

**Transboundary Conservation ~ Towards an
Institutional Framework for Integrated
Management**

**A Case Study of the Ndumo-Tembe-Futi
Transfrontier Conservation Area**

by

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Preface

The concept of the conservation of shared ecological resources between nations is growing rapidly in southern Africa with large investments being made in this field. Transboundary conservation areas are regarded as important mechanisms to achieve these broad landscape approaches to sustainable resource management and biodiversity conservation.

Transboundary conservation areas expand beyond the bounds of traditional biodiversity conservation as they interface with a coalescence of role players and stakeholders. It is at this interface that transboundary conservation areas face their greatest challenge. It is widely accepted that, in order to deliver on the mandate of these areas, integration of the mandates and objectives of diverse role players and participants, attracted to the project area, is essential.

This dissertation is presented in two parts, namely Component A and B. Component A is a literature review focusing on contextualising the concept of transboundary conservation within the national and international arena. The study investigates the principles of cooperation and determines how these principles interface with the broad transboundary conservation mandates and objectives.

The review investigates how transboundary conservation management could be integrated into broader socio-economic and biodiversity conservation initiatives. The study reveals that an overall framework does exist at national and international level in respect of reporting structures, but that guidelines regarding integrated management frameworks at the level of implementation do not. Based on this the study focuses on, and responds to, the need to develop an institutional framework for integrated management for the Ndumo-Tembe-Futi Transfrontier Conservation Area (NTF TFCA).

Component B analyses the results of the fieldwork and recommends a pragmatic framework for integrating the various participants in the NTF TFCA project area. It further offers guidelines on the considerations that should be taken into account when implementing the framework. This component is written in preparation for

submission to the Environmental Management Journal, and is in keeping with the submission guidelines of that journal.

Acknowledgement

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Declaration

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




Signed: (Robert Blok – candidate)

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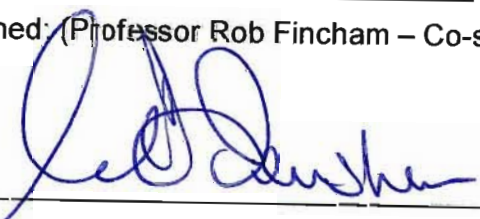
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List of Abbreviations

CCA	Community Conservation Area
CBD	Convention on Biological Diversity
CCD	United Nations Convention to Combat Desertification
CDP	Concept Development Plan
CITES	Convention on Trade in Endangered Species of Flora and Fauna
CMS	Convention on Migratory Species
DEAT	Department of Environment Affairs and Tourism
ECSU	Ecoregional Conservation Strategies Unit
ENCOS	United Nations Convention on the Law of the Sea
IDP	Integrated Development Plan
IUCN	The World Conservation Union
JMB	Joint Management Board
FCCC	UN Framework Convention on Climate Change
JMB	Joint Management Board
MDTP	Maloti Drakensberg Transboundary Park
NGO	Non-governmental Organisation
PCU	Project Coordinating Unit
PIP	Project Implementation Plan
TBCAs	Transboundary Conservation Areas
TBNRM	Transboundary Natural Resource Management
TBPA	Transboundary Protected Area
TFCAs	Transfrontier Conservation Areas
TFC&DA	Transfrontier Conservation and Development Area
TFCRA	Transfrontier Conservation Resource Area
NTF TFCA	Ndumo-Tembe-Futi Transfrontier Conservation Area
SADC	Southern African Development Community
TFP	Transfrontier Park
WTO	World Trade Organisation

1. Contextualising the Lebombo Transfrontier Conservation and Resource Area

1.1 Introduction

International borders are political and therefore are not ecological boundaries, as such, they are human imposed administrative delineations (Griffin *et al.* 1999). They rarely coincide with ecoregions where management of natural resources can be effected comprehensively and systematically. These regions, in adjoining range states, are subjected to diverse, and often opposing, management and land-use practices, which may impact negatively on ecosystems within these ecoregions.

The overarching theme of the Fifth World Parks Congress, held in Durban in September 2003, was "Benefits Beyond Boundaries" (WPC 2003). This is testament to the fact that the driving paradigm in protected area management takes bioregional, ecoregional or landscape level planning and management into account at an increased spatial scale (Wolmer 2003a). Effective conservation of biodiversity and its associated natural resources require interventions, not only within the confines of protected areas, but across the boundaries into surrounding areas. This landscape approach rests in the mutual regard between communities and nations that management of natural resources cannot be undertaken in isolation. Affected communities are bound to seek opportunities and avenues to cooperate in matters of mutual interest. The mechanism to accomplish this, between nations, is restricted by the sovereignty of states as enshrined in the constitutions of these nations.

A proponent of a landscape approach to natural resource management is transboundary conservation management. An array of transboundary models and concepts advocate the collaborative management of shared resources between protected areas and communities, extending beyond the confines of international borders (De Villiers 1999).

Governments and conservation practitioners alike have realised that transboundary conservation management not only benefit the management of natural resources,

but they also provide enabling environments that complement the socio-economic objectives of the areas within which these initiatives are embedded. Transboundary conservation areas are thus promoted as key revenue generators and instruments for leveraging private sector investment (Hanks 1997). In Africa, and other developing countries, they are often marketed as platforms that promote the integration of economic growth and biodiversity conservation with the intention of restoring investor confidence.

Transboundary initiatives furthermore challenge conventional natural resource management approaches by according powers and functions, as well as associated responsibilities, to a multitude of role-players and stakeholders affected by the initiatives. These initiatives further confirm the commitment of member states, at regional level, to cooperate in matters pertaining to wildlife management and conservation.

However, as funds are unlocked for these large-scale initiatives, government conservation authorities/agencies are becoming increasingly business-like, forging partnerships with donor institutions and building corporate linkages. The extent to which conservation agencies form alliances with business in areas of general public and community interest and the involvement of private sector values into these spheres provoke crucial governance questions.

Furthermore, large scale regional planning and investment initiatives within transboundary project areas often span across differing institutional frameworks with varying degrees of collaboration between state, community and private sector role-players. The complex associations of role-players superimpose their respective layers of administration, mandates and politics and raise important questions about powers and functions at a variety of levels.

1.2 Background to the Study

1.2.1 The Problem Statement

The Ndumo-Tembe-Futi TFCA is embedded in an impoverished area of KwaZulu Natal and this area has attracted community upliftment and service delivery

projects over a protracted period. Projects are often undertaken in isolation of broader considerations due to the absence of an integrated management framework.

As the NTF TFCA project gains momentum, a coalescence of role-players and participants seek to maximise opportunities to further their mandates and agenda as the potential rewards for political, social and economic benefits are understood. The project is attracting a unique association of participants involved in the provision of goods and services and related projects aimed at improving the livelihoods of these communities.

There is potential within these TFCA initiatives to facilitate the integration of stakeholder and role-player objectives, within an institutional framework. By integrating these aims and objectives, the possibility exists that an environment for collaboration in areas of common interest would be established. It follows that within an environment of collaboration, the delivery on the mandates and objectives of the various role-players within the project area, could be achieved. This approach would ensure that the socio-economic and biodiversity conservation imperatives are accomplished to the best advantage of the target communities.

A literature review into TFCA's identified that no blue print exists to assist in designing a framework for the integration of all stakeholders in a TFCA project area. Furthermore, it established that a multitude of considerations have to be taken into account before deciding on a process of collaboration and co-management. Each transboundary initiative has its own unique governance dilemmas that may not, necessarily, be replicated elsewhere.

1.2.2 Aims and Objectives

The aim of the study focuses on, and responds to, the need to develop an institutional framework for integrated management for the NTF TFCA.

In order to develop a robust integrated management framework for the NTF TFCA, consideration had to be accorded to the broader concepts of transboundary conservation management as well as the principles of cooperation.

To achieve the aim of developing such a framework the study has the following objectives:

- a) To critically analyse the historic and current approaches to transboundary conservation. It will evaluate current thinking of this evolving concept from a global perspective and its contextual relation to the southern African perspective. It aims to establish the premise that the key to successful implementation of the NTF TFCA initiative is the need to consolidate the diversity of role-players and stakeholders into an integrated management framework.
- b) To review the principles of cooperation. Integrating role-players and participants to achieve common objectives is a challenging undertaking. Before a management framework can be considered the review will analyse the principles of cooperation. It will determine whether cooperative management and collaboration are vested principles within the Southern African Development Community (SADC); the South African Constitution and whether these are included in the mandates of public sector agencies and authorities. It is argued that, should the principles of cooperative management be reflected in national and regional policies, it would create an enabling environment for engaging role-players and stakeholders in a process of collaboration, where this is deemed appropriate.
- c) To develop an integrated management framework that espouses an environment for collaboration. The proposed framework furthermore will aim to coordinate the activities of all stakeholders to work towards a shared vision.

The literature review, and fieldwork, aim to set the foundation upon which a functional and pragmatic institutional framework for integrated management can be developed. It is anticipated that the functionality of the framework will be tested as it is integrated into the organisational process. It is acknowledged that it may not necessarily be expedient in practice and may require refinement and remodeling as it responds to changing circumstances. The literature review will, however, articulate the basis from which the framework will be designed and accords the reader a detailed interview with the rationale and criteria used.

1.3 The Study Area

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 22 June 2000, resulted in the establishment of the Lubombo Transfrontier Conservation and Resource Area (Lubombo TFCRA) (Porter *et al* 2004). On the same day the protocol to establish the Ndumo-Tembe-Futi Transfrontier Conservation Area (NTF TFCA) was signed between the Republics of South Africa and Mozambique.

The Lubombo TFCA initiative is a unique cluster of five component TFCA projects embedded within the Lubombo management portfolio and includes the NTF TFCA between South Africa and Mozambique as one of the clusters.

The proposed NTF TFCA is situated in the southern part of Mozambique and includes the Maputo Special Reserve in Mozambique (formerly known as Maputo Elephant Reserve) and Tembe Elephant Park and Ndumo Game Reserve in South Africa (refer to figure 1, page 7). The proposal considers the linkage of Ndumo Game Reserve to Tembe Elephant Park via a narrow corridor of communally owned land known as the Mbangweni community area. It furthermore considers the linkage of the South African conservation areas to Maputo Special Reserve through a corridor of land along the Futi River. The proposed area will consolidate a conservation area of approximately 2 000km². Additional Community Conservation Areas have recently been included in the project area. These include the Usuthu CCA situated on the western boundary of Ndumo Game Reserve. The result of this proposal, supported by the Trilateral Commission, facilitates the inclusion of Swaziland into the NTF TFCA project scope. Tshannini CCA, which is situated near the southern boundary of Tembe Elephant Park has furthermore been included in the TFCA project.

The land area under consideration in South Africa for inclusion into the TFCA project scope falls under the direct auspices of the Ingonyama Trust, which manages and administers all traditional land areas on behalf of the respective communities. The only exception is the formally protected areas, which are managed by EKZNW, a parastatal nature conservation management authority.

The entire project area falls within the uMkhanyakude District Municipality boundary.

Figure 1, on page 7 details the NTF TFCA project area in relation to the formal protected areas of Ndumo Game Reserve, Tembe Elephant Park and the Maputo Elephant Park. Usuthu CCA is located to the west of Ndumo and Tshannini CCA is situated south of Tembe Elephant Park.

The potential linkage between Ndumo and Tembe through the Mbangweni community area is shown in light green. The proposed linkage between the protected areas and community conservation areas in South Africa and the Maputo Special Reserve, via the Futi corridor, is shown in dark green with a dotted boundary demarcation.

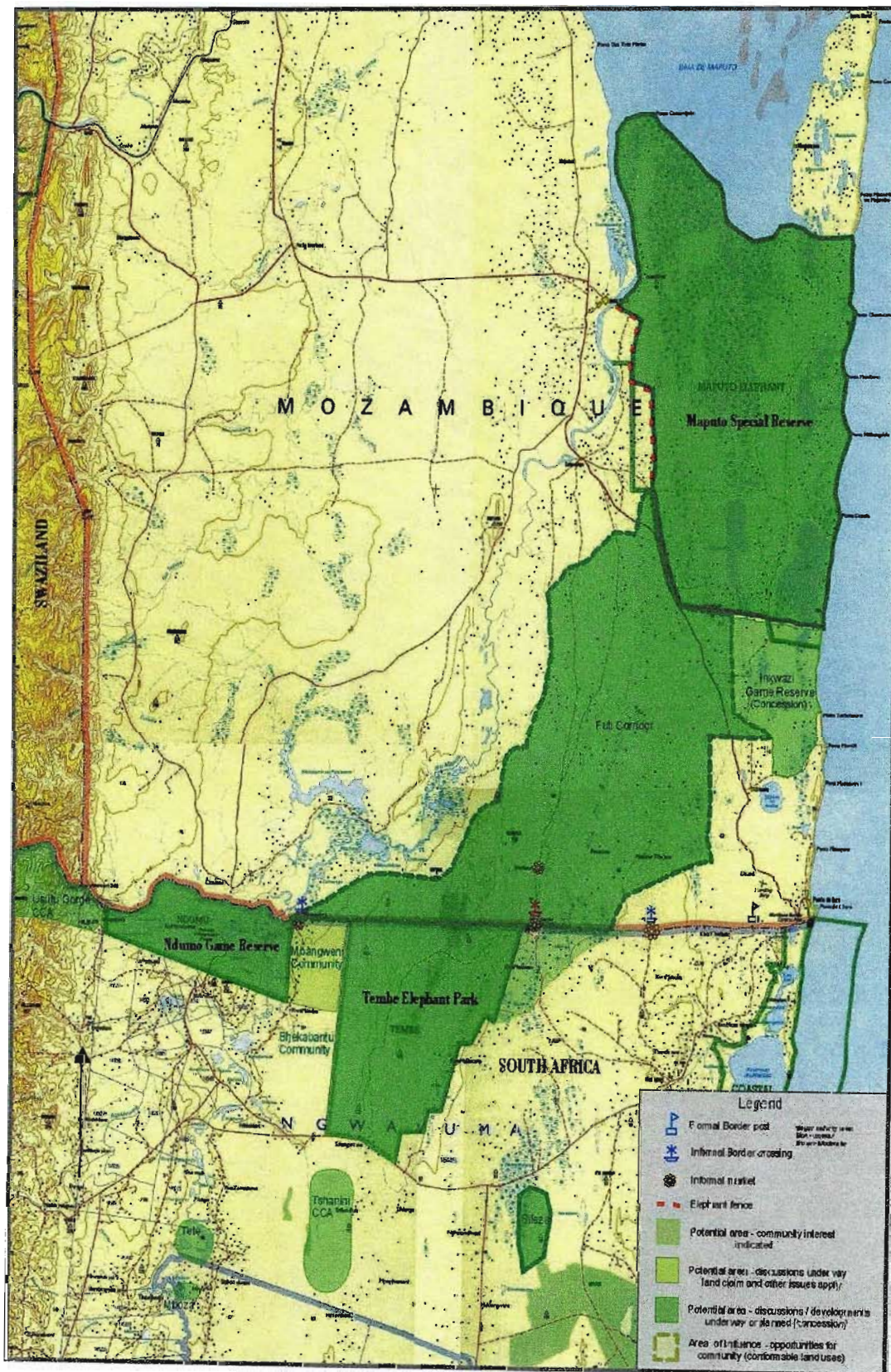


Figure 1. The NTF TFCA project area (EKZWN 2004).

1.3.1 Key Objectives of the NTF TFCA

Recognising the key challenges that present themselves in this region the NTF TFCA have identified the following key objectives that impose a multi-dimensional approach to facilitating and delivering on the community needs and values as well as the biodiversity conservation imperatives presented in the area (Porter *et al.* 2004).

Key objectives of the NTF TFCA are summarised as follows and discussed in more detail below:

- a. Stimulate, promote and market the local economy;
- b. Consolidate and establish core conservation areas
- c. Infrastructure development
- d. Community empowerment
- e. Community benefit flows
- f. Effective law enforcement

a. Stimulate, promote and market the sustainable economic development of the area focusing on tourism and associated activities as well as to build the local economy

The entire project area falls within the uMkhanyakude District Municipality that is responsible for the provision of infrastructure and services to the area and its people. All development activities for the region are directed and guided by an Integrated Development Plan (IDP) managed by the uMkhanyakude District Municipality (uMkhanyakude IDP 2000).

The project is located within an impoverished economic environment (Bruton and Cooper 1980). Porter *et al.* (2004) described the area as having an extremely poor agricultural potential resulting in communities being reliant on limited subsistent farming, supplementing income from family members working further a field (Bruton and Cooper 1980; Derman and Poultney 1987; Els and Kloppers 2004).

Porter *et al.* (2004) recognise that poverty alleviation in the project area can only be achieved through broad-based social and resource development. They state

that it must be considered in combination with an enhanced political structure and fiscal role for these communities. They furthermore note that tourism and agricultural developments can only be successful if they are integrated into a spatial development concept that is in balance with national, regional and local community objectives.

Divergent interests and agendas abound and competitive industries vie for the limited customer base. This conundrum furthermore creates competition for donor funding which could be detrimental to the initiative if not properly coordinated. It is argued that this objective can be met provided a strategy is implemented that considers the visions and objectives of all role-players and potential partners. Coordinating development initiatives and understanding the roles and responsibilities of the role-players will align these role-players and potential investors to the objectives of the NTF TFCA.

Attempts have been made to introduce the NTF TFCA concept to the uMkhanyakude Municipality. However, a lack of commitment from this institution has raised concerns about their understanding of the initiative and the potential alliance that could be created that may complement their objectives. The formation of alliances with this institution will benefit the NTF TFCA. Understanding the roles and functions, as well as the mandates of both the TFCA and the Municipality will assist in determining areas of mutual interest. An integrated management framework, that includes all the interests and agendas of the role-players and stakeholders, could be an important mechanism to facilitate collaboration and cooperation.

b. Consolidate and establish core-protected areas on both sides of the border

Core protected areas are in place, and include Ndumo Game Reserve, Tembe Elephant Park in South Africa and Maputaland Special Reserve in Mozambique. The establishment of linkages between these protected areas are being explored. A critical link that must be established is through a community area wedged between Ndumo Game Reserve and Tembe Elephant Park (refer to figure 1, page 12). This area, known as the Mbangweni Corridor, has been a political hotbed and

a source of confrontation between the community and protected area management in the past. A recent survey undertaken by EKZNW personnel in this community revealed that, although numerous projects and commitments had been muted by a variety of interest groups in the past, very little delivery was effected and no tangible benefits were accorded to the recipient stakeholders (Tembe *pers.comm.* 2005).

The community identified the need for a coordinated approach to identifying development and social upliftment projects. Tembe *pers.comm.* (2005) furthermore stated that the perception and attitude toward EKZNW had changed from antagonistic and confrontational to one where mutual regard, common understanding and trust has been engendered. It is argued that this change in attitude can be contributed to the long-term commitment of EKZNW to the biodiversity conservation imperatives in the area as well as the recognition of the socio-economic prerogatives affecting neighbouring communities. This change in attitude towards EKZNW by the Tembe community may contribute towards recognising EKZNW as a key role-player in the establishment and management of the proposed integrated management framework.

Tembe *pers.comm.* (2005) states that the community are ready to enter into dialogue to discuss the option of establishing a community conservation area that will eventual form the link between the two protected areas. This is considered a significant achievement and the change in attitude can be directly attributed to the current developments of the NTF TFCA.

Kloppers *pers.comm.* (2005) states that significant capital allocations for infrastructure development in the project area, as well as the continued and persistent engagement between EKZNW personnel and the affected community, have further contributed to the positive change in attitude.

Furthermore, the continued environmental education function, facilitated by EKZNW and a number of NGO agents, are having a profound, positive influence on community relations with protected areas and biodiversity conservation in general. It is argued that a more consolidated approach be considered for this

environmental education function to align and focus on the agenda's of the various role-players.

A key success factor to ensuring long-term deliverables of the project is the need to sustain the flow of derived benefits to the target communities. Understanding the relationships between biodiversity conservation, responsible resource management and the resulting socio-economic derivatives may be the prime driving forces that ensure communities contribute communal land that further the aims of the initiative.

It is argued that these contributions may be facilitated through the current land restitution negotiations. The formally protected areas, namely Ndumo and Tembe, are currently under land claim. The National Restitution Land of Right Act affords communities the right to claim restitution for land from which they were dispossessed (National Restitution of Land Right Act, No 22 of 1994, as amended). The EKZNW policy on Land Claims recognises the importance of supporting the process. It furthermore recognises it as an opportunity to work together with the legitimate landowners in order to benefit both biodiversity conservation and communities (EKZNW Policy, 2003).

The settlement agreements between the protected areas and claimant communities in this project area may realise a fundamental change in the manner in which these protected areas are to be managed in the future. Whilst the land use practice is unlikely to change, the management approach will have to consider cooperative management structures that collectively make decisions (joint management between the claimants and the management agency) on the management imperatives of the protected areas. It is likely that additional land could be contributed as the derived benefits, from conservation as a land use practice, are realised. The Mathenjwa Traditional Authority and the Tembe Traditional Authority have contributed land to create the Usuthu and Tshannini CCA's in their respective wards (figure 1, page 7). Additional land is being considered that may forge a linkage between Ndumo and Tembe via a CCA in the Bhekabantu community. This land lies south of the proposed Mbangweni CCA and may be formalised sooner than the Mbangweni CCA as the enabling environment

is more conducive to negotiate terms for cooperative management (figure 1, page 7).

A number of parallel processes, including the establishment of CCA's; corridor linkage negotiations; land restitution settlement negotiations; cross border linkages between communities as well as a diversity of social upliftment programmes are being undertaken in the case study area by a variety of role-players.

It is apparent that coordination and consolidation of the collective effort is necessary in order to expedite the process and to align the diversity of programmes and activities.

c. Ensure that critical infrastructure is put in place to allow for the improvement of livelihoods of the people and tourism development in the area

Infrastructure development and the improvement of existing assets within the protected areas is taking place, however the implementation of infrastructure development outside of protected areas is vital in terms of improving sustainable livelihoods, building community support for the protected areas, and meeting the objectives of the NTF TFCA project. Development projects are undertaken within the terms of reference of the action plan, but the need for a more detailed Project Implementation Plan (PIP) has become evident.

The broader project area is under resourced in terms of basic utilities. It is generally anticipated that as the NTF TFCA project unfolds more emphasis will be placed on delivering basic infrastructure to the area. It is argued that unless an integrated approach is adopted to providing the area with appropriate services, and unless these requirements are endorsed by the District Municipality, the area will remain under developed. Fundamental to the success of the project is the need to inform and involve the District Municipality with all the development needs of the project.

The Nsubane-Pongolo TFCA project, a TFCA initiative within the Lubombo TFCA cluster, has recently met with opposition from the local and district municipalities

as the objectives of the TFCA were not communicated with these local government agencies and conflicted with their respective IDP's. This is considered a major set back as all development proposals will in future be authorised by them. If the proposals are not in line with the IDP's then they will not be considered. The NTF TFCA should acknowledge this requirement and develop appropriate mechanisms to deal with it.

The PIP should reflect the business plan process over the next five years and should take the development needs and requirements of the entire project area into account. It is further recognised that the establishment of an integrated management framework is necessary before detailing the specifics in the PIP.

The proposed framework will be designed to incorporate the diverse role-players and stakeholders as it is recognised that the lack of integration and understanding of the roles and functions of all the potential participants in the project area could derail the entire project.

d. Empower the people of the area, their representatives and decision makers through a programme of capacity development

Kloppers *pers.comm.* (2005) states that significant skills development and training has taken place since the inception of the project in 2004. Employment opportunities and training courses are determined by means of a negotiated protocol with the Traditional Authorities in the project area.

Furthermore the provision of a structured and appropriately designed training and social skills development programmes could contribute to improving capacity within the community and ultimately will lead to a better understanding of the objectives of the NTF TFCA project.

Participation in collaborative decision making structures implies that participants have a general sense of purpose and are able to define the problem and adequately contribute to the decision making process. The statement further suggests that the project has a far greater chance of succeeding if the key stakeholders and role-players, included in the decision making structures, are

adequately skilled and trained to make informed decision on behalf of their constituents. It furthermore implies that the broader community, peripheral to the decision-making but who are ultimately affected by the decisions, should be appropriately skilled and educated to understand the framework conditions of the project. It is argued that consideration and implementation of an appropriate skills development training programme will ultimately engender a positive attitude to the project and establish the enabling environment for future development and expansion opportunities.

e. Ensure that local communities benefit from the TFCA initiatives and programmes and projects

Kloppers *pers.comm.* (2005) states that preferential employment opportunities, created by various projects, is accorded to the communities living in areas surrounding these protected areas. He states that when specialised skills are not readily available within the immediate project area, the required skills may need to be outsourced but also developed in the community through training or mentorship arrangements.

Mechanisms and protocols for distributing benefits, either in the forms of resource allocations, income generating opportunities, derived dividends from investments, employment opportunities, and other related sources of income must be identified during the concept development phase. Similar TFCA projects have failed to identify appropriate mechanisms for the distribution of benefits, and are at risk of losing credibility. Bewsher *pers.comm.* (2005) maintains that the Ais-Ais/Richtersveld TFCA is at risk of losing valuable impetus as the issue of benefit sharing are being questioned by the affected communities. The proposed integrated management framework will be designed to address these concerns.

Whilst the true economic potentials of TFCA's are difficult to qualify, all role-players and stakeholders must clearly and unequivocally understand the mechanisms for benefit sharing and dividend distributions. One of the stated objectives of the NTF TFCA is to build the local economy whilst ensuring that local communities benefit from TFCA programmes and associated activities.

Extensive monitoring and feedback communication processes should be put into place to continuously scrutinise, and report on, the effective implementation of the TFCA objectives. Similar projects are failing to meet the mandates as the objectives and expected deliverables are too onerous, as expectations exceed realities. The proposed integrated management framework must take into account the need for effective communication between decision-makers; authorities and stakeholders.

Responsible implementation of the NTF TFCA objectives, through effective communication, stakeholder consideration, and understanding of the broader driving forces would ultimately lead to a realistic flow of benefits to the project partners.

f. Establish, develop and maintain effective and cooperative law enforcement

Peddle *et al.* (2003) states that there is often an unintended oversight by the initiators of transboundary conservation areas to exclude security stakeholders in the early stages of planning. They maintain that failure to recognise the importance of security related issues during the formative stages of development may lead to inappropriately planned TFCA's and may even result in the delay and possible stalling of a TFCA process when issues of national security are ignored.

Threats to a sustainable existence of the NTF TFCA may take many guises and include direct threats such as illegal hunting and harvesting, theft, illegal cross border activities and indirect threats such as financial security; lack of government and community support; alien pathogens affecting wildlife and domestic stock.

Transboundary linkages further encumber a new suite of security threats and related complications and these have to be dealt with in a coordinated and aligned manner. The integrated management framework must identify appropriate stakeholders who are able to align their respective portfolios and mandates and contribute to maintaining effective cooperative law enforcement initiatives.

Law enforcement and legislative compliance is currently undertaken by EKZNW as the management authority for the formal protected areas. Tembe *pers.comm.* (2004) maintains that as the NTF TFCA process unfolds, the incidents of illegal activities, both within and external to the protected areas would be expected to decline significantly.

He states that an environment of voluntary compliance could be created once the true potential of the TFCA project is realised. Presently law enforcement related activities are regarded as key areas of delivery for protected area management. It is argued that the law enforcement component should continue to play a key role in protected area management but that in future their functions should include a softer, community relations and educational function.

1.3.2 Factors Influencing the NTF TFCA Project and how they relate to the Integrated Management Framework

Porter *et al.* (2004) identified poverty as the principle obstacle to development in the region as well as the associated poor standards of educational achievement and the general lack of capacity and skills of the people. They identified the following constraints and obstacles that may impede further development in the TFCA project area:

Health issues relating to both communities and domestic animals include; malaria (endemic), HIV / AIDS, water borne diseases and foot and mouth disease (Porter *et al.* 2004)

The presence of communicable diseases has a significant influence on the well being of local, resident communities, as well as on potential visitors to the area. Foreign visitors are reluctant to travel to destinations where the risks of contracting a disease or falling ill are considered high. Appropriate marketing and visitor education programmes may mitigate such fears, however it is argued that, unless the area can compete favourably with other destinations offering similar products, the balance would continue to be in the favour of the former. The integrated management framework would need to address the health issues by ensuring that control and intervention policies, programmes and personnel are in place and that these programmes are implemented.

The NTF TFCA area is located within a foot and mouth, disease control area. The movement of cloven-hoofed animals and their products is restricted by veterinary protocols. Veterinary services in the project area have all but collapsed with visible compliance irregularities occurring on a daily basis.

The unrestricted movement of domestic stock between the veterinary control areas may have a negative consequence on proposed game management interventions, with unrealistic regulations being placed on both wildlife management as well as domestic stock in the future.

Gunter *pers.comm.*(2005) states that the Department of Veterinary Services are in the process of upgrading the international border fence in order to regulate the illegal transfer of domestic stock between the two countries. It is apparent that this department are unaware of the NTF TFCA project. This development illustrates the lack of interaction and communication with the potential partners who could have a significant impact on the project. The proposed integrated management framework will be designed to address these concerns.

Marginal agricultural potential of the land (Porter et al. 2004)

Agricultural activities are focused on the flood plain of the Phongolo river system. The agricultural potential of the remainder of the area remain poor with limited scope for crop production. Cattle and goat grazing in these areas contribute to limited income streams for individuals. Agricultural related projects, which include fish farming, pecan nut plantations and cotton farming have met with varying degrees of success. Nevertheless agriculture is important and essential for the livelihoods of people. The integrated management framework needs to integrate and align the potential extensive rather than intensive agricultural programmes with the broader NTF TFCA initiatives by creating entrepreneurial opportunities for locals to import the necessary products, as well as identify those products that could be cultivated and marketed for the local markets. This is considered vital for sustainable development options in the area.

The NTF TFCA project should recognise the multitude of role-players and partners in the project area and strategically align programmes that complement the collective mandates of the participants. This can only be successfully accomplished by understanding the needs and values of the diversity of role-players. A management framework that considers these roles and functions would complement the collective development initiatives in the project area.

Poor access to markets for agricultural products and crafts (Porter *et al.* 2004)

Access to markets should not be considered a significant barrier limiting development in the area. The agricultural potentials are generally poor and a majority of the products are produced for own consumption.

The craft industry, on the other hand, is regulated by supply and demand, and as access to the area, and facilities within the area, are limited, marketing and sale of these products are impeded as a result. Unique craft products are readily available and of a high standard. The sale of these products could increase as the TFCA project gains momentum. The appropriation of agricultural support services as well as the development of accessible markets for limited trade and price policy would promote the development of the limited agricultural potential of the area. It is proposed that the integrated management framework would take the alignment of markets and the distribution of products into account. This could be achieved by coordinating this activity within the broader project scope, as it would benefit local economic development, a key objective of the NTF TFCA.

Cross border regulations of movement of people and goods (Porter *et al.* 2004)

The KwaTembe and Mathenjwa communities were divided by distant political ideologies when the borderlines delineating Mozambique and South Africa were drafted. Informal interactions, through unofficially sanctioned cross border engagements, help maintain community linkages and associations.

These informal arrangements result in conflict with security officials from time to time. They furthermore create avenues for the illegal tender of contraband that is

often difficult to control. A key objective of the NTF TFCA is the need to re-establish community association through a formalised and legitimate process.

The KwaTembe Traditional Authority is actively seeking momentum on this issue and are in regular communication with the Mozambique authorities (Kloppers *pers.comm.* 2005). This initiative is currently taking place external to the NTF TFCA process. It is argued that the TFCA project has the legitimate mandate to consolidate cross boundary issues, including cross border interactions between communities. The Tembe Traditional Authority should be included as a key stakeholder in the proposed integrated management framework, however, the proposed integrated management framework may not be the appropriate mechanism to address this concern as these issues would have to be debated at a higher political level.

Formal nature conservation law enforcement is absent in much of the area outside of formally protected areas.

Advocates of orthodox conservation management consider the maintenance of protected area integrity a key objective. Current conservation paradigms regard the extension of law enforcement activities beyond the boundaries of protected areas a prerogative exercised with caution. Useful buffer zones are created by applying the rule of law along the peripheral boundaries of protected areas. These have to be tempered with a mature and objective approach. Interventions external to the fenced sanctuaries are often misconstrued as intrusion into the sacrosanct domains of the resident communities and are fiercely resisted.

Whilst the disregard for the basic rules of law cannot be ignored, conservation practitioners in the project area understand the need to exercise discretion when conducting reactive or proactive operations in community areas.

The TFCA process may indeed provide the necessary impetus for communities to regulate illegal activities, particularly when income and dividends can be ascribed to these resources.

Lack of adequate funding to undertake the proposed infrastructural, tourism and agricultural developments by various authorities in the area (Porter *et al.* 2004)

A critical need exists to provide infrastructure and services including adequate networks of roads and bridges, water supplies and irrigation, transport and communication, health services, educational institutions, human and solid waste disposals. The determination and prioritisation of broader community needs must be considered under guidance of the District Municipality IDP. Projects undertaken in isolation to this process are unlikely to succeed. It is critical to establish the alignment of the TFCA objectives with the IDP. This has yet to be undertaken.

Lack of institutional frameworks for aligning activities (Porter *et al.* 2004)

The lack of appropriate institutional frameworks that aim to align broad initiatives and activities within the project area can be considered an additional significant factor that may impede the realisation of the NTF TFCA. Blake (1997) notes that there is a propensity of different national laws, policies and regulations that govern border communities and interstate resources. He states that there is very little harmonisation of legislation, procedures, policies and regulations between countries in the affected regions and this has a direct bearing and influence on implementing TFCA projects.

Congruent with the observations by Blake (1997) is the lack of harmonisation and integration at provincial and local government level in respect of the NTF TFCA. It is evident that a large number of role-players and stakeholders are active in the NTF TFCA project area, and are either wholly ignored as the process unfolds, or are included when deemed necessary.

To further the aims and objectives of this TFCA project it has become evident that a formal management corporate is required to facilitate the consolidation of initiatives in the project area.

To achieve this, consideration must be accorded to the mandates of TFCA's. A clear and unequivocal understanding of the driving paradigms of TFCA's should confirm whether the NTF TFCA is indeed working within the

prescripts of this mandate. A review of these principles will attempt to draw parallels between the NTF TFCA and similar initiatives. It will attempt to understand the impediments and opportunities associated with this form of land use and investigate how the objectives have been met in associated projects.

1.4 Methodology

A literature review was conducted, in order to investigate how transboundary conservation management could be integrated into broader socio-economic and biodiversity conservation initiatives. The review responded to the need to develop an institutional framework for integrated management for the NTF TFCA.

Having undertaken the literature review it was found that no blue print or framework exists to facilitate the integration of all stakeholders in a TFCA project area. This is considered a crucial shortcoming in TFCA projects, which depend upon building support for the initiatives in government agencies. However it was found that a number of TFCA projects have attempted to develop context specific management frameworks and these have been implemented with varying degrees of success. Whilst an overall framework does exist at national and international level in respect of reporting structures, no details emerged regarding integrated management frameworks at the level of implementation.

1.4.1 Research Approach

Given the findings of the literature review, the research approach was to critically evaluate information obtained from the literature review and to identify key guiding principles that would assist in designing an appropriate IMF for the NTF TFCA. It furthermore identified gaps in the literature that failed to provide sufficient detail to develop an IMF for the NTF TFCA specifically.

In order to develop the IMF for the context specific environment, a number of key research enquiries had to be undertaken.

These included the following:

1. Stakeholder analysis ~ this enquiry was used to determine, in detail, the stakeholders and role-players associated with the project area. The diversity of

potential participants range from local community members, private sector investors, NGOs, and a variety of government institutions at local, provincial and national level.

The stakeholder enquiry assisted in determining the following:

- a. Who the various role-players in the project area are?
 - b. What their mandates and objectives are? (Institutional analysis)
 - c. Is there a common vision or purpose (mutual relationship) amongst the stakeholders that can be used to consolidate the objectives?
 - d. Is any stakeholder collaboration/dialogue taking place?
 - e. If so, what factors or conditions enable this?
 - f. If collaboration is not happening, what are the reasons for this?
 - g. Can existing stakeholder efforts be improved or expanded? (rather than starting a new collaboration process.)
 - h. Are there any "collaboration gaps" that need to be filled? By filling the gaps, could the TFCA agenda be complemented?
 - i. Are there currently any structures that promote collaboration?
2. Research and recommend a set of guidelines for a collaborative framework supported by a convincing rationale. These would include:
- a. Levels of engagement ~ the level at which participants engage would vary in accordance to the objectives. For example the management of illegal hunting would be conducted at local level between the conservation agency and the community, whilst illegal cross border smuggling would be dealt with at a higher, international level. The levels of engagement would be influenced by the participants skill and capacity, status within the community or institution.
 - b. Scale of application ~ the number of participants may influence the tendency to cooperate and coordination is inherently more difficult to attain when there are more participants. The scale of application will be determined by the stakeholder analysis and the level of entry of the participants.

- c. Designing the framework ~ the design of the integrated framework will be based on the fundamental principles of collaborative management and adapted for the context specific study. These include:
- Determining the roles and functions of the participants;
 - Communication frameworks;
 - Accountability and recourse action;
 - Adaptive management principles;
 - Exit strategies and contingencies.
 - Supportive mechanisms in respect resourcing the framework

3. Identify the requirement for future research.

1.4.2 Questionnaire Survey and Stakeholder Inventory

A questionnaire survey will be conducted to obtain qualitative data and will contribute to understanding the aspirations, mandates and perceptions of the interviewees. The stakeholder community to be interviewed will be determined by the principles described in the literature review and will furthermore be guided by the judgment of the researcher due to his familiarity with the characteristics of the population. Borrini-Feyerabend and Buchan (1997) suggest that a stakeholder inventory be considered under these circumstances (time constraints that influence the research; resource limitations). An inventory of relevant stakeholders can be undertaken in a round-table brainstorming session with individuals familiar with, and involved in the field of study. They note that although a stakeholder analysis would be more appropriate than an inventory, particularly when communities affected are complex and stakeholder relationships not easily identifiable, it requires more time and resources and involves participatory sessions for the collection of new data. For the purposes of this research a stakeholder inventory strategy will be adopted in conjunction with a mixed purposeful sampling method.

A mixed purposeful sampling method was selected as it allows for a combination of sampling methods to be used. This allowed for a more flexible research enquiry and meets multiple interests and needs (Salant and Dillman, 1994). Chain referral

sampling may identify more people and institutions that could be influenced by, or have influence over, the intentions of the NTF TFCA and will be employed as one of the sampling strategies. An additional sampling method will include an opportunistic sampling strategy which takes new leads during the interview process and will furthermore complement the identification of stakeholders and role-players affected, or influenced, by the NTF TFCA initiative.

A semi-structured questionnaire will be used and will allow for open-ended and closed ended questions to be used. Open-ended questions will allow the respondent to substantiate their responses, whilst closed-ended questions will require a yes/no response. A single questionnaire will be used to interview all the stakeholders and role-players. It is acknowledged that a crucial factor in qualitative research is the need to select respondents that fit the objective of the study. Borrini-Feyerabend and Buchan (1997) concur and state that any initiative that wishes to respond to social concerns has to assume a conscious philosophy and approach. They state that the initiative should be specific about who the key role-players and stakeholders are that are expected to participate and what roles/contributions they are able to make. It is therefore necessary to purposefully select respondents who have some experience or knowledge of the subject (Creswell 1994).

The survey will be undertaken by one person, namely the author.

1.4.3 Limitations of the Study

The primary limiting factor to the research undertaking was the lack of literature on the subject. Transboundary conservation is a relatively new management construct, and as such not much reference literature is available on the subject. The lack of research material invokes the need to conduct further research and identifies gaps for further enquiries. This has been the primary motivation behind this research and it is anticipated that the results would contribute meaningfully to advancing the concept of TFCA's as they evolve.

2. The Transboundary Concept

2.1 Background

Transboundary natural resource management (TBNRM) is growing rapidly in Africa and the rest of the world (Van der Linde *et al.* 2001). The authors state that large investments are being made in this new field as it is seen as an important tool for broad landscape approaches to sustainable resource management and biodiversity conservation. They state that TBNRM can be used as a way to promote regional economic development, reunite divided communities as well as bring peace to troubled regions. Mohamed-Katerere (2001) agrees and states these related, and often inclusive, ranges of additional benefits of TFCA management include the realisation of opportunities for sustainable ecological development, improvements to rural livelihoods in respect of job creation and poverty alleviation and the integration of regional economic imperatives. Although the TBNRM concept is not new, it is gaining support politically (R. Kloppers *pers.comm.* 2004). He states that transboundary resource management has occurred in numerous areas within southern Africa without formal recognition and sites the Kgalagadi Transfrontier Park, an area managed between South Africa and Botswana, as an example.

The overarching theme of the Fifth World Parks Congress, held in Durban in September 2003, was "Benefits Beyond Boundaries" (WPC 2003). This is testament to the fact that the driving paradigm in protected area management is taking bioregional, ecoregional or landscape level planning and management into account at an increased spatial scale (Wolmer 2003a). It is generally appreciated that the effective conservation of biodiversity and its associated natural resources requires interventions, not only within the confines of protected areas, but across the boundaries of these areas. This broad landscape approach rests in the mutual regard between communities and nations that the management of natural resources cannot be undertaken in isolation. Large coherent landscapes and management entities are being realised as protected areas are being opened up across administrative, and even national, boundaries (Wolmer 2003a). The NTF TFCA incorporated this philosophy in its design as a landscape approach with

core conservation areas adjoining rural areas. Thus communities, and parties with vested interests, will seek opportunities and avenues to cooperate in matters of mutual interest in the development of the region. This is further supported by the Southern African Development Community (SADC) Treaty, signed in 1992, that requires member states to cooperate in, amongst others, issues pertaining to the environment and natural resources (IUCN 2002). Candeias (2001) supports this and states that through regional cooperation, SADC seeks to promote a collective self-reliance and to forge closer links with member states to create genuine regional cooperation. The SADC Treaty furthermore recognises that integration of economic projects would not be able to achieve its stated objectives unless citizens fully and effectively participate in the programme and projects of the regional block (IUCN 2002).

Transboundary conservation areas, including the NTF TFCA, seek to advance the conservation of biodiversity; cultural heritage and promote economic opportunities across boundaries (Singh 1999). Wolmer (2003a) maintains that although these conservation areas in theory transcend political boundaries they are in practice intrinsically political entities, and in order to accomplish transboundary conservation management, the sovereignty of states, as enshrined in the constitutions of nations, must be factored into the management equation. This may be true for the NTF TFCA but it is possibly too early to be sure that this is the case at this stage of the project.

Singh (2000) notes that the principles of sovereignty have implications on a state's ability to make independent decisions about resource management in their respective countries. Thus with the NTF TFCA the countries of Mozambique; South Africa and Swaziland have developed their in state Concept Development Plans (CDP) and have jointly aligned these into a common document. Each country will implement their own component of the CDP.

Political borders were originally drawn with blissful ignorance of geographic and environmental conditions by colonisers in faraway continents Benvenisti (2002), or ecological parameters Griffin *et al.*(1999).

Wolmer (2003a) concurs and states that 'artificial', human-imposed administrative boundaries rarely coincide with ecoregions. This is certainly the situation with the NTF TFCA where the international boundaries between South Africa, Swaziland and Mozambique intersect major ecological units such as the Lebombo mountain system, coastal plains and associated wetlands. Also these ecological units are subjected to diverse, and often opposing, management and land-use practices in each country. Griffin *et al* (1999) recommend that, in order for future generations to have access to natural resources, the management of water catchments, ecosystems and migratory wildlife, should become more multinational and participatory at local, national and international levels. It is argued that although the theoretical considerations to the benefits of collaboration are obvious, the practical implementation of this is often more complex to deal with. These complexities become the challenges that will have to be addressed in the future by the officials and politicians driving the NTF TFCA project.

Griffin *et al* (1999) contend that political boundaries that separate countries do not necessarily imply that the management of landscapes should follow independent paths. They state that various studies show that ignoring broad landscape level approaches to natural resource management is risky.

Van der Linde *et al.* (2001) however maintain that in some cases it may be more effective for partner countries to manage their shared resources independently because there is little to be gained from collaboration. They state the existence of a shared resource or ecosystem is not enough justification to enter into transboundary agreements and the desire to collaborate must be demand-driven incentives

An Ecoregional Conservation Strategies Unit (ECSU) document (2000) concurs and states that collaboration may not always be the most appropriate or effective way to achieve conservation objectives. However, these views are not shared in the case of the NTF TFCA because the anticipated benefits of collaboration between the participating countries, and between stakeholders within the project area, outweigh the cost of independent management.

Singh (1999) maintains that one of the greatest benefits from establishing TFCAs is the increasing capacity-building opportunities among the respective national partner institutions to manage natural resources. Stronger regional capacity enables better decision-making with regard to common ecological problems such as climate change, desertification, water resource use and pollution. The co-management of common resources encourages the sharing of management responsibilities. It accommodates the bridging of government-based systems, generally managed at central level, to local level systems.

Wolmer (2003a) contests the fact that these areas are increasingly being proposed as a means for socio-economic upliftment and empowerment of previously marginalized communities. He notes that this eco-centric, managerial, and neo-liberal priorities have shifted the conservation agenda from viewing the protected areas as inviolate sanctuaries to exploiting the economic potentials and have opened their management across administrative and national boundaries. He cautions that focus on economic growth and investment opportunities can overshadow the conservation and livelihood priorities. This is an important consideration that must be taken into account in the NTF TFCA as conservation and livelihood issues are fundamental imperatives to this region and are regarded as key priorities.

Wolmer (2003b) further states that these initiatives are the latest in a line of top down, market-orientated environmental interventions motivated for by international bureaucracies and some segments of the private sector. He claims that the benefits gained from the management of the commons through privatisation or captured via "joint venture" arrangements generally do not transpose benefits to the target communities. The NTF TFCA regards the development of the local economy, through sustained economic development as one of the key objectives (Porter et al. 2004). The potential shortcomings, identified by Wolmer (2003b) must be taken into account and mitigating measures and processes to deal with them must be considered. Failure to recognise this could result in the derailment of the overall objectives of TFCA's.

Wolmer (2003a) warns against unguarded associations between government, the private sector and civil society as global trends indicate a switch to public private networks that provide goods and services that were once the responsibility of state controlled public sectors. Mayoral-Phillips (2000) question the extent to which government should form alliances with business in areas of public responsibility. Examples of exploitation by private–community partnerships in Mozambique have resulted in large areas of land being given up to the private sector investors with little regard for local community claims and existing land use practices. He further notes that where TFCAs are being included into Spatial Development initiatives, government funds are often used to leverage private sector investments to unlock economic potentials in the project areas. This approach will be required in the NTF TFCA as governments do not have the resources to undertake all the developments.

It is generally accepted that the management of biodiversity and natural resources can no longer be considered in isolation and that broader relationships, including community beneficiation and socio-economic development have to be factored into biodiversity management prerogatives and mandates. TFCA initiatives may therefore become the key catalysts that unlock potential public and private sector funding for regional socio-economic development. Jones and Chonguica (2001) agree and state that economic development at local level depends upon a number of “macro level” conditions that include appropriate infrastructure, ease of transborder movement, national and regional level marketing strategies and security. They maintain that the state and the private sector have a pivotal role to play in development at this level and scale. Cognizance of the power imbalances between the participants must be taken into account when proposing TFCAs and addressed through appropriate institutional frameworks, to prevent alienation and resentment.

Fourie and Fakir (2004) maintain that TFCA initiatives are generally conceptualised as regional development programmes (i.e. bioregional planning and development) and they advise project practioners to recognise their role in the regional economic development programmes. They furthermore state that these initiatives have obligations and impacts on a diverse range of stakeholders both

within the country and with the neighbouring country stakeholders. They caution that these grand regional development initiatives, have, in addition, tended to create unrealistic expectations among politicians and development organisations (particularly international development communities) of rapid growth and economic development in impoverished communities.

This is being realised as the NTF TFCA process gains momentum. Furthermore the project is located in a desperately poor region, previously ravaged by war, it is critically important therefore that the NTF TFCA strives to rehabilitate, recover and reconstruct the lives of these communities and their livelihoods by benefiting the biodiversity resources of the region.

Currently large scale regional planning and the associated investment initiatives have seen the project interface with different institutions with varying degrees of collaboration between state, civil society and private sector role-players. These are further interfaced against layers of politics at both local and national level and provoke questions about powers and functions of the various institutions and how they could contribute to the objectives of the TFCA process.

Van der Linde *et al.* (2001) agree that TFCA management has an extremely wide range of application across a continuum, from transboundary resource management to collaborative management of adjoining protected areas. This continuum recognises the increased importance and relevance of transboundary management from a national level as the benefits of this management concept is understood and expanded. These initiatives are managed within a diverse range of administrative, political and social management systems between countries. The range of scale and the degree of complexity require management systems that are planned, implemented, evaluated and frequently adapted around the specific prevailing circumstances of each situation

Thus it is recognised that the management of transboundary associations are complex. A diversity of considerations therefore need to be taken into account before implementation can be undertaken. Fundamental to establishing linkages across international boundaries is the requirement to align programmes and

activities within the national precinct. An understanding of the concepts of transboundary conservation, and where the NTF TFCA lies within this theory, will clarify the alignment of this programme within the broader mandate of TFCA management.

2.2 Transboundary Conservation Areas ~ Definitions and Classifications

A number of typologies exist for transboundary resource management and conservation. These have been described by various authors notably, Singh (1999), Sandwith *et al.* (2001) and Van der Linde *et al.* (2001). The definitions in Table 1 are taken from these authors and articulate the distinctive characteristics of the different applications of the concept.

Table 1. Typology of Transboundary Resource Management and Conservation.

Transboundary Conservation Areas (TBCAs)	These are conservation areas that span well-defined borders and are linked to a precise, linear concept of international borders. The principle aim of TBCAs is to achieve the conservation of biodiversity, cultural heritage and promote local economic opportunities (Singh 1999).
Transfrontier Conservation Areas (TFCAs)	These are areas that span regions where the boundaries have not been agreed or clearly demarcated. They are often more larger linear regions than borders. An additional objective for TFCAs, other than those applicable to TBCAs, is to ameliorate tensions related to troubled borderlands (Singh 1999).
Transboundary Protected Area (TBPA)	An area of land that straddles one or more boundaries between states with constituent parts specially dedicated to the protection and maintenance of biodiversity, natural and associated cultural resources (Sandwith <i>et al.</i> 2001). The authors state that these assets are, by

		design, managed cooperatively through legal and other effective means.
International Peace Parks		<p>Singh (1999) describes these areas as having a definite political objective and are largely symbolic in nature. He maintains that there is no legal definition for peace parks but states that they were created with the following objectives in mind:</p> <ul style="list-style-type: none"> • It is applied to transboundary cooperation where the primary aim is to confirm, strengthen, or re-establish good relations between neighbouring countries. • They may be able to prevent the escalation of border disputes. (e.g. The Demilitarised Zone between North and South Korea) • International peace parks may be able to safeguard key biodiversity assets formally located in military zones.
Transboundary Natural Resource Management (TBNRM).		TBNRM can be defined as any process of collaboration across boundaries that increase the attainment of stated biodiversity conservation and natural resource management goals. The approach covers a wide continuum of initiatives ranging from transboundary community-based natural resource management and transboundary protected areas to large-scale resource management integrated in regional economic development initiatives (Van der Linde <i>et al.</i> 2001).
Transfrontier Conservation and Development Area (TFCDA)		This concept incorporates the principles of TBNRM but includes addressing livelihoods of people as a key principle. It furthermore recognises poverty as a major threat to biodiversity conservation and protected area management.

Adapted from Singh (1999); Sandwith *et al.* (2001) and Van der Linde *et al.* (2001).

Commonality between the various definitions of transboundary conservation is evident. Essentially the only legitimate distinction that separates the various concepts is the association of transboundary conservation areas with formal protected areas, such as TBPAs and TFPs and the ones that take into account the less formal conservation areas such as TBCAs and TFCAs. The term boundary and frontier could relate to a specific hemisphere? In the northern hemisphere a frontier is considered a large untamed area hence their preference for the term boundary! Either way it remains a question of semantics and in the context of this review they are considered one and the same.

Within SADC the term Transfrontier Park and Transfrontier Conservation Area (TFCA) have become entrenched in conservation circles (Sandwith *et al.* 2001). Braak, Petermann and Sandwith (2003) state that these areas denote a specific subset of TBPAs and are generally applied only in an international context, referring to protected area linkages across international boundaries. The term Transfrontier Park is used to describe linkages where the bulk of the area comprises national parks or protected areas with a high conservation status. The NTF TFCA is thus placed amongst this broad group although it is closer aligned to a TFCDA in its objectives.

Figure 2 illustrates the principle logic behind TFCAs. It illustrates areas where linkages between formally protected areas are established through substantial corridors or areas that are included that have no formal protected area status. These areas may include private or communal land tenure and a variety of formal or informally recognised areas of conservation significance. The NTF TFCA would fulfil this definition as formally protected areas in both South Africa and Mozambique are consolidated by means of Community Conservation Areas (CCAs). These CCAs currently have no legal status and their long-term persistence is largely dependent upon the successful implementation of the NTF TFCA.

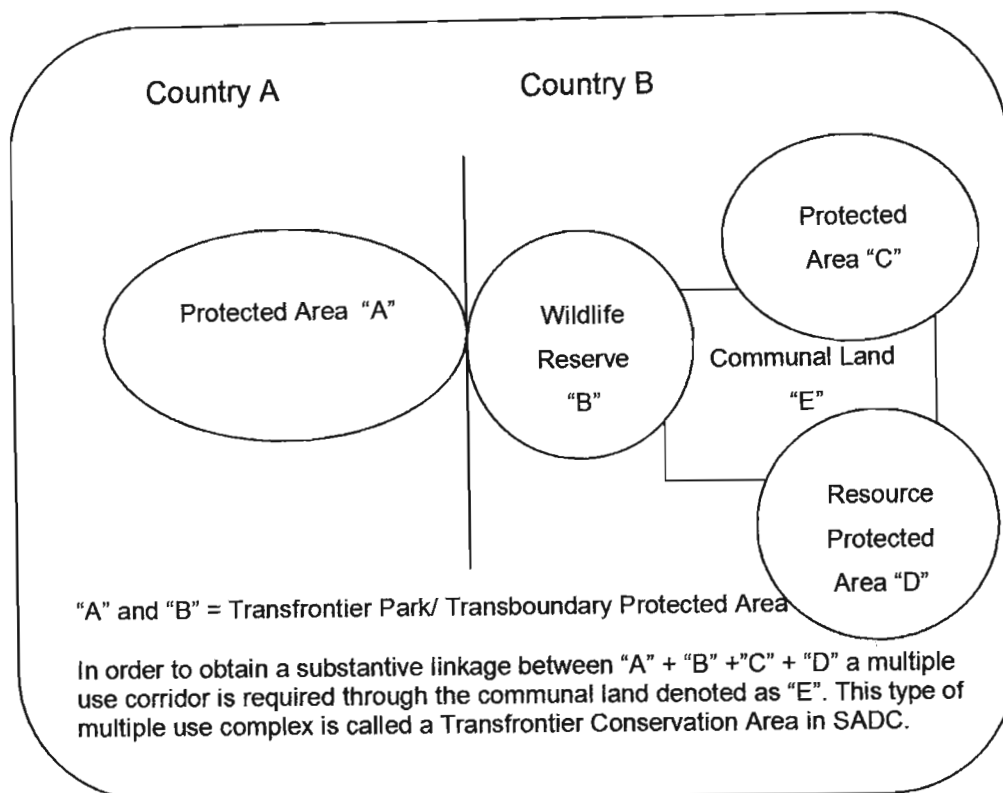


Figure 2. Illustration of Transfrontier Park and the TFCA Concept (Braak *et al.* 2003).

In addition to the above several initiatives have recently explored the potential for developing linkages, not only through transboundary protected areas (TBPAs) but also where transboundary natural resource management is not affiliated to, nor reliant on, an association with protected areas (Sandwith *et al.* 2001).

2.3 Key Considerations Influencing Successful TFCA Implementation

Singh (1999) attributes the following factors to the successful transboundary initiatives. Cognizance must be taken of these influences in order to expedite the process.

- Political support ~ the establishment of transboundary initiatives are inherently a political process and require a strong political commitment from inception and continued throughout the process. The concept of transboundary associations between South Africa and Mozambique was used as a symbolic mechanism to re-establish linkages, both ecologically and socio-politically. Hence the agendas are driven from a national perspective with little regard for the

dynamic encumbrances at implementation level. Wolmer (2003a) confirms this and notes that due to the formal bilateral nature of TFCA agreements they are by definition top-down.

The NTF TFCA has failed to include institutional authorities and other role-players, viz Local and District Municipality, Security authorities, Traditional Authorities and others, during the formative phases of developing the objectives and action plans for the TFCA. The CDP and Action Plans, endorsed at International and National level, require significant input and alignment with local management authorities and role-players and stakeholders. The development of an institutional framework for integrated management in the project area is regarded as priority.

- Local community and public participation ~ the success of the initiative requires support and acceptance by local communities affected and influenced by it. Jones and Chonguica (2001) cautions that TFCA processes are largely driven by government, development banks and the private sector and the consequences of this type of approach is the marginalisation of the local community, as the decision making takes place at levels far removed from the local community.

Communities and relevant stakeholders must become active participants in the decision making process. Wolmer (2003a) sites various case studies that have a familiar trend of "consulting" communities who are rarely present on the decision-making fora. Fourie and Fakir (2004) concur that stakeholder consultation, particularly with local people, tends to suffer because of the prevalence of foreign policy and donor interests. They maintain that in the most recently established TBCAs, the extent and level of stakeholder consultation was limited by these interests, impacting negatively on the long-term prospects of the initiative.

The NTF TFCA recognises this requirement and include the empowering of the people of the area, their representatives and the decision makers through a programme of capacity building as one of the key objectives. The empowerment and skills development of local community role-players and stakeholders is seen as a key objective for the NTF TFCA. Critical to the success of the initiative is identifying who the participants will be and the levels

of participation. It is clear that not all community members can participate, nor benefit, from the project.

Often only a small group within communities generally benefit from Community Based Tourism projects. This could potentially cause conflict and tension if not appropriately managed.

- Presence of high profile species or areas of significance ~ Icon species or areas of scenic significance assist in profiling the importance of the initiative and promote transboundary cooperation. These marketable commodities enhance national pride and profile the area in an international context and may assist in attracting concomitant donor funds. Aggressive marketing and profiling of the NTF TFCA project is required to attract potential visitors to this area. The constraints and limitations of using the bio-resources to attract tourists to this region are clearly understood. However, it is generally accepted that the biodiversity draw cards, prevalent in the area, are unique enough to favourably compete with similar conservation areas. The re-establishment of historic movement patterns of elephants along the Futi system is of particular relevance in this case.
- Transboundary relationships ~ Informal cross border relationships at local level have been key to creating opportunities for the establishment of more formal protocols and arrangements. This is evident in the NTF TFCA project area where communities, divided by a political border, have continued to associate and interact through informal cross border arrangements. This issue is regarded as a key leverage tool for aligning community sentiments to the process. It is regarded as an avenue for generating the necessary political support for the programme.
- Non-governmental organisations (NGOs) ~ NGOs play an important role in facilitating the formal establishment of transboundary initiatives. They provide much needed technical expertise and funding and assist in placing the initiatives on the regional agenda. However, Community Based Tourism only succeeds whilst the NGO's are actively involved in the project. These projects often collapse due lack of continued access to marketing, capital resources

and expertise. Consideration should be accorded to understanding the roles, functions and agenda of these potential partners. The literature review details the constraints and opportunities these role-players can contribute to the programme. The NTF TFCA should recognise the important role the Wildlands Trust, Mbona Community Project and the Peace Parks Foundation can play in facilitating the objectives of the project. It is crucial to align these initiatives in an integrated, coordinated framework so that the realization of common goals and objectives can be achieved and sustained.

- Regional agreements and organisations ~ Regional agreements provide opportunities to achieve regional goals as they are motivated and supported by local consensus rather than imposed upon by external influences. The NTF TFCA has realised the need to integrate the mandates, agenda, visions and values of all the role-players and stakeholders potentially associated with the project if it is to succeed in delivering on its mandated objectives. This is the key enquiry of the review. It is evident that the integration of activities of all stakeholders and role-players within the project would contribute to its success. As the process unfolds it is anticipated that massive power asymmetries, linked to inherent politics and diverse agendas, may work against developing appropriate institutional arrangements that aim to promote the objectives of the NTF TFCA. It is crucial, therefore, to regard the identification of appropriate representatives, from the various authorities and communities active in the region, and to consider the level at which they contribute in respect of their decision-making capacity, into designing an appropriate integrated management framework.

2.4 Key Challenges to TFCA Establishment.

Katerere, Hill and Moyo (2001) state that TFCAs are a reality in southern Africa and have identified a number of additional key challenges that should be taken into consideration in the design of the institutional management frameworks. The issues include; **inconsistencies** in law and policy, **conflicts** between community and private interests, **unresolved** land reform issues, **confusion** surrounding organisational roles and responsibilities of the state in relation to international Non Governmental Organisations (NGO), donors and the **power imbalances** amongst

key stakeholders. They identified that, in the context of resource development and integration, **effective approaches** to management of transboundary resources are needed.

The NTF TFCA project has identified that inconsistencies in policies, conflicts between authorities, communities and private sector interests, unresolved land claims and power imbalances are a reality. Therefore in order to implement the project and manage the transboundary area and its resources a functional integrated management framework is required. This is considered to be a key challenge and the principle objective of this study.

The NTF TFCA process recognises the need to integrate the mandates, agendas, visions and values of all the role-players and stakeholders potentially associated with the project if it is to succeed in delivering on its mandated objectives. This approach should align the agendas of participants with that of the TFCA. It should furthermore identify potential areas of conflict and may provide the necessary mechanisms for arbitration.

It has become apparent in the literature review that the essence for successful implementation of TFCAs in the Southern African context lies in the principle of cooperative management. The theoretical notion of collaboration and comanagement are easy to define and apply to various concepts. However, the fundamental principles of cooperation require more clarity. The SADC Treaty recognises the benefits for cooperation and integration in a variety of activities. It provides the basis from which to enquire how this transcends to levels at which implementation should take place.

The next chapter aims to determine whether there are principles that establish ground rules for cooperation, and if there are, how these could be incorporated into the context of transboundary conservation management. It furthermore aims to establish whether these programmes are obliged to cooperate by law and what the implications and consequences of an independent, isolated management approach to transboundary conservation would be.

3. The Principles for Cooperation

3.1 Introduction

Transboundary conservation initiatives require that people, organisations and governments cooperate in planning and implementing such projects and, or programmes. The projects usually span several years and potentially have far reaching benefits for both biodiversity conservation as well as local economies. It is, therefore, critical that these stakeholders and role-players, involved in the project area, collaborate in order to achieve a common purpose.

The National Environmental Management: Biodiversity Act of 2004 encourages co-management although this activity has not been defined. It is therefore important to define comanagement with regards to the principles of collaboration and cooperation with particular relevance to the NTF TFCA project.

The NTF TFCA project as well as the IMF is dependent upon, and recognises the need for, collaboration and cooperation between the various implementing agencies in government, as well as NGO's and communities.

3.2. Evolution of Cooperation, Collaboration and Co-management

Early man, together with other primates, evolved as social creatures, not out of desire, but from necessity. In order to survive as hunters/gatherers they were obliged to pool resources, to collectively obtain the staples of life and to defend themselves against transgressions and threats. The benefits of associating in numbers contributed to a higher survival rate. Isolation and fragmentation almost certainly would have resulted in premature death. The principles of cooperation and collaboration were born during these formative years and social order, and the rules of association were crafted.

Benvenisti (2002) agrees that the collective effort to ensure an adequate water supply was the bond that gave birth to many societies. He contends that communities in water-impooverished areas had to coordinate activities to procure a sufficient supply of water to feed families, water domestic animals and irrigate

agricultural lands. This endogenous cooperation resulted in efficient utilisation of communal resources.

He states that during earlier times when the procurement of resources extended beyond the capabilities of the individual, a system of common decision-making and monitoring was set up to collectively procure and administer the shared resource. He adds that this system of collective action required an investment not only in infrastructure, but also in the collective decision-making process and in enforcement and compliance mechanisms.

Borrini-Feyerabend *et.al* (2000) concur and add that many traditional societies formed closed systems in which natural resources were managed through complex interplays of solidarities and reciprocities. They noted that these systems were fully embedded in local cultures and accommodated differences in power and roles (including decision-making) within holistic systems of reality and meaning. They maintain that discussion and dialogue amongst interested parties were widely practiced in these societies.

Ruitenbeek and Cartier (2001) state that the usual assumption had always been that people would cooperate and collaborate only if it were to benefit their own self-interest. They state that modeling demonstrates that cooperation is often a natural outcome in repeated games, and that systems may even arrange themselves around a collaborative effort if there is a common good at stake. They found that feedback effects eventually created incentives and caused people to adjust their harvesting strategies that treated resources as communally owned.

Kollock (1994) found that the root of the problem of cooperation is that there is often tension between individuals and collective rationality. He states that in many situations, behaviour that is reasonable and justifiable for the individual often leads to a poorer outcome for all. He supports this statement by comparing it to the "tragedy of the commons" where the issue of social dilemmas is exemplified.

Ruitenbeek and Cartier (2001) state that individuals or communities generally prefer to follow a set of rules or practices and may make explicit judgments on only

a few selected issues. They contend that those judgments that are made and strategies selected, are subject to errors from which we either may or may not learn and adjust future strategies. It is argued that these rules and judgments, and the lessons learnt from applying these in practice, should be subjected to continual evaluation and monitoring and should be included in the guiding principles of the proposed NTF TFCA IMF. Without incorporating a process of introspection and evaluation, it would be difficult to adjust management strategies. This principle is applied in current natural resource management as external influences of politics, resource availability and demand, and a variety of other related factors influence the manner in which natural resource management is applied. These considerations need to be factored into the IMF and the process of reevaluation and monitoring must be clearly defined.

3.2.1 Collaboration

The modern interpretation of collaboration and cooperation should contribute to understanding this philosophy and its relation to natural resource management.

Ecoregional Conservation Strategies Unit (2000:45) defines collaboration as: '*a mutually beneficial relationship between two or more parties who work toward common goals by sharing responsibility, authority, and accountability for achieving results*'.

The document states that collaboration relies on trust, inclusion, and constructive engagement to achieve a broad common purpose and concludes that collaboration does not use advocacy, exclusion and power over others to achieve its end.

It states further that the power and status differences amongst the participants are diluted and ownership of the process is shared and note that stakeholder collaboration can, in the right circumstances, serve as a powerful tool to manage complex issues that isolated, individual efforts cannot solve. The management complexities of the NTF TFCA may be addressed through a collaborative management framework. Further research is needed to determine who the potential participants would be and what powers and influences they may impose, or contribute, to the project.

It is argued that the assumption that collaboration may serve as a mechanism to solve complex issues may not necessarily always succeed. By involving a diverse community of participants to the decision making process inherently will add to the complexity of the process! The design of a robust, functional decision-making framework therefore is regarded as a critical success factor to achieving integrated decision-making. Therefore, the number of participants and the level at which they participate in the IMF for the NTF TFCA are crucial issues that should be taken into consideration. The selection of appropriate participants, who have approved mandates from their constituents, and who may influence, or be influenced by the TFCA project, is one of the challenges of designing the IMF.

A fundamental principle, as stated in the definition, is the identification and agreement on the common vision. Collaboration, it is accepted, will not occur when there is nothing to gain by the participants. This is an important consideration that must be further researched whilst developing the IMF for the NTF TFCA project.

Collaboration will not be possible if the visions and objectives of all the participants are not generically aligned to the common purpose of the NTF TFCA project. This common purpose may be a broad statement of intent to alleviate poverty, as an example. If this principle objective is incorporated in the vision and objectives of a diversity of role players within the project area, then these participants may be included in the integrated management framework. The premise that there is a common goal will have to be established by conducting further research.

3.2.2 Co-management

The concept of co-management should be considered in the same context as collaboration, where collaboration refers to the philosophy of collective action towards common goals and co-management relates to the mechanism of achieving it.

Borrini-Feyerabend *et.al* (2000:21) define co-management, within the context of natural resource management as: '*a situation in which two or more social actors negotiate, define and guarantee themselves a fair share of the management*

functions, entitlements and responsibilities for a given territory, area or set of natural resources'.

They furthermore describe co-management as a pluralistic approach to managing natural resources incorporating a wide variety of partners with diverse roles and functions. This partnership generally has a shared end goal of environmental conservation, sustainable use of the resources and an equitable sharing of resources related benefits and responsibilities. They state that in the context of co-management, the terms participatory, collaborative, joint, mixed, multi-party or round-table management are included in the definition and are used interchangeably. The theoretical concept of co-management, and its application to natural resource management, is clearly defined. However, further enquiries are invoked, with particular reference to additional considerations that should be taken into account when comanagement models are designed in the context of natural resource management. With these thoughts in mind, one considers what these additional factors are and how they could be applied to transboundary conservation management? The next section attempts to relate the principles of collaboration in the context of natural resource management and transboundary conservation.

3.3 The Principle of Collaboration in Natural Resource Management

The benefits of collaboration and association between neighbouring states in the management of the shared natural resource asset is being realised more as the concept develops. Independent management of natural resources and ecosystems, not confined by international borders, have resulted in conflict between adjoining states, particularly in cases where resources are exploited without regard for other user and interest groups (Mayers 2001).

Conservation organisations are increasingly embracing collaboration that focuses on establishing and maintaining long-term relationships with key stakeholders (ESCU 2000). They note that the process of collaborative interchange is likely to succeed in a climate where opportunities are created to negotiate shared or individual goals, and where there is willingness to participate. The definition of collaboration considers the identification of the common goal as a critical point of departure for establishing the need to collaborate. An additional consideration that

requires investigation is the willingness of the potential partners to collaborate. This premise needs to be tested amongst the role players and stakeholders in the NTF TFCA initiative. If it is established that the role players have a common goal, but are unwilling to collaborate, is there sufficient recourse to address this? Is there legal sanction that could be employed to force cooperation and is this approach desirable? Alternative approaches may be to ensure benefits are identified and deemed significant, as these would then be the main incentive for parties to become willing!

Collaboration as a management approach has a range of complexities that need to be understood. ESCU (2000) agree that in some circumstances powerful stakeholders may refuse to participate whilst in other circumstances uninvited participants may want to be included. They contend that most circumstances of collaborative management involve a mix of favourable and unfavourable conditions and state that it is often the degree of collaboration that is possible or appropriate and not whether one should or shouldn't embark on a collaborative approach. The design of an integrated institutional framework for the NTF TFCA initiative, therefore, must identify appropriate role players and stakeholders and further decide on the level at which their respective participation should occur.

Mayers (2001) states that as the range of stakeholder groups' increase in respect to their demands on the natural resource asset, so do the inter-linkages between them. The complex links between policies, markets, institutions and capacities can lead to conflict if appropriate institutional frameworks are not in place to manage the process adequately. Mayers (2001) furthermore states that in order to engage these linkages a shared decision-making process requires an unashamedly political approach capable of engaging these complexities. The establishment of common objectives amongst participants, their willingness to collaborate and the level at which they participate in the decision making process contribute to establishing an enabling environment for collaboration. The complexity of managing the interactions and inter-relationships between the participants calls for a robust, well defined management framework. This might be achievable at local level. Transboundary conservation expands natural resource management across political bounds and as a result starts interfacing with a host of additional

complexities, including sovereignty and land tenure issues, differing cultures and management approaches and many others. The next section attempts to relate the principles of collaboration in an international context and seeks to determine whether mandates exist that foster collaboration between countries.

3.4 Collaboration in Transboundary Conservation Management.

Griffin *et al.*(1999) maintain that transboundary conservation management is fundamentally a cooperative or collaborative management of resources by a group of stakeholders on either side of a border and state that participants enter into various forms of partnerships with each other.

It is international conventions and national policies, in respect of cooperative management, that set the parameters for engagement and are used as broad based guidelines for TFCA establishment frameworks.

International agreements are intended to influence decision-making through the design of internationally agreed objectives and mandates (Young 2003). He states that they generally are not intended to be automatically binding by law of the country, although when countries become parties to international agreements they may demonstrate their respective commitment to the agreement by passing national law.

A number of international agreements contain provisions that are relevant to transboundary conservation management and their stated objectives. Young (2003) lists these as follows:

- Convention Concerning the Protection of the World Cultural and Natural Heritage (the "World Heritage Convention)
- Convention on Wetlands of International Importance (Ramsar)
- Convention on Biological Diversity (CBD)
- UN Convention on the Law of the Sea (UNCLOS)
- Convention of Trade in Endangered Species of Flora and Fauna (CITES)
- Convention on Migratory Species (CMS)
- UN Framework Convention on Climate Change (FCCC)
- UN Convention to Combat Desertification (CCD)

- World Trade Organisation (WTO)

The South African Development Community (SADC), established in 1992, seeks, as its mandate, to promote collective self-reliance and the forging of closer links among its member states to create genuine and equitable regional cooperation (Candeias 2001). The SADC Treaty defines the basis for regional integration and cooperation and incorporates the principles of sovereignty, state responsibility and good neighbourliness (Mohamed-Katerere 2001). These principles are stated in the protocols of SADC and are further reflected in the many transboundary conservation initiatives. The SADC Treaty, therefore, creates an enabling environment for the development of transboundary conservation initiatives within an international context through cooperation amongst national governments.

Whilst policy and agreements may be in place that establishes the conditions for cooperative management at international policy level, basic framework conditions may not be in place at implementation level. However, the principles for establishing cooperative management systems at local level have been determined which creates the environment for engagement between local parties or stakeholders.

Mohamed-Katerere (2001) cautions that although the guidelines and principles of transboundary conservation initiatives are supported by the overarching principles of SADC, they must be in keeping with its stated objectives of the promotion of economic development, the alleviation of poverty and the enhancement of the quality of life for all the people of southern Africa. He states that although the SADC Treaty is not prescriptive, several protocols, including the SADC Protocol on Wildlife Conservation and Law Enforcement in Southern Africa and the Protocol on Shared Watercourses, does encourage cooperative management and engagement of governments.

The SADC Treaty defines the basis for regional integration, and cooperation in matters of mutual interest. These principles of cooperation are furthermore entrenched in, and supported by, the objectives of TFCAs. These policy frameworks and agreements between southern African countries should be reflected in the mandates of national and provincial institutions in South Africa.

The NTF TFCA would not have a legal mandate to pursue matters of common interest, across international boundaries, if the principles of the SADC Treaty were not incorporated and adopted by these institutions.

3.5 Cooperative Governance ~ The South African Perspective

The South African Constitution of 1996 clearly details the principles of cooperative governance in Chapter 3 of the Constitution. It states that the government is constituted as national, provincial and local spheres of government and that these levels are distinctive, interdependent and interrelated (RSA Constitution 1996). It furthermore details principles of cooperative government and intergovernmental relations and encourages all spheres of government and all organs of state to, amongst others, cooperate with one another in mutual trust and good faith. It details guidelines on how to achieve this as follows:

The Constitution encourages cooperation by:

- fostering friendly relations;
- assisting and supporting one another;
- communicating, informing and consulting on matters of mutual interest;
- coordinating actions and legislation;
- adhering to agreed procedures
- avoiding initiating legal proceedings against one another.

RSA Constitution (2004)

The National Environmental Management: Protected Areas Act of 2003 allows the formal management authorities to enter into agreements with other organs of state, local communities, individuals or other parties for the express desire to co-manage an area. It cautions that the contemplated co-management should not lead to the fragmentation or duplication of management functions. The proposed integrated management framework will be designed to include these considerations.

3.6 Cooperative Management Systems for TFCAs

The literature review focused on the philosophy of cooperation and its influence on the formation of civil societies. It identified the need to protect common pool

resources by applying rules of engagement and norms and standards within cooperative environments. Furthermore, it is clear that comanagement agreements need to be implemented and monitored, and that introspection and continual evaluation was required for effective co-management. Cooperative management implies the interaction between role players and participants from a diversity of backgrounds and that the establishment of a common goal or objective was an important consideration for contemplating cooperation and collaboration.

It was further established that in order for collaboration to succeed a number of additional conditions had to be met. These included the identification of a willingness to cooperate, the legal frameworks from an international and national perspective that encourage collaboration, as well as the identification of who to involve and the level of involvement in the decision making process. It was established that international and national treaties, policies and agreements, both from a national perspective, as well as internationally, encourage collaboration in natural resource management.

It was furthermore established that no blue print exists for issues pertaining to designing cooperative management systems for TFCAs and that each management framework will have to take into consideration the prevailing circumstances at the implementation level.

4. Current Structures for the Management of Transboundary Conservation Initiatives in Southern Africa

4.1 Background

Griffin *et al.* (1999) state that frameworks and key guidelines for designing management systems should be determined by local conditions and circumstances. They consider that the imposition of institutions or structures upon the participants would be counter productive. The NTF TFCA is in a position to take these perspectives into consideration. Currently no management framework exists that integrates participants and role-players, neither is one being imposed by external influences. The project is solely being driven by the TFCA process and is evolving as it gains momentum. However, before designing the IMF framework for the NTF TFCA, further consideration should be accorded to other TFCA institutional frameworks currently being applied within the southern African context from which a model framework can be developed.

In 1998 relevant stakeholders from Mozambique, Zimbabwe, South Africa and Swaziland agreed to establish an Interim International Technical Committee that would deal with specific tasks in respect of prospective TFCA areas (Msimang 2003). As the process developed, appropriate institutions were created to facilitate the planning and development process. These included:

- A Ministerial Committee – this is the top decision making authority. The Minister of Environment/Tourism, or equivalent, of each of the countries is a member of this committee.
- Technical Committee – these committees advise the Ministerial Committee on issues relating to planning and development. These members are high-ranking government officials, technical experts or both.
- Working Groups – these working groups advise the Technical Committee on various issues and generally include safety and security, joint management of TFCAs, tourism development, community related issues, legislation and funding requirements.

Whilst these proposed institutional structures serve as guidelines, their application at implementation level may differ between the various TFCA. The Lubombo TFCA and the Maloti Drakensberg Transfrontier Conservation and Development Area (MDTFCA) institutional arrangements, as described in Table 2 illustrate the different models and concepts used. These are largely determined by prevailing circumstances and influences, as well as the associations between the participating countries and the composition of the stakeholders.

Table 2. Comparative Institutional Arrangements.

Lubombo TFCA	Maloti Drakensberg TFCA
<p>Trilateral Commission (Ministerial Committee comprising of the relevant Ministers of the three participating countries. They meet quarterly and are informed on progress made by the Commission Committee)</p>	<p>- (No formal structure has been established)</p>
<p>Commission Committee (Representation from RSA, Swaziland and Mozambique, usually the Heads of Dept. from the various conservation authorities and the Task Team Chairpersons) The committees meet quarterly and evaluate and monitor progress by the Task Teams.</p>	<p>(No formal Commission Meeting. This function is performed by the Bilateral Steering Committee)</p>
<p>Bilateral Task Team (Task Team meets quarterly to review progress and align processes. Composed of the Chairpersons of the Task Team and Senior personnel from the relevant conservation authorities)</p>	<p>Bilateral Steering Committee (Representation from RSA and Lesotho. Include the Heads of Dept. of the conservation authority and the Task Team Chairpersons) The committees meet bi-annually and evaluate and monitor progress by the National Project Coordinating Committees</p>

RSA Task Team	Mozambique Task Team	RSA Project Coordinating Committee	Lesotho Project Coordinating Committee
(In country Task Teams meet quarterly to review progress and align activities of the various working groups.)		(In country Coordinating Committees meet quarterly to review progress and align activities of the various working groups.)	
Working Groups (Not yet established)	Working Groups (Not yet established)	Working Groups (Project Coordinating Unit)	Working Groups (Project Coordinating Unit)
Memorandum of Understanding (No MOU)		Memorandum of Understanding (Bilateral MOU signed, project launched August 2003, in Lesotho)	

Adapted from Braak *et al.* (2003) and Msimang (2003).

The Technical Committees, as described by Msimang (2003) are replaced by a Task Team for the Lebombo TFCA cluster and a Project Steering Committee for the MD TFCA. RSA currently chair the NTF TFCA Task Team of the Lubombo TFCA cluster and report directly to the Trilateral Commission Committee. The MD TFCA Project Coordinating Committee Chairperson co-chairs the Bilateral Coordinating Committee. The implementing agencies in each country are represented in these structures and ultimately the products and outputs become their responsibility for implementation.

The signing of a Memorandum of Understanding between the participating countries commits them to maintaining the momentum of the planning and development process. The NTF TFCA project currently has no formal MOU in place. The requirement for an MOU is acknowledged but can only be achieved once the CDP's and Management Plans have been adopted. Once the MOU has been signed an International Treaty will be signed between the participating countries. This is essentially the implementation phase of the project. The IMF will inform all the development phases of the TFCA process and will play an integral

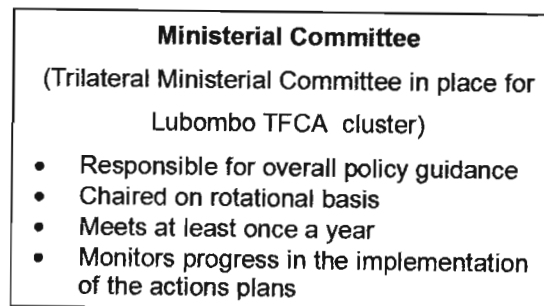
part in ensuring that the RSA components are aligned with local and national imperatives, as well as the international context.

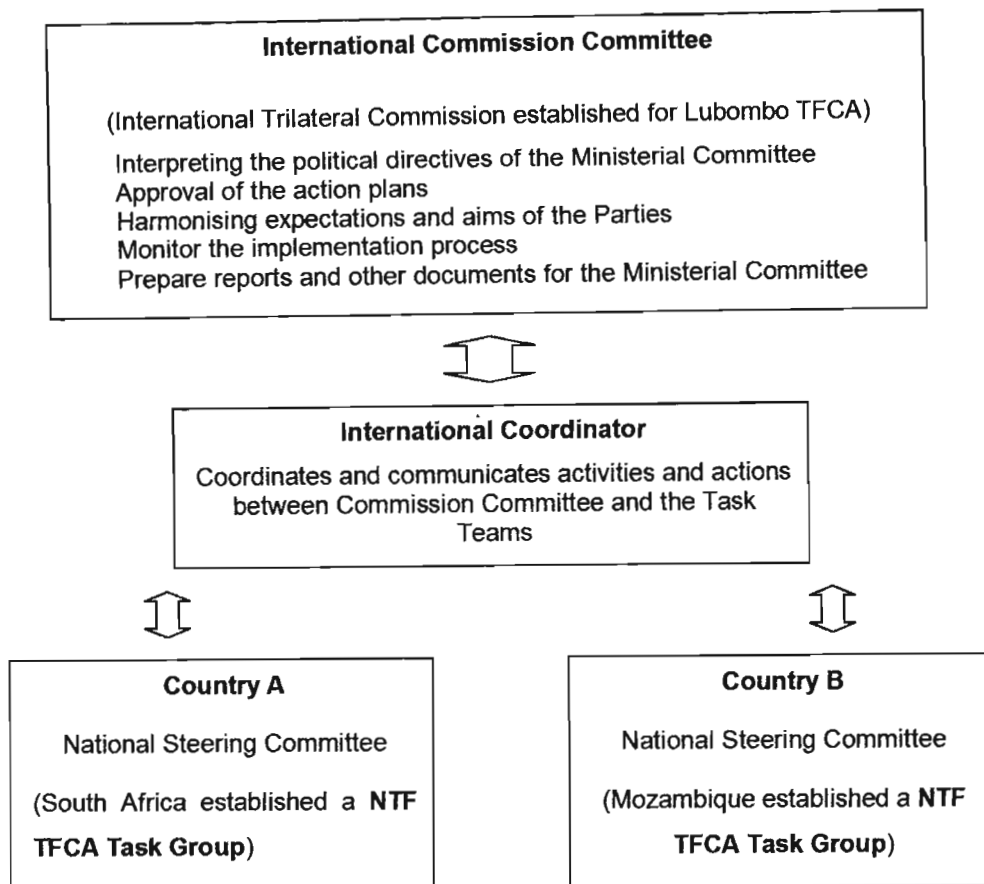
Msimang (2003) suggests that the Technical Committees should be replaced with Joint Management Boards (JMB) as it takes on the responsibilities for the management of transboundary issues relating to the project. Peddle *pers.comm.* (2005) states that these JMB's have failed to deliver on their management mandates in the Greater Limpopo TFCA. He stated that the constitution of these JMB's is crucial as personal interest and bias management considerations influence the objectives of the TFCA. These concerns may be addressed for the NTF TFCA by ensuring that the guiding management frameworks (joint management plans) are clearly defined and that representation is equitable amongst the JMB constituents.

4.2 Proposed Institutional Framework

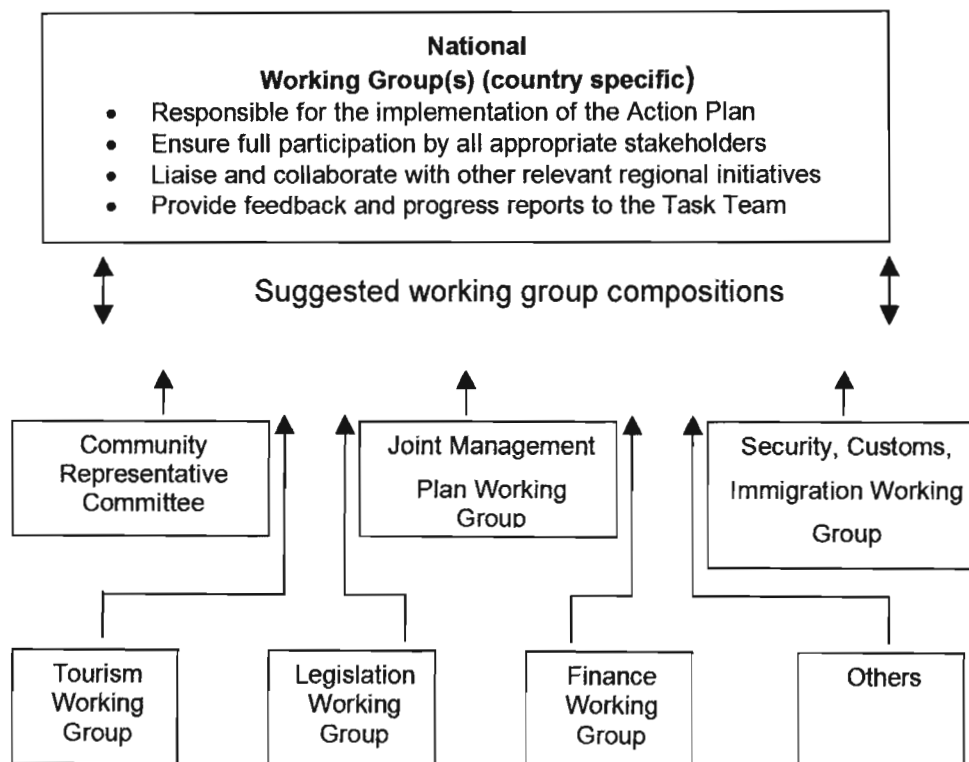
Braak *et al.* (2003) collated a generic institutional framework for TFCAs after hosting a number of workshops with interested and affected parties associated with TFCA development. This institutional framework could be used as a basis for implementing the Action Plans in future transboundary conservation projects.

The framework, proposed by Braak *et al.* 2003 is detailed below and adapted for the NTF TFCA context. The terms of reference/responsibilities of each of the components are included. The stage reached in respect of the NTF TFCA is further superimposed in the flow diagram.





The establishment of working groups and associated responsibilities have not taken place for the NTF TFCA



4.3 Development Planning in the Ndumo-Tembe-Futi Transfrontier Conservation Area.

A bilateral Task Group, with representation from Mozambique and South Africa, has been established and have developed a Concept Development Plan as well as an Action Plan. Both these plans are required as part of the protocol agreement and have been accepted by the Trilateral Commission.

The Concept Development Plan identified tasks that require immediate attention and identified the need for the establishment of a Project Coordinating Unit as a critical key objective.

The Project Coordinating Unit is an essential component of the TFCA initiative as it will drive the operational effectiveness of the project and integrate it into the communities and institutional structures, and other constituent parts of the project area. It is proposed that the roles and functions of this unit will be similar to the Coordinating Party adopted by the Ai-Ais/Richtersveld TBCA as well as the PCU management unit currently in place for the Maloti Drakensberg TFCA.

The NTF TFCA finds itself at a critical junction. The project has met the requirements of the Protocols as agreed by the participating countries. The CDP's and Action Plans have been accepted by the Ministerial Committee. Furthermore funds have been accessed for infrastructure development and upgrade within the protected areas (Ndumo Game Reserve and Tembe Elephant Park) as well as for the fencing and minor infrastructure developments in two CCAs, namely Tshannini and Usuthu. Although business plans and management plans are currently being considered for these two CCAs, budgets are generally allocated based on immediate needs and approximate benefits. The funds and activities are currently implemented through the Elephant Coast Poverty Relief Project whose principle aim is to create job opportunities within communities embedded within the NTF TFCA project area. It is worth noting that the objectives of job creation, local economic development and capacity building are entrenched within the goals of the NTF TFCA. The Poverty Relief programme is seen as an important

mechanism to demonstrate the intentions of the TFCA initiative to both neighbouring communities as well as the national funders.

Currently little or no attempt has been made to include broader stakeholder groups, these include military and security personnel whose interests lie in border security, veterinary services whose primary focus rests in cross border disease control and surveillance, and host of other potential stakeholders, including the local and district municipalities.

Furthermore, community related aspects, and in particular the pending land restitution negotiations with claimant communities, access rights and resource utilisation issues need to be addressed as a matter of urgency before linkages across international boundaries could be considered. Bewsher *pers.comm.* (2005) stated that the lack of fully engaging and addressing community issues with respect to ownership rights and tenure, as well as access rights to natural resources, could derail the TFCA initiatives. He states that internal arrangements and the alignment of local goals and objectives must be prioritised before negotiating transboundary resource management with other countries.

Although the NTF TFCA CDP recognises the need to establish a PCU, this has not been achieved. The Poverty Relief Project Manager has made numerous attempts to align the initiatives of the project within the ambit of greater community needs. The process of engaging stakeholders is ad hoc and has no formal strategic plan.

It is anticipated that the PCU would be a critical success factor to the establishment of the NTF TFCA. It is further recognised that this unit could fulfil the integrating function for coordinating all activities associated with the objectives of the TFCA.

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COMPONENT B

**Transfrontier Conservation ~ Towards an Institutional Framework for
Integrated Management: A case study of the Ndumo -Tembe – Futi
Transfrontier Conservation Area.**

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*This component is written in the format required by the journal, Environmental
Management. As such, the guidelines of this journal (Annexure 1) have been
followed in its writing, as per thesis requirement.*

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2. Abstract

The concept of the conservation of shared ecological resources between nations is growing rapidly in southern Africa with large investments being made in this field. Transboundary conservation areas are regarded as important mechanisms to achieve these broad landscape approaches to sustainable resource management and biodiversity conservation.

Transboundary conservation areas expand beyond the bounds of traditional biodiversity conservation as they interface with a coalescence of role players and stakeholders. It is at this interface that transboundary conservation areas face their greatest challenge. It is widely accepted that to deliver on the mandate of these areas, integration of the mandates and objectives of diverse role players and participants, attracted to the project area, is essential.

An extensive literature review was conducted to investigate how transboundary conservation management could be integrated into broader socio-economic and biodiversity conservation initiatives. The study revealed that an overall framework does exist at national and international level in respect of reporting structures, however, no details emerged regarding integrated management frameworks at the level of implementation. The study focused on, and responded to the need to develop an institutional framework for integrated management for the Ndumo-Tembe-Futi Transfrontier Conservation Area (NTF TFCA).

The study recommends a pragmatic framework for integrating the various participants in the NTF TFCA project area and offers guidelines on the considerations that should be taken into account when implementing the framework.

Key words: Co-management; transboundary conservation management; integrated management framework; institutional framework.

3. Introduction

Transboundary conservation areas are regarded as essential components of a landscape level approach to natural resource management (Wolmer 2003). De Villiers (1999) states that an array of transboundary models and concepts advocate collaborative management of shared resources between protected areas and communities, which extend beyond the confines of international borders.

Large scale regional planning and investment initiatives within the transboundary conservation project areas span across differing institutional frameworks with varying degrees of collaboration between state, community and private sector role-players (Van der Linde *et al.* 2001). Important questions about the powers and functions of these role-players are raised as their complex associations are superimposed on their respective layers of governance, administration, mandates and politics.

As funds for these large-scale initiatives are unlocked, government and conservation authorities are becoming increasingly business-like as they forge partnerships with donor institutions and build corporate linkages and partnerships in a spirit of cooperative governance. The extent to which conservation agencies form alliances with business in areas of general public and community interest and the involvement of private sector values into these spheres, provoke crucial questions of governance and challenges to government.

Research into the design of a robust integrated management framework for the NTF TFCA took the broader concept and philosophy of transboundary conservation management and the driving paradigms influencing current TFCA projects into consideration. Integrating role-players and participants to achieve common objectives was considered a challenging undertaking as the review of literature revealed that little or no clear guidelines existed for such a management framework.

A literature review analysed the historic and current approaches to transboundary conservation and evaluated current thinking of this evolving concept from a global perspective and its contextual relation to the southern African perspective. It established the premise that the key to successful implementation of the NTF TFCA initiative was the need to consolidate the diversity of role-players and stakeholders into an integrated management framework that espouses an environment for collaboration. The review further revealed supporting mandates that enable cooperation and collaboration and co-management in land use management. These are vested within the

principles of the Southern African Development Community (SADC), the South African Constitution and a diversity of legislation.

It is argued that the principles of cooperative management, as reflected in national and regional policies, should create an enabling environment for engaging role-players and stakeholders in a process of collaboration, where this is deemed appropriate, in order to ensure effective land use management of transfrontier conservation areas.

The research undertaking sets the foundation upon which a functional and pragmatic institutional framework for integrated management can be developed. It is anticipated that the functionality of the framework will be tested as it is implemented and integrated into institutions and the organisational process. It is acknowledged that it may not necessarily be expedient in practice and may require refinement and remodeling as it responds to changing circumstances, i.e. a process of adaptive management. The study, however, articulates the basis from which the framework can be designed and accords the reader a detailed interview with the rationale and criteria used.

This study proposes an institutional framework for integrated management in response to current thinking, influenced by details obtained from the literature. It takes into consideration the context of the NTF TFCA project and the diverse associations between the role-players and stakeholders. In order to narrow the focus, only the South African perspectives of the TFCA were included.

The paper introduces the purpose of the study with reference to the case study area and describes the methodology used to conduct the fieldwork. The results are discussed based on the findings of the fieldwork upon which an IMF is recommended. It is acknowledged that this field of study is relatively new and that further research is needed on the subject. Additional research requirements are recommended in the paper.

4. Purpose of the Study

The study focuses on, and responds to, the need to develop an institutional framework for integrated management for the NTF TFCA. This would be achieved through working towards achieving the following objectives:

- reviewing the literature to contextualise the concepts of transboundary conservation areas and understanding the driving paradigms of comanagement and collaboration in the context of the current management arrangements for transboundary conservation initiatives in southern Africa.
- Identifying gaps in the literature that failed to provide sufficient detail to develop an Integrated Management Framework (IMF) for the NTF TFCA.
- proposing an IMF for the NTF TFCA based on these research findings.
- identifying further needs for research in this evolving management concept.

5. Study Area

The NTF TFCA is located within a unique cluster of five component TFCA projects and is administered under the Lubombo TFCA management protocol. It is situated in the north eastern region of South Africa and considers a linkage between the formally protected areas of Tembe Elephant Park and Ndumo Game Reserve in South Africa, and the Maputo Special Reserve in Mozambique through a corridor of land along the Futi river. The establishment of Community Conservation Areas (CCAs), having conservation and economic potential, have been encouraged so as to facilitate linkages between these formally proclaimed protected areas. The recent inclusion of Swaziland into the project was facilitated by the establishment of a CCA in the Usuthu Gorge area, which lies to the west of Ndumo Game Reserve. The project has a tri-lateral focus that adds to the complex associations and interrelationships between the participating countries. Figure 1 on page 7 details the project location.

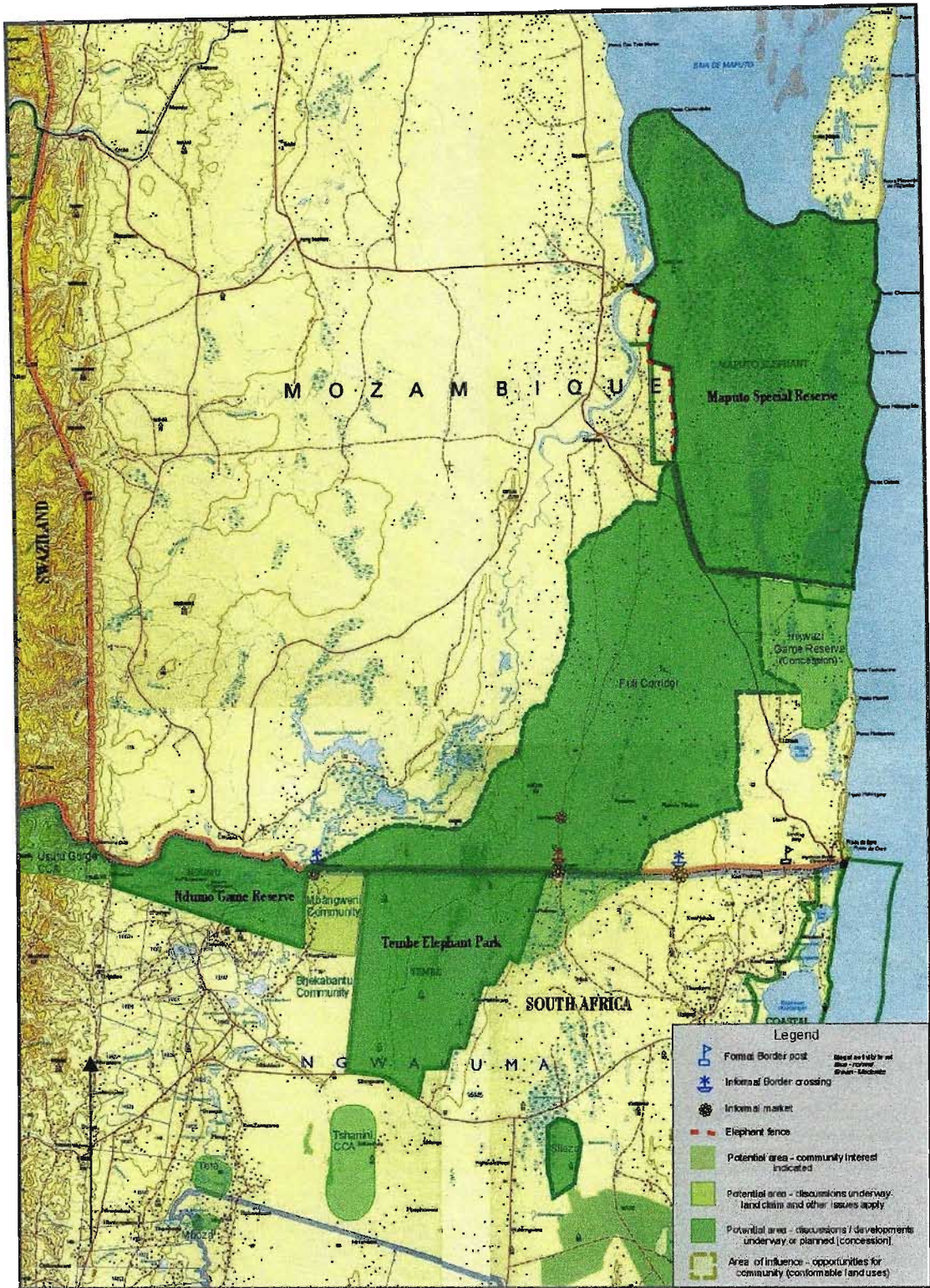


Figure 1. The NTF TFCA project area (EKZMW 2004).

Figure 1 details the NTF TFCA project area in relation to the formal protected areas of Ndumo Game Reserve, Tembe Elephant Park and the Maputo

Elephant Park. Usuthu CCA is located to the west of Ndumo and Tshannini CCA is situated south of Tembe Elephant Park.

The potential linkage between Ndumo and Tembe through the Mbangweni community area is shown in light green. The proposed linkage between the protected areas and community conservation areas in South Africa and the Maputo Special Reserve, via the Futi corridor, is shown in dark green with a dotted boundary demarcation.

The key objectives of the NTF TFCA include the stimulation, promotion and marketing of the local economy and the consolidation and establishment of core conservation areas. It proposes community empowerment and tangible benefit flows to these communities as a primary objective. The need to develop critical infrastructure that would support local economic development is further regarded as a key outcome of the project as well as the need for effective law enforcement (Porter *et al.* 2004).

Porter *et al.* (2004) identified the lack of institutional frameworks for aligning activities, health related issues, marginal agricultural potential of the land, unregulated cross border associations and the lack of adequate funding as some of the key impediments affecting the successful implementation of the project. These constraints have been taken into consideration and the IMF was designed to address these concerns.

6. Methodology

The adopted approach to researching and designing an appropriate IMF for the NTF TFCA was to undertake an extensive literature review to identify and critically analyse current thinking on transboundary conservation management. This was essentially a desktop exercise aimed at generating an understanding of the concept of transboundary conservation management. The legal context within which it is bound and as well as the guiding principles for cooperative management were considered in-depth within the literature review. The findings from this review were used to inform the research approach.

The review identified gaps in the literature that failed to provide sufficient detail to develop an IMF for transboundary conservation areas. Based on the findings from the review, a baseline questionnaire was compiled (Annexure 2). The questionnaire was used in an interview of the key stakeholders and role-players associated with the TFCA project. The interviews formed the basis from which the IMF for the NTF TFCA was designed.

7. Questionnaire and Stakeholder Inventory

The questionnaire survey was conducted to obtain qualitative data and contributed to understanding the aspirations, mandates and perceptions of the interviewees. The stakeholder community interviewed was determined by the principles described in the literature review and was guided by the judgement of the researcher due to his familiarity with the characteristics of the population. Borrini-Feyerabend and Buchan (1997) suggest that a stakeholder inventory be considered where time constraints and resource limitations may influence the research. A stakeholder inventory was undertaken in a round-table brainstorming session with individuals familiar with, and involved in the field of study. Borrini-Feyerabend and Buchan (1997) note that although a stakeholder analysis would be more appropriate than an inventory, particularly when communities affected are complex and stakeholder relationships are not easily identifiable, would require more time and resources and involves participatory sessions for the collection of new data. For the purposes of this research a stakeholder inventory strategy was adopted in conjunction with a mixed purposeful sampling method.

The mixed purposeful sampling method was selected as it allowed for a combination of sampling methods to be used. This allowed for a more flexible research enquiry and met multiple interests and needs (Salant and Dillman, 1994). Chain referral sampling further identified more people and institutions that could be influenced by, or have influence over, the intentions of the NTF TFCA and was employed as one of the sampling strategies. An additional sampling method used included an opportunistic sampling strategy. This approach took new leads during the interview process and furthermore

complemented the identification of stakeholders and role-players affected, or influenced, by the NTF TFCA initiative.

A semi-structured questionnaire (Annexure 2, pg 36) was used and allowed for open-ended and closed ended questions to be used. Open-ended questions facilitated the respondent to substantiate their responses, whilst closed-ended questions required a yes/no response. A single questionnaire was used to interview all the stakeholders and role-players. It is acknowledged that a crucial factor in qualitative research is the need to select respondents that fit the objective of the study. Borrini-Feyerabend and Buchan (1997) found that any initiative that wishes to respond to social concerns has to assume a conscious philosophy and approach. They state that the initiative should be specific about whom the key role-players and stakeholders are that are expected to participate and what roles/contributions they are able to make. It was therefore necessary to purposefully select respondents who have some experience or knowledge of the subject as recommended by Creswell (1994).

8. Results

A total of 22 key stakeholders were interviewed. They were divided into three broad groups based on their associations and responsibilities. These included **14 Government sector stakeholders**, **6 Community and Business sector stakeholders** and **2 NGO stakeholders**. The outcome of the research is discussed separately and analysed within respective components. The results of each component were used to inform the key research questions which included how the complex issues pertaining to TFCA management could be overcome; establishing the premise of whether a common vision and purpose exists between the stakeholders and determining who should implement and manage the IMF within the project area. These components were considered the key areas that will inform and influence the design of an IMF for NTF TFCA.

8.1 Component 1. Determining regional cooperation and alignment of activities

The integration of projects and activities is critical to achieve delivery on the core mandates of implementing agents and management authorities within project areas.

An assessment of regional cooperation within the NTF TFCA project area was undertaken to determine whether an alignment of activities existed. The design of the IMF for NTF TFCA will be informed by these structures, where they exist. The IMF may be designed to complement them by integrating with them or it may be designed as an independent framework that responds to regional imperatives.

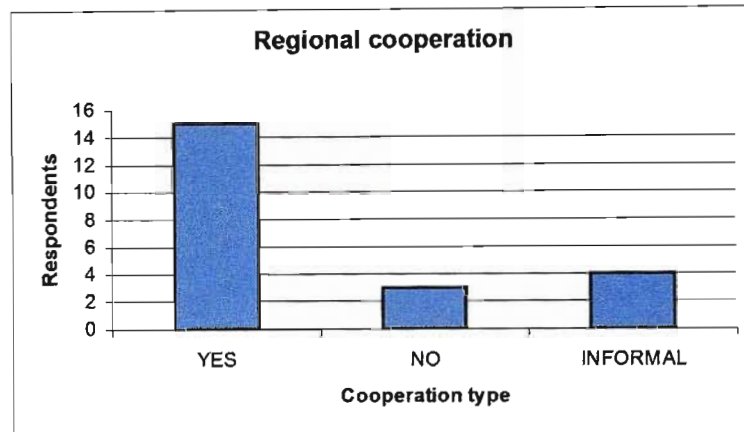


Figure 2. Responses to regional cooperation in the NTF TFCA project area

Figure 2 illustrates the response from stakeholders to the question of whether regional cooperation was taking place. The majority of stakeholders agreed that some form of regional cooperation was taking place but that it was achieved with varying measures of success. Three respondents felt that no cooperation was taking place and 4 respondents were of the opinion that where cooperation did take place, it occurred on an adhoc, informal basis.

Government Sector

Government sector respondents agreed that cooperation and the alignment of activities was taking place, albeit with varying degrees of success. They

qualified their response by stating that it generally only took place within their respective spheres of influence. The security sector, as an example, had joint planning committees that included Department of Home Affairs, South African Revenue Services, National Intelligence Agency and the South African Police and National Defence Force. These committees attended to matters pertaining to security only and had little interest in, or influence over, other matters.

Additionally the local and district municipalities were of the opinion that the Integrated Development Plans (IDP) were mechanisms to facilitate integrated management at broader landscape scale. It was noted in the research that the IDP's are not being implemented as intended and that there was a comparative dissatisfaction amongst the respondents about the functionality of the IDP's. Some respondents suggested that the IDP process could be the mechanism to integrate activities associated with the NTF TFCA. However, they agreed that this would only be possible if it were appropriately administered.

The conservation authority respondents stated that very little integration or alignment of activities was taking place at implementation level and that development and management decisions are largely taken in isolation of other driving forces or influences.

NGO's

Both NGO's active in the project area, namely Wildlands Conservation Trust and Mbona Community Project, agreed that alignment of activities was taking place but only on an informal basis. They stated that no formal structures exist that currently guide their sphere of operation, other than the mandate conceded by the Traditional Authority.

Community structures and Business Community

The respondents, from Tembe Elephant Safaris and Ndumo River Lodge, agreed that no formal framework exists that allows for the alignment and coordination of projects and activities in their area of responsibility.

The findings of component 1 revealed that whilst some collaboration was taking place in certain sectors, it was largely limited to the respective institutions and

sphere of governance. There was little or no collaboration or cooperation across business and government sectors, particularly within the ecotourism and NGO constituent

8.2 Component 2. Determining whether the regional cooperative structures are functional

The functionality of regional co-management structures, where they exist, was largely determined by the sphere of influence and the area of responsibility of the institutions. This was established by questioning those respondents who agreed that some level of cooperation was taking place. It appeared that co-management was taking place where institutions stand to gain the most, and was most evident in the security stakeholder sector. This finding is consistent with the literature. Borrini-Feyerabend *et al.* (2000) define co-management as a situation where participants negotiate, define and guarantee themselves a fair share of the management functions and responsibilities.

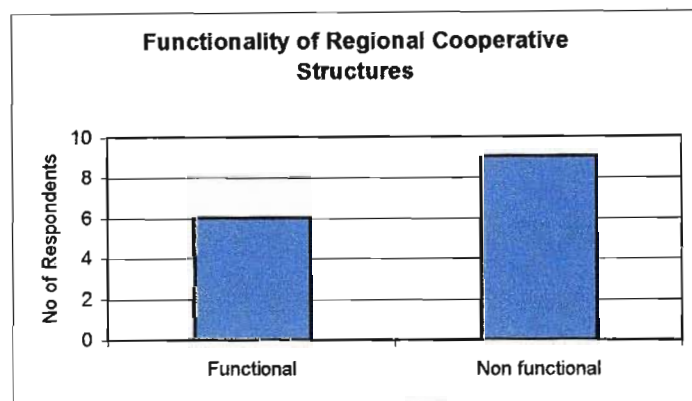


Figure 3. Functionality of regional cooperative structures

The functionality of regional cooperative structures is illustrated in Figure 3 where 9 respondents were of the opinion that regional cooperation was dysfunctional. However, 6 respondents felt that cooperation was contributing to achieving their overall vision and objectives. The research revealed that where regional cooperation was taking place, it did so within the context of their responsibilities and seldom considered the inclusion of additional stakeholders

within broader frameworks. This was most evident in the security sector as they included a larger diversity of stakeholders within their management frameworks whilst Government Departments, such as the Department of Public Works and the Department of Transport had no formal mechanism to engage with a broader stakeholder group.

8.3 Component 3. Determining respondents' perceptions of the NTF TFCA

Respondents were asked whether they had heard of the NTF TFCA and the key objectives of the project. The results of this fieldwork enquiry would determine whether additional marketing and communication was required in order to gain a broader understanding and acceptance of the project. The lack of understanding of the NTF TFCA project by some respondents was not regarded as a constraint to developing the IMF.

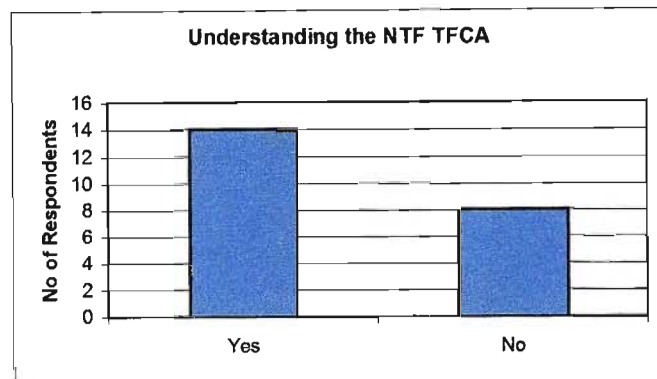


Figure 4. Understanding respondents' perception and understanding of the NTF TFCA.

The current levels of understanding and perceptions of respondents of the NTF TFCA are reflected in Figure 4. Of the key role-players and stakeholders interviewed 14 respondents had heard of the NTF TFCA initiative whilst 8 respondents had never heard of it. The respondents who had not heard about the TFCA included some Government Departments, particularly those not associated with the project directly. These included Departments of Health, Public Works and Transport. In addition it was noted that the three municipal

managers interviewed had a vague understanding and background of the initiative. It was established that the TFCA project was not included in the IDP's of the three municipalities, however, the inclusion is currently considered a priority. In response to the enquiry whether the NTF TFCA was well positioned to deliver on its objectives, the majority of respondents were unsure, as they regarded their current roles and functions as peripheral to the initiative, or had a poor understanding of the initiative. This fieldwork contextualised the understanding of the project within the broad stakeholder group and identified opportunities where more marketing and communication was required in order to advance the objectives of the TFCA.

8.4 Component 4. Identifying the common vision.

The need to determine a common purpose or goal is considered a fundamental principle that may encourage cooperation. Figure 5 illustrates 7 key objectives of stakeholders active within the project area that are commensurate with the objectives of the TFCA. The fieldwork research aimed to determine whether respondents had a common purpose or similar objectives between themselves and how these related to the projects goals and objectives.

The study revealed that the key objectives of the NTF TFCA were incorporated, to a greater or lesser degree, within the vision and objectives of the respondents and that the premise of a common purpose could therefore be established. The respondents regarded poverty alleviation; job creation as well as the provision of essential goods and services as key deliverables incorporated within their mandates. This response was consistent between NGO's; some Government Departments as well as Community structures. This was a significant finding as it identified a common point of departure and a key incentive for participants to cooperate in matters of common interest.

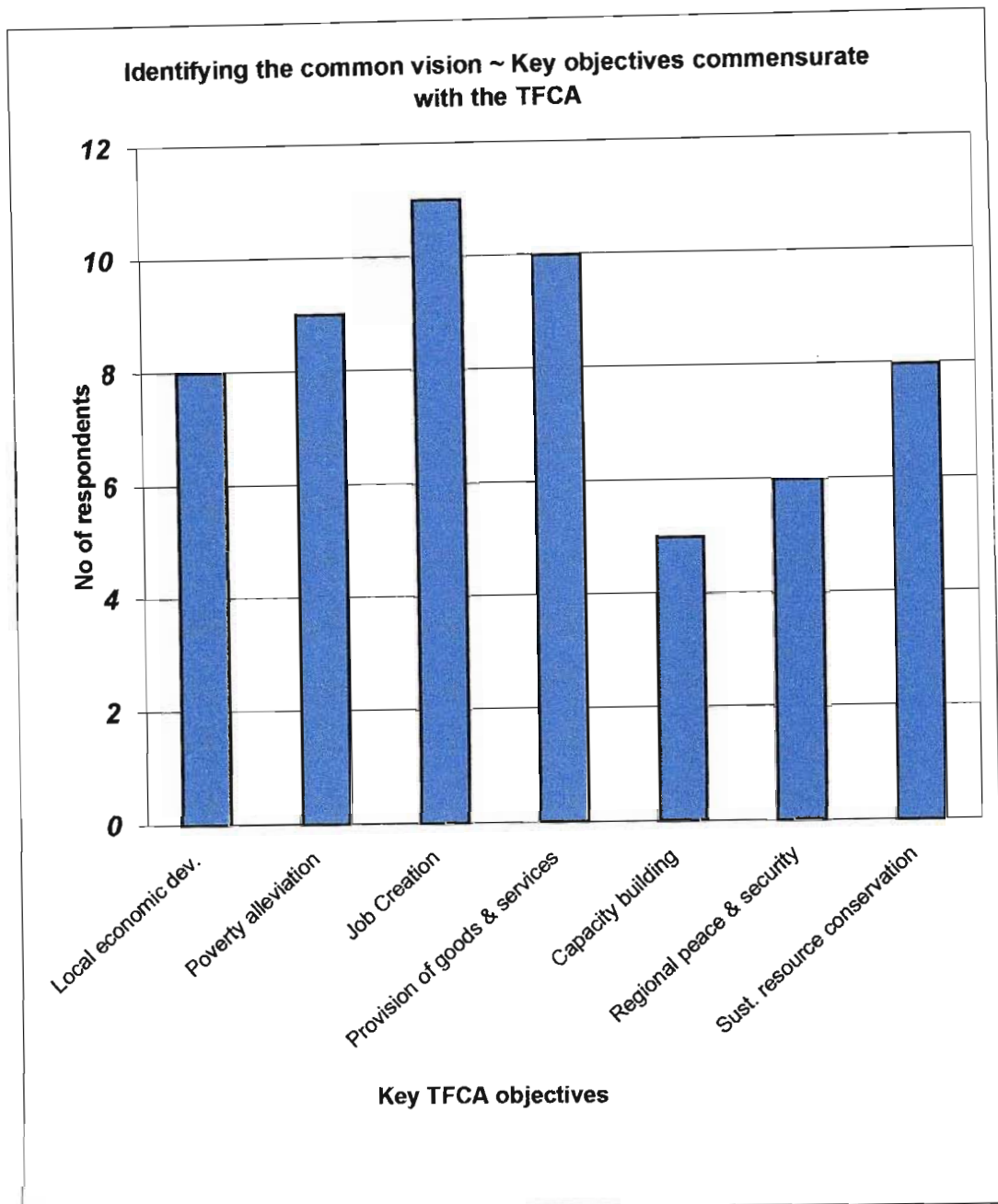


Figure 5. Graphical illustration of the key objectives of the NTF TFCA congruent with those of the respondents.

8.5 Component 5. Identifying the need for, and design of , the IMF.

In response to the need for an IMF for the NTF TFCA, the respondents supported the establishment of such a management framework. There was no objection to the need for an IMF, however, when questioned about the design

and institutional management of the IMF, there was a mixed result. These are detailed in Table 1.

Table 1. Responses to the institutional arrangements for the IMF, as detailed by the respondents’.

Institution to administer the IMF	Supporting argument	Argument against
Municipalities	<ul style="list-style-type: none"> • Municipalities have a legal mandate to integrate development through the Integrated Development Plan’s (IDP) and these IDP’s should inform the IMF for the NTF TFCA area. It is essential therefore that the relevant Municipality takes a lead role in managing the IMF. • management frameworks are currently being considered by the Central University of Technology for municipalities whose boundaries coincide with international borders. These proposed frameworks need to be incorporated within the Municipal IDP as well as the IMF. The Municipalities, therefore, need to take a lead role in managing the IMF. 	<ul style="list-style-type: none"> • they do not have the capacity nor the resources to manage the complex process of IDP’s and IMF’s. • some respondents felt that there would a tendency to serve the political/ personal interests rather than the community needs should the Municipality be charged with managing the IMF.
Independent authority	<ul style="list-style-type: none"> • Peace Parks Foundation (PPF) as they are a-political and independent and are not prescribed to by other institutions 	<ul style="list-style-type: none"> • Some respondents felt that independent authorities are influenced by their constituent members and may be subservient to the mandates and key deliverables. This

		<p>generally does not make allowances for adaptive management as the process responds to changing circumstances.</p> <ul style="list-style-type: none"> External influences are often far removed from prevailing circumstances at implementation level.
Ezemvelo KZN Wildlife	<ul style="list-style-type: none"> In the absence of any other credible management authority, EKZNW have the capacity and long-term investment in the initiative. Some respondents felt that EKZNW should seek to build capacity and skills within the community to take over the project. 	<ul style="list-style-type: none"> Respondents who supported this proposal felt that dedicated and full time staff members are required to effectively manage the process. Some respondents felt that EKZNW were at loggerheads with the community and as such felt that an independent authority may be more acceptable. Some respondents felt that EKZNW are partial to the conservation imperatives and do not necessarily advocate nor encourage development that is in conflict with this mandate.
Community	<ul style="list-style-type: none"> Some respondents felt that the Traditional Authorities are best placed to manage this project. Traditional Authorities recognise the interests of the community as a core deliverable. 	<ul style="list-style-type: none"> Some respondents felt that a lack of capacity and skills could be a constraint but this could be developed through a structured capacity and skills development programme.

The respondents agreed that an Integrated Management Framework was required to coordinate activities within the broad project area. Further to this it was established that the Local Municipalities, Ezemvelo KZN Wildlife as well as the Traditional Authority were identified as the lead implementing agents and management authorities within the project area. The results of the fieldwork indicate that all three agencies had opportunities, and constraints, in respect of taking the lead role in managing the IMF. This key finding will inform the design of the IMF.

8.6 Component 6. Level of participation on the proposed IMF.

Component 6 of the study analysed the level at which role-players and stakeholders should participate in the proposed IMF. In the literature Mayers (2001) recognised the need to include all participants in the decision-making process, however this is neither practical nor functional in a TFCA project due to the complex interrelationships and associations of participants attracted to the initiative.

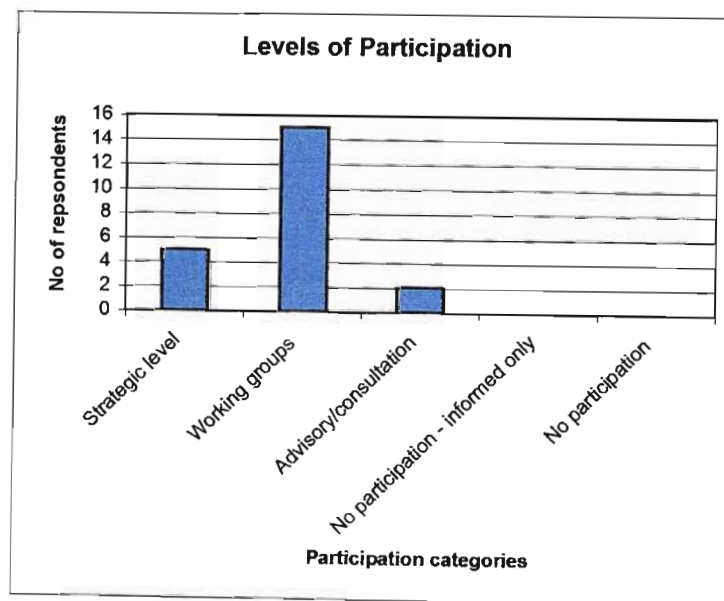


Figure 6. Level at which the respondents should participate in the proposed IMF.

The research found that a tiered management framework, with varying levels of decision-making would likely accommodate the needs and desires of all

participants and promote inclusion and collaboration. Figure 6 details the responses from the key stakeholders when questioned about the level of participation in the proposed IMF. All stakeholders interviewed felt that some form of participation was required, however the level at which this took place was largely determined by the roles, functions and responsibilities of these stakeholders. This result was incorporated in the design of the management framework.

Table 2. Details of the participating constituents.

Level of participation	Institution/company
Strategic decision-making level	Ezemvelo KZN Wildlife, Municipalities and Traditional Authority
Specialist participation in a working group	Defence, police, veterinary services and the relevant government departments.
Advisory / consultation basis	NGO's
No participation – to be kept informed only	Nil
No participation	Nil

Table 2 illustrates the level at which the respondents elected to participate in the IMF. The levels of participation were determined by the respondents and cross-referenced with the responses from the other interviewees. It was agreed amongst the respondents that EKZNW, Municipalities and the Traditional Authority should form the core decision-making structure. Key stakeholders not directly involved in the strategic decision-making body were assigned to working groups. Their respective input and expertise would help inform the decisions made at strategic level. This finding is congruent with the literature where Griffin *et al.* (1999) note that frameworks and key guidelines for designing management systems should be determined by local conditions and circumstances and contend that the imposition of institutions or structures upon participants would be counter productive.

9. Discussion

The literature review revealed that transboundary conservation initiatives require people, organisations and governments to cooperate in planning and implementing such projects and, or programmes. As these projects usually span over several years and potentially have far reaching benefits for both biodiversity conservation as well as the local economies it is critical that stakeholders and role-players, involved in the project area, collaborate in order to achieve a common purpose in the comanagement of TFCA's. The research findings confirmed that the overwhelming majority of stakeholders, associated with the NTF TFCA project, were supportive of establishing a collaborative environment in order to achieve the common goals, congruent within their respective mandates, and in relation to the NTF TFCA project.

In addition, it was also noted in the literature review, that in order for collaboration to succeed a number of conditions had to be met. These included the identification of a common goal, the willingness to cooperate, the legal frameworks from an international and national perspective that encourage collaboration, as well as the identification of who to involve and the level of involvement in the decision making process.

It was further established that no blue print exists for issues pertaining to designing cooperative management systems for TFCAs and that each management framework had to take the prevailing circumstances, at the implementation level, into consideration. This was supported by Griffin *et al.* (1999) who recommended that frameworks and key guidelines for designing comanagement systems had to be determined by local conditions and circumstances and that these initiatives must be internalised and should be imposed upon by external determinants and influences.

The NTF TFCA project as well as the IMF is dependent upon, and recognises the need for, collaboration and cooperation between the various implementing agencies in government, NGO's and communities. Alternatives to IMF's have been considered. These include Memoranda of Understanding, Treaties and

Agreements signed between participating institutions. However, when considering the scale and complexity of application the need for a well designed and robust integrated management framework becomes apparent. Cooperative governance and issues of collaboration may be endorsed through Treaties and Agreements, however, implementation requires guiding frameworks to achieve this.

The literature review contextualised the NTF TFCA project within the broader concepts and principles of TFCA management. Based on this review it was determined that institutional structures and frameworks, currently employed in various TFCA's, serve as mere guiding structures for designing integrated management frameworks and that their application for the NTF TFCA project became irrelevant. This was largely due to significant differences in prevailing circumstances and influences, as well as the associations between the participating countries and the composition of the stakeholders within the project area.

The research component was informed by the literature review and the key findings incorporated into the design of the IMF. These key findings, and their relation to the broad TFCA concepts and principles are discussed in the next section.

10. Lessons learnt from the literature review and how it informs the IMF.

10.1 Solving complex problems.

The study determined that collaboration could, in the right circumstances, serve as a powerful tool to manage complex issues that isolated and individual efforts cannot solve. However it was acknowledged that by involving a diverse community of participants in the decision-making process would inherently add to the complexity of the process! The respondents had a significantly positive opinion towards collaboration and recognised the value of integrating activities within a management framework. Respondents widely acknowledged that although legislation was in place that sanctions cooperative management, it seldom occurred. However, the study found that comanagement occurred in

circumstances only where respondents had an opportunity to gain from a collaborative association. This is consistent with the principles of comanagement as identified in the literature.

10.2 Establishing the premise of a common purpose.

A fundamental principle, as stated in the definition for collaboration, is the identification and agreement on the common goal or purpose ECSU (2000). The study found that the respondents shared a common purpose within the objectives of the NTF TFCA. The result of this consistent relationship with the vision and objectives of the project promoted an enabling environment for integrating the aims and objectives of the broad stakeholder participants within an IMF. The study further determined that there was potentially a diverse community of participants that could be included in the decision-making process. Mayers (2001) found that there are complex links between policies, markets, institutions and capacity and that this could lead to conflict if appropriate institutional frameworks were not in place to manage the process adequately. Thus it is essential that such institutional frameworks are in place in order to avoid such difficulties. The study further aimed to determine who should participate in the IMF and at what level of the decision-making process they should be included.

10.3 Determining who should participate.

The study found that by establishing a common purpose, congruent amongst all the respondents, a potentially diverse and complex association of role-players and stakeholders could be drawn to the NTF TFCA project. Whilst the IMF should aim to address needs and desires of all the participants, the inclusion of all these participants is neither practical nor possible. The IMF addressed this concern by incorporating a hierarchical decision-making structure in the framework. These included identifying participants who contribute to the management framework at a strategic decision-making level, specialist participation on a working group, advisory or consultative level and those who chose not to participate but wished to be informed about the project as it evolves or develops. These findings were incorporated in the design of the IMF.

10.4 Who should manage the process?

The design of an integrated institutional framework for the NTF TFCA initiative identified appropriate role-players and stakeholders to be included in the IMF and tested their willingness to collaborate. The study found that there was no objection to the implementation of an IMF, however, there was a mixed response in respect of who or which institution was best positioned to manage the IMF. Based on the findings from the research it is evident that Ezemvelo KZN Wildlife (EKZNW) is best positioned to take on the responsibility of administering the IMF. The majority of respondents felt that EKZNW has a long term investment and commitment to the project, however, many felt that a dedicated unit, established within this institution, is critical to the success of the project. Some respondents were concerned that EKZNW had conflicting interests in respect of community relations and development issues pertaining to the TFCA project. These concerns would be addressed by including the relevant Municipality and the Traditional Authority at the strategic decision-making level of the IMF.

The study revealed that there is a comparative dissatisfaction amongst the majority of the respondents in respect the Municipalities roles and functions in the TFCA project. It was identified that the Municipality's IDP could be an appropriate mechanism to integrate development activities, however the respective municipalities do not have the capacity or resources to take on the additional responsibilities of the NTF TFCA. Although this is currently seen as an impediment, interventions should propose ways to deal with these shortcomings.

10.5 The IMF application in the dynamic environment.

The study found that the IMF should be subjected to continual evaluation and monitoring and that this principle should be included in the guidelines of the proposed NTF TFCA IMF. Without incorporating a process of introspection and evaluation, it would be difficult to adjust management strategies to prevailing circumstances and influences.

11. Designing the NTF TFCA Integrated Management Framework.

Based on the findings of the study the following IMF is proposed for the NTF TFCA. The flow diagram represented in Figure 7 is discussed in detail in the text below and defines the representation and responsibilities of each of these components.

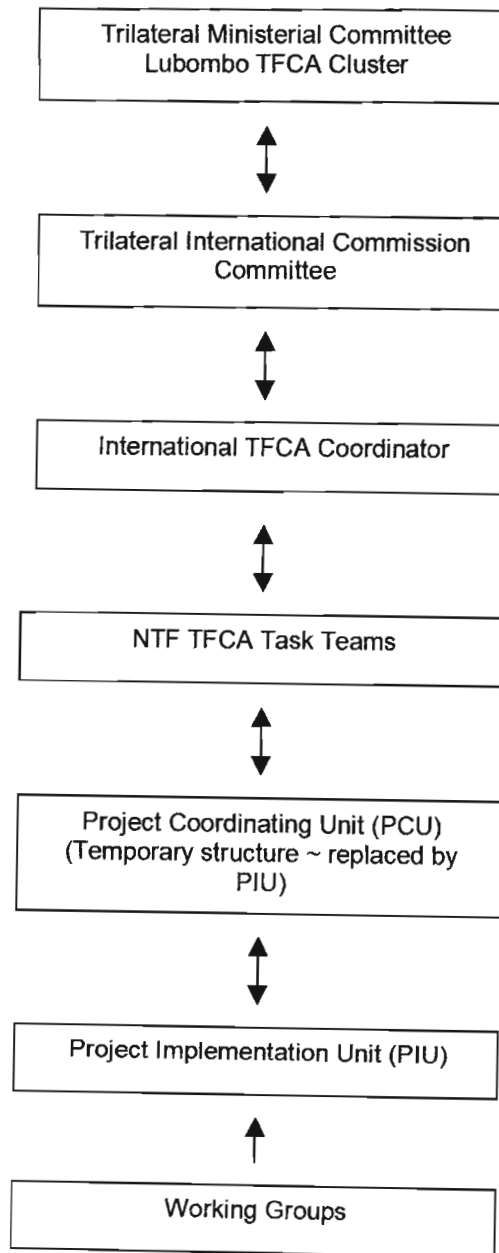


Figure 7. Flow diagram detailing the various decision making levels

Trilateral Ministerial Committee

Representation:

- Relevant Ministers from participating countries.
- Chairpersons of the International Commission Committees

Responsibilities:

- Responsible for overall policy guidance;
- Chaired on a rotational basis between the participating countries;
- Meets at least annually;
- Monitors progress in the implementation of the actions plans;
- Resolves matters of a political nature, in particular, international relations.

Trilateral International Commission Committee

Representation:

- RSA Government representative of the Department of Environmental Affairs and Tourism (DEAT);
- Senior representatives from the conservation management authorities, normally Heads of Department;
- International Coordinator

Responsibilities:

- Interpreting the political directives of the Ministerial Committee;
- Approval of the TFCA Action Plans;
- Harmonising the expectations and aims of the participating parties in relation to the transfrontier components;
- Monitor the implementation process;
- Prepare reports and other documents for the Ministerial Committee;
- Oversee compliance with the Protocol directive.

International Coordinator

- Coordinates and communicates activities and actions between the Commission Committee and the Task Team.
- Revolving bi-annually between the participating countries.

NTF TFCA Task Team

Representation:

- Senior Conservation Officials from the 3 participating conservation management authorities;
- Chairperson of the Project Coordinating Units (PCU), one from each country;

Responsibilities:

- Coordinate activities between the in-country PCU and Task Teams;
- Compile a Consolidated Development and Action Plan for the NTF TFCA;
- Compile a Joint Management Plan for the NTF TFCA;
- Reports to the Trilateral International Commission Committee through the International Coordinator;
- Chairmanship revolves bi-annually between the participating countries.

Project Coordinating Unit (PCU) – proposed in-country management structures.

This structure is proposed and has not been implemented. The PCU is a temporary structure with specific responsibilities and defined outcomes. It will be replaced by the Project Implementation Unit (PIU) on completion of these responsibilities.

Representation

- Project Manager
- Procurement Manager
- Financial Manager

Responsibilities

- Facilitate and coordinate the compilation of the bioregional plan;
- Facilitate the development of the Project Implementation Plan (PIP);
- Develop a funding framework for the project.

Project Implementation Unit (PIU) - proposed in-country management structures.

Replaces the PCU and is responsible for the administration of the integrated management framework.

Representation

Strategic decision-making level. These representatives form the core decision-making body of the IMF. Representation from other key departments such as Agriculture; Land Affairs; Local Government and Traditional Affairs are either represented by those elected to the PIU or may be called to participate in the relevant working groups. The study revealed that the three main role-players, namely Ezemvelo KZN Wildlife, the relevant municipalities and the Traditional Authority should participate in a collaborative framework at a strategic level. This is a significant finding of the study which resulted in including these role-players into the strategic decision making level of the PCU. The following representatives on the PCU are recommended:

- Municipalities (elected representative) ~ Chairmanship
- EKZNW (elected representative)
- Traditional Authority (elected representative)
- Chairpersons of the various working groups

It is recognised that each of these bodies is an implementing agency. Each agency is responsible for implementing their mandated component of the bioregional plan and management plan. Delivery on these outcomes would be facilitated by the working groups.

Responsibilities

- Coordinate, monitor and evaluate all associated activities and ensure that an integrated, coordinated approach to the regional priorities is maintained;
- Direct, focus and monitor the actions assigned to the working groups and ensure full participation by all appropriate stakeholders;
- Continuously evaluate and monitor the TOR of the PIU;
- Submit reports and other documents for the NTF TFCA Task Group;
- Effectively communicate progress and intentions of the TFCA;
- Ensure consistency, balance and equitable consideration is accorded to all stakeholders in the project.

Working Groups

Although this study focused on designing an IMF for the South African component of the NTF TFCA, it became evident that a similar model be adopted by Mozambique, particularly at the level of working groups. It is anticipated that these working groups work independently within their respective IMP's but accommodate information sharing and access to discussions and debates on a regular basis to achieve consensus and delivery on the overall NTF TFCA objectives.

Representation

- All stakeholders who have a specialized interest in the NTF TFCA

Responsibilities

- Liaise and collaborate with other relevant regional initiatives
- Identify and where appropriate include additional participants to the working groups
- Research and debate the various tasks determined by the PIU
- Submit reports and other documents for the PIU

The study identified the following working groups and recommends that they be included within the IMF.

Tourism Working Group ~ this working group would include elected representatives from the various tourism initiatives in the project area. Furthermore relevant representatives from the District and Local Municipality as well as Tourism KZN would be included in the working group and would be assigned to develop a holistic tourism development plan for the project area. The brief would include taking the international perspective and development plans into account.

Regional Development Working Group ~ fundamental to the success of this TFCA project is the requirement to establish appropriate infrastructure and supporting industries. A coordinated and structured approach to regional development is required. Representatives to this working group include representatives from the District and Local Municipality sectors and various state institutions including Departments of Public Works, Education, Environmental Affairs and Agriculture and Transport. This responsibility essentially includes Land Use planning, which is the exclusive mandate of the District and Local Municipalities. These matters will be directed by the PIU and the working group will be mandated with specific tasks and projects that directly impact on the TFCA.

Security Working Group ~ various studies support the need to discuss and debate the security, customs and immigration details during the formative phase of the project. Representatives to this working group include SAPS; SANDF; State Veterinary Department; Department of Home Affairs and EKZNW.

Biodiversity Conservation Working Group ~ transboundary conservation and natural resource management require a structured and carefully crafted management plan. To achieve success a holistic approach for natural resource management and biodiversity conservation must be considered. The biodiversity conservation working group will be responsible for the formulation of management and concept development plans, coordination of research, monitoring, review and evaluation of the plans. Representatives to this working group are drawn from the EKZNW institution, Tertiary Educational institutions and protected area JMB representatives.

Capacity Building and Empowerment Working Group ~ essentially this group monitors and evaluates the degree and level of participation by the community in the decision making structures and insures that their interests are taken into account. Crucial to the success of the project is the need for capacity building, training and skills development for stakeholders at all levels. Information sharing, communication and translation of the intentions are a primary function of this group. Working Group members are drawn from various institutions involved in training and development as well as elected members from the constituent communities.

It is anticipated that as the project gains momentum the constitution of the working groups may change as it responds to prevailing circumstances and requirements. These working groups may be duplicated in the other participating countries. This must be factored into the design and constitution of these groups as their roles and functions must be aligned between the countries.

11. Conclusion

Respondents' interviewed had a positive response to the need for integrating and aligning development activities within the NTF TFCA project area. There was general consensus that an IMF was needed and that EKZNW was currently best positioned to administer this process and take the role of the lead agency. However, it is strongly recommended that appropriate interventions be considered to capacitate the Municipal Managers, of both the Jozini and uMhlabuyalingana Local Municipalities to take the lead role of the proposed IMF through the PIU structure.

The aims, visions and objectives of the key stakeholders interviewed were congruent with those of the NTF TFCA. This provided the enabling environment from which to develop the IMF and assist in identifying appropriate representation.

It is acknowledged that the IMF will be tested as it is incorporated in the management philosophy of the NTF TFCA. It is designed in a manner that invokes introspection and evaluation. How it responds and adjusts to prevailing circumstances and conditions will depend upon the personnel appointed to administer the process.

It is further acknowledged that the IMF's primary focus is on the NTF TFCA and is not designed to integrate all regional activities nor should be used as a "blue print" for other TFCA initiatives. The research revealed that it may not be appropriate or desirable to design a "blue print", "one size fits all", management framework for TFCA's and that a checklist of considerations to designing the framework would be more practical. The research revealed and discussed guiding principles that should be taken into consideration to develop an IMF for the NTF TFCA.

Future research enquiries should be directed towards monitoring and reviewing the implementation of the framework. Additionally, the development of a toolkit, that defines conditions where coalitions can be formed and the circumstances under which they would be successful would be a useful aid to conservation practitioners.

13. Acknowledgements

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ENVIRONMENTAL MANAGEMENT

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- About six key words
- The text of the paper. Subheadings should be used as appropriate, although the introduction to the paper should not be preceded by a subheading.
- "Acknowledgments," if made, precede the "Literature Cited" section; "Appendices," if there are any, come after it. Appendices must each have a title.
- Captions for figures on a separate page
- Tables, prepared on separate pages and numbered 1, 2, 3, etc.

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Simon, T.P. (ed.) 1990. *Assessing the sustainability and biological integrity of water resources using fish communities*. CRC Press, Boca Raton, Florida, 671 pp.

USFWS (US Fish and Wildlife Service). 1990. *Instructions for breeding bird survey routes participants*. Patuxent Research Laboratory, Patuxent, Maryland.

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Developing an Institutional Framework for Integrated Management

A Case Study of the Ndumo-Tembe- Futi Transfrontier Conservation Area

Stakeholder and Role-player Questionnaire

Background to the Study

The concept of transboundary conservation management is growing rapidly in southern Africa with large investments being made in this field. They are seen as important tools for broad landscape approaches to sustainable resource management and biodiversity conservation. They are furthermore regarded as mechanisms that promote regional economic development, improvements to rural livelihoods through job creation and poverty alleviation.

Objectives of the Study

The NTF TFCA initiative is embedded in an impoverished area of KwaZulu Natal. This initiative has received formal political recognition, both nationally and internationally, through the signing of a protocol between South Africa, Swaziland and Mozambique.

It aims to consolidate formal protected areas through areas of communal land and link these via a corridor to the Maputo Special Reserve in Mozambique.

Key objectives include promoting sustainable economic development; infrastructure development in respect of tourism and the improvement of livelihoods; capacity building within the local community as well as the management of the biodiversity asset through a cooperative law enforcement programme.

As the project gains momentum it starts expanding beyond the traditional boundaries of biodiversity conservation and interfaces with a coalescence of role-players and stakeholders. The area has a unique association of role-players and stakeholders that provide goods and services, and other benefits, which impact on the livelihood of the community. These projects and initiatives are often undertaken in isolation with little regard for collaboration potentials or alignment within formal management structures.

The research enquiry responds to the need to develop an institutional framework for integrated management in this project area. It proposes to identify key stakeholders active in the project area, as well as those affected by various initiatives within the area. It will determine core mandates and objectives and evaluate whether a common vision or purpose exists amongst these stakeholders. It will further determine whether structures currently exist that promote collaboration and the alignment of activities within the broader project area.

The principle aim of the research is to evaluate the enabling conditions required to develop an integrated management framework that aims to promote cooperation and the alignment of activities in order to achieve these common objectives.

Stakeholder name: _____

Institution: _____

Date: _____

Question 1:

What are the key objectives of your institution/company/organisation?

Local economic development

Poverty alleviation

Job creation

Provision of goods and services

Capacity building and skills development

Regional peace and stability

Sustainable resource conservation

Others:

Question 2:

Are these objectives achieved in isolation or is there cooperation between stakeholders to accomplish these objectives?

Isolation ~ no collaboration or alignment of activities

Regional cooperation is taking place

If so, what are these structures and what are their mandates?

Who are the key contact persons?

Question 3:

In your understanding, are there currently structures in place that accommodate collaboration or dialogue between stakeholders?

Yes

No

Question 4:

If yes, what factors or conditions enable this? If no, then what are the reasons why it is not taking place?

Question 5:

In your opinion, are these cooperative structures functional? Are they achieving the desired outcome?

Yes

No

Why?

Question 6: What are your views on integrated management frameworks ~ frameworks that promote collaboration and cooperation.

Question 7:

Have you heard about the NTF TFCA initiative?

Yes

No

Question 8:

If yes, what is your understanding of the initiative?

Question 9:

The NTF TFCA is currently expanding beyond the traditional boundaries of biodiversity management. Do you believe that this initiative is well positioned to deliver on its objectives?

Yes

No

Qualify answer?

Question 10:

In your opinion, do you feel that an integrated management framework is necessary for the initiative to succeed?

Yes

No

Qualify answer:

Question 11:

In your opinion, who or what organisation should champion/coordinate the implementation of the IMF?

Question 12:

In your opinion, what other organisations should participate in an IMF to ensure its successful outcomes?

Question 13:

Should a framework be designed and implemented, at what level do you see your institution/ representative participating?

- Strategic decision-making level
- Specialist participation on a working group
- Advisory/ consultation
- No participation ~ to be kept informed only
- No participation