurally sound, but require repainting and extensive repair to fittings and finishes.

7.10 Electricity

Ganarezhou

There is no main (ZESA) power in the GNP. At Chipinda pools and Mabalauta, generators are used to charge batteries for radios and at night to provide power to staff quarters for a few hours.

Kruger National Park

The KNP is well serviced with power from the South African National power grid.

Limpopo National Park

There is no electricity in the LNP. The bulk power lines from the Cahora Bassa power station to the South African grid run through the northern tip of the LNP and then across the KNP to Phalaborwa.

7.11 Border Posts

At present the only official border post is that between South Africa and Mozambique at Pafuri. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Limpopo River Crossing

There are no river crossings of the Limpopo associated with GLTP

7.12 Fences

Vision

In the development of the GLTP, the vision is to have as few fences as are necessary to allow for the optimum free movement of wildlife and people, and only those that are necessary to minimize human/animal conflict and to maintain security.

The Present Situation

Gonarezhou National Park

In Zimbabwe, there is a Veterinary Dept fence around the internal boundaries of the GNP. The fence is limited to six strands of plain wire and is 1.8m high. It is intended to reduce the contact between buffalo and cattle and is a deterrent to wildlife movement rather than a barrier to all movement. Apart from the section between the GNP and Malilangwe, the fence is poorly maintained and no barrier to animal movement. This has been exacerbated by people who have recently invaded the GNP and removed large sections of the fence. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Kruger National Park

The key fence is that which separates the LNP and the KNP, erected in 1975. It is a substantial and virtually wildlife proof barrier. The fence along the Limpopo river on the northern boundary of the KNP has been removed after being largely destroyed in the floods of 2000. The same situation exists along the Crocodile River on the southern boundary of the park. Whereas the fence along the Crocodile River is being replaced, there are no plans to replace the northern border fence. Along the western boundary of the KNP, the fence between the park and the large private nature reserves has been removed. The northern boundary fence along the Limpopo, no longer exists, as it was not able to withstand the constant pressure of elephant, buffalo and hippo and ultimately the 2001 floods. KNP management sees no ecological reason to replace this fence.

Limpopo National Park

There are no fences on the boundaries or within the LNP. (the fence between the LNP and the KNP is just inside the international boundary in Kruger). This implies that the animals can move freely between the two parks, and animal stock levels will be more equitable in both parks.

Determinants

The issue of fences is a complex one. In order to have a Transfrontier Park, it is logical that there must be free movement of animals between parks and therefore no fences. To achieve this on the ground is not that simple. The following are examples of determinants that influences decisions regarding the removal, placement and erection of fences.

7.13 Animal Health

Wildlife populations within the GLTP act as a reservoir for several diseases that affect domestic livestock and humans. Bovine tuberculosis in the KNP buffalo population is of serious concern to the veterinary authorities in Zimbabwe and the first line of defence will be a fence.

The fence required to the Limpopo in the Sengwe and Tshipise Communal areas, to prevent entry of Bovine Tuberculosis from the KNP into Zimbabwe, will have to be a barrier to those species known to carry the disease (buffalo, Kudu and lion). It must also be effective enough to prevent breakages by elephant. Such breakages could create gaps for other species to pass through. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Potential Human/Animal Conflict

Human/Animal conflict is a real issue for many communities in the region. Effective fences significantly reduce the threat to human life, damage to crops and infrastructure and predation on livestock (Great Limpopo Transfrontier Park Joint Management Board, 2002).

There is no doubt that with the removal of the eastern boundary fence of the KNP, the potential for human/animal conflict amongst the communities in the LNP and those along the Limpopo will significantly increase. The problems of livestock mortalities related to wildlife diseases will also become a significant issue of their livestock during decades of armed conflict.

7.14 Topography

The topography over which fence must pass determines its feasibility and its costs of construction and maintenance. In the case of the LNP, the periodic flooding of the Limpopo will be a factor in the decision as to where to erect fence of the LNP.

Animal Movement

Fences erected across animal movement routes frequently result in damage to the fences themselves, or cause related animal mortalities. In the case of the LNP, the KNP eastern boundary fence was erected in 1975 and the traditional dry-season movement of game to the Limpopo was brought to an abrupt end.

A fence will contain the dispersion of endangered species such a rhino and will make their protection easier and probably cheaper, than if the area was unfenced .

Clear Demarcation of International Boundaries

For legal purposes, it will still be important for the national boundary between Mozambique and South Africa to be defined. For this reason it is recommended that when the fence is removed, the fence posts that are set in concrete are left in place (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Construction Costs

The construction cost of a fence that will be an effective barrier to elephant, lion and antelope is expensive, and is currently in the order of US \$3000 per kilometre. However, if the fence is one that will serve only as a deferent rather than a total barrier, this cost can be significantly reduced.

Maintenance Costs

Game fences need regular patrolling and maintenance, particularly those that are electrified in order to contain elephant and lion. This necessitates an annual cost to a Parks management budget and can be regarded as a negative factor. The costs in terms of losses of wildlife, increased human/animal conflict; and the need for greater law enforcement efforts far outweigh the annual maintenance costs.

Fence construction

Limpopo National Park

The Peace Parks Foundation (PPF) has proposed that no perimeter fence will be erected along the Limpopo in the LNP but that resident communities will be fenced in. This proposal is currently being reviewed in the LNP management plan that is being drafted.

If a fence is not erected, it is assumed that LNP management will have gained the acceptance of the communities in regard to the inevitable increased human/animal conflict and that management will also have the ability to resolve this. Compensation for losses will need to be

negotiated if community support for the project is to be gained. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

For several decades, there has been a proposal to build a dam at Mapai. This proposal is under review and if it is built, it could create an effective barrier for a considerable length of the LNP boundary.

Kruger National Park

No new fences will be constructed by the KNP, other than those that may be needed around new facilities developed for the GLTP. The north western fence, along the western part of the Makuleke Region, will be realigned to incorporate additional land in the Makeleke Region, as per existing agreements.

The security working group insists that the northern boundary fence of the KNP is replaced, whereas the KNP management does not believe that this is necessary. This difference has to be resolved.

Gonarezhou National Park

If Zimbabwe is to keep Bovine Tuberculosis out of the country, then there will have to be a fence that will run parallel to the Limpopo that will serve to keep carriers of the disease from the KNP from transmitting it to animals in Zimbabwe secondly, to prevent the eventual spread of BTB into Zimbabwe from the KNP via Mozambique and Zimbabwe. The Zimbabwe Dept. of veterinary services will prescribe the specifications for these fences and together with the local communities address their exact location.

The proposed Limpopo fence is not likely to be effective on its own and Zimbabwe will need to implement a control policy to support the fence.

Fence removal

With regard to the fence along the border between South Africa and Mozambique, the border control community is satisfied that removal of this fence can start with immediate effect without compromising security control. These sections represent areas where vehicle access between

South Africa and Mozambique is either not possible due to rugged nature of the Lebombo Mountains, or because access roads leading into the area can effectively be controlled. This implies that the animals can now move freely between the parks and migrate for greener pastures in different seasons. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

7.15 Waste management

Significant volumes of waste will be generated at both staff and visitor facilities while the disposal of this waste in any Park is an internal issue, the following should be incorporated into the park waste removal policies and plans:

Ideally all solid waste chemical waste should be removed from the GLTP in order to minimize the outbreak of diseases. These are some of the challenges that the management must deal with in order to have a cleaner environment in the park.

- The production of solid and chemical waste should be minimized and recycling maximized. This will have a positive impact on curbing diseases.
- The IEM process must be followed before waste disposal methods are implemented, or disposal sites commissioned in the GLTP.
- Investigate and promote utilization of solid waste as a resource.
- Promote a proactive attitude towards waste management amongst all staff and visitors. This will keep the environment clean and pollution free.

Local communities

The vision is that the development and management of the GLTP will provide human benefits in keeping with the GLTP mission statement, and through this will establish a sense of partnership between the GLTP and its neighbours.

The success of the GLTP rests largely on the success of the managers of the area in establishing good relation with the communities neighbouring the park. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The view has been expressed that community issues are national issues. Community issues are such important cross-cutting issues that unless they are identified and resolved, the Transfrontier element of the park can be lost. It is important that communities are consulted and involved in order to have a participative approach to the implementation of the Transfrontier Conservation Areas. Management must make sure that all stakeholders are on board in order for them to own this project.

The Present Situation

The data available from the neighbouring areas have been collected by different organisations using different sample techniques so that direct comparisons are not possible. What is evident however is that the communities in Mozambique are significantly poorer than those in Zimbabwe and South Africa and receive a much lower input per capital from Government NGO's in efforts to improve their quality of life. The following is a general perspective on the communities in adjoining the GLTP

Mozambique : Limpopo National Park

Infrastructure

The area has virtually no infrastructure, there are no roads (only tracks), nor electricity, hospitals or senior schools.

The community

The people are aggregated into 37 loose communities, most of which are along the Limpopo river. The total number of people living in Shingwadzi basin of the LNP alone is 4328, Mavodze being the largest village with 1404 inhabitants.

During the war years, many of the people sought refuge in South Africa. Since the cessation of hostilities, there has been considerable movement of people back into the area. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The years of conflict have obviously had a significant impact on the numbers and distribution of people. As returnees made up 44.7% of the population in Chicualacuala, one must assume that a high percentage of the people in Mabalane and Massinger are also returnees. The large increase in population at Massinger was because of the greater security afforded by the military and the possible attraction of the dam for cultivation along the shore line and for fishing.

The implications are such that management must devise a means to ensure that there is control over the population in the area with regard to the TFCA in order to preserve the number of fish and other species. Permit system for catching fish might be a starting point.

Education

The illiteracy rate is very high sixty eight percent of those surveyed have never been to school and 36% of school-age children do not attend school.

Health

Between the eight villages that make up the Shingwedzi basin, there are two clinics each with a nurse. However, there are no medical supplies in the clinics.

Livestock

Eighty percent of households have some form of livestock. There are at least 5 234 head of cattle in Shingwedzi basin. One individual has over 3 500 cattle and 900 goats. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Resource use

Most settlement in the three Districts are concentrated on the alluvial soils of the riverine systems. Agriculture consists primarily of the subsistence cultivation of dry-land crops such as maize, sorghum, melons, beans and pumpkins. Due to the low and erratic rainfall, maize harvests are also erratic, although local communities persistently attempt to grow the crop (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

At present the harvesting of trees for commercial timber, building poles, firewood and charcoal is a major form of land use in the three districts, though not in the LNP itself. The exploitation of timber, and making of charcoal are done subject the issue of permits.

Subsistence hunting and fishing is an important source of protein for many families. For example, in the UNHCR/UNDP district development profile on Mabulane District, 30% of households surveyed listed hunting as being important. Along the Limpopo and Rio dos Elefantes, fish is an important foodstuff. At massingir, fishing forms the livelihood of a number of people who net and dry fish for subsistence and trade.

Employment

A recent survey by the Peace Parks foundation and Ministry of Tourism (2002) show that the majority of families are living on the breadline with no surplus cash and an economy based on subsistence farming.

Local community and private sector involvement in GLTP operations

The socio-economic, and perhaps the most important vision of the GLTP is that the development of the park will improve the quality of life of the people of Mozambique, South Africa and Zimbabwe. Meaningful participation of the neighbouring communities in the planning, development and management operations of what will be perceived as their park is the best way to achieve this.

Activities in which the private sector and communities could become involved.

It is recognized that many of the GLTP development and management activities can be cost effectively out-sourced to the private sector, either independently or in joint ventures with community organisations of park management. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

Activities that can be outsourced include:

- Planning (strategic, ecological, business)
- Fence removal
- Fence erection
- Fence maintenance
- Burning of firebreaks
- Alien plant removal
- Road and track construction and maintenance
- Building construction and maintenance
- Vehicle maintenance and repair
- Waste removal
- Establishment and maintenance of community structures
- Capture and translocation of animals
- Gate control
- Anti-poaching (e.g. development of community game guards)

- All aspects of tourism (e.g. hospitality, the supply of goods and services)
- Operation of shops and filling stations
- Training

The awarding of any contracts to the private sector must always be a transparent process, but wherever a contract can involve a local community, this must be a condition of the awarding of the contract. Without compromising the cost preference should be given to local entrepreneurs.

Local communities as part of the private sector

In improving the quality of life of people in the region, the first step is to provide income earning opportunities. Employment alone must not be seen as the end point, members of the communities have to be empowered so that they will eventually have equity in businesses and ultimately the capacity to tender for GLTP contracts.

It is recognised that there are differences in the capacity and resources of the rational conservation agencies and the time is now ripe that the private sector could be called upon to undertake some of the wildlife management responsibilities in one or more of the protected areas. It is felt that this change in the traditional paradigm is acceptable, on condition that the conservation objectives of the area are upheld and the standards of the service provided are at least equivalent to those that the conservation agency could provide. Where such activities are of a transfrontier nature, it will be the responsibility of the conservation agency contracting the service, to secure the approval of the contractor from the other agencies that will be affected.

7.16 Security

Internal Security

The Present Situation

To effectively secure the biodiversity of the GLTP, it is essential to have sufficient staff with the appropriate skills. Knowledge and experience for the tasks adequately equipped and with sufficient vehicles. Equally important is for the park staff to have the support and commitment of their most senior management and politicians at all levels.

There is presently a wide disparity in the complements of security staff between the protected areas and it has been shown that it is necessary to have a staff density of at least one field ranger (game scout) per 30m² (Emslie & Brooks, 1999). Against this guideline, it can be seen that protection services of all three of the authorities comprising the GLTP are understaffed. (This situation in Kruger is alleviated by the fact that the South African National Defence Force has a company of troops stationed in the park to assist with border control).

Poaching has traditionally been differentiated into two categories, subsistence poaching and commercial poaching. The former is considered to be hunting for meat to be consumed by the poacher and his family. Commercial poaching is where animals are killed for the sale of meat, skins, ivory of horns and often has international dimension. The poachers themselves are frequently foreigners and rhino horns and ivory are generally destined for sale in the East. In reality, many animals that are killed as food are also sold and the borderline between commercial poaching and subsistence poaching has become blurred.

Limpopo National Park

It is assumed that until 2002, poaching has taken place virtually unchecked in the LNP. There were only ten field rangers in the area, they did not have their own weapons and the only vehicle available for the area was based in Xaixai about 300km away. In addition to subsistence poaching, members of Gaza Safaris have created gaps in the KNP boundary fence and lured lions out of the park to be shot by their clients.

Recently, the situation has improved significantly with newly trained staff being deployed and new equipment in the pipeline.

Kruger National park

In the KNP, there is some subsistence poaching for meat, but the poaching of greatest concern is the killing of rhino for their horns and elephants for ivory for sale, i.e. commercial poaching. At present, the level of poaching in the KNP is so low that it has no measurable impact on any wildlife populations. However this is only the case because of the effective preventative measures. If these measures were to diminish, poaching would increase significantly. The field staff, training deployment and equipment are some of the best in Africa and morale is good. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The KNP Corporate Investigate Services is a pro-active intelligence investigation unit working with law enforcement agencies both in South Africa and in neighbouring states. It is largely due to the success of this unit that the KNP security functions can be competently carried out with such a low ranger density.

Gonarezhou National Park

In the GNP, there is ongoing poaching for meat. This has been regarded as subsistence poaching, but the stage has been reached where meat is being sold and the dividing line between subsistence poaching and commercial poaching has disappeared. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The SADC Protocol on Wildlife Conservation and Law Enforcement

The SADC Protocol on wildlife conservation and Law Enforcement was signed in 1999 by all heads of SADC member states except Botswana. It is expected that the agreement reached in the protocol will be honoured.

Border Control

Entry by tourists into the GLTP, and travel within it between countries, should be achieved with as few border control formalities as possible, while at the same time the border controls necessary to contain smuggling and illegal immigration will be maintained.

The Security Working Group (SWG) has outlined the problems and made recommendations on preventative and corrective actions (Security Working Group, 2001). Criminal syndicates have targeted the South Africa / Mozambique border for vehicle and weapon smuggling operations. It is estimated that every month, 150 – 300 stolen vehicles are smuggled from South Africa to Maputo through the area between Ressano Garcia and Swaziland. Many of these are obtained by killing the owners.

Currently, up to 100 illegal immigrants are caught each month by the SANDF and SAPS patrols within the KNP. It is anticipated that with the dropping of parts of the fence, there will be slight increase in the number of people trying to enter South Africa illegally. However, the increase in patrolling and the number of potentially dangerous animals in the LNP may offset this.

There are numerous weapons caches within the LNP and there is justifiable concern that, with the development of vehicle movement between the LNP and KNP, it will make the smuggling of illegal weapons into South Africa much easier. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

There is a major concern amongst the agencies that constitute the South African Border Control Community that these vehicle and weapon smuggling operations will increase if free-flow tourism access is created between the three countries within the GLTP. There is less concern about the flow of narcotics and illegal migrants as these are very difficult to control under the best of times, and it is not anticipated that it will be exacerbated by the creation of the GLTP.

The single biggest problem identified by the South African border control community is the porous nature of the KNP western boundary. There are numerous roads along the western boundary of Kruger Park, which can link up, with the roads within the many Private Game

Reserves, and there is no fence between these reserves and the KNP. In theory therefore a person could enter from the LNP (which is presently unfenced, although the Limpopo and Olifants Rivers are natural barriers for vehicles for most of the year over much of their length), drive through the Kruger Park, an exit into South Africa via illegal transit through one of the private game reserves.

For the above reason, the South African security and border control entities will resist establishment of peripheral border posts until the entire perimeter of the GLTP from South Africa must be channelled through the official gates.

Very little effective planning can be done regarding access with Zimbabwe until a strategic plan for linking GNP with KNP through the Sengwe communal area has been developed.

Land Mines

The presence of landmines and booby traps in the area has had major social and economic impacts on the local populations and constrains on the development of the GLTP and TFCA.

A limited landmine problem is thought to exist in the southern parts of the LNP. The data on this and planned de-mining operations is held by the Instituto Nacional de Desminagem (IND) in Maputo. What little is known of the possible landmines in the area is that it is believed that these will not impede development over the next two years. In 1999, the area immediately around the town of Massingir was cleared of mines, but no survey of clearing has been done deeper in the LNP. It is therefore vital that the park is safe before it is opened to tourists.

During the course of the liberation war leading to Zimbabwe's independence, the then Rhodesian Army laid minefields along many parts of the country's borders with Mozambique and Zambia. The last border minefield to be laid was that which is now termed the Sector 5 minefield and covers the 70km from Sango border post in the north to Crooks Corner in the South. These minefields pose a major threat to successfully linking the GNP into GLTP.

Since 1980, there have been 40 casualties as a result of the minefields. Of these, 11 were killed and the remainder were severely injured or become amputees. The distribution of casualties is: 45% from Mozambique 35% from Crooks Corner, 3% from Shiloleta and 15% from Samu Dumisa. The casualty rate has dropped off over the last few years as 76% of the casualties occurred between 1980 and 1992 and 24% between 1993 and the end of 2000. (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

The comparatively low rate of casualties is misleading as the local people, both in Zimbabwe and Mozambique, have adapted to cope with the presence of the minefields. Over the years they have developed safe routes, however casualties still occur.

Until recently, it was presumed that the Sector 5 minefield was the only one. At this stage there was no penetration between this minefield and the border. There was no resettlement of this no-mans-land until 1998, when 14 families of the Shiloleta community were allowed to return to their original homes. However, the recently completed survey, (Minister of Foreign Affairs – Federal Republic of Germany, 2001) has found that there is a major secondary minefield in the area and in a number of suspected other areas.

The linking of the GLTP through the Sengwe communal lands, and the optimisation of the conservation and economic opportunities in this area, are dependant on the clearing of these minefields and associated booby traps. The difficulty of the task is compounded by the fact that there are no maps of the minefields, also not all mines are laid in a set pattern and rains and soil movement have meant that many mines have become dislodged and no longer lying horizontal. This makes probing by hand a more hazardous task than normal.

The sector 5 minefields covers an estimated area of 3 542ha and varies in width from 200m to 1.2km. Little trace remains of the original fencing and marking of the main minefield and as stated above, the secondary minefield was never fenced or marked. The mine threat in this area of the TFCA is obviously a major threat to the fulfilment of the project (The Great Limpopo Transfrontier Park Joint Management Board, 2002).

7.17 Administration

Legal Status and Agreements

The GLTP itself has legal status and the laws under which the area will be managed will be those that apply to each of its component parks. Experienced mentors from the participating countries have an important role to play in building capacity in field staff.

Recommendation

A need and skills assessment of the respective agencies is needed to identify the necessary capacity building.

With the rapid expansion of responsibilities in Mozambique, and the shortage of experienced field and management staff, there is a dire need for guidance to newly qualified staff until they have found their feet. A programme is urgently needed that will provide experienced mentors who will give on the job experiential training and guidance of middle and senior level staff.

Funding

The development of the GLTP will involve significant capital funding and the recurrent costs of management and maintenance. Very little funding is available from the governments involved.

The cost of establishing and sustaining the GLTP will be considerable and heavy reliance will be placed on support from donor organisations. This is particularly so for Mozambique which will have the biggest capital outlay for the project to be successful. Therefore considerable help from donor organisations will be essential.

Conclusion

It is clear from the above audit of the GLTP that there is a disparity with regard to the infrastructure development and management capabilities of the constitute parks of the GLTP. There is much that needs to be done in order to eliminate the disparities that exist. It is incumbent of the authorities to address the problems within the spirit of NEPAD in order to make this initiative a success. Funding needs to be sourced by way of donors and skills need to be transferred through training and co-operation and also the sharing of expertise through mentoring projects in order to make the TFCA's a great success and to the benefit of all the countries involved.

The next chapter deals with the second TFCA of the dissertation which is the Lubombo Transfrontier Park and Resource Area.

CHAPTER 8

LUBOMBO TFCA: CASE STUDY TWO

8. INTRODUCTION

In terms of the requirements of the General Transfrontier Conservation and Resource Area Protocol signed between the Governments and the Republic of South Africa, Republic of Mozambique and Kingdom of Swaziland on the 22 June 2000. The Lubombo Transfrontier Conservation and Resource Area was formally established. The TFCA is unique because it has four distinguished TFCA's which form one TFCA. The following statement is an extract from the protocol:

They recognise the principle of sovereign equality and territorial integrity of their states, desiring the enhancement of the socio-economic conditions of life of the people in the Region through, among other things, fostering economic growth, maximising job creation, broadens ownership patterns, and promoting peaceful activities and harmonious interactions among the people's of the Region.

Recognising the significant interdependence of economic development and conservation within the region; conscious of threats posed to the natural environment by its physical destruction or alteration, by over-utilisation of the resource base by uncoordinated development, by pollution of land, water and air, and by the insufficient integration of environmental considerations into the development process.

Recognising that economic development in the Region can be significantly be facilitated and promoted by co-operation among the parties and harmonisation of approaches and regimes in the areas among others, of conservation, land and resource management policies and capacity building.

Considering that an efficient way of promoting sustained economic development opportunities and contributing to expedited economic growth and global competitiveness in the Region is to

do so by the creation of an attractive investment environment through the development of stable regulatory frameworks within which the Parties and investors may operate.

Recognising the intrinsic ecological value of the natural environment in the Region, its unique geographical and topographical formations, its global significance as an IUCN International Centre of Plant Diversity, its wide diversity of fauna including threatened and endangered species,, the importance and sensitivity of life support systems in the Region, and the Region's cultural, spiritual and historical value.

Acknowledging the various relevant international conventions ratified by the parties, including the 1992 Convention on Biological Diversity and desiring to promote the objectives thereof and to facilitate the implementation of the understanding therein. Desiring to promote sustainable development and utilisation of the natural resources base, the maintenance of a healthy environment and holistic cross-border eco-system management , recording that to enhance the conditions of life of the people in the Region, the Parties initiated the Lubombo Spatial Development Initiative and concluded a General Protocol in that regard.

Recording further that among the objectives of the General Protocol were the creation of a stable and attractive climate for private sector investment through cross-border co-operation in a variety of areas and to ensure that economic development occurs in a balanced manner consistent with international and domestic environment goals and obligations and which recognises the importance of preserving the Region's unique environmental wealth and further recording that among the undertakings of the Parties in the General Protocol were the undertaking that: to consult with each other with respect to harmonisation of policies and/or regulatory regimes with regard to, among other things, appropriate cross – border integration or integrated or co-ordinated management of conservation areas.

The Lubombo TFCA is a unique and complex TFCA than the GLTP. It consists of four mini TFCA's, the mini TFCA's are as follows:

- Lubombo Ndumu-Temba-Futi TFCA is between Mozambique and South Africa. The Task Group is chaired by South Africa and the implementing agency is Ezemvelo KwaZulu – Natal Wildlife (EKZNW).
- Lubombo Ponto do Ouro-Kosi Bay Marine and Coastal TFCA is between Mozambique and South Africa. The Task Group for this TFCA is chaired by Mozambique.
- Lubombo Nnsubane-Pongola TFCA is between South Africa and Swaziland. Its TaskGroup is chaired by Swaziland.
- Lubombo Conservancy-Goba TFCA is between Mozambique and Swaziland. The task Group is chaired by Swaziland over and above these TFCA Task Groups, is the Lubombo TFCA Trilateral commission, which oversees implementation. The Trilateral Ministerial Committee provided political guidance for the project concept.

8.1 Location and Concept Plan

The entire area is 4 195 km² in extent of which 2 783 km² (66%) is in Mozambique 317 km² (8%) is in Swaziland and 1095 km² (26%) is in South Africa. (Draft Concept Development and Action Plan: Lubombo Transfrontier Conservation and Resource Area 1 June 2004).

8.2 Ndumo-Tembe-Futi Transfrontier Conservation Area

The Ndumo-Tembe-Futi Transfrontier Conservation Area (NTF TFCA) between South Africa and Mozambique was signed on 22 June 2000. The boundaries of the Ndumo-Tembe-Futi Transfrontier conservation and Resource Area were determined by the NTF TFCA Task Group.

8.2.1 Existing Infrastructure

8.2.2 South Africa

Within the South African component of the NTF TFCA the Ndumo Game Reserve, Tembe elephant park and Sileza nature reserve have been established as

proclaimed protected areas. Staff of EKZNW and facilities such as game viewing roads manages the above-mentioned reserves and hides, including accommodation at Ndumo and Tembe, are available for visitors. Outside of the protected areas the existing infrastructure is relatively well developed. This infrastructure includes roads, power and water supplies, and communication services. There are large rural communities living in the area who are serviced by clinics and schools. Small commercial trading nodes have developed especially on the main road routes.

8.2.3 Mozambique

The management plan

The Maputo elephant reserve has been approved. Thirty five staff manages the reserve. Most field rangers are unqualified. The communications network is poor. The reserve also has a severe shortage of arms for its law enforcement operations. Poaching incidents are few.

Although the construction of a road from Do Ouro to Maputo has not commenced due to lack of funds, it will pass through the future TNF protected area. The road will join the recently constructed arterial road from Durban to the border in South Africa. Discussions are underway between Mozambique and South Africa to harmonise border control protocols (Draft Concept Development Action Plan 1 June 2004)

A proposed harbour development on the coast at Ponta Dabela has been approved at a ministerial level. It is anticipated that there would be major concerns regarding the development and its environmental impacts that may possibly prevent the development of this harbour. Concerns were raised by the NTF TFCA Task Group on the possible impact that this development would have on the TFCA objectives and programme.

It is anticipated that with the expansion of the Maputo Elephant Reserve to include the Futi Corridor as a protected area various operations and activities may be

curtailed. Fencing of the Futi Corridor is proposed however funding is currently insufficient for this purpose.

8.2.4 Biodiversity and Social-cultural significance of the area

There is an outstanding wealth of biological diversity as well as wealth of socio-cultural resources in the area.

8.2.5 Some significant biodiversity resources identified are as follows:

- The proposed area represents a substantial proportion of the core area of the IUCN designated Maputoland Centre of Plant Endemism.
- Associated with the plant centre of endemism is an unusually high level of endemism from all of the higher level taxonomic groupings.
- A diverse landscape which is intact in its geographical and hydrological, aquatic and terrestrial as well as ecological functioning.
- Several established proclaimed protected areas, namely Ndumo Game Reserve, Tembe Elephant Park, Maputo Elephant Reserve, Sileza Nature Reserve.
- Ndumo game Reserve, listed as a Wetland of International. Importance in terms of UNESCO's Ramsar Convention is in the area.
- A unique wetland, the Futi delta is in the area.
- High biological diversity particularly in species richness (plant, insect, fish, amphibian and bird) ecosystem and community types (this is a consequence of the meeting of the tropical montane and the temperate bio-geographical regions)
- The region has the potential for the re-establishment of the natural movement range for elephant and other species in the region of Southern Africa etc. (Draft Concept Development and Action Plan 1 June 2004).

8.2.6 Some of the rich sociological, cultural and historical resources are as follows:

- Long dependency by the local inhabitants on the use of natural resources and products to maintain their livelihoods
- The river plays a key role as a resource on which settlements and communities of people are dependant.
- They practice a unique form of traditional fishing and fishing management (Fonya)
- There is a long tradition of marketing including craft markets.
- There are several ancestral and sacred sites on the land as well as important cultural associations with certain species of animals.
- The area has a rich history with past linkages to Arab traders, Portuguese and British colonisation, as well as the impacts of the recent civil war. It should be noted that the international boundary does not follow ethnic boundaries and that this is a considerable movement and tribal affiliation of people across the international border. Etc.

In general there are many fauna and flora in this region that will benefit from the TFCA across the ecological spectrum.

8.2.7 Developmental Potential

8.2.7.1 Four concession areas have been identified in the Maputo reserve for development of tourist facilities including hutted accommodation.

8.3 Land Ownership

All the land in South Africa falling in the NTF area defined above belongs to the Ingonyama Trust and is managed by either the Tembe or Mathenjwa Traditional Authorities, with the exception of the proclaimed protected areas which are managed by Ezemvelo KZN Wildlife, a parastatal body. All of these areas fall under the uMkhanyakude District Municipality that has the responsibility to provide

infrastructure and services to the area such as Ndumo Game reserve in terms of the Restitution of Land rights Act.

Within the NTF area of Mozambique all the land is owned by the state however, it will be necessary to determine if servitude rights e.g. for roads, pipelines, power lines, etc. have been granted.

8.3.1 Difficulties and obstacles to development

The principal obstacle to development in the region is the extensive and high level of poverty amongst its inhabitants and the associated poor standards of educational achievement and capacity of these people (Draft Concept Development and Action Plan 1 June 2004)

Difficulties and obstacles to developments are:

- Issues regarding health of communities and domestic animals are of concern e.g. endemic malaria, HIV/AIDS, water borne and foot and mouth diseases.
- The lack of basic infrastructure such as the supply of power and portable water to communities as well as poorly developed roads in much of the area.
- Poor access to markets for agricultural and craft products.
- Cross border regulation of movement of people and their wares.
- Issues of security, smuggling and the illegal use of certain resources.
- Protected areas in Mozambique are unfenced.

The lack of a basic tourism infrastructure particularly in Mozambique and the lack of adequate funding to undertake proposed infrastructural, tourism and agricultural developments by the various authorities in the area etc. (Draft Concept Development and Action Plan, 1 June 2004). These difficulties and obstacles to development pose a challenge to the management of the TFCA and needs to be attended to through control measures and monitoring mechanism. This is an opportunity to use the managerial approach to the policy of TFCA's, i.e. efficient and effectiveness in the management of the park.

8.4 Opportunities for Development

Introduction

It is recognised that in the long-term poverty reduction can only be achieved through broad-based social and resource development, combined with an enhanced political, structural and fiscal role for these communities. Nature based tourism and agricultural development concept that is in balance with national regional and local community objectives. To be sustainable conservation and nature-based tourism, agricultural and rural community development must integrate the key areas of activity (Draft Concept Development and Action Plan 1 June 2004).

8.4.1 Conservation and tourism development

This would need to focus on the conservation and protection of biodiversity assets located in a comprehensive network or protected areas, the provision of public and community access to these resources, and their sustainable use through tourism promotion and extractive harvesting.

PONTA DO OURO KOSI – BAY MARINE PROTOCOL

The Lubombo Ponto do Ouro-Kosi Bay Marine and Coastal Transfontier Marine Protected Area or (TMPA) involves only the governments of South Africa and Mozambique.

This agreement aims at protecting the coast and Marine environment from Saint Lucia in the Republic of South Africa to Inhaca Island in Mozambique.

The Lubombo Spatial Development (LSDI) was established in northern KwaZulu-Natal, Southern Mozambique and eastern Swaziland as a trilateral development process between the governments of South Africa, Mozambique and Swaziland. Its principal aim was to stimulate development in this previously neglected zone by focusing principally on tourism and

agriculture. The South African Government has to date committed significant resources to the achievement of this objective, with particular emphasis on the development of road infrastructure and the prevention of malaria.

The Great St Lucia Wetland Park or (GSLWP) was identified as the anchor project of the LSDI, capable of established a tourism core, thus stimulating regional growth and creating a significant number of jobs. The LSDI is therefore a broader process – both in terms of geographic and sectoral reach within which the establishment of the Great St. Lucia Wetland Park and the Greater St. Lucia Wetland Park Authority (GSLWPA) have occurred. The initial conservation area was set aside in 1895 and subsequently additional areas were incorporated which resulted in the proclamation of the GSLWP in 2000. This area was listed as a World Heritage Area in 1999. The two Marine Protected Areas in the GSLWP were proclaimed in 1979 (St Lucia Marine reserve) and in 1987 (Maputoland Marine Reserve). The area comprises of 4 Ramsa sites listed in 1975. They are the St Lucia system (155 000 ha) turtle beaches /coral reefs of Tongaland (39 500 ha), Lake Sibaya (7 750 ha) and Kosi system (8000 ha). (Draft Concept Development and Action Plan 1 June 2004).

In 1932 the Maputo Special reserve in Mozambique was created mainly to protect the elephants in this region. This reserve includes the buffer zone which includes the coastal areas. In 1997 the Government of Mozambique approved the Environmental Act which declared 200 miles from the coast as a Marine Protected Zone for the whole of Mozambique. South Africa and Mozambique are Signatories to a number of protocols (Draft Concept Development and Action Plan: Lubombo Transfrontier Conservation and Resource Area 1 June 2004).

Vision

The vision of the TMPA is the formal cooperation of the governments of South Africa and Mozambique in managing a large transfrontier marine protected area that is zoned to achieve range of conservation and socio-economic objectives, including:

- the creation of Mozambique World Heritage site and ultimately to establish a trans boundary Marine and Coastal World Heritage site by linking the South African and Mozambiquan World Heritage sites.

- The protection of the marine environment from fishing, mining and all human activities that may damage the environment or disturb marine life;
- The sustainable management of commercial, recreational and subsistence fishing,
- The development of marine and coastal eco-tourism opportunities that empower and bring benefits to coastal communities.

8.4.5 Defined area of T F C A

This area covers marine and coastal areas of South Africa and Mozambique.

Mozambique boundary

Mozambique in particular is situated between latitudes 10 to 20 degrees and 26 to 50 degrees. Its coastline some 2, 770 Km in length is characterised by a wide diversity of habitats including sandy beaches, coral reefs, estuarine systems bays, mangroves and sea grass beds.

The study area is part of a specific portion of the national coastline, going from Inhaca Island and the Southern part of Maputo Bay in the province of Gaza to Ponto do Ouro which is a length of approximately 350 Km. This area is included in the Maputoland Centre Endemism comprising Southern Mozambique and north eastern KwaZulu-Natal covering an area of approximately 500 km total coastline.

This centre of Endemism is well known due to the high biodiversity value of this stretch of coast. The Maputoland Centre is well known due to its high biodiversity value as it combines both seacoast and contains extensive wetlands notably lake Santa Lucia, Lake Sibaya and Kosi Lake System in South Africa and lakes Piti, Xinguate, Satine, Pati, Xauli and Uembji (Bilene). The Maputo elephant Reserve is included in the same area.

The definition of the boundaries of the Mozambican site is an on going process that aims to include Ponta Do Ouro, Inhaca Island, Machangulo and possibly areas as far north as Xai-Xai. (Draft Concept Development and Action Plan, 1 June 2004).

South Africa Boundary

South Africa has a shoreline of 3 300 km and encompasses cool temperature, warm temperature and sub-tropical habitats. This coastline is protected in a number of Marine Protected Areas (MPA's) one of the largest of which is the GSLWP in the extreme north-east border with Mozambique.

The marine area of the Greater St Lucia Wetland Park (GSLWP) is simultaneously proclaimed as Marine Protected Area (MPA) in terms of the Marine Living Resource Act. (18 of 1998) and the World Heritage Convention Act (49 of 1999.) The MPA lies between the SA – Mozambique border at Kosi Bay – Ponta do Ouro (the northern boundary) and Cape Vidal. The MPA extends seaward from the high water mark to a distance of three nautical miles offshore.

The GSLWP, excluding the Mkuze Game Reserve, is a World Heritage Site. The park includes a wide variety of habited types, includes the Kosi and St Lucia estuaries and coastal dune and wetland systems. The existing marine area of the GSLWP will form the South African component of the TMPA

8.4.6 Biodiversity and Socio-cultural Significance

Biodiversity

Mozambique

According to the draft concept development and action plan task team report, 1 June 2004. The target area is recognised by its high biological diversity and socio-cultural value. The Ponta do Ouro-Xai-Xai coastline is located within the centre of Endemism comprising Southern Mozambique and north-eastern Natal covering an area of 26 734 Km². The target area is located within the Tongo-land – Pondoland Regional Mosaic comprised by complex matrix of forest.

Managing Sustainable Development

The environmental management is about far more than biophysical manipulation and control – it concerns the mutually beneficial management of the humankind nature interaction to ensure environmental and social quality for future generations.

South Africa

The marine area within GSLWP is part of the east African subtropical marine zone. It includes the Southern most reef-building corals of east Africa. The shoreline consists of sandy beaches, rocky headlands and areas of mixed rock and sand. The two estuaries open at the northern and southern extremes of the Park. The St Lucia estuary is the largest in South Africa, and includes approximately 60% of all estuarine habitat in the country. (Draft Concept Development and Action Plan 1 June 2004).

Although the area is not particularly productive in biological terms, it is highly diverse and practically untransformed. The protected area status accorded to the marine environment has ensured that the coral reefs are not fished (only pelagic fishing is allowed in certain zones) and the shoreline and estuaries have not been transformed by development or mining. It was successfully argued that the sustainable revenue derived from nature-based tourism would exceed that of dune mining (for titanium and other minerals)

The area does support a number of fisheries, which need not compromise its protected status if correctly zoned, including estuary fishing (recreational and subsistence) inter-tidal collection of mussels, recreational shore-angling, pelagic game-fishing and prawn trawling.

A greater potential of the area lies in the non-consumptive tourism industry, notably whale watching, shark-diving, bird watching and scuba diving. Many visitors are attracted to this area simply to spend time at the sea in an undisturbed and uncrowded environment. The GSLWP currently has a tourism capacity of about 3000 beds, most of which cater for tourists who spend their time in the coastal zone.

According to the Draft Concept Development and Actions Plan task team report 1 June 2004, there are significant features in the area. All these features if properly managed could lead to the success of the TFCA and will add value to the park.

Significant features include:

- The coral reefs include an unusually high proportion of soft corals,
- 800 species of marine fish are found in the GSLWP
- Humpback whales pass close to the shore route to the east Africa.
- St Lucia is an important breeding place for sawfish
- Ragged tooth shark aggregations are popular attractions for scuba divers,
- Five turtle species are found here, but only leatherback and loggerhead nest along the shores of the GSLWP,
- According to the above task team report, there are also socio-cultural perspectives:

Socio – Cultural

Mozambique

- There are rich sociological, cultural and historical resources within the region.
- Coastal communities are re-establishing their homesteads. These communities depend upon a wide variety of coastal natural resources for their livelihood ,
- The Ponta do Duro, Mamoli, Bilene and Xai-Xai regions have been recognized as an area of the highest tourist potential with relative benefits for the local people,
- The local communities practice traditional fishing and fishers management,
- There are several ancestral and sacred sites on the land as well as important cultural associations with certain species of animals,
- It should be noted that the international border does not follow ethnic boundaries and that there is considerable movement and tribal affiliation of people across the international border,
- This area serves as an important source of labour recruited for the mines in South Africa in the mid to late 20th century

- A large number of lodges are operating in the coastal area providing job opportunities for coastal communities,
- The coastal area provides many opportunities for national and international research.
- Many of the beaches are of spiritual value to members of the Zion Church.

South Africa

- The GSLWP and its surrounding areas are known to be rich in cultural heritage, extending from as far back as 1700 years ago when the first agriculturalists entered the coastal plains.
- The range of cultural heritage resources includes archaeological and palaeontological sites and artefacts, historical buildings and jetties, graves, fish traps, shipwrecks, landscapes, oral traditions and rituals.
- Many of these resources have not been researched or recorded, and there is no management plan in place to ensure their protection. Their tourist potential has also not been fully developed.
- The GSLWP is the largest protected area of recorded and potential Stone Age and Iron Age sites in South Africa. Archaeological evidence points strongly to the interaction between pre-historic humans and the environment.
- Cultural traditions, land use management practices and indigenous knowledge systems have and continue to shape the current environment. In many instances the natural resource use continues to be sustainable, and some of the traditional resource management practices are valuable and should be incorporated into the management of the GSLWP.
- Given the increasing growth in cultural tourism and the demand for authentic “cultural” experiences from tourists, there is significant opportunity for the development of culturally based economic activity.

There are a number of ancestral sites in the GSLWP of great significance to the people who used to reside on the land (Draft Concept Development and Action Plan: Lubombo Transfrontier Conservation and Resource Area 1 June 2004).

Development Potential

8.4.7 Tourism

Huge potential around nature-based and culture-based tourism in both countries (concessions, lodges etc) with a coastal focus. Business opportunities can be built around these opportunities:

- Scuba diving
- Recreational fishing
- Whale watching
- Turtle tours
- Birding
- Water sports
- Hiking trails

There need to be programmes of skills development and empowerment to enable local communities to Become involved in these opportunities. All the development potential features needs to be managed properly and looked after for the enhancement of the Park.

Status quo

Mozambique

There are three categories of fishing, artisanal (non-motorised vessels and gear restrictions, semi-industrial (small to medium motorised-vessels restricted to inshore) and industrial (large vessels limited to offshore zone). Maputo Bay is the most productive system along the Ponta do Ouro – Xai Xai coastline in terms of prawn/fish catch. Prawn fishing in Maputo Bay is practical by semi-industrial and artisanal fishers using trawl nets. The semi-industrial sector exploits the entire Bay whereas artisanal fishers trawl closer to shore (e.g. the Nkomati, Catembe). The number of semi-industrial boats in Maputo Bay has declined but whether this is due to over-exploitation or reduced fishing intensity is not clear as the number of semi-industrial boats fishing in the Bay has also fallen. (Draft Concept Development and Actions Plan task team report, 1 June 2004).

Sport line-fishing mainly in South African fishermen from beaches or ski boats has increased markedly since 1992. The Ponta do Ouro-Machanulo Peninsula, Bilene – Xai Xai and Inhambane Bay coastlines are the most affected. There is little control over this type of fishing activity and there are many reported cases of South African “Sports” Fishermen exporting large quantities of line fish to South Africa.

There are a number of small diving and fishing resorts at Ponto D’Oro, Ponto Malengana, Ponto Momoli etc. Many of these resorts offer Scuba diving and other water sports. This industry needs to be separately regulated.

The Marine Coastal Protected Zone is proclaimed out to 200 miles and is recognized as a protected Zone. There is resource use protection on species in this Zone according to the Forestry and Wildlife Act (1999). However the enforcement in this area is weak.

South Africa

Under South African law the sea is owned by the state. The contiguous St Lucia and Maputoland MPAS (both within the GSLWP) have been declared in terms of the MLRA (Marine Living Resource Act). In this area no pollution building or habitat alteration is allowed. In general, the area is protected from fishing, however, fishing rights have been granted, through the sale of recreational fishing permits, to recreational fishermen, and through a limited right allocation process to commercial fishermen. Within the GSLWP, commercial linefish and prawn trawl rights have been granted for the area South of Cape Vidal only.

Recreational fishermen may operate within certain zones, called controlled and restricted zones, and may only target pelagic species. Limited and controlled subsistence fishing using nets and traps is allowed under permit in the St Lucia and Kosi Bay estuaries, No other fishing is allowed including aquarium specimen collection. Research activities are authorised by permit. Deep sea fishing vessels are required to maintain a distance of three nautical miles from the shore. Recreational activities include:

- Scuba diving
- Recreational fishing

- Whale watching
- Turtle tours
- Birding
- Water sports
- Hiking trails

A number of commercial concessions are being developed around these and development process has commenced to attract private investment to develop nature based tourism lodges in the Park and winning bidders have been announced for eight sites in the Park. It is important that the communities surrounding the TFCA be involved in these processes in order to empower them economically in order to realize the objective of economic development of these rural communities. Bidders must be encouraged to form partnerships with the locals so that they can take ownership of the Park and look after the resource area.

8.4.7 The Park has drafted Integrated Management plan.

Development Challenges and blockages

(a) Mozambique

The coastal of Southern Mozambique from Ponta do Ouro in the South to Inhambane in the north has long been recognized as an area of the highest tourist potential. Coastal areas currently experiencing tourist potential. Coastal areas currently experiencing tourist pressure are the Ponta do Ouro – Xai – Xai Choonguene Coastline (Draft Concept Development and Action Plan: Lubombo Transfrontier Conservation and Resource Area 1 June 2004).

The majority of casual tourists are campers bringing in their own equipment and supplies by road usually in 4 x 4 vehicles. Favoured destinations are Ponta do Ouro, the Ponta do Ouro-Machangulo Peninsula coastal strip, Bilene, Xai – Xai and Inhambane. The Maputo – Ponta do Ouro road is currently in poor condition, and the journey can only be made by 4 x 4 vehicle hence access to the Ponta do Ouro – Machangulo Peninsula coastline via this route is limited.

The illegal and uncontrolled activities of these tourists is causing increasing concern along much of the Southern Mozambican coast. The illegal harvesting of fish is widespread between Ponta do Ouro and Inhambane. Other activities which are a cause of concern include the driving of 4 x 4 vehicles on the beach above the high-water mark posing a direct threat to the leatherback turtles currently nesting on this stretch of coastline and the harvesting of corals by souvenir hunters.

This type of tourism bring little economic benefits to Mozambique or Mozambicans whilst causing maximum environmental degradation. For boats sailing northwards from South Africa the nearest anchorage is Inhaca Island. Yachts are apparently anchoring over coral reefs causing extensive damage. Scuba divers report extensive damage to the Baixa Danae coral reef 8km north-east of Inhaca Island due to anchoring and harvesting of coral by souvenir hunters, (Draft Concept Development and Action Plan report, 1 June 2004).

(b) South Africa

The main difficulties on the development of the target area are:

- Communities on the boundary of the GSLWP live poverty, and many rely heavily on harvesting natural resources from the GSLWP, including inter-tidal and estuarine resources for food. Their fishing activities are difficult to control. A comprehensive subsistence fishing plan is presently being developed and is still to be implemented as part of the Integrated Management Plan.
- Additional staff and larger capacity enforcement vessels are required.
- Local area plans have not been developed but have been identified as a priority.
- There need to be alternative mechanisms to provide livelihoods and allow sustainable and managed used of the Park's resources.

(c) Lack of potential funders

There is a critical need for funds to undertake the functions and activities of Kosi-Bay Ponta do Outo task group, as well as to undertake the implementation of the expected plan. Without funds this concept plan cannot be implemented.

Co-operative governance

Provided it is properly designed, managed and controlled, the target area has every prerequisite for sustainable development, which would benefit the local communities, tourism and the ecology.

Taking into consideration the environmental and economic importance of the region, it is of vital importance that all the institutions which have responsibilities within the target area, share the benefits that provides and does their duties and responsibilities by participating in its conservation.

8.9 NSUBANE-PONGOLA TRANSFRONTIER CONSERVATION AND RESOURCE AREA

CONCEPT DEVELOPMENT PLAN

Introduction and Background

In terms of the requirements of the General Transfrontier Conservation and Resource Area protocol signed between the Governments of the Republic of South Africa, Republic of Mozambique and the Kingdom of Swaziland on the 22nd June 2000, the Lubombo Transfrontier Conservation and Resource Area Commission was formally established. The Nsubane-Pongola Transfrontier Conservation and Resource Area Protocol between the governments of the Republic of South Africa and the Kingdom of Swaziland was also signed on that day. At the meeting held on the 4th February 2003 at Nelspruit, it was agreed that Swaziland is to be responsible for convening and chairing the Nsubane-Pongola TFCA Task group. It was agreed that the first task would be the compilation of a concept Development Plan for the area.

Vision

It was agreed that the vision for the Nsubane-Pongola TFCA would be stated simply as: "To create a functional Transfrontier Conservation Area between South Africa and Swaziland as a tool for sustainable socio-economic development and biodiversity conservation" (Draft Concept Development and Action Plan report, 1 June 2004).

Main Objectives

- a) To realise economic returns from tourism and associated activities within the Area, while safeguarding its ecological integrity, and to promote the sustainable socio-economic development of the Area, for the benefit of all parties in accordance with the objectives of the TFCA and to develop, market and promotes the TFCA to this end,
- b) To address the needs and aspiration of local communities by ensuring their direct participation in/or ownership from any programmes or initiatives that are undertaken in the Area and encouraging or empowering them to do so in whatever way is possible and appropriate,
- c) To accommodate within appropriate management regimes for the Area a broad spectrum of human activities compatible with the protection and management of the terrestrial and aquatic ecosystem in the Area,
- d) To protect depleted, threatened, rare or endangered species and populations in the area, and in particular, to preserve habitats in the Area,
- e) To maintain those ecological processes which characterise the Area and to protect the integrity of ecosystem structure and functions in the Area,
- f) To prevent outside activities from detrimentally affecting the Area by identifying such threats and undertaking appropriate action to remove or mitigate such threats,

g) To preserve, protect and manage any historical and cultural site and natural aesthetic value and

values of terrestrial and aquatic areas in the Area for present and future generations

etc. (Draft

Concept Development and Action Plan report, 1 June 2004.

Description of the Area Boundaries

Buffer Zone

- The boundaries of the Uphongolo Municipality (South Africa).
- The boundaries of the Jozini Municipality (South Africa)
- Nsubane Municipality (Swaziland)
- Lavumisa Municipality (Swaziland)

The core area would include:

Swaziland:

- Mkhulameni (Government farm)
- G Scheepers farm
- W Bennet farm
- Nsubane Community Area
- Tibiyo Ranches
- Siza Ranch
- F Vermaak farm
- Richmond Estates
- Mr Zikalala (farm)

South Africa

- Phongolo Nature Reserve
- Harloo Game Ranch
- Shayamoya

- Pongolapoort Dam
- Ponglola Game Reserve North
- Pongola Game Reserve South
- Existing infrastructure

South Africa

The core area of the South African component of the TFCA includes the Phongolo Nature Reserve (which is managed by EKZNW staff), Harloo Game Ranch, Shayamoya, Pongolapoort Dam and Phongolo Game Reserves North and South (which are privately owned properties with their own staff compliments).

All these properties include game viewing roads and hides, management roads, bush camps, game lodges, fishing camps, camp sites, staff accommodation, offices and entrance gates. Other infrastructure includes power supplies, water supplies and communication services (telephones and radio networks). The properties within this core area are relatively well developed (Draft Concept Development and Action Plans report, 1 June 2004)

Swaziland

The area is relatively undeveloped with regard to tourism infrastructure, with mainly agriculture being the present practice. The area consists of privately owned land, government land and community areas. Although road and communication networks, entrance gates, water supplies do exist in the area they will need further development and upgrading.

8.9.1 Biodiversity and social cultural significance of the Area.

The area is rich in both biological and cultural diversity and resources. The most significant of which are:

- There is a diverse range of veld type and altitude within the core area, ranging from Lowveld and

Arid Lowveld on the western shores of the Pongolapoort Dam to the Lebombo Mountain and its associated veld types on the eastern shores of the dam.

- The topography ranges from the slightly undulating hills that drain into the Phongolo River to the low-lying flat areas leading to the shoreline of the Pongolapoort Dam to the extensive Lebombo Mountains. Altitude ranges from 110m in the west to 732m in the east.
- The area also contains a unique veld type called the Golela Bush. This veld type does not occur anywhere else.
- The wide divergence of origin, nature (in terms of substrate) and current disturbance regimes has given rise to the high level of diversity contained within the area. Functioning together as a system, the various landscapes and ecosystems impart a high degree of resistance to the area as a whole.
- The Pongolapoort Dam represents the Southern most limit of the Tiger Fish.
- The area contains populations of white rhino, black rhino and tsetse which are all classified as priorities in terms of biodiversity. Records are available which indicate the presence of these species as early as 1984.
- The area contains endemic or rare plant species.
- The area contains nesting sites of Yellow-billed Storks and Crocodiles.
- The area lies within the transnational zone between the tropical and subtropical biota.
- The area has great potential for expanding the range of Black Rhino, in terms of the national strategy should the properties be consolidated (Draft Concept Development and Action Plan report 1 June 2004).

8.9.2 Socio-Cultural Significance

A large part of the core area originally formed part of the first proclaimed game reserve in Africa, namely the Pongola Game Reserve, which was proclaimed by Paul Kruger on the 13 June 1894. This is of major historical significance.

The area has major historical significance for both the Zulu and Swazi cultures, and contains the gravesite of Zulu King Dingane. There are also many other ancestral and sacred sites within the area.

- There is a dependency by the local inhabitants on the use of the natural resources to maintain their livelihoods.
- There is a long tradition by the local communities in the manufacturing and sale of traditional crafts.
- The Pongolapoort Dam provides water to many of the local communities.
- The local communities use the dam as a source of fish.

8.9.3 Opportunities for Development

It is recognized that in the long term poverty reduction can only be achieved through broad-based social and resource developments, combined with an enhanced political, structural and fiscal role for these communities. Ecotourism can only be successful when it is integrated into spatial development concept that is in balance with national, regional and local community objectives. It was agreed that this concept Development Plan should be included in the District and Local Municipality Integrated Development Plans (IDPP's) and the Local Economic Development Plans (LEDP's).

Local communities within the buffer zone will benefit from activities within the TFCA that emanate from the core objective, which are conservation and the maintenance of biodiversity. As a result ecotourism will be the central focus and would include activities such as:

- Game viewing
- Photographic Safaris
- House boat accommodation and barge tours
- Fishing
- Birding
- Horse riding
- Hiking trails

- Hunting
- Cultural Tours (such a Dingane's Grave and Borde Cave)
- Geological tours and Craft Markets among others

Through the development of these activities the local communities would gain employment and stimulate the development of home industries. The Pongolapoort Dam covers an area of approximately 14 000 and forms the core attraction in terms of biodiversity conservation as well as the ecotourism potential of the area. A Sustainable Utilization Plan (SUP) for the management of the water surface has been endorsed by the Department of Water Affairs and Forestry, Swaziland has also been approached with its development, and will be implemented shortly. The SUP incorporates the water-based ecotourism activities. With this and the existing formal nature reserve and private game reserves that surround the dam, there is huge potential for ecotourism development of the surrounding communities. It is thus recognized that the Nsubane-Pongola TFCA can be seen as the catalyst that could attract new development and investment into the area with the focus on development based on the abundant natural and cultural resources (Draft Concept Development and Action Plan 1 June 2004).

It is imperative that the Nsuban-Pongola TFCA Task Team will have to involve all the role players from the public and private sectors, including the various tiers of government.

Many of the activities described have already been initiated and these could be mirrored on the Swaziland side of the border. (Draft Concept Development and Action Plan: Lubombo Transfrontier Conservation and Resource Area 1 June 2004).

8.10 NDUMO-TEMBE-FUTI

In terms of the requirements of the General Transfrontier Conservation and Resource Area Protocol signed between the Governments of the Republic of South Africa, Republic of Mozambique, and Kingdom of Swaziland on 22 June 2000, the Lubombo Transfrontier Conservation Resource Area (TFCRA) was formally established. The Ndumo-Tembe-Futi TFCA forms part of the Lubombo TFCA. Their vision is the following:

Vision

The imperative to address economic development in this region plagued by object poverty is of critical importance to the South African and Mozambique. The vision is that the Ndumo-Tembe-Futi TFCA initiative will catalyse and drive new economic development based on the Natural and human resources of the area.

Mozambique and South Africa share a common ideal, that is, to allow for free movement of especially elephants across the border, which divides the two countries between Ndumo-Tembe and Maputo Elephant Reserve. More specifically the vision for the NTF TFCA is of an established and consolidated core protected area which is transboundary that stimulates and promotes economic development and that safeguards the unique biodiversity, which, is supported and cooperatively and sustainably managed by the two states, communities and stakeholders, together with a larger buffer areas where a critical infrastructure has been developed.

8.10.1 Objectives

In order to achieve this vision for the NTF TFCA the following objectives were identified which are to:

- Stimulate, promote and market the sustainable economic development of the area focussing on tourism and associated activities, as well as to build the local economy (Article 2(1) and (4))
- Consolidate and establish core-protected areas on both sides of the border
- Ensure that critical infrastructure is put in place to allow for the improvement of livelihoods of the people and tourism development in the area (article 2(1) & (4))
- Empower the people of the area, their representatives and decision makers through a programme of capacity development (article 2(1) (b) & (c))
- Ensure that local communities benefit from the TFCA initiatives and programmes and projects (article 2(1) (b) & (c))
- Establish, develop and maintain effective and co-operative law enforcement. Article 2(4)

8.10.2 Project

To achieve the above objectives of this Action Plan the commission and implementation by the various authorities and stakeholders in the two countries identified the following projects as being of immediate and high priority for approval (Draft Concept Development and Action Plan 1 June 2004).

Economic Development

Economic development of this area would be dependent on mobilising the opportunities provided by the unique natural and human resources occurring locally as well as within the greater region that extends across the three countries. The natural resource base provides exciting opportunities to consolidate a core protected area together with the development of nature based tourism as well as other critical infrastructure. Such development would remove significant obstacles that currently prevent or constrain economic development, the creation of jobs, and the improvement of the livelihoods of the people living in the area. In order for economic developments to be sustainable it will be essential that sources of funding for the various projects are identified and applied for.

Consolidation of the core protected area.

Roads

The upgrading and tarring of the following road routes in order to improve access to the core protected areas is of high priority. The priority roads are:

South Africa

- The road leading to the entrance gate to Ndumo Game Reserve, and its westward extension to Usuthu Gorge.
- The old road that crosses the Phongolo river at Makane's Drift (a bridge over the river will be required).
- The road to the mBangweni Community,

- The road from Manguzi to Muzi on the international.
- Provide access roads to all CCA's (Draft Concept Development and Action Plan 1 June 2004).

Mozambique

- The road leading from Salamanga to Maputo Elephant Reserve's main entrance gates and its continuation to Ponto do Ouro,
- Road leading from Port Henrique to Catuane,
- Road from Salamanga to the proposed Muzi Border Post.
- Maintain and improve road within Maputo Elephant Reserve in accordance with the Management plan (Draft Concept Development and Action Plan, 1 June 2004).

8.11 Power Supply

Expand the power grid to service communities and the proposed tourism infrastructure in accordance with the Integrated Development plan. (Draft Concept Development and Action Plan: Lubombo Transfrontier Conservation and Resource Area 1 June 2004).

8.12 Airstrips

South Africa

The airstrips at Manguzi and Ndumo require considerable improvement in order that twin-engine aircraft are able to land and take off safely. The surface would need to be tarred and facilities established for travel and refuelling the aircraft.

Mozambique

Upgrade the airstrips at Ponto do Ouro and establish new airstrips at Catuane and Bella Bista that will be suitable for twin-engine aircraft. These airstrips would then need to be registered with the aviation authorities.

Entrance gates

South Africa

New entrance gates would be required at Usuthu Gorge, Ingwavuma Gorge, Bambanani, Mbagweni, Sileza, Tshanini, Pongolo and Muzi. Upgrading of the entrance gates at Ndumo and Tembe would also be required.

Establish entrance gates at Gala Post, the proposed Muzi Border Post, Catuane, Pongola river and n the South-eastern boundary between Gala Gate and Ponto do Ouro.

TFCA Centre

Meeting and accommodation facilities are needed each country for the two management teams and stakeholders to engage with each other.

8.13 Proposed tourist facilities

South Africa

Sites for the development of tourist accommodation and associated infrastructure in the form of EKZNW's "bush camps" have been identified in the Integrated Development Plan for Tembe and Ndumo Game Reserves and are located at Mavilo in Ndumo Game Reserve, Balemhlanga CCA (Caravan / Camp Site), Numgwe on the Tembe/Mfihlweni border, as well at other sites in the Tshanini CCA, and Usuthu Gorge where there is also the potential to have wilderness trails fly-camps.

Mozambique

Sites for the development of tourist facilities will be identified during a process to develop an Integrated Development Plan for the Maputo Elephant Reserve and its buffer area (Draft Concept Development and Action Plan, 1 June 2004).

Communications

Telecommunications including cellular and radio need to be upgraded. This is essential for both tourism and conservation management operations in the NTF TFCA.

The NTF Protocol Task Team (South African Component) will ensure that these projects are brought to the attention of the municipal authorities with the objective that they be incorporated into the municipal integrated development plans (IDP) and Land Use Management Systems (LUMS). On their acceptance by the District Municipality and inclusion in the IDP the authorities will be encouraged to link these projects to the Municipal Infrastructure Fund of the Department of Trade and Industry for their funding. The Municipalities will thus be responsible for driving the infrastructural projects for roads, airstrips, information centres and communication systems. EKZNW, Traditional Authorities and community leaders will be responsible for driving the consolidation of the protected area network, and the establishment of the management teams where these are required.

8.14 Capacity development

A critical need is to improve and develop capacity in the field of conservation and tourism amongst conservation staff, communities and stakeholders. The process and programme to develop capacity in order to empower. These people needs to be structured. A dedicated person responsible for developing this project proposal and its eventual implementation would need to be appointed.

8.15 Law Enforcement

A critical need is to establish, develop, equip, train and maintain an effective and co-operative law enforcement capability. This is necessary to enforce the law and maintain the integrity of the TFCA including border control (Draft Concept Development and Action Plan, 1 June 2004).

8.16 LUBOMBO CONSERVANCY – GOBA TFCA

CONCEPT DEVELOPMENT PLAN

Introduction and Background

In Swaziland, Hlane Royal National Park was proclaimed in 1969 and Mlawula Nature Reserve in 1980. Mbuluzi private game reserve was established in its current fashion in 1994. The Lubombo Conservancy was established by signing of the Lubombo Conservancy Constitution on 29th April 1999. At this time the Shewula Community Nature Reserve was also established. In Mozambique, the Goba Community Natural Resource Management project was established in 1998.

The Bilateral Lubombo Conservancy – Goba TFCA Task Group, with representation from Mozambique and Swaziland, was established at a Bilateral meeting held on 22nd January 2002 at Shewula Mountain Camp, Swaziland.

Vision and Objectives

The vision of the Lubombo Conservancy – Goba TFCA is the long-term conservation of the ecosystems of North-eastern Swaziland and South Western Mozambique, and more generally the Lubombo region, through a process of collaborative nature conservation management and sustainable development which create benefits, and contribute to improvement of the quality of life of all the people in the region (Draft Concept Development and Action Plan 1 June 2004).

8.17 Description of the Area Boundaries

Swaziland

Core Area

Hlane Royal Nature Park, Mlawula Nature Reserve, Mbuluzi Game Reserve, Shewula Nature Reserve and the portion of the Nkhalashane Sisa Ranch to the east of the Lomahasha road. The protectionworthy areas Manzimnyane, Mahuku, Muti-Muti.

Core Area

Goba Administrative Post including the Goba Community Natural Resource Management Area and the Manzimuyana Community Area.

Buffer Zone

Shangalane and Mahelane Administrative Posts.

8.18 Existing Infrastructure

The core area on the Swaziland side includes game viewing roads and hides, management roads, bush camps, game lodges, camp sites, staff accommodation, offices and entrance gates. It also includes a main road and border post. Other infrastructure includes power supplies, water supplies and communication services (telephones and radio networks). The properties within this core area are relatively well developed. It also includes a main tar road and border post, Railway line and station.

Mozambique

The existing in infrastructure in core area on the Mozambique side includes a camp site, community village. It also includes a main tar road and border post, Railway line and station. Water Bottling Company Good access roads, sand extraction company and lodge. (Draft Concept Development and Action Plan 1 June 2004).

8.19 Bio-diversity and Socio-cultural significance of the Area.

According to the Draft Concept Development and Action Plan report 1 June 2004 the area is rich in both biological and cultural diversity and resources the most significant of which are:

- Maputoland centre of endemism
- Coastal Endemic Bird Area
- There is a range of vegetation type within the core area, ranging from Lowveld to the Lubombo Mountains and Coastal plains of Mozambique.
- The topography ranges from the level plains of Swaziland lowveld to the undulating ridges of the Lubombo hills up the Lubombo escarpment onto the plateau declining gradually to the coastal plain of Southern Mozambique.
- The wide divergence of origin, nature (in terms of substrate) and current disturbance regimes has given rise to the high level of diversity contained within the area. Functioning together as a system, the various landscapes and ecosystems impart a high degree of resilience to the area as a whole.
- The area contains populations of globally threatened white rhino, cape vultures (most easterly colony), high density of other regionally threatened raptors breeding.
- The area contains a number of endemic plant species.
- The area lies within the transitional zone between the tropical and subtropical biota. (Draft Concept Development and Action Plan: Lubombo Transfrontier Conservation and Resource Area 1 June 2004).

8.20 Social – Cultural Significance

The area has a major historical significance for the Swazi people, and forms the route of their migration into Swaziland.

Farts from boer war

Siphiso rock shelter with significant stone age archeological discoveries and border cave nearby.

Border between colonial powers (Portuguese and British) and historical clashes.

There are also many other ancestral and sacred sites within the area.

There is a dependency by local inhabitants on the use of the natural resources to maintain their livelihoods (medicinal plants).

There is a long tradition by the manufacturing and sale of traditional crafts.

8.21 Opportunities for Development

It is recognized that in the long term, poverty reduction can only be achieved through broad-based social and resource development, combined with an enhanced political, structural and fiscal role for these communities. Ecotourism can only be successful when it is integrated into a spatial development concept that is in balance with national, regional and local community objectives.

Local communities will benefit from activities within the TFCA that emanate from the core objective, which is conservation and maintenance of biodiversity. As a central focus and would include activities such as:

8.22 Economic

The economic aspect is one of the important objectives of TFCA's.

Attract private sector investors through enabling environment and policies.

Joint marketing and business plans through involving tourism authorities of Swaziland and Mozambique

Produce up to date maps of area and infrastructure.

Upgrading of Seteki – Goba road and maintenance of Boane road

Internal road network

Opening of Goba border

Lubombo conservancy tourist information centre

Train rides, Mlawula – Maputo

Tourism activities, fishing, angling club, sailing, boating, canoeing, rafting, hunting in game farms, game viewing, bird watching, 4 x 4 mountain biking, walking trails etc.

Sustainable harvesting of wood and thatch.

Historical / cultural visits, traditional music and dance.

Tourism accommodation and conference facilities.

8.23 Social

Mhlumeni and Sitsatsaweni communities involvement and participation.

Beekeeping, silk production, marula jam.

Identify and priorities historical and cultural sites

Protection of sites

Difficulties and obstacles to development.

Malaria (low risk area)

Poaching threats – from with the buffer zone and cross border.

Influx of illegal immigrants across border.

Policing of the border line.

Low visitation and tourist flow.

Border posts control.

Landmines.

Poor infrastructure and roads.

Alien invasive species

Over harvesting – ironwood (charcoal)

Pollution of rivers and waste management.

Uncontrolled / illegal human settlements.

Increase in criminal action and prostitution, etc. (Draft Concept Development and Action Plan report, 1 June 2004).

Conclusion

It is clear from this case study that there are aspects of the infrastructural development that needs to be attended to as in the previous case study. Examples of such is the development of roads, power and water. It is also evident that there are disparities with regard to the level of development in the areas on the South African side compared to the areas on both the Mozambiquan and Swaziland areas.

This is pose a challenge to the authorities who manage the TFCA's and also put to test the will of the signatories of the TFCA's principals and the NEPAD initiative.

The Lubombo Transfrontier Conservation area is evidently rich in bio-diversity and has a more potential to address the socio-economic problems for the surrounding communities. Though it is fragmented, it gives an opportunity to develop communities in between the park to better engage with the tourist than Limpopo Frontier Conservation area because of for example many entrances to the parks. The selling of cultural artefacts and provisioning of accommodation is one of the opportunities that can improve the livelihood of the communities and the economic activity for the alleviation of poverty. The management should make sure that the natural resources which are available are used effectively for the benefit of the communities in the area.

The next chapter looks at the findings and recommendations of the dissertation which also conclude the dissertation.

CHAPTER 9

FINDINGS AND RECOMMENDATIONS

9.1 Introduction

Before an in depth comparative analysis can be made, it is imperative that one should not lose focus of the fact that the thesis is about Public Policy analysis including the elements of a (comparative study on the two transfrontier conservation areas) The Great Limpopo Transfrontier Conservation Area and Lubombo Transfrontier Conservation and Resource Areas. It is therefore appropriate to mention that meta analytical framework approach is mainly used in the thesis with managerialism as one of the methods as indicated in the theoretical framework (chapter 2) of the thesis. As Wildavsky puts it: 'Policy analysis is an applied subfield whose contents cannot be determined by disciplinary boundaries but by whatever appears appropriate to the circumstances of the time and the nature of the problem' (Quoted in Parsons, 1995: 29).

When Meta analysis is engaged, the methods and approaches used in the study of public policy, discourse and language employed is considered (Parsons, 1995: 1). Meta analysis is analysis concerned with understanding proceeds by employing metaphors: it analyse by describing something in terms of something else (Parsons 1995). It is within the above context that the analysis in the thesis is made.

The analysis is carried out by reviewing relevant documents relating to agreements and protocols signed by the relevant parties with regard to the Transfrontier conservation areas as discussed above and the intended outcomes of the policy intention of the countries involved especially within the Environment Initiative of the New Partnership for Africa's Development (NEPAD) (October 2003: 35). The managerial approach involved and the current progress is also looked into and analysed and commented upon. As discussed in chapter two of the dissertation under theoretical frame work, one of the important questions under managerial approach is: what is management for? What are its goals and objectives? Can management be compatible with organisation and delivery of professional services?

It is clear from the two case studies that management has a key factor in making the success of the two TFCA's under review.

In adopting the New Partnership for Africa's Development (NEPAD), African Heads of State and Government agreed "on the basis of a common vision and firm and shared conviction, that they have a pressing duty to eradicate poverty and to place their countries, both individually and collectively, on a path of sustainable growth and development, and at the same time to participate actively in the world economy and body politic' (Action plan for the Environment Initiative of the New Partnership for Africa's Development (NEPA) October 2003 : 4). NEPAD recognizes that the range of issues necessary to nurture the region's environmental base and sustainable use of natural resources is vast and complex and that a systematic combination of initiatives is necessary in order to develop a coherent environment programme.

NEPAD calls for the development and adoption of an environment initiative – a coherent action plan and strategies – to address the regions environmental challenges while at the same time combating poverty and promoting socio-economic development. The Action Plan of the Environment Initiative of NEPAD (the Action Plan), covering the first decade of the twenty-first century, is a response to such challenges. It has been prepared through a consultative and participatory process under the leadership of the African Ministerial conference on the Environment (AMCEN) in 1985. The Action Plan relates to Africa's common and shared sustainable development problems and concerns.

Chapter VIII of the Plan of Implementation of the World Summit on Sustainable Development, held in Johannesburg from 26 August to 4 September (the Johannesburg Summit), provides that the New Partnership for Africa's Development is a commitment by African leaders to the people of Africa. It recognizes that partnerships among African countries themselves and between them and with the international community are key elements of a shared and common vision to eradicate poverty, and furthermore it aims to place their countries, both individually and collectively, on a path of sustained economic growth and sustainable development while participating actively in the world economy and body politic. It provides a framework for sustainable development on the continent to be shared by all Africa's people.

9.2 The Environment Action Plan

A coherent, strategic and long-term programme of action has been prepared to promote Africa's sustainable development. This is consistent with NEPAD's emphasis on measures that will ensure that the continent is able to confront its short-term economic growth challenges without losing sight of the long-term environmental, poverty eradication and social development imperatives. Sustainable development is about the long-term and can only be achieved through investments in the future. Thus, the proposed NEPAD environment programme of action takes a long term approach. It is about processes, projects and related activities that are aimed at enlarging Africa's economic prospects through sustainable environmental management.

The Action Plan is integrated in the sense that it takes full consideration of economic growth, income distribution, poverty eradication, social equity and better governance as an integral part of Africa's environmental sustainability agenda.

The NEPAD Environment Initiative cannot be implemented in isolation from the overall objectives of NEPAD and will therefore be implemented in harmony with other components of NEPAD.

The Action Plan of the Environment Initiative of NEPAD is organized in clusters of programmatic and project activities to be implemented over an initial period of ten years. The programme areas cover the following priority sectors and cross-cutting issues as identified in the Environment Initiative: Combating land degradation, drought and desertification; wetlands; invasive species, marine and coastal resources, cross-border conservation of natural resources, climate change, and cross-cutting issues. It is against this background that the analysis is being made.

In terms of the protocols signed between the parties and the operational frameworks within which they are intended to operate one can make a clear vision of the intended outcomes, which include among other the following: Establishing natural systems to be managed as functional ecosystems for species conservation and sustainable development through bio-

regional planning. This entails the improved protection of shared resources such as water, and joint action to combat pollution; increase the size of land available for wildlife protection; reintroduce game, enforce the law, counter poaching, and reopen traditional migration routes.

Increasing regional stability, co-operation and peace through the sustainable utilisation of resources, more tourism and economic growth as intended in the protocols. Closer political co-operation between countries, providing opportunities to attract donor funds, sharing expertise, exchanging staff and regional integration in other sectors. From a tourism perspective the economy of scale makes it beneficial to have joint facilities, programmes and marketing and a common fee structure. Co-operation also paves the way enlarging the skills pool of each conservation area, and for cost saving by sharing certain expenditures, e.g. fire management (Action Plan for the Environment Initiative of the New Partnership for Africa's Development (NEPAD October 2003).

Respecting national sovereignty while at the same time developing models for cross-border co-operation and sharing of resources. In essence TFCA's are based on the ability and willingness of states to harmonise their conservation and commercial management strategies and legislation for specific conservation areas, while at the same time showing respect for each other's sovereignty.

Benefits accruing to local communities living adjacent to conservation areas, through activities such as cultural tourism, training and economic empowerment. This entail partial restoration of family linkages disrupted by arbitrary drawing of colonial boundaries; the closer involvement of communities in park planning, development of buffer areas surrounding TFCA's, and the involving of communities directly and indirectly in economic opportunities arising from increased eco-tourism. To encourage local communities to participate more closely in the management of conservation areas-especially with respect to the utilisation of resources, the procurement of local produce and the outsourcing of certain activities.

In both the Transfrontier conservation areas discussed in the thesis it is clear that the policy framework as contained in the signed protocols and agreements are similar in many respect as far as the goals and objectives they want to achieve.

One of the techniques for rational policy analysis is economic forecasting. With the development of computers, the use of econometric models within government, and by those seeking to analyse governmental economic policy means that these models have a central place in economic policy making in all industrial economies. In terms of the economic forecasting the Transfrontier conservation areas concept seems to be a viable option with regard to economic growth in both the GLTP and Lubombo transfrontier conservation areas.

It is also necessary that one should not ignore the enabling conditions for forecasting economic growth in these two TFCA's i.e. conditions such as political stability, which is one of the crucial factors especially on the Zimbabwean side at present.

With regard to the approach that has been embarked upon, which is largely managerial in nature, whereby joint committee management structures are in place in both the GLTP and the Lubombo TFCA's one can make an assessment that there is good visionary intention to make the TFCA's a success. Only time will tell whether this approach is sustainable or not.

Financial Planning is one of the techniques that is used to analyse policy decision, in brief this technique involve the following approach: The cyclical model is derived from a classical rational approach, beginning with the identification of goals, objectives, needs and problems, and culminating in monitoring, review and feedback (Parsons, 1995: 407). If one looks at both the TFCA's under review one is tempted to believe that given the detail in the structures and clearly defined functions attached to each one of them, the rate of success should be high in the absence of any political turmoil in any of the parties involved.

Sustainability

With regard to sustainable development in both the TFCA's, one can make the following comparisons and deductions: Firstly one has to be reminded about what is meant by sustainable development, the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of the future generations to meet their own needs (WCED 1987/8). Sustainable use refers only to renewable resources, it means using them at a rate within their capacity for regeneration. Sustainable development implies

increasing human productivity and the quality of life while keeping within the carrying capacity of supporting ecosystems (IUCN 1991: 10).

In both the TFCA's under review, the broader picture is highly dependent on various factors, among other is the availability of resources both human and physical, and stability in terms of political situations in countries involved. Central to the support of sustainable development is the belief in co-existence of both human and nature in a sustainable way. However it should be noted that in the GLTP on the side of Zimbabwe for example there are signs that there is a greater challenge for sustainability in the immediate future because of the reluctance of the present regime where there are reports of land grabs in the nature conservation areas. This is a matter that the existing structures need to attend to in order to avoid irreversible consequences. These problems are mostly related to management styles and policy implementation. It is found that it is because of lack of expertise on the side of the less developed countries i.e. Zimbabwe and Mozambique.

9.3 Observations:

There are many important issues that have to be addressed in the TFCA's including the following:

- Focus – South Africa appears focused on conservation and security whilst Mozambique, Zimbabwe and Swaziland are focused on economic development and investment;
- Lack of product – there are also minimal products in the form of accommodation and animals on the side of Zimbabwe and Mozambique;
- Poor infrastructure – infrastructure within Zimbabwe and Mozambique is at best poor and at worst non-existent;
- Community involvement – the presence of a significant number of people within and around the GLTP area and a general lack of awareness of the future process impacts on delivery;
- Expectations – the hype, profile and selective communication surrounding the parks has risen public sector and community expectations to unsustainable levels;

- Timeframes – there is no recognition of the timeframe required to develop a major tourism real estate project to the standard required to be sustainable and bankable;
- Concessions – land speculations have commenced on the Mozambican side of the GLTP with some media claiming that vested interests are involved; etc.

The issues outlined above are not inclusive but are fundamental to the future direction of the TFCA's and must form the basis of the Integrated Tourism Development Plan (ITDP). If these issues are not addressed properly the parks could become a threat rather than an opportunity for greater regional co-operation. Pressure to deliver is understandable given the bureaucracy and general lack of progress without such action. The need to deliver must not negatively impact on communities and the role that it could play in regional integration.

9.4 Integrated Tourism Development Plan – Findings and recommendation.

Introduction

The two TFCA's under review currently operate in isolation with varying levels of successes. Their integration must aim to encourage both public and private sector to show more focus and action with regard to the creation of spatial, produce market infrastructure linkages across borders. The alignment of regional tourism planning as a result of the creation of the TFCA's could be one of the most positive outcomes of the process and could signal a new dawn in co-operative product and infrastructure development, marketing and investment promotion to the benefit of the four countries involved.

The Integrated Tourism Development Plan ITDP focuses on the following in identifying the significance of TFCA's in the regional tourism landscape:

- **Economic impact** – the resultant scale, quality and uniqueness of the two sets of TFCA's under review and approach adopted to produce, market and infrastructure development will directly affect employment, investment and growth if implemented affectively.

- **Market development and expansion** – extracting a mix of visitor profiles and influencing required volumes for both TFCA's and the broader region, as well as focussing and directing tourism flows must be an outcome;
- **Regional infrastructural linkages and development** – The GLTP and the Lebombo TFCA as “Cog in the tourism wheel” that influences the development of air and road networks (and possibility rail links) at a regional level is essential to the future growth;
- **Branding** – build upon the strength of differentiated wildlife / wilderness (ecotourism) experiences by developing a Park experience that is branded and positioned according to type and concentration of game, topography, accommodation mix, location service quality etc;
- **Critical mass of differentiated product influencing** the development and marketing of a conglomeration of linked and differentiated tourism products of a high standard both within the Parks and most significantly within the region i.e. bringing together bush, beach cultural and urban experiences;
- **Expansion of heritage and community based tourism products** – provision must be more intensive and commercial, offering unique experiences but not compromising the integrity of natural resources;
- **Opening up “new” areas** – the Parks must influence the dispersal of visitor flows into such areas through strategic and focussed market, infrastructure and product development.
- **Linking into other regional initiatives (tourism, commerce and conservation)** – the formation of these TFCA's must support a more integrated approach at all levels of planning and implementation, prioritisation of resources and therefore strategic investments by both public and private sector;
- **Investment promotion** – prioritisation of macro-planning at a regional level drawing downward into specific bankable and deliverable projects in identified priority areas is essential to attract private sector investment.

The ITDP provides direction toward the achievement of the milestones identified above. Each can be monitored and assessed by the management team. Through focus on these milestones it is to be hoped that greater recognition will be given to the issues discussed in the preceding pages in the thesis.

9.5 Linking market to product

Both the GLTP and Lebombo TFCA are poised to make a difference in the Southern African tourism landscape. The Governments of these nations wish to see these parks positively influence job creation, investment attraction and sustainable growth. Investors are interested in return on investment which is dependent on levels of demand and growth. Communities want real participation and active involvement that will contribute to real economic and social upliftment. Conservationists want to have more land under conservation. The success of the GLTP and Lebombo as a tourism destination and agent of change in light of different stakeholder requirements will be informed by market demand and future investment opportunities in product and infrastructure created. Destination GLTP and Lubombo therefore faces the challenge to target, attract and grow a mix of market segment over time.

It will not be enough for these two TFCA's under review to be "another" eco-tourism destination – so much more is required to place South Africa, Mozambique, Zimbabwe and Swaziland on the tourism map. In order to begin to generate the required demand that will stimulate economic growth, the ability to create an eco-tourism product that appeals to the broader marketplace is a requirement through the provision of an overall tourist experience, as opposed to a "pure" eco-tourism experience. The strength and size of vision pull and the park's role in the broader tourism landscape will be dependent on the ability to cater for different market segments (both existing and future) which have varying profiles, desires and travel patterns. This approach has a direct correlation with the definition of areas of priority, strategic interventions and destination linkages required. For both the international and regional domestic markets, understanding the emerging travel and lifestyle patterns begins to show consistent themes in terms of favoured experiences and therefore the implications of product development and linkages in the future.

The adoption of an outward focus to planning, development and management is therefore critical. Strengthening existing attractions and opening up new area must be a priority. Market interest in the experiences of urban tourism such as shopping and entertainment, cosmopolitan culture including culture, arts, theatre, music etc. as well as themed touring such as nature and

cultural experiences dictate the requirement for innovative product packaging and route development in order to deliver a competitive edge.

It will take time to develop products suited to greater number of tourists. There is need to build upon product strength, identify catalytic investment opportunities and position according to market opportunity. The most powerful perhaps will be the delivery of a combination of wildlife i.e. GLTP, the beach experiences along the Mozambican coast and even further South along the Kwazulu-Natal coast, adventure and culture. It is a fact for example that the majority of international leisure visitors from within the developed world remain focused on the traditional beach holiday. However Southern Africa continues to primarily attract limited numbers of international wildlife enthusiasts and those who are simple curious about Africa. The African market comprises the majority of travellers within Africa, however it is wholly untapped due to a failure by destinations to adopt a proactive approach to product development, packaging and marketing. The wildlife theme provides a strong base on which to build upon in positioning the TFCA's. A broader vision to the development of the GLTP and Lebombo will ensure the packaging of a new, exciting and advantaged investors, visitors and residents alike, reinforcing a new and fresh approach to development.

9.6 Development opportunities – periphery (Recommendations)

Whilst wildlife is the key motivating factor for travel into the these parks, it is the approach adopted to developing / enhancing value – adding areas of tourism potential internally and externally as well as promoting differentiated destination concepts, experiences and activities that will reap rewards. The parameters for scales and quality of development in identified areas will dictate economic impact achieved.

From discussions with relevant park authorities, it is clear that major large-scale developments inside the park are not envisaged. This is positive from a conservation perspective, however it limits the economic impact that can be achieved from tourism. Whilst not advocating the promotion of mass tourism across the park not the broader region for that matter, it is recommended that identified periphery areas of both the GLTP and Lubombo become “nodes of influence”, where critical mass is achieved through integrated bush resort developments. A

number of areas of potential strength emerge whereby the packaging and delivering of exciting bankable investment opportunities will be critical if the two sets of TFCA's are to realise their core objectives. The periphery of these parks must assume the role of 'feeders' and distribution points into the Parks if strength in numbers is to be achieved and economic benefits spread. The converse applies with the park acting as both an anchor and a distribution point for other destinations and attractions in the immediate and broader region.

The parks act as magnets which visitors gravitate to, the majority of whom stay outside on the periphery or even in nearby towns – easy and quick access is critical. This approach enables the core attraction to be the focal point at the same time enables the strategic creation of layers of vibrant 'micro-destinations' which become automatically linked to the anchor node as its feeders – thus expanding the sphere of influence into and outside of the park. Whilst the type, scale and quality of development will differ in the identified periphery areas for both GLTP and Lebombo, the underlying objective of prioritising these developments aim to:

- Achieve critical mass and create opportunities to open up existing and new areas around the Parks;
- Attract a mix of targeted visitors, gain strength in numbers, influence lengths of stay and expenditure;
- Maximise visitor numbers without exerting undue pressure on the sensitive natural fabric of the protected areas – management of visitor movement and behaviour through clearly defined management parameters that set some limits of acceptable change will however be important;
- Heighten the drama and scope of experience by adding value to "destination GLTP and Lebombo". Periphery "eco-resort destinations" must be themed, exciting, differentiated, projecting a sense of place and own identity;
- Facilitate the packaging of new and exciting investment opportunities that will entice serious investors to stop, listen and explore the opportunity – the interest and presence of global players in the GLTP and Lebombo initiative is essential for market access and achievement of critical mass;
- Create opportunities to attract branded properties in order to raise destination profile and image, expand marketing networks and distribution channels etc, and

- In light of the above influence economic development and tourism growth on the basis of scales and quality of investment encouraged and attracted.

Whilst planning at macro-level is a requirement, investment focus must be drilled down to priority areas and identification of bankable projects in order to deliver. These are not set in stone, but aim to illustrate inherent opportunity. Detailed master-planning and project packaging to international standards must be the next steps that aim to influence investment promotion of both the GLTP and Lubombo and also create excitement about the potential opportunities of Southern Africa.

9.7 Development opportunities – Communities

Planning for tourism in the GLTP and Lubombo is aimed at bringing certain socio-economic benefits while maintaining sustainability of the tourism sector through protecting the environment and local culture. Planning and delivery of community participation must however be prepared and understood within realistic timeframes, available resources (financial, human, time), possible entry level in tourism development, real opportunities for the development of public and private partnerships etc. To the extent possible, there should be maximum involvement of local communities (surrounding the GLTP and Lubombo) with clarity on benefits to them. It is important at the same time to manage expectations in that neither everyone, nor every point in space will receive direct benefits from tourism. By involving local communities they will understand tourism, be better able to cope with existing and new developments in their areas, and meaningfully participate in its benefits.

Tourism development areas. Community – based tourism products must be positioned as “value adding” and offering a competitive advantage to the ecotourism product. Techniques for bringing benefits of tourism to the different communities associated with the GLTP and Lubombo will need to be determined for each local situation. Focus and realism by communities themselves is important in order to ensure expectations are managed and that, as roleplayers, they have a better understanding and control of opportunities available to them through tourism developments.

Desired socio-economic impacts will be informed by the level of success achieved by the creation of GLTP and Lubombo as a tourism destination. Major public and private sector investment is required for the integrated destination to take off; strength in visitor number must be achieved, accessibility for domestic, regional and international tourist made easier, demonstrable tourism products integrated etc. community must be clear about and agree on what they can/want to offer etc. continued technical and financial assistance will be important.

It is also important to take cognisance of the distinct approaches to achieving the push and pull affect of tourism development and market flows. Increasingly successful destinations prioritise strengthening gateway cities as a means of drawing visitors through by providing them with cost effective infrastructure and ensuring that 'spill over effect' is achieved into the broader region. Destination may also place emphasis on opening up economically disadvantaged areas where tourism as an economic sector offers opportunities for growth. This approach is important for developing countries in particular as long as there is presence of product and opportunities for market expansion.

It also links directly to the mindset of prevalent rural development strategies. In the GLTP context, the role of gateway destinations such as Johannesburg, Maputo, Harare, Victoria Fall etc – will be critical to facilitating access, product and market linkages. At the same time the identification of areas of focus within and around the GLTP must aim to maximise benefits to communities given that an anchor attraction i.e. GLTP is at the heart of their destination.

Communities need to be aware of the mutual benefits that tourism can derive through a close relationship between themselves and other stakeholders involved in the process. On the other hand, they also need to be aware of the reality that investment in tourism projects of any scale in developing countries is approached within considerable amount of scepticism and is difficult to stimulate due to the high risk associated with them. In addition to this, bad planning, development and management of tourism destinations can result in negative impacts on the community such as congestion, pollution, environmental degradation and loss of cultural identity. In order for tourism to be sustainable, each stage in the process requires the willing cooperation and participation of the communities to deliver both the product and experience.

Community involvement in the planning and development stages of tourist areas is fundamental, not only due to the jobs created, but also due to the sense of pride, ownership

and achievement that it instils. This also assists in identifying various forms of tourism that express the true nature of the destination and its people. Some forms of tourism that should be promoted in both the GLTP and Lubombo TFCA in which community participation is maximised include:

- **Special interest tourism** – based on the attributes of the local environment which stimulate specific interests of the tourist. This include natural, cultural, historic and other themed attractions. Conservation of the resources and local community participation is thus central to this form of tourism;
- **Village tourism** – the tourist is given the opportunity to experience life in a traditional village by staying in local style accommodation within the village, eating locally prepared food and observing or participating in village activities. This form of tourism is based entirely on local community participation although investment, marketing and management may require assistance from outside source;
- **Rural tourism** – similar to village tourism, the guest is given the opportunity of experiencing life in a rural setting (e.g. farms, vineyards, etc) through participation in the daily activities of the local inhabitants. This includes both overnight stays and day visits;
- **Road touring tourism** – the provision of accommodation, restaurants, service stations, shops and toilets alongside roads leading to popular tourist destinations. This is highly popular in South Africa where automobile travel is a highly favourable means of travel to a destination. The benefits are reaped directly by the local communities in the area;
- **Routes and nostalgic tourism** – tourists visit areas which have significant meaning to them, e.g. their ancestral home or places where they previously lived, worked, studied or fought wars;
- **Cultural exchange, study tours and home visit programmes** – organised either through government organizations or other agencies. This form of tourism invites individuals or small groups to a country or region in which there is a vested interest in order to stimulate or enhance that interest. This form of tourism normally involves touring the country and meeting the local people.+

- **Consumptive utilisation** – communities in particular recognise the opportunities offered by trophy hunting and some are already deriving benefits such as Maluleke, Sengwe and Malapati Safari areas where hunting is permitted on communal land. Whilst the GLTP is not expected to become a hunting ground, it will be important to make strategic decisions on, and capitalise on opportunities presented by, consumptive utilisation within the greater GLTP and Lubombo TFCA. (Draft Concept Development and Action Plan Report 1 June 2004).

The expectations that have been created amongst communities as an outcome of GLTP and Lubombo are excessive and unfair. The communities have minimal understanding of the difficulties of attracting investment into tourism real estate and take their lead from the messenger. There is a requirement for realising and responsibility on the part of all involved in community interaction. The process of delivery will take time and is a major challenge. There should be enough examples of similar initiatives to make this clear to all concerned.

Conclusion

In brief, the study and research has shed some light into the two Transfrontier Conservation areas i.e. The Great Limpopo Transfrontier Conservation Area and Lubombo TFCA. It has given a picture of what the situation is with regard to prospects of economic growth as one of the objectives of the policy on the creation of TFCA's among others.

The value of the study is many fold, for example it has revealed that there needs to be capacity building and skills transfer from the well developed side of the TFCA's i.e. South Africa to the less developed i.e. Zimbabwe and Mozambique.

There needs to be streamlining of the policies on all the affected TFCA's and harmonization of guidelines in respect of administrative processes in order to have uniformity.

Resources such as financial and human resources are critical for the success of the TFCA's policy and needs to be attended to.

The management of the two TFCA's is critical for the success of the policy implementation of the TFCA's. As the management of the Public Sector has endeavoured to become more 'business-like', techniques which were once thought of as 'Private Sector' methods need to be adopted. In terms of managerial approach, there are three approaches namely:

Operational management technique which is applied in the delivery process in terms of project management. It is a method used in large scale projects in terms of networks. There are two techniques applied i.e. Critical Path Method (CPM; and Project, Evaluation and Review Technique (PERT).

The aim of the CPM and PERT is to control the execution of a project by controlling the network of activities and events which compose the stages of implementation. This is a necessity for the successful implementation of the TFCA's policy.

The other technique in terms of the management process is the Corporate Management, with its emphasis on the analysis of management problems in strategic fashion proceeding through a cycle of defining objectives, planning, organizing, directing and controlling. This is critical for the success of the TFCA's policy in general in order to realize desired outcomes.

The last technique in the managerial approach to be used is the Personnel Management. The 'cultural' aspects of the corporate management approach takes another important aspect of managerialism in the Public Sector: the management of people. How people in the public organizations and services are being asked to implement is of great importance. Two techniques to improve the human side of implementation is the performance appraisal and management by objectives. The performance of the individual is measured against the objectives of the organisation in the context of the development of the potential of the individual in order to realize the set objectives of the organization.

In my view, it is these imperatives that need to be applied by the managers responsible for the implementation of the two TFCA's policy for sustainable development and economic growth.

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