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Mozambique
**Transfrontier Conservation Areas Pilot and
Institutional Strengthening Project**

Project Document
December 1996



THE WORLD BANK

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Agriculture and Environment Operations
Africa Region

CURRENCY EQUIVALENTS

(as of April 1996)

MT 11,128 = US\$1

WEIGHTS AND MEASURES

The metric system is used throughout this report

ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

AMRU	Association of Rural Women
ARPAC	Cultural Patrimony Archive
CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
CBD	Convention on Biological Diversity
COUTADA	Hunting Concession
CPI	Investment Promotion Center
CSIR	Council for Scientific and Industrial Research
DDA	District Agriculture Directorate
DFB	Department of Wildlife
DINAGECA	National Directorate of Geography and Cadastre
DINATUR	National Directorate of Tourism
DINAP	National Directorate of Livestock
DPAP	Provincial Directorates for Agriculture and Fisheries
DNFFB	The National Directorate for Forestry and Wildlife
DPA	Provincial Agriculture Directorate
EDG	Environment and Development Group
EIA	Environmental Impact Assessment
ESP	Environment Support Program
EWT	Endangered Wildlife Trust
FAO	Food and Agriculture Organization
FEWS	Famine Early Warning System
FISCAL	Public Sector Law Enforcement Officer
GEF	Global Environment Facility
GIS/EIS	Geographical/Environmental Information System
GOM	Government of Mozambique
ICB	International Competitive Bidding
IDRC	International Development Research Center
INDER	Institute for Rural Development
IUCN	International Union for Conservation of Nature
JMC	Joint Management Committee
KNP	Kruger National Park
MAP	Ministry of Agriculture and Fisheries
M&E	Monitoring and Evaluation
MICOA	Ministry for Coordination of Environmental Affairs

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NCB	National Competitive Bidding
NEMP	National Environmental Management Program
NGO	Non-Governmental Organization
PIP	Project Implementation Plan
PM	Project Manager
PPF	Project Preparation Facility
RCC	Regional Coordination Committee
SA	Special Account
SADC	Southern Africa Development Committee
SDC	Swiss Development Corporation
SOE	Statement of Expenditure
SSA	Sub-Saharan Africa
SPFFB	Provincial Forestry and Wildlife Services
SC	Steering Committee
TC	Technical Committee
TFCA	Transfrontier Conservation Areas
WWF	Worldwide Fund for Nature

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PART I: Project Summary

MOZAMBIQUE
TRANSFRONTIER CONSERVATION AREAS PILOT AND
INSTITUTIONAL STRENGTHENING PROJECT

Grant Summary

Source of Grant: Global Environment Facility Trust Fund

Grant Recipient: Republic of Mozambique

Amount: SDR 3.5 million (US\$5.0 million equivalent)

Terms: Grant

Objectives: To assist the Government of Mozambique to create enabling policies, activities and institutional frameworks for rehabilitating, conserving and managing its unique biodiversity and natural resource endowments in three transfrontier conservation areas. The project will contribute to poverty reduction by assisting local communities inside and around the conservation areas, through capacity building, land and natural resource security measures and small-scale conservation and development activities.

Financing Plan: (US\$ million)

Government of Mozambique:	0.5
GEF	5.0
Swiss Development Corporation	2.6
Local Communities	in-kind
Total	8.1

Economic Rate of Return: Not Applicable

Environment Category "B"

MOZAMBIQUE

TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING PROJECT

Introduction

1. Mozambique is emerging from the devastating effects of two decades of war, during which, as the country was making a transition from colonial rule, economic progress was stifled. Massive military expenditures, centralized planning, sabotaged infrastructure, the exodus of skilled labor, and displacement of large segments of the population, exacerbated Mozambique's difficult economic and social problems. At US\$80 in 1995, per capita income is the lowest in the world. A population of 17.5 million (of which 70 percent lives in the rural areas) is growing at 2.7 percent per year. The vast majority of Mozambicans live below the poverty line, and social indicators are among the lowest in Sub-Saharan Africa. Average daily caloric intakes are 77 percent of the daily estimated requirement, compared with an average of 93 percent for SSA. At least 40 percent of the children are chronically malnourished. Only one-quarter of the population has access to safe water. Literacy rates are estimated at 35 percent (20 percent female), and are likely to be much lower in rural areas.

2. With the transition to peace since 1992, over 1.7 million refugees from neighboring countries have returned, and over 3 million internally displaced persons relocated. In many regions refugees are still resettling to their former homes and do not yet have independent means to ensure their basic survival, especially in areas with low potential and high risks for agriculture and livestock rearing. Climatic variability has rendered these areas more marginal, and recurrent drought has made conditions extremely difficult for returning refugees.

3. Poverty reduction is the Government's main developmental goal, and will have to be based on agriculture and rural development. Inevitably the country remains highly dependent on reconstruction and development assistance. Since 1992, economic growth, largely fueled by strong support by the international community, has averaged around 6.7 percent, and the Government has made much progress in implementing programs aimed at stimulating private sector investment and reducing the role of the state in the economy.

Sector Background

4. Mozambique's 80 million hectares have rich land, marine, and mineral resources. The total *estimated* area suitable for agriculture is about 35 million hectares (45 percent of total land area). Forest cover is *estimated* at 60 million hectares, with deforestation *estimated* at 4.5 percent during 1970-90. With the return of people to rural areas, clearing for agriculture will accelerate this deforestation. About eleven percent of Mozambique's total land area has legal status for management and protection. Forest reserves make up 450,000 hectares, while conservation areas, consisting of four National Parks, five Game reserves, and 13 hunting concession areas

(*coutadas*) cover 6.7 million hectares. The coastline of 2700 km is the third longest in Africa, and the country has a number of wetlands along the coast and coral reefs offshore. Mozambique's rich natural resource base represents one of the country's most valuable assets, and an important source of livelihood for most Mozambicans. If sustainably managed, this asset base provides critical potential for economic growth, and an opportunity to combine conservation objectives with income generation. Realizing broad-based growth which contributes to widespread poverty reduction, will require sustained private sector investment and management, coupled with community management and benefit-sharing, and investments in community development, human capital, and social infrastructure.

Land Ownership and Access to Natural Resources

5. Much of Mozambique's natural resource base is *de facto* open access. Neither the State nor traditional institutions exercise effective control. Over recent years, private concessions have been sought for significant areas of the country (up to 15 million ha), with little or no consideration given for the rights of local communities and traditional users of land, forestry, water and wildlife resources. These rights risk being lost or significantly eroded unless the efforts to recognize customary ownership are solidified under effective policy and legislation. At present, ownership and control of natural resources are defined in the Municipalities Law (1994). A new Land Policy was approved in September 1995. It maintains the principle that land ownership is vested in the State, but recognizes the legitimacy of customary law and the rights attributed by such law, including traditional usage rights, and the role of local leaders in conflict management and resolution. The Land Policy is being concretized in the forthcoming Land Law, under which it is expected that the management and control of more extensive areas will be delegated to local communities, as has been piloted in Tete Province. Wildlife, forestry and other legislation are being revised in light of the new Land Policy. Local governments, being developed under the Municipalities Law, will be empowered to protect and manage natural resources, and facilitate community involvement in collaboration with traditional authorities.

Biodiversity

6. Mozambique's biodiversity, particularly in terms of overall habitat quality, is recognized internationally to be of global significance and among the best preserved in Africa. This quality is due to a combination of factors, including the relatively low demographic density and the general depopulation of rural areas over 20 years of civil strife, together with the underdeveloped infrastructure base. The key exception to this is the severe reduction in numbers of megafauna (notably elephants) and other charismatic game species, which took place during the war for profit or food. Game fencing between South Africa and Mozambique has also eliminated some traditional migration routes and reduced access to traditional range for various species.

7. Certain areas with international linkages are particularly important: Southern Maputo province, a critical part of the IUCN-listed Maputaland Centre of Plant Diversity, ranks as a site of first order global botanical significance, with important coastal forests. This rich ecosystem straddles the political boundaries among Mozambique, Swaziland and South Africa, which maintains a system of protected areas along the border. The Chimanimani massif (Manica

Province) which straddles the border with Chimanimani National Park in Zimbabwe, is among the best preserved Afro-montane ecosystems with high levels of species endemism. Other important, though little known highland areas include Mount Namuli, Mount Chipero, the Njesi Plateau, and Gorongosa Mountain. The area in Gaza Province bordering South Africa's Kruger Park, including the hunting concession *Coutada* 16, is rich in species and in the quality of its relatively undisturbed habitat, and is part of the same ecosystem. These areas and others including the coastal zones (home to important marine biological resources), when coupled with the rapidly growing potential for tourism in the region, represent unique opportunities to combine biodiversity conservation and sustainable development.

Institutional Context

8. The Government recognizes the importance of preserving and maintaining its natural assets, but has been hampered by years of war and its very limited capacity to tackle even the most pressing problems in the forestry and wildlife sectors. The end of hostilities and mine removal programs are now allowing virtually unlimited access to these natural resources, which are threatened with uncontrolled exploitation. In 1995, Mozambique adopted a National Environmental Management Program (NEMP) comprising a national environmental policy, an environmental framework law, and an environmental strategy. The recently created Ministry for Coordination of Environmental Affairs (MICOA) has the mandate to coordinate, supervise, and monitor environmental management in the country. The role and powers of MICOA will be specified in the forthcoming Environmental Law. Mozambique participated in the Earth Summit, and has ratified many international environmental conventions: Biological Diversity (August 1995), Climate Change, Desertification, CITES, and the Montreal Protocol. Adherence to the Agreement on Migratory Birds and the Ramsar Convention are also being considered.

9. Responsibility for managing the vast forestry and wildlife estate lies with the National Directorate for Forestry and Wildlife (DNFFB), one of seven directorates in the Ministry of Agriculture and Fisheries (MAP). DNFFB's human and financial resources are very limited. Between 1992 and 1994, the total public investment and recurrent resources available declined from MT3.5 billion to MT2.1 billion (representing, in real terms, a decline from US\$1.4 million to US\$0.35 million). DNFFB was allocated only two percent of the Ministry of Agriculture's 1995 Development Budget, which in turn received 10 percent of the national budget. Of the recurrent budget, over 95 percent is used for personnel costs, leaving virtually nothing for operational expenses.

10. Staff resources and capacity are extremely weak. In 1995, a total of 690 staff was listed at the central, provincial and local levels. This number included forestry and wildlife personnel in teaching and research institutions and the remaining state forest industries, as well as park staff. At the Provincial (SPFFB) and local levels, 475 staff cover 10 provinces. Given the number of districts and the distribution of forest reserves and protected areas, forestry and wildlife personnel are spread very thinly. Most staff have received no training since the 1970s due to the destruction of training facilities during the war. The numbers of trained technical and professional-level staff is extremely modest (100 and 70 respectively), and core headquarters staffing is limited to 39 technical employees. A lack of transport and other equipment (communications, field) also

prevents the services having any field presence (e.g., for anti-poaching). These factors, when coupled with continued emphasis on the Government exercising “control” over natural resources, have inhibited collaboration with local communities.

11. In parallel to the weak public institutions, there is limited experience in Mozambique of NGO and community conservation activities. Most effective conservation operations have depended on outside support. For example, Bazaruto Marine National Park has been supported for a number of years by the Worldwide Fund for Nature (WWF) and the Endangered Wildlife Trust (EWT), and community-based wildlife programs are being supported in Tete Province by the Ford Foundation and the International Development Research Center. The EWT has also supported very modest conservation efforts in the Maputo Game Reserve. The role of the private sector is also relatively limited - mostly concentrated on the hunting and forest concessions and game farms - although much interest has been expressed in these sub-sectors and in the tourism industry during recent years by local and international investors.

12. The first major effort to strengthen conservation activities in Mozambique includes the AfDB financed project focused in the northern provinces (including Gorongosa National Park). To date the project has only just started and is not underpinned by a coherent policy and institutional framework. With the assistance of the IUCN, FAO and the World Bank, DNFFB has been developing a Five-Year Program. This program, of which the current project would form an integral part, sets out the legal, policy and institutional setting, and identifies a phased priority investment program.

13. Key elements of the program, which involves a shift in emphasis from command and control to an incentives-based system, include:

- strengthening the DNFFB to fulfill its central functions of policy formulation, planning and technical guidance;
- strengthening of the execution and implementation capabilities of the provincial and local services;
- consolidation of human resources development and applied research;
- improvement of protection, management and utilization of core conservation areas;
- participation of rural communities as direct agents and beneficiaries in management and conservation of forest and wildlife resources, through recognition of customary rights; and
- promotion and appropriate regulation of the private sector in sustainable forestry and wildlife management.

14. Mozambique’s limited capacity to manage its natural resources starkly contrasts the situation among her neighbors. In South Africa and Zimbabwe, national and provincial conservation authorities, linked with a dynamic private sector, an active NGO community, and well developed research and technical capacity are at the forefront of conservation management worldwide. In Zimbabwe, the potential for community empowerment in wildlife conservation has been crystallized in the CAMPFIRE programs, and these experiences are being tested in other countries in the region.

Project Background

15. The development of the Transfrontier Conservation Areas Project has evolved over several years. It was originally based on the concept of a “transfrontier park” focusing on the Kruger Park and adjoining parts of Mozambique. This idea was officially raised during discussions between the President of Mozambique and the President of the Southern Africa Nature Foundation and was discussed by the Mozambique Council of Ministers in 1991; the latter recommended that further studies were required to fully assess the political, socioeconomic and ecological aspects. The Government of Mozambique requested the Global Environment Facility (GEF) through the World Bank to provide assistance for the preparation of a project. A project preparation facility was granted and a first mission fielded in 1991.

16. Preparatory work, in three phases, has been a lengthy process, but has evolved in the context of a gradually improving security situation in the areas being considered, which, until mid-1993, were inaccessible. Phase I consisted of a preliminary study by an international consulting firm focusing on the conditions necessary for the establishment of conservation areas in frontier regions to complement activities in similar areas across the borders in Zimbabwe and South Africa. Phase II involved a follow-up study by the same firm, which recommended the development of projects for two of the three areas originally identified (Maputo and Chimanimani), and outlined proposals for the strengthening of the DNFFB and for the policy and legislative framework.

17. ***Phase III: project preparation and consultation.*** From an essentially donor and consultant driven approach during the early stages, a locally-managed participatory process has emerged during the last 18 months, bringing in communities and NGOs, and initiating actions to implement the project. The process has helped shape new thinking on approaches and policies. This collaborative effort has consisted of a *series of consultations* and further studies, coordinated by DNFFB with assistance from IUCN. Consultative workshops have been held for Government, NGOs, local communities and the private sector for each area, and consultations have been held at the international level with neighboring countries (South Africa and Zimbabwe). Assessments of the *socioeconomic and ecological conditions* have been made in Maputo, Chimanimani, and Gaza, including consultations with local communities. Consultations have also been held with other stakeholders among NGOs, government agencies, district and provincial authorities, the private sector, and academia. Guidelines have been prepared for enhancing the role of the private sector and communities in natural resources management. The granting of commercial concessions in the Maputo and Chimanimani areas has been temporarily frozen to protect local communities’ rights. Support has also been made available for preliminary operational programs for one national park, a game reserve, and surveys have been undertaken to determine the feasibility and limits for the creation of a new protected area adjacent to Kruger National Park. (see Appendix 2).

18. ***Transfrontier Conservation Area Concept.*** During the course of these preparatory activities the original idea of a transborder park has emerged into a broader multiple use “*Transfrontier Conservation Area*” (TFCA) concept. TFCAs are defined as relatively large areas, which straddle frontiers between two or more countries and cover large scale natural systems encompassing one or more protected areas. These are areas where human and animal populations

have traditionally migrated across or straddled political boundaries. The proposed project is based on this principle but expanded to include integrated conservation and economic development in multiple-use areas. Consideration will have to be given to tradeoffs between different and possibly conflicting uses (e.g., agriculture, livestock, eco-tourism), while attempting to harmonize conservation of important ecosystems with the social and economic needs of local people. Three TFCA's (see Appendix 1) included in the project for funding in Mozambique are:

- (a) *Maputo*: this area lies in the south-eastern part of Maputo Province, in the extreme south east of Mozambique. It includes the Maputo Game Reserve (700 km²) and the proposed Futi corridor (an area of undisturbed habitat and relatively low population density), which would link the Maputo Reserve with the Tembe Elephant Park and the Ndumo Game Reserve in Kwazulu, South Africa. Elephants and other wildlife traditionally migrated between these areas. Cultural and family links are also strong across the border. The project area forms part of the Maputaland Centre for Plant Diversity which ranks as a first order site of global botanical significance. Over 2,500 species of vascular plants are found there. For its relatively small size this Centre is one of the most remarkable areas of biodiversity in the world and the rate of endemism is high across all taxa. With the exception of large mammals, most plant and animal communities in the TFCA are relatively intact compared to the areas where degradation that has occurred through inappropriate land use and much higher population densities on the South Africa side of the border. Local populations are largely Ronga and Shangaan speakers. Not demographically dense, the area is, however, subject to considerable movement of populations, due to labor migration and returning refugees. The high potential conservation and ecotourism-based development in this area, including coastal tourism, will need to be balanced with other potential uses such as agriculture and livestock. Additional pressures are felt in this area as conflicting and competing private concessions are being sought for tourism and agriculture, with the risk of depriving the local communities of their rights and eliminating the conservation option. The Government has acted recently to prevent this from happening by freezing the area to new concessions and by careful environmental and social analysis of a proposed forest plantation project.
- (b) *Gaza*: this TFCA covers 20,700 km² of protected areas in Gaza and Inhambane Provinces and the surrounding areas. Gaza Province borders on Zimbabwe in the north west and South Africa in the south west. This is a particularly important TFCA as it comprises in Mozambique: two gazetted national parks - Banhine National Park (7,000 km²) and Zinave National Park (3,700 km²); and a hunting concession area *Coutada* 16 (10,000 km²) contiguous with Kruger National Park (KNP). It also borders on Gonarezhou National Park in Zimbabwe, which itself is closely connected to community and private sector conservation areas. Although wildlife populations in the Gaza TFCA (outside *Coutada* 16) now appear low due to the effects of colonial tsetse eradication programs, the wholesale slaughter of animals during the independence and civil wars, and the recurrent droughts, the general state of the habitat is good. Traditionally, animals have migrated through this area to the Limpopo River. Due to its proximity to conservation areas in South Africa and Zimbabwe, the potential for natural and artificial restocking is high. Historically, family and cultural ties across the borders were very strong. While not as demographically dense as other areas, indigenous farmers and herders are beginning to

return to this zone. In terms of land use, conservation and wildlife management represents one of the highest potential values for this area, comparable to the private and communally owned wildlife management schemes in the Zimbabwean Lowveld.

- (c) *Chimanimani*: contiguous with the Chimanimani National Park in Zimbabwe, this TFCA in Manica Province is a relatively small area of 1,740 km², and includes the eastern escarpment and foothills of the Chimanimani massif. The area in Mozambique is better preserved, and represents a relatively intact Afro-montane ecosystem, with high species endemism (notably plants), and rich wildlife and bird populations. The area, on both sides of the frontier, is home to a highly traditional Shona-speaking indigenous population and contains sites of archaeological, historical, and cultural importance. Land use options in this area are likely to combine agriculture in the lower areas coupled with a managed conservation area at higher altitudes. Local communities are keen to see the area protected for cultural and environmental purposes against unsustainable logging and other concessions.

19. ***Social Challenges of the TFCA Concept.*** Reconciling community development and conservation in the areas identified presents a series of challenges for which there are no easy or immediate answers. The challenges include the dynamic demographic situations, breakdown of social and institutional structures, uncontrolled exploitation of natural resources, extreme poverty, and the granting of incompatible commercial concessions which may be in conflict with the objectives of both community development and biodiversity conservation. The high incidence of female-headed households and the domination of subsistence agriculture by women in Mozambique, means that particular efforts will need to be made to ensure that women participate in and benefit fully from conservation initiatives. The extent to which traditional, community-based structures are sufficiently intact to enable effective management varies from area to area, and ranges from the relatively strong structures in Chimanimani to highly fragmented ones in Gaza. Since Mozambique is unique in the Southern Africa Region with local communities living inside, as well as outside protected areas, the reconciliation of protected area management with the needs and the development of these communities will mean developing new approaches. The project will pilot participatory approaches and assist DNFFB to develop policies and strategies for communities living inside, as well as outside protected areas, which ensure conservation, but at the same time seek equitable solutions.

Project Objectives

20. The proposed Project is the first phase of a long-term effort which is likely to span at least 10-15 years requiring continued support over this period. It will assist the Government of Mozambique to create an enabling policy and institutional environment for rehabilitating, conserving and managing its unique natural and biodiversity endowments, using the TFCA as the central organizing principle, and will help implement community-based natural resource management in three key areas described above. The Project has a broad set of related objectives in biodiversity conservation and economic development, through institutional and capacity strengthening, building on community-based pilot conservation projects and applying lessons learned from neighboring countries. The Project will provide a learning experience in partnership

among Government agencies, NGOs, rural communities and the private sector on both sides of the international boundaries, and set the stage for much more significant investments in the future. The Project will support field level conservation activities. By enabling local communities to continue to manage and benefit from their ecosystems, through land security measures and small-scale conservation and development activities, and providing the framework for private investment in eco-tourism, the Project is expected to contribute significantly to poverty reduction.

21. Recognizing that the development of conservation areas is a long term process and the limited capacity base from which Mozambique starts, the objective of enhanced transboundary cooperation is central to this project. In terms of both enlarged eco-system/wildlife management and community cooperation, cross-border interaction (including exchange of expertise and conservation technologies) at all levels (community, local, provincial, and national) is an essential complement to Mozambique's internal efforts in conservation and institutional development.

Project Description

22. The proposed Project, to be implemented over a five year period, has four components: (i) institutional and policy development, with specific emphasis on training and capacity building; (ii) habitat and wildlife management (conservation activities); (iii) community mobilization and development activities, and; (iv) monitoring and evaluation. These are outlined below:

- (a) *Institutional and policy development* will include *capacity building* for staff of DNFFB, its provincial services (SPFFB), and District Agricultural Services (DDA), and for local communities in Maputo, Gaza, and Manica provinces. The base cost of this component is US\$3.4 million.
- Support will include logistical support, equipment, and community extension and sensitization. The project will develop and field test *policies* on the roles of the public and private sectors, NGOs and communities in natural resources management. National and regional policy workshops will be organized with the stakeholders to contribute to legislative and policy reforms, including the development of sustainable institutional and financial mechanisms.
 - Training will be provided at all levels - central, provincial, district, and community - and will combine formal and on-the-job training with regional study tours and workshops. Institution building will aim to devolve project implementation to provincial and district services and co-implementing NGOs, and strengthen indigenous NGOs in working with local communities.
 - Support will be provided to DNFFB to promote private sector participation in natural resources management, together with the necessary controls. The project will support the development of a GIS/EIS Unit. Technical expertise, particularly in the areas of park management, community development, and commercial and business opportunities will be financed.
 - Support for international collaboration in the transfrontier areas will be provided, in successive levels of intensity: (i) informal collaboration, training and information sharing; (ii) formal agreement on the responsibilities of the respective parties defining

cooperation in areas such as anti-poaching and ecological monitoring; and (iii) implementation of the TFCA concept on the ground.

(b) *Habitat and wildlife management* (Base cost US\$1.7 million) will include a series of activities in each area, including the identification/revision, formal zoning and demarcation of core protected areas, and of semi-protected multiple-use areas, the rehabilitation of these areas, road/track construction, fire management, problem animal control anti-poaching measures facilitated by guard posts, and water supply points. The project will also finance the preparation of detailed management plans with particular emphasis on the potential financial flows, recurrent costs and estimated revenues.

- For *Maputo*, the project will continue to support the immediate strengthening of protection and management of the Maputo Game Reserve, preparation of a management plan, and renovation of the training facility for community activities. Financing for the Futi Corridor will include socio-economic and ecological studies and participatory rural appraisals, water supply points, and boundary definition of the proposed corridor. The Project may also include some fencing of the corridor to protect local communities from wildlife (e.g. elephant crop damage) pending an analysis of its social and environmental impact;
- for *Gaza*, the Project will support the rehabilitation of the Zinave and Banhine National Parks, the preparation and implementation of long term management plans in surrounding areas in cooperation with surrounding communities. Support will also be provided for ecological monitoring and the preparatory planning exercise for the Gaza TFCA which may eventually lead to the creation of an international conservation area contiguous to the Republic of South Africa connecting KNP and *Coutada 16*.
- In *Chimanimani*, the project will support ecological and social monitoring and the development of a resource management plan, developed in coordination and under the control of traditional leadership, and the eventual establishment of a protected mountain area.

(c) *Community mobilization and pilot programs* will aim to mobilize communities living in or near the TFCAs for conservation action, and provide a body of experience for wider application of community conservation and development activities. This component is estimated at US\$1.6 million in base costs. The Project will support:

- social assessments and awareness creation on the value of biodiversity conservation for development. Using NGOs, the Project will help establish Joint Management Committees (JMCs) among local communities and provincial and district services, and finance training to strengthen traditional community institutions and participatory mechanisms for conflict resolution.
- immediate pilot efforts to provide direct assistance to local communities through a small-scale community development fund. The fund will support the testing of methodologies and strategies for biodiversity conservation which the communities themselves could manage and implement. Culturally appropriate activities will be promoted through close cooperation with traditional political and religious

authorities, and the assistance of the Ministry of Culture's Cultural Patrimony Archives (ARPAC). The fund will also help mobilize additional resources from other donors/NGO sources, with the longer term goal of establishing a more formal development fund which could provide matching grants to communities and be financed from various sources.

- securing community rights to natural resources, through area demarcation and incorporating communities in the land-use planning process, to help facilitate the negotiation of joint ventures between communities and the private sector for eco-tourism, sport hunting and other activities.

- (d) The project will finance *monitoring and evaluation* activities as integral parts of each component to ensure early feedback to project implementation. Four different aspects of the project will be monitored: (i) institutional strengthening/policy changes; (ii) biological status; (iii) socio-economic and community behavior; and (iv) project implementation (see Appendix 10). An experienced NGO or consulting firm will be contracted to design, assist and train DNFFB to implement the monitoring and evaluation activities. The project will also finance ecological, veterinary and socio-economic studies. The base cost for this component is US\$0.3 million.

Project Implementation

23. The *National Directorate of Forestry and Wildlife* (DNFFB) will have overall responsibility for project coordination and management, with a major part of the implementation being done by NGOs and local consultants. To avoid diffusing key technical resources and capabilities, the project is designed to be an integral part of the Wildlife Department (DFB). Project coordination and management staff, consisting of a *Project Manager* (PM), a commercial and business development officer, and an administrator (responsible for procurement and accounting) will be based in DNFFB Headquarters. The *Project Manager* will be responsible for the overall management of the project, and for centrally organized activities - procurement, training, monitoring and evaluation, policy development, and international collaboration with partner organizations. A draft Project Implementation Plan (PIP) has been prepared and includes a first year work program, procurement plan, training and capacity building programs, and monitoring and evaluation procedures.

24. *Regional Coordinators* for the Gaza, Maputo, and Manica (Chimanimani) TFCA's will be fully integrated in the respective SPFFBs, responsible for the programs for national parks and proposed conservation areas, community-based activities and transborder links in each TFCA.

25. The preferred option for the provision of necessary technical assistance will be through twinning arrangements with organizations based in the region. Such assistance will include a chief technical adviser to the project manager, technical support to the provincial coordinators in the three provinces, and short term assistance in areas such as park management, community mobilization, and business development.

26. Community-based activities will be undertaken through *Joint Management Committees* (JMCs), organized by Provincial and District services and NGOs. The JMCs will be comprised of

key stakeholders, including community leaders and representatives, possessing knowledge of local community structures, cultural and environmental values, and economic needs. The role and representation of women in the JMCs will be promoted on the basis of gender issues identified in the social assessments. Other stakeholders will include returning refugees, district and provincial staff, NGOs, and the private sector.

27. Given the limited capacity and experience that exists in Mozambique and the challenges posed by the breakdown of traditional legal and institutional structures for natural resource management (especially in Maputo and Gaza), the project will use an "experimental learning" model for community participation. Rather than setting out a centralized blueprint or plan to mobilize a large number of communities for purposes of conservation area management, the project will first organize and implement a set of pilot activities. These activities will be small in number and simple in design, and will provide the SPFFB, the DNFFB, project staff, NGOs, government agencies and donors with learning experiences on how to design, implement and monitor projects carried out in partnership with local communities.

28. Institutions which have assisted in the preparation of the Project, including IUCN, CARE, AMRU, Helvetas, the Ford Foundation, the University of Eduardo Mondlane, the Center for Forestry Research, and the Cultural Patrimony Archives will continue to provide support, as facilitators or intellectual resources and on twinning arrangements where appropriate. Institutions in neighboring countries, such as the Zimbabwe Trust, the Center for Applied Social Sciences at the University of Zimbabwe, and the WWF/SADC Wildlife Training Centre will also assist in research and local capacity building.

Project Coordination

29. Project coordination will be organized at several levels. A national-level *Steering Committee* (SC) will be headed by the Minister of Agriculture and Fisheries or his designee and will be composed of representatives from: key public sector agencies including (DNFFB, DINAGECA (Land Management), MICOA (the Ministry for Coordination of Environmental Affairs), DINATUR (Tourism), the Ministry of Planning and Finance, DINAP (Livestock), INDER (Institute for Rural Development), and the Ministries of Foreign Affairs and the Interior); NGOs with recognized expertise in biodiversity conservation, wildlife management and rural development; the University of Eduardo Mondlane; and private sector associations (once these are established). Government agencies and NGOs responsible for rural development activities in the areas concerned will also participate in project planning and oversight. The SC, will meet at least once per year, to review progress reports and work plans, and resolve major intersectoral issues or submit them to a higher authority. A Technical Committee (TC) will also be established and meeting at least three times per year will review the implementation program, progress reports and the annual work plans for submission to the SC; and will make recommendations to the SC on policy issues. At the provincial level, a *Regional Coordination Committee*, chaired by the Provincial Director for Agriculture, will be convened by the Regional TFCA Coordinator, and will include community representation from the JMCs.

30. *International coordination* will be accomplished initially through *international working groups* and then more formal *international commissions*. Members of the working groups will be

drawn from local authorities from each side of the border, the Regional TFCA Coordinator, forestry and wildlife officers from each country, the co-implementing NGOs and JMCs, and other interested local groups and community organizations. Other officials, private sector interests, and technical specialists will participate as appropriate. Where possible international organizations (e.g. IUCN) will help facilitate this international coordination. An agreement to establish a working group for the Gaza TFCA has already been reached between the DNFFB and the KNP authorities. Another will shortly be established with the Kwazulu Department of Nature Conservation and the Natal Parks Board. Contacts have already been established with Zimbabwe authorities to establish a similar group for the Chimanimani TFCA.

31. The working groups will explore areas of agreement and mutual interest and develop an agenda for cooperation in the management of biodiversity resources. They will also deal with issues such as staff exchange, training, community development, and collaboration in security arrangements for anti-poaching. Once an agenda for collaboration is established by the working groups, more formal *International Commissions* will be established for each TFCA. These commissions would be formally recognized by participating governments and empowered to pursue formal agreements in areas relevant to the effective management and conservation of biodiversity resources between the countries. Recommendations from the Commissions would be presented to the governments or the relevant authorities for discussion and approval.

32. Project supervision by the PM will supplement quarterly progress reports by the Regional Coordinators in direct consultation with the JMCs. The PM will prepare consolidated annual Progress Reports, which will be reviewed by the SC and TC. Annual reviews will coincide with the presentation of the following year's work program and budget. The main objective of the annual review will be to evaluate progress during the prior year and to confirm or adjust the scope and content of the proposed activities in light of project achievements. The World Bank/GEF and other donors will conduct three implementation support missions per project year. Each mission will include representatives (including natural and social scientists) of international conservation NGOs to provide independent review of the project's performance.

33. A mid-term review, to be undertaken 24 months after project effectiveness, will assess learning to date and adaptation of project design for the following years. The mid-term review will focus on: (i) the validity of the project; (ii) the progress made in institutional development at all levels - community, district, provincial, national and international; (iii) effectiveness of the community and government training programs; (iv) progress in the rehabilitation and management of the protected areas; (v) the effectiveness of the policy and legal framework and the creation of the enabling environment for community and private sector involvement, and; (vi) monitoring and evaluation.

Project Sustainability

34. The Project is designed to respond to a post war crisis through an initial injection of capital to facilitate *a long-term process of biodiversity conservation and community development* in Mozambique, with specific emphasis on three key TFCAs. As such it is the first phase in a long term effort. Sustainability per se, therefore, is not the foremost concern at this stage. However, the development of capacity at all levels through training and experiential learning is the key to

institutional sustainability. The Project is an integral component of the Government's Five-Year Forestry and Wildlife Program. The institutions which are to be reinforced and established under the Project, in particular the JMCs and the International Commissions, are expected to persist beyond the formal life of the project.

35. By helping develop an enabling environment for community and private sector development, the models being tested under the Project are likely to be replicated in other areas and will help channel investment (private and development assistance) resources into these sectors. The Project will also contribute to the development of sustainable institutional structures, and revenue retention policies within the sector, leading to the creation of autonomous structures for protected area management. Finally, by helping establish and stabilize much larger conservation areas, the Project aims to contribute to the sustainability and maintenance of natural habitat corridors for wildlife migrations and genetic interchange in complex ecosystems in the Southern Africa region.

Lessons from Past Experience

36. Experience from other biodiversity and community-based natural resource management projects in Africa and elsewhere reveals that there are no quick fixes: project success depends on engaging local communities and other stakeholders in design and execution. Local capacity building, through basic training in planning, financial and implementation skills is usually needed before substantial village-level investments can be made. Flexibility in design is essential so that the project activities can be readily modified on the basis of implementation experience.

37. With the increasing budgetary limitations of governments and donors, the private sector and NGOs inevitably must assume an increasingly important role in these programs. Community-based wildlife management is already a significant land-use strategy in parts of Africa, and provides a complement to agriculture as a source of income for poor rural communities. In Zimbabwe, CAMPFIRE activities, which enable rural communities to directly benefit from wildlife resources in 15 rural district councils in communal areas, are injecting fairly large amounts of revenue into community development. In Zimbabwe, lessons can also be drawn from private sector wildlife management conservancies. In Burkina Faso, this approach is to be used in all ten southern game reserves, and there is a GEF Transfrontier community based biodiversity conservation project in Burkina and Cote d'Ivoire. Other experience is drawn from Malawi (beekeeping in Nyika National Park), Botswana (in wildlife management areas) and South Africa (e.g. Kwazulu/Natal and Pilanesburg). Kenya is increasingly pursuing community involvement in wildlife management in recognition of the importance of this approach and the fact that 70 percent of wildlife is outside protected areas.

38. In Mozambique, lessons can be taken from the Community Natural Resource Management and Staff Development Project, currently being piloted by the DNFFB, with support from the Ford Foundation and IDRC in Tete Province. One aim of the project is to maximize the returns to the community from tourism, sport hunting and timber/fisheries management. Rapid social assessments have been used to identify management options, local institutions, and community development objectives. Lessons are also being learned from the Community Conservation

Program carried out by the DNFFB with support from EEC, WWF and EWT in Bazaruto (marine) National Park, the only conservation area in Mozambique with highly developed tourism facilities. Structures for co-management of Bazaruto National Park by islanders, the DNFFB and other government structures are being established. This experience demonstrates collaboration and partnership among the private sector, island communities, NGOs and Government agencies for the sustainable use of a marine ecosystem, and the length of time and persistence required to accomplish conservation objectives.

Rationale for GEF and World Bank involvement

39. Mozambique's biodiversity is of global interest and importance, but is seriously threatened by extreme poverty, lack of effective management capacity, and scarcity of resources. Two of the three TFCAs targeted by the project (Maputo and Chimanimani) are unique ecosystems with high levels of endemism. The third (Gaza) is an area contiguous with one of the most famous conservation areas in the world. The three areas also possess significant cultural and linguistic diversity, which will be enhanced through community mobilization and development aspects of the project. The project will help the country take advantage of a unique opportunity brought about by the advent of peace in southern Africa, and will facilitate the adoption of common conservation strategies based on ecosystems rather than political boundaries. The project will assist Mozambique implement the principles of the CBD and other international conventions (e.g., RAMSAR, CITES) and bring international recognition for its resource management efforts. It has already helped mobilize regional expertise through conservation training and the exchange of research and information. The Project is therefore fully consistent with Conference of the Parties policies, with respect to conservation of arid and semi-arid lands, forest and montane habitats, as well as key Convention objectives of capacity building, innovation, strengthening local people's involvement, and in-situ conservation of ecosystems and habitats. Although designed during the GEF's Pilot Phase, it is also consistent with the Operational Strategy adopted by the restructured GEF.

40. The GoM and the World Bank's overarching objective in Mozambique is poverty reduction, and this project is designed to help test new approaches to exploit the synergies between conservation and community development in very poor areas where income earning opportunities are limited. Due to the global significance of the biodiversity affected, the pilot nature of the program, the uncertainties involved, and the limited ability of Mozambique itself to contribute investment resources, it is absolutely essential that the GEF should contribute grant financing. **By supporting poverty reduction and environmentally sustainable development the project is entirely consistent with the Bank's Country Assistance Strategy for Mozambique (November 1995).**

Project Financing

41. The total project cost including contingencies is estimated at US\$8.1 million. The Global Environment Facility resources represent 61 percent, while the Swiss Development Cooperation represents 32 percent, and the Government contribution (primarily staff salaries) 7 percent. Local communities will contribute in kind, with their labor, land and natural resources. The SDC funds

will specifically support the full cost of the Maputo TFCA, and will be provided through Helvetas. Although not included in the financing plan, the Project is expected to generate private sector investment in the medium term.

Economic Considerations

42. The Project is of a pilot and experimental nature, with heavy emphasis on policy and institutional development. As such, it is not subjected to formal cost-benefit evaluation. The benefits of wildlife and habitat conservation in the TFCAs to Mozambique and the region fall into several broad categories: (i) direct value for non-consumptive tourism (e.g., game viewing); (ii) consumptive use of wildlife (e.g., game ranching, hunting, fishing, live animal trade); (iii) subsistence and commercial use of plants and wild foods (e.g., medicines, food supplements, reeds for construction, edible caterpillars, silk worms, beekeeping); and (iv) overall ecosystem integrity (e.g., watershed management, land husbandry). Experience from Zimbabwe indicates that in areas such as Gaza, wildlife management and conservation may be the most productive form of land-use (usually in combination with animal husbandry). The management plans to be prepared for the three areas under the Project, will analyze the economic returns to alternative land uses. Close to the Kruger Park, which generates over US\$60 million annually in gross expenditure, the Gaza area is likely to be able to benefit significantly from wildlife management and tourism. (See Appendix 9). Costs of conservation, other than the direct costs, include loss of income from alternative forms of land use (e.g., agriculture or animal husbandry). Conservation does not eliminate alternative future uses. In many cases, particularly in the southern Africa region, these alternative land uses are not sustainable, and may lead to irreversible conversion of habitat. A number of key issues have a direct bearing on the distribution of benefits and costs - including the relative shares of profits, licensing fees, allocation of quotas, the granting of licenses and contracts. These will be tackled under the policy development process discussed above and tested through the pilot activities.

Incremental Costs and Global Benefits

43. Mozambique is desperately poor and in a process of war reconstruction. The fiscal deficit in 1995 was 20.3 percent of GDP, and the current account deficit 22.7 percent. Imports were at US\$784 million and exports only US\$169 million. Only 21% of the Government's investment budget is financed locally, and as described above, conservation (forestry and wildlife) activities only receive two percent of the Ministry of Agriculture's budget and 0.2 percent of the total budget. These severe financing limitations mean that the project as designed would simply not be undertaken in the absence of GEF financing.

44. The baseline scenario is therefore a very modest expansion of government services to the communities for natural resources management and of efforts to establish these TFCAs. Without GEF assistance, the expenditure on these baseline items would certainly have been no greater than the Government's US\$0.5 million contribution, and probably substantially less. Under the baseline scenario, all or part of the Swiss Development Corporation financing (US\$2.6 million) would probably also have been available to support conservation in the Maputo TFCA.

45. The GEF alternative extends conservation efforts to the other two transfrontier areas and considerably deepens the capacity building, community outreach, and habitat and wildlife management programs. The cost of these additional interventions, which are required to achieve global benefits, will be met largely by the GEF grant of US\$5 million and, by community contributions in-kind to more effective resource management. By creating an enabling environment, the project is expected to leverage additional funds for conservation activities in the future. The project's global benefits include the extension of the range available to key mega-fauna which should enhance its long term survival and promote the conservation of its globally significant biodiversity.

Environmental and Social Aspects

46. The Project is designed to promote environmentally sustainable development by helping develop Mozambique's capacity to protect and conserve ecologically sensitive areas. Key environmental considerations, which have to be weighed against likely alternative outcomes (i.e., without project) include: the impact of safari hunting on the wildlife resource, sustainable levels of environmental tourism, planning of tourism infrastructure, and issues relating to restocking (e.g. animal transport). The proposed management plans for each TFCA will be developed through a highly participatory process with local communities. Impact assessments and broad community consultations will ensure the involvement of local populations in protecting the area's biodiversity and natural habitat.

47. ***Community Negotiations and Conflict Resolution.*** No involuntary resettlement will be conducted under the TFCA project. However, negotiation procedures will be put in place for dealing with resource use/tenure conflicts related to the presence of communities within protected areas, compensation for limitations required by conservation activities on the traditional livelihood regimes of local people, communities/private companies joint ventures (e.g. poaching control, conservation-related tourism enterprises), or other issues that may arise during implementation. The Project will provide funds to expedite the official demarcation of customary land, to ensure that the traditional rights of local communities are fully protected. Specific clauses are included in the draft guidelines on community relations, and will be incorporated in the Grant Agreement, to ensure transparency and clarity on these matters.

48. Within each TFCA, a participatory assessment and planning process will also be introduced to build consensus and resolve outstanding conflicts between biodiversity preservation and local community needs. This process will be organized by the Joint Management Committee (JMC) for each TFCA with the assistance of the NGO facilitator organization(s). With the high incidence of female-headed households in the project areas, particular efforts will be made to ensure that women participate fully in this process. A major purpose will be to ensure that TFCA land-use and protected area management plans are adapted to the socio-cultural and ecological realities of each region and that their ownership rests with the majority of stakeholders.

49. The potential impacts of *eco-tourism* activities (even where they are not funded by the project) will be examined to assess the tourist carrying capacity of project areas and the acceptability of the activities to local populations. Careful planning and siting of tourist facilities will be carried out to maximize the benefits from tourism without interfering with the goals of

biodiversity protection, community integrity and livelihood improvement. To increase economic benefits to local communities tourist accommodation on communal/private land outside protected areas will be promoted, and will be subjected to environmental and social impact assessments. All tourism facilities will adopt best practices for the region in terms of sewage and garbage disposal, water supplies, renewable energy, and use of local materials and traditional building styles. The impact of eco-tourism will be monitored during Project implementation.

50. For the *Futi Corridor*, the Project will finance further detailed ecological and socioeconomic studies as well as participatory rural appraisals to define its biodiversity and determine the long-term sustainability of the Corridor and, if consensus exists, define its boundaries with the intent of gazetting it as a conservation zone. Based on the Rapid Rural Appraisal already undertaken, and additional social assessments, the project will introduce measures to minimize potential problems that conservation may pose to the agricultural/livestock regimes of the local people. The Project may finance some fencing of the corridor on the west side to protect local communities from wildlife. The Project may also support the construction of veterinary cordon fences and operation of foot and mouth disease quarantine camps for livestock. A decision on the fencing of the corridor will only be made after widespread local consultations and thorough analysis of the social and environmental impacts.

Project Benefits

51. The main benefit of the project will be the conservation of biodiversity in areas of global ecological importance, while bringing development opportunities for poor rural communities. The project will provide training and institutional strengthening, and an injection of capital for the Government of Mozambique to protect such areas and will provide a model for strategic planning, and consensus building during the planning and implementation process. The TFCA concept also provides an excellent opportunity for linking local communities to the wider goals of biodiversity conservation and protected area management. The active involvement and participation of the local people and NGOs in the design and implementation of management plans and development projects will improve community institutional capacity and welfare and enhance socioeconomic stability. The Project will contribute to the development of a potentially lucrative eco-tourism industry, particularly when coupled with Mozambique's tourism potential along the coast, and promote international collaboration within the region.

Risks

52. The risks associated with this project are common to many activities in rural Mozambique, where uncertainties abound. The dynamic social, political, demographic and institutional situation in the three areas means there can be no single answers for the development of TFCA's. As shown in other countries, conservation development is not a linear process. The inherent risks can only be mitigated by adopting a flexible learning approach with monitoring and evaluation an integral part of the process. Other mitigating factors include the re-establishment of a presence in the National Parks, and the strong collaboration with Mozambique's neighbors will provide core conservation activities to which the community activities can be associated. Policy guidelines for community and private sector involvement agreed with GoM at negotiations, will help create a

transparent framework for DNFFB's relationships with non-governmental stakeholders, and provide for retention and distribution of revenues to local communities.

53. The inexperience of the different parties (DNFFB, SPFFB, NGOs and communities) poses another risk to project success and speed of implementation. Active partnerships will be required throughout the implementation of the project and beyond to respond to this risk. In particular, the Joint Management Committees together with the national, provincial, and international coordination structures have been designed to facilitate the creation and strengthening of partnerships.

54. The indiscriminate granting of concessions for commercial agriculture, forestry, hunting, and mining activities without adequate consultation and social and environmental assessment is a major source of risk. This risk will be mitigated through the introduction of the new Land Law provided that it makes adequate provision to protect community rights, but will require continuous monitoring and high level political support. Recent moves demonstrate the Government's commitment to give full consideration to conservation options. The granting of concessions in the Maputo and Chimanimani TFCAs has been frozen pending the development of participatory land use plans, and a forestry plantation project in the Maputo area has been canceled following an environmental impact assessment due to its predicted serious environmental and social impacts in an ecologically sensitive zone.

Agreed Actions

55. During appraisal, agreement was reached with the Government of Mozambique on the institutional arrangements, and the definition of responsibilities of the Steering Committee, Technical Committee, Joint Management Committees, the communities, the government, NGOs and the private sector. Agreement was also reached on the TORs and recruitment schedule for the Project Manager, the Regional Coordinators and other key personnel. During negotiations, agreement was reached on draft Government statements on the involvement and protection of rights of communities and the role of the private sector, and a standard procurement schedule.

56. Grant Effectiveness would be conditional on: the appointment of the Project Manager; the nomination of the members of the Steering Committee; adoption of a Project Implementation Plan (PIP) satisfactory to the Trustee, the establishment of procedures for financial management and an accounting system consistent with the PIP; and the TORs and short list of external auditors satisfactory to the Trustee.

Schedule A - Project Costs and Financing Plan

Table 1: Project Cost Estimates

	(US\$'000)			%	%
	Local	Foreign	Total	Foreign	Total
				Exchange	Base
Costs					
A. Institutional Strengthening					
1. National Level - DNFFB	744	671	1,415	47	19
2. Provincial Level SPFFB					
Maputo SPFFB	151	434	585	74	8
Gaza SPFFB	120	405	525	77	7
Manica SPFFB	47	85	133	64	2
Subtotal Provincial Level SPFFB	318	924	1,242	74	17
3. Other					
Training Program	513	55	568	10	8
International Collaboration		150	150	100	2
Subtotal Other	513	205	718	29	10
Subtotal Institutional Strengthening	1,576	1,800	3,376	53	45
B. Habitat & Wildlife Management					
1. National Parks & Game Reserves					
Maputo Elephant Reserve	255	193	448	43	6
Zinave National Park	115	101	216	47	3
Banhine National Park	130	107	237	45	3
Subtotal National Parks & Game Reserves	500	402	901	45	12
2. Conservation Areas					
Futi Corridor	481	305	786	39	11
Coutada 16		15	15	100	-
Chimanimani TFCA		12	12	100	-
Subtotal Protected Areas	481	332	813	41	11
Subtotal Habitat Wildlife Management	980	734	1,714	43	23
C. Community Awareness Pilot Activities	1,587		1,587		21
D. Monitoring & Evaluation	36	271	307	88	4
E. Unallocated	458		458		6
Total BASELINE COSTS	4,637	2,805	7,442	38	100
Physical Contingencies	421	109	529	21	7
Price Contingencies		147	147	100	2
Total PROJECT COSTS	5,057	3,061	8,118	38	109

Table 2: Project Financing

Financing Source	Local	Foreign	Total	%Total Cost
	(US\$ Million)			
Government	0.55		0.55	7
Global Environment Facility	3.00	2.00	5.00	61
Swiss Development Cooperation	1.00	1.60	2.60	32
Total	4.55	3.60	8.15	100

Schedule B - Project Procurement and Disbursement

Table 3: Indicative Procurement Arrangements (US\$ million)

Expenditure Category	ICB	NCB	Other	Non-GEF	Total
Civil Works		0.15 (0.15)		0.50	0.65 (0.15)
Goods	0.30 (0.30)	0.25 (0.25)	0.10 (0.10)	0.50	1.15 (0.65)
TA, Training & Studies			2.70 (2.70)	0.80	3.50 (2.70)
Community Pilot Activities			0.30 (0.30)	0.20	0.50 (0.30)
Incremental Operating Costs			1.70 (1.20)	0.70	2.40 (1.20)
Total	0.30 (0.30)	0.40 (0.40)	4.80 (4.30)	2.70	8.20 (5.0)

Note: Figures in parentheses refer to amounts to be financed by the GEF grant.

Table 4: Summary of Disbursements (GEF Grant)

Totals Including Contingencies (US\$ million)						
Category of Items	1997	1998	1999	2000	2001	Total
Civil Works	0.05	0.05	0.05			0.15
Goods	0.30	0.25	0.05	0.05		0.65
TA, Training, Studies	0.60	0.60	0.55	0.35	0.30	2.40
Community Pilot Activities	0.05	0.05	0.05	0.10	0.05	0.30
Incremental Operational Costs	0.10	0.20	0.20	0.25	0.25	1.00
Unallocated			0.20	0.20	0.10	0.50
Total	1.10	1.15	1.10	0.95	0.70	5.00

Note: Figures rounded

Table 5: Disbursement of GEF Grant

	Category	Amount Allocated in US\$ millions	Percentage of Actual Expenditure Financed by GEF
1.	Civil Works	0.15	90 %
2.	Goods	0.65	100% of foreign 90% of local
3.	TA, Training, Studies	2.40	100%
4.	Community Pilot Activities	0.30	95%
5.	Incremental Operating Costs	1.00	100% until December 31, 1999 80% thereafter
6.	Unallocated	0.50	
	Total	5.00	

Schedule C - Timetable Of Key Processing Events

57. The preparation of the project, as outlined in paragraphs 16-18, has been the work of many. During the final stages of preparation the Bank's project team was led by Rod de Vletter in Mozambique and Robert Clement-Jones in Washington. Jeri Larson, Isabel Nhassengo, Robert Hall, Inacio Manecas, Tim Lamrock, Francisco Pichon, David Hughes and Shelton Davis participated in the pre-appraisal and appraisal process. Kishor Uprety is the Legal Counsel and the Lead Adviser is Francois Falloux. The peer reviewers were Jeffrey Lewis and Kathleen Mackinnon. During project preparation, Chaim Helman and Jean Paul Chausse were Division Chiefs, Phyllis Pomerantz was Country Operations Manager, and Stephen Denning and Katherine Marshall, Department Directors. The Country Director is Phyllis Pomerantz, and the Technical Manager is Cynthia Cook.

Time taken to prepare the Project:	5 years
Prepared by:	GOM, IUCN
First Bank Mission	July, 1991
Return from Appraisal:	July, 1996
Negotiations:	July, 1996
Planned date of Effectiveness:	February, 1997
List of relevant PCRs and PPARs:	None

58. World Bank/GEF Implementation Support: The proposed staff input is shown in the following table. The principles of the implementation support missions have been outlined earlier (paragraphs 32-33).

Approx.	Activity	Skills	Staff
2/97	Project Launch	TM/Proc./Fin/Socio/NGO/M&E/SDC	12
6/97	Project Launch Review	TM/Proc/Socio/EcoloNGO/M&E	10
10/97	Implementation Support	TM/Socio/NGOEcolo/Proc	8
2/98	Implementation Support	TM/Socio/NGO/M&E/SDC	8
6/98	Implementation Support	TM/Socio/Ecolo/NGO/Proc	10
10/98	Implementation Support	TM/Ecolo/Socio/NGO	8
2/99	Mid Term Review	TM/Ecolo/NGO/Socio/Proc/M&E/SDC	12
6/99	Implementation Support	TM/Socio/NGOEcolo	6
10/99	Implementation Support	TM/Socio/NGOEcolo/M&E/SDC	8
2/00	Implementation Support	TM/Ecolo/NGO	6
10/00	Implementation Support	TM/Ecolo/M&E/SDC	6
2/01	Implementation Support	TM/Ecolo/NGO	6
10/01	Implementation Support	TM/Fin	4
8/02	Implementation Support	TM	2

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THE PROJECT

PROJECT DESCRIPTION

1. The Project is designed to help Mozambique improve the management of its globally important biodiversity in the three transfrontier conservation areas through capacity building efforts, the rehabilitation of national parks and reserves, the securing of community rights to natural resources, empowering local communities in the land use planning process, and benefiting from international experience and collaboration. The Project has four components to be implemented over a five-year period. These are: (i) institutional and policy development; (ii) habitat and wildlife management; (iii) community awareness and pilot programs; and (iv) monitoring and evaluation.

Institutional and Policy Development

2. **Capacity Building.** The Project will finance capacity building, through training and technical assistance, for DNFFB staff and SPFFB staff in Maputo, Gaza and Manica provinces. Support will include logistical provisions, equipment, training, and community extension and sensitization. The Project's capacity building activities will finance 50 courses and seminars for high and mid-level technicians. At the central level, there will be specialized training programs in subjects such as financial management, procurement and disbursement, project planning and park management, private sector development, strategic planning and policy formulation, and program monitoring and evaluation. Training at the provincial level will include community program development and extension, participatory rural appraisal, management planning, computer courses, financial management, and monitoring and evaluation. Limited financing will be available for high and mid-level technicians to pursue Bachelor and Masters Degrees.

3. Regional study tours will be financed under this component to visit community-based development projects and conservation activities in the Tete Province and Bazaruto National Park in Mozambique, CAMPFIRE in Zimbabwe, and other natural resource management initiatives in neighboring countries. The objective of the study tours will be to enhance DNFFB and SPFFB's staff skills by exposing them to successful methods of community-based natural resource management which may be applied in their own work. Representatives from the communities and local NGOs will also participate in these study tours to foster partnerships, sensitization, and shared learning experiences. The study tours will be organized at the central and provincial level. Local authorities and DDA staff will have training sessions in natural resource management. Financing will be available for more than 200 field personnel to have basic level training in wildlife management and community issues. Local level expertise, drawn from within Mozambique and neighboring countries, would be financed to support community mobilization and conservation activities.

4. Training and institutional building will aim to create decentralized implementation skills and structures with project responsibilities devolved to the provincial services. DNFFB staff will receive training locally and regionally to acquire the skills needed to run the country's protected area system at the national level. The Project will also finance training sessions for indigenous

NGOs to strengthen their capacity in working with Joint Management Committees^{1/} and local communities in natural resource management. There will be 30 training sessions for community members in the basic management skills essential to develop community level institutions. Further details on the training program are included in the Project Implementation Plan (see Appendix 4). The DNFFB will have overall responsibility for the organization of the training program and will recruit qualified individuals, NGOs and Institutions to teach the various modules. In addition to training programs that will be developed, the Project will also finance technical assistance, particularly in the areas of park management, community program development, commercial and business opportunities, and technical advisers for the project manager and regional coordinators.

5. ***Geographic/Environmental Information System (GIS/EIS).*** The Project will support the establishment of GIS/EIS capacity for DNFFB as part of the inventory unit. This unit will concentrate on the planning, design, programming and full maintenance (data capturing, validation and report generation) of a spatial database for Resource inventory, and Forestry and Wildlife management both at national and provincial levels. The unit will perform the same functions for a textual database management system for community area management, law enforcement, and economic/financial data. The unit will be linked to similar units in South Africa and Zimbabwe to share eco-system wide information and monitor the TFCAs in the broader biosphere context. At a larger scale (lower level) the unit will perform area-based management tasks for the protected areas defined within the project. The unit will be responsible for assembling and processing relevant spatially based data such as: standard land cover and zoning/land use; biophysical indicator monitoring; thematic representation of resource inventory; species location records; ecosystem maintenance; human population and demographic patterns in selected communities; infrastructure and socioeconomic indicators; and, limited cadastral spatial and attributes recording. Close institutional links will be established with SADC whose member countries are implementing a Region-wide Network System. More formal linkages will be established with the Environmentek/Council for Scientific and Industrial Research (CSIR) in South Africa and the Famine Early Warning System (FEWS). The staffing of the unit will be comprised of GIS/EIS personnel and specialists in other areas from DNFFB. There will be continuous training and skills development. More detail is given in Appendix 5.

6. ***Policy Development.*** The Project will facilitate the development and field testing of natural resource management policies, and help DNFFB to develop a national policy framework defining the roles of the public and private sectors, NGOs and local communities in sustainable development. Action Plans to enhance both the private sector role and community-based natural resource management (described below) are two ways to accomplish this goal. DNFFB will also organize a series of national policy workshops to discuss key issues among the stakeholders (e.g., representatives of the communities and the JMCs, national policy makers, and representatives

^{1/} Joint Management Committee (JMC) membership will be decided by each community and will comprise representatives of SPFFB, district authorities, traditional community leaders, private sector concessionaires, and representatives of other government or international agencies.

from NGOs, the private sector and the universities). The findings and recommendations of these workshops will lead to legislative and policy reforms.

7. **Action Plan to Enhance Private Sector Role.** Financing will be provided to implement DNFFB's Action Plan (see Appendix 6) to enhance the role of the private sector in sustainable natural resource management. This will be achieved through the following key elements:

- (a) **policy and legislative reform.** The Project will promote a systematic policy review based on working groups of key stakeholders and an annual policy development and review workshop for all stakeholders. This work is linked to the ongoing legislative and policy review process under the auspices of the MICOA led UNDP/UNEP Environmental Law Program. Professional hunters and private sector operators will be encouraged to form associations to facilitate cooperation, self-regulation and policy negotiation;
- (b) **tendering and project approval mechanisms.** A detailed document to regulate tendering and project approval mechanisms is being drawn up. It will focus on two types of tourism activity: in core conservation areas and *coutadas*, and in "free areas" (communally-owned). The tendering and project approval process will be carried out in close collaboration with CPI and DINATUR, and will be closely monitored during project implementation to ensure an open and transparent process;
- (c) **tax regime, fees, licenses and revenue retention.** The current system of taxation, fees, licenses and revenue retention will be reviewed during the project's first year. The purpose of this review, to be done in collaboration with the Ministry of Planning and Finance, will be to rationalize the fees and taxes paid by concession holders, and to determine how revenue retention for conservation purposes can best be achieved;
- (d) **regulation and monitoring.** The Project will test new methods of monitoring and regulating private sector activities. Some concessionaires have proposed the creation of a fund to finance independent baseline studies as the basis for quota allocations, annual monitoring of wildlife population dynamics, and effective wildlife management. The Project will provide resources to enable senior SPFFB staff with the means to visit TFCA *coutadas* and game farms at least once in the hunting season. These visits will include discussions with staff and local residents, and unannounced spot checks will be carried out by pairs of *fiscais* (public sector enforcement officers);
- (e) **law enforcement.** The Project will also test new methods of involving the private sector in some law enforcement through training *fiscais* and game guards in legal skills, basic wildlife management and community issues. One option for managing this process would be to establish a law enforcement fund with private sector contributions and managed by a board consisting of private and public sector stakeholders; and
- (f) **community relations.** The Project will test new approaches to private sector/community collaboration and help facilitate the negotiation of joint ventures between communities and the private sector.

8. ***Action Plan to Enhance Community-based Natural Resource Management.*** The Project will support the implementation of DNFFB's Action Plan for community natural resource management. Further details on the Action Plan's implementation are provided in the Community Awareness and Pilot Programs component and in Appendix 7. The key elements of the Action Plan include:

- (a) ***Joint Management Committees (JMCs).*** The Project will facilitate through the work of NGOs and the extension agents, the creation of Joint Management Committees whose main role will be to design and implement community-based conservation and development activities. The JMC, whose membership will be decided by the respective communities, will have the authority to negotiate, receive and distribute benefits from natural resource management, evaluate private sector bids through the tender process, and allocate quotas between the local residents and professional hunters.
- (b) ***Socioeconomic Assessments and Generating Awareness.*** Socioeconomic assessments of the communities and their use of the natural resources in the TFCAs will be carried out. These assessments will provide valuable insight into the local communities' history and current dynamics, particularly with respect to the authority structures and patterns of resource use which will form the basis for both conflicts and opportunities in sustainable resource management. Community sensitization and generating awareness on the value of biodiversity conservation for development and economic growth will be facilitated by the extension workers and through training modules. Special focus will be given to the role of women and other disadvantaged groups and their access to revenues generated from biodiversity conservation.
- (c) ***Security of Tenure and Legislative Reform.*** The Project will help the local communities gain control over the sustainable use of their natural resources through: accelerating the demarcation of land according to the principles of the new Land Policy and upcoming Law; initiating a process of dissemination and community discussions on the implications of the new Land Policy and Legislation; and, contributing to the legislative review process to secure management rights for local communities.
- (d) ***Pilot Community Development Fund.*** The Project will initiate immediate pilot activities for local communities through a pilot-scale community development fund in each TFCA. The fund will be managed by Joint Management Committees at the provincial level based on guidelines that will be produced by DNFFB. The community development fund will provide small grants to eligible communities. The use of these grants will be determined by the communities themselves, but may include funding for small-scale conservation and development activities (e.g., game farming, eco-tourism, beekeeping). The communities will contribute to the activities and investments in kind (i.e., labor, materials). The fund will be used to test biodiversity conservation activities, managed and implemented by the

communities. The fund will also be a catalyst to mobilize more substantial resources from other donors/NGO sources.

- (e) ***Community/Private Sector Collaboration and Revenue Sharing*** The Project will test approaches for negotiation and collaboration in commercial natural resource-based activities between the communities and the private sector. This will be achieved through training for JMCs and local communities to evaluate private sector bids and negotiate the fair allocation of revenues.

International Collaboration

9. The Project will support the strengthening of international collaboration between Mozambique and her neighbors -- South Africa and Zimbabwe. The Project will finance the travel, subsistence and logistical arrangements for the facilitation of international working groups and international community exchange programs to begin the identification and discussion of key issues and concerns of biodiversity conservation in the border areas. Support will be provided for travel and subsistence costs for personnel exchanges among these countries. Workshops, to share information and discuss topics of regional importance, will also be facilitated. To foster linkages with SADC's Region-wide Network System and Environmentek/Council for Scientific and Industrial Research in South Africa and the Famine Early Warning System, the Project will provide financing for GIS/EIS to access the World Wide Web through either a local or regional Internet Services Provider and training in the use of these systems. As the regional dialogue develops and the agenda for collaboration has been firmly established, the Project will finance the travel, subsistence, and logistics for the International TFCA Commissions for each region.

Habitat and Wildlife Management

10. ***Protected Areas.*** This component will finance the identification, zoning and demarcation of land, the rehabilitation of protected areas, and the construction of roads and tracks. The Project will support programs for the immediate rehabilitation of the Maputo Elephant Reserve (Maputo TFCA), and the development of a long-term management plan for this area as well as the Zinave and Banhine National Parks (Gaza TFCA). Financing for habitat/wildlife management activities such as anti-poaching measures facilitated by the construction of guard posts, and improving the water supply will be provided by the Project. In the Maputo Reserve, the Project will finance the renovation of the park center which will also be used as a training facility, construction of guard posts and field housing, and 50 kms of road construction and rehabilitation. In addition to the development of a long-term management plan for the area, the Project will finance a study on the tourism potential of the area and the identification of potential economic opportunities for local communities.

11. In Zinave and Banhine National Parks, financing will be provided for zoning and the development of long-term management plans for both parks. Road construction of 10 km each for Zinave and Banhine will be supported by the Project. Project financing will also be provided for aerial surveys, ecological and social baseline studies, surveys and monitoring. This analysis, developed with local participation, will lead to the development of a land use plan for the Gaza TFCA which ensures that the rural communities derive the maximum benefits from the sustainable

utilization of the natural resources, and that private sector investment is encouraged. This plan will also provide the best development options for the TFCA. Part of *Coutada 16* is already under serious consideration to become a National Park, whereby the area between the Singuezi and Limpopo Rivers will remain as a hunting area, while the western section would become a National Park. Project financing will be provided for the future National Park such as the construction of the main camp, guard posts and roads, social baseline studies, surveys and the production of a long-term management plan.

12. ***Proposed Protected Status.*** Financing will be provided to help the DNFFB define the boundaries of the proposed Futi Corridor based on socioeconomic and ecological studies, and participatory rural appraisals. The Corridor would provide a vital link for biodiversity conservation between the Maputo Elephant Reserve, the Tembe Elephant Park and the Ndumo Game Reserve in Kwazulu, South Africa. While the Futi Corridor does not yet have protected status, DNFFB's intent is to gazette it as a conservation zone, while ensuring the rights of the local communities. Financing for the Futi Corridor will also include the construction of section and patrol bases, 70 km of road and track rehabilitation, and water supply points. Support may also be provided for some fencing of the corridor to protect local communities from wildlife (i.e. elephant crop damage). A decision on the construction of the proposed fence will be made pending an analysis of its social and environmental impact. For the Chimanimani TFCA, the Project will finance an aerial survey, ecological and social baseline studies, surveys, monitoring, and the development of a resource management plan. DNFFB is considering acquiring protected status for the area.

Community Mobilization and Pilot Programs

13. Consistent with the Action Plan, an experimental learning approach to community involvement and participation will be tested in each TFCA under this component. Rather than setting out a centralized blueprint for mobilizing a number of communities for the purposes of conservation and protected area management, the Project will finance small-scale pilot activities. While these activities will be relatively simple in design, they will provide the SPFFB, NGOs and other organizations with models of how to design, implement and monitor projects in partnership with the local communities.

14. Six communities have been identified among the TFCAs to start the process. In the Gaza TFCA, Makandezulu A and B settlements, situated along the Chinguizi River close to the border of South Africa and Kruger National Park, and Catina, located inside and around the eastern part of Banhine National Park, have been chosen. In the Chimanimani TFCA, the two communities selected are Chief Mahate's Area and Chief Mafussi's Area which extend from the Lucite River on the east and north, to the Puzizise River on the south, and to the Zimbabwean border on the west. For the Maputo TFCA, the communities are Salamanga and Majajane which are both located in the Matutuine District.

15. For each TFCA, a facilitating institution such as an indigenous or international NGO, or government institution, will be contracted to provide technical assistance and training to the JMCs. Institutions which have assisted in the preparation of the Project, including the IUCN Regional Office for Southern Africa (IUCN-ROSA), CARE, Swiss Helvetas, the Ford

Foundation, the University of Eduardo Mondlane, the Center for Forestry Research and the Cultural Patrimony Archives, will continue to provide support as facilitators where appropriate. Institutions in neighboring countries such as the Zimbabwe Trust, or the Center for Applied Social Sciences at the University of Zimbabwe, may assist in research and local capacity building efforts. The contracted organization will undertake social and environmental assessments, consultations with local communities, and the design of community-based development and conservation activities.

Monitoring and Evaluation

16. An experienced NGO or consulting firm will be contracted to help DNFFB design and implement the monitoring program in terms of its impact on both the environment and lives of the communities in the TFCAs. The GIS/EIS system to be supported by the project will also provide valuable input into the monitoring program, as well as ensuring sustainability. GIS activities will be supplemented with on the ground monitoring. Due to the pilot nature of the project, and the importance of early feedback to project implementation, four different aspects of the project will be monitored. These are: (i) institutional strengthening/policy changes; (ii) ecological monitoring; (iii) socioeconomic and community assessments; and (iv) project implementation.

17. ***Institutional Strengthening/Policy Changes.*** This activity will assess the progress being made with capacity building efforts, involvement of the local communities in planning and implementation, achievement of policy and regulatory changes, and the extent of international collaboration in the TFCAs. Specifically, the following aspects will be closely monitored: the number of training sessions and weeks of training for DNFFB, SPFFB, DDA staff, community leaders and NGOs; the increased technical capacity of DNFFB, SPFFB and district authorities to implement proposed programs; the development of management plans and their execution; the level of participation of community groups and traditional authorities in the TFCA and protected area management activities; the increase in awareness on the benefits of biodiversity conservation and sustainable natural resources use; progress in the implementation of policy, regulatory and institutional changes such as the zoning and demarcation of community lands, gazettement of proposed conservation areas; granting of tourist and other concessions within TFCAs, sharing of revenues from sustainable natural resource use among the local communities, district, provincial and national government agencies, and private companies.

18. ***Ecological Monitoring.*** Ecological monitoring will determine whether the project is achieving its goal of conserving biodiversity, is stabilizing natural resource use and production systems, and has improved habitat management techniques. Key aspects of biological monitoring will include: an assessment of the status and distribution of the flora and fauna; changes in land use; determining and monitoring sustainable offtake levels and setting quotas, monitoring of veterinary cordon fences and operation of quarantine camps; and measurement of hydrological cycles and climatic parameters as these relate to the ecological stability of each TFCA.

19. ***Socioeconomic and Community Assessments.*** The objective of the M & E activities under this category are to assess the effectiveness and number of JMCs that are being created, to monitor the management of the pilot-scale community development funds, to determine the extent to which the expected benefits are being realized, to identify the local perceptions of project

progress and applicability to local concerns, and to provide input into the development of national conservation and protected area policies. Specifically, the M & E activities will monitor the change in local capacity, assess the social and economic changes that are taking place in the communities living in each TFCA and follow the flow of project benefits. Household surveys and group discussions involving local communities living in the project sites, buffer zones and surrounding areas, will be undertaken to set up baseline data on the population, land tenure, economic and production activities against which project impacts can be measured. The community development funds will also be monitored closely to determine the extent to which they catalyze the development of sustainable community conservation and development activities, and serve as models for future, larger scale efforts, likely to have a much wider impact than the pilot projects.

20. ***Project Implementation and Accountability.*** This element will include details on the use of funds from GEF and account audits, procurement and disbursement and beneficiary assessments. Effective implementation of the project will require that the different participating institutions at all levels (e.g., SPFFB, DDA, JMCs, NGOs, Universities and international NGOs) provide accurate and complete information to the Project Manager, and provide their own inputs into the monitoring and evaluation program throughout Project implementation.

PROJECT IMPLEMENTATION

Project Organization and Management

21. The National Directorate of Forestry and Wildlife (DNFFB) will have overall responsibility for Project coordination and management. Project coordination and management staff will consist of a Project Manager, a commercial and business development officer, and an administrator who will be based in DNFFB Headquarters.

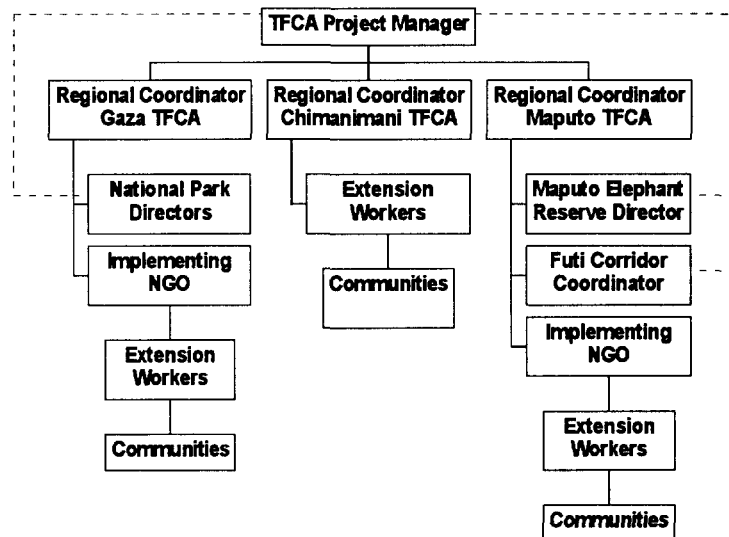
22. The Project Manager will be responsible for day-to-day Project management in accordance with the Project Implementation Plan and the approved annual work plan. The PM, assisted by a Chief Technical Adviser, will oversee all project activities in the TFCAs and will directly supervise the implementation of the project by the Regional TFCA Coordinators in Gaza, Maputo and Manica. An effective monitoring system will be required for project management and the PM will have access to a data base on all project-related activities. The PM will be guided by the Steering and Technical Committees on general project implementation issues. At the end of the assignment, the PM will prepare information that the Government of Mozambique will use to assist the Bank with the preparation of the Implementation Completion Report within six months of the project closing date.

23. Regional Coordinators for the Gaza, Maputo and Manica (Chimanimani) TFCAs will be fully integrated in the respective SPFFBs and will be responsible for the programs for national parks and proposed conservation areas, community-based activities and transborder links in each of the TFCAs. Technical assistance will include a Chief Technical Adviser to the Project Manager, support to the provincial coordinators in the three provinces and short-term expertise in areas such as park management, community development and commercial business opportunities.

24. The Project Implementation Plan includes, *inter alia*, a first year work program, procurement plan, training program, terms of reference for key project staff and monitoring and evaluation procedures.

25. **Annual Planning and Programs.** The Project Manager will be responsible for the preparation of an annual consolidated work plan for the project components and the annual budget allocations within each component, in collaboration with the provincial coordinators, and will submit the plan and a progress report, including an account of beneficiary assessment, to the Steering Committee and the Bank for review and comments. The Project's annual review will coincide with the preparation of DNFFB's work program and budget for the subsequent year. The annual review's main objective will be to evaluate progress during the prior year and confirm or adjust the scope and content of the proposed activities according to Project achievements.

PROJECT MANAGEMENT



Institutional Arrangements

26. **Steering Committee (SC).** The project will be guided by a multi-sectoral national level Steering Committee (SC). The SC will be headed by the Minister of Agriculture and Fisheries or his designee and will be composed of representatives from key public sector agencies (including MAP, MICOA (the Ministry for Coordination of Environmental Affairs), MICTUR (Ministry of Industry, Commerce and Tourism), MPF (Ministry of Planning and Finance), INDER (Institute of Rural Development), the Ministries of Foreign Affairs and the Interior; NGOs with expertise in biodiversity conservation, wildlife management and rural development; the University of Eduardo Mondlane; and the private sector. The SC will meet at least once a year in order to review progress reports and work plans, and resolve major intersectoral issues or submit them to a higher authority.

27. **Technical Committee (TC).** A Technical Committee will also be established composed of representatives of MICTUR, MICOA, MAP, and selected international and national NGOs. The TC will be chaired by the Director of DNFFB and will meet at least three times a year to review

the implementation program, progress reports and annual work plans for submission to the Steering Committee; and make recommendations to the Steering Committee on policy issues.

28. ***Regional Coordination Committee (RCC).*** At the provincial level, a similar mechanism to the national level SC will be set up. The RCC will be chaired by the Provincial Director for Agriculture and will be comprised of representatives from the provincial services, local NGOs and appointed JMC members. The RCC will be convened by the Regional TFCA Coordinator and will provide guidance and technical advice to the coordinator, ensure that project activities respect the priorities and plans of the provincial and district authorities and integrate the project's activities into the programs and activities of other technical services in the area. The RCC will be a mechanism for the JMC representatives to raise issues and voice the concerns of the community to the TFCA Project staff, district officers and provincial authorities. The RCC will also review the quarterly and annual work plans and performance of the community extension component of the project, as well as provide input into national conservation and protected areas policies.

29. ***Joint Management Committees (JMC).*** The Project's community-based activities will be carried out through JMC. The JMC will comprise key stakeholders, including primarily community leaders and representatives, possessing knowledge of local community structures, cultural values, economic needs and environmental perceptions. Women will play an important role in the JMCs. Other stakeholders could include district and provincial staff, NGOs and the private sector. The membership of the JMCs will be decided upon by each community based on their needs and interests. The JMC will be responsible for negotiating, receiving and distributing any revenues received and will manage the community development fund. For the Maputo and Gaza TFCAs, a facilitator (domestic or international NGO) will be contracted to provide technical assistance and training to the JMCs to help undertake the community-based biodiversity conservation and resource management activities that are being identified through community consultation. In the Manica TFCA, the JMC will be supported by the SPFFB with assistance from a consultant and other DNFFB personnel.

30. ***International TFCA Working Groups.*** International informal working groups to discuss common concerns, explore areas of agreement and mutual interest and develop an agenda for cooperation in the management of biodiversity resources in the border areas will be established. The working groups will also address other issues such as staff exchange, training, community development and collaboration in security arrangements for anti-poaching. Members of the working groups will include local authorities from each side of the border, the Regional TFCA Coordinator, forestry and wildlife officers from each country, the co-implementing NGOs and JMCs, and other interested NGOs, local groups and community organizations. Other private sector agency officials, private sector interests and technical specialists will be invited to participate when appropriate. An agreement to set up a working group for the Gaza TFCA has already been reached between the DNFFB and the Kruger Park authorities. Another working group will soon be set up between the Kwazulu Department of Nature Conservation and the Natal Parks Board. Contacts have been established with the Zimbabwe authorities to establish a similar group for the Chimanimani TFCA.

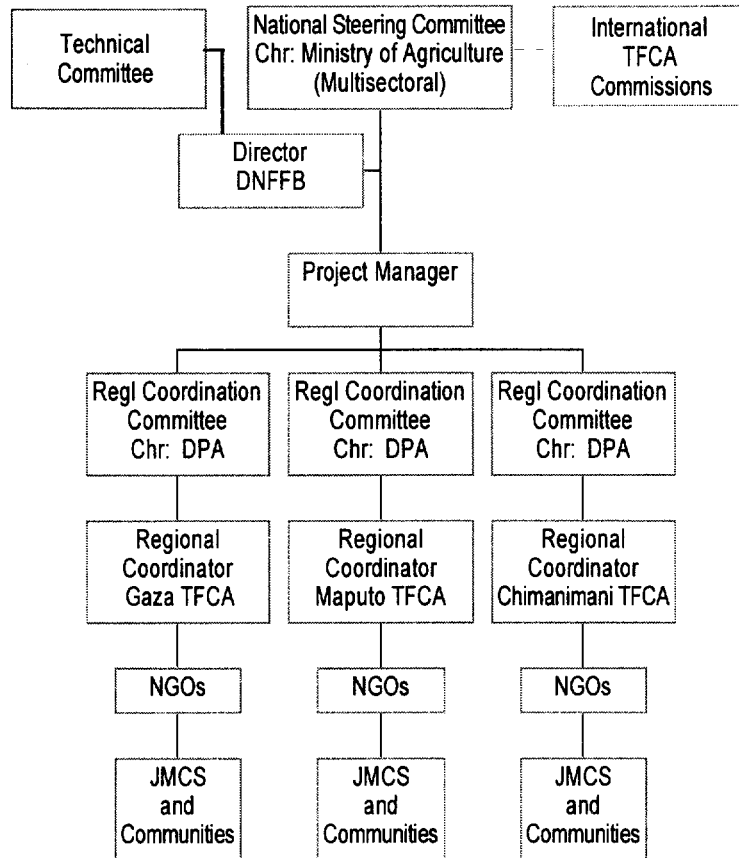
31. ***International TFCA Commissions.*** As the main issues are identified and an agenda for collaboration is in place, the subsequent phase to the international working groups will be to

establish formal International TFCA Commissions for each region. Membership would mirror the TFCA working groups, with the addition of the regular participation of DNFFB and TFCA project staff. The ultimate goal will be for the International TFCA Commissions to be formally empowered to pursue formal agreements in areas relevant to the effective management and conservation of the biodiversity resources between the border countries. The International TFCA Commissions' recommendations would be presented to each government or relative authority for approval.

32. ***Private Sector Interests.*** Other consultative structures and mechanisms are required to ensure that the private sector interests in the areas to be incorporated in the TFCAs, and those interested in investments in other forestry and wildlife areas are known to the provincial and national authorities in an open and transparent manner. Regular meetings, at least quarterly, will be held in each TFCA to discuss with the private sector and other parties, the TFCA project and its activities and other issues relevant to the development of the forestry and wildlife resources. The TFCA Regional Coordinator will chair these meetings, and the Commercial Development Specialist from DNFFB will be invited to attend. Private sector interests will also be facilitated through forming Associations.

33. ***Community Interest.*** One mechanism for the communities to express their concerns, grievances and issues, is through the Regional Coordination Committee. Regular meetings will also be organized at the district level to discuss the Project's objectives and activities, and provide opportunities for the resolution of grievances or concerns expressed by the communities or individual landholders. The community extension workers, NGO representatives and SPFFB staff will attend the meetings in the districts.

Oversight and Coordination



PROJECT REPORTING AND IMPLEMENTATION SUPPORT

34. The Project will require regular project reporting and careful project supervision. Project supervision by the PM will supplement quarterly progress reports prepared by the Regional Coordinators in direct consultation with the JMCs. The World Bank/GEF and other donors will conduct three implementation support missions per Project year. Appendix 13 gives an indicative schedule and composition of the implementation support missions. However, the skills required for each mission will be determined at that time based on the Project's needs and progress. Each mission will include representatives of international conservation NGOs to help provide an independent review of the Project's performance.

35. *A mid-term review*, to be undertaken 24 months after project effectiveness, will assess learning to date and adaptation of the project design for the subsequent years. The mid-term review will focus on: (i) the validity of the Project; (ii) the progress made in institutional development at all levels -- community, district, provincial, national and international; (iii) the effectiveness of the community and government training programs; (iv) progress in rehabilitation and management of protected areas; (v) the effectiveness of the policy and legal framework and the creation of the enabling environment for community and private sector involvement; and (vi) monitoring and evaluation.

COSTS, FINANCING, PROCUREMENT, DISBURSEMENT

PROJECT COSTS

36. Project Costs are summarized in Table 1

Table 1: Project Cost Estimates

	(US\$'000)			%	%
	Local	Foreign	Total	Foreign Exchange	Total Base Costs
A. Institutional Strengthening					
1. National Level - DNFFB	744	671	1,415	47	19
2. Provincial Level SPFFB					
Maputo SPFFB	151	434	585	74	8
Gaza SPFFB	120	405	525	77	7
Manica SPFFB	47	85	133	64	2
Subtotal Provincial Level SPFFB	318	924	1,242	74	17
3. Other					
Training Program	513	55	568	10	8
International Collaboration		150	150	100	2
Subtotal Other	513	205	718	29	10
Subtotal Institutional Strengthening	1,576	1,800	3,376	53	45
B. Habitat & Wildlife Management					
1. National Parks & Game Reserves					
Maputo Elephant Reserve	255	193	448	43	6
Zinave National Park	115	101	216	47	3
Banhine National Park	130	107	237	45	3
Subtotal National Parks & Game Reserves	500	402	901	45	12
2. Conservation Areas					
Futi Corridor	481	305	786	39	11
Coutada 16		15	15	100	-
Chimanimani TFCA		12	12	100	-
Subtotal Protected Areas	481	332	813	41	11
Subtotal Habitat Wildlife Management	980	734	1,714	43	23
C. Community Awareness Pilot Activities	1,587		1,587		21
D. Monitoring & Evaluation	36	271	307	88	4
E. Unallocated	458		458		6
Total BASELINE COSTS	4,637	2,805	7,442	38	100
Physical Contingencies	421	109	529	21	7
Price Contingencies		147	147	100	2
Total PROJECT COSTS	5,057	3,061	8,118	38	109

PROJECT FINANCING

37. Project Financing is summarized in Table 2 below.

Table 2: Project Financing

Financing Source	Local	Foreign	Total	%Total Cost
	(US\$ Million)			
Government	0.55		0.55	7
Global Environment Facility	3.00	2.00	5.00	61
Swiss Development Cooperation	1.00	1.60	2.60	32
Total	4.55	3.60	8.15	100

38. The SDC Grant, equivalent to US\$2.6 million, will be administered by Helvetas for the Maputo TFCA.

PROCUREMENT

39. **Planning and Monitoring.** The procurement of GEF-financed goods and civil works will be performed in accordance with the *Guidelines; Procurement under IBRD Loans and IDA Credits*, January 1995, revised in August 1996. Under International Competitive Bidding (ICB), a margin of preference will be granted in the evaluation of bids to qualified locally manufactured goods and civil works contractors. Indicative procurement arrangements are summarized in Table 3. DNFFB has prepared a procurement plan identifying the contract packages, value, procurement method and schedule. This plan will be updated quarterly and included in periodic Project progress reports.

Table 3: Indicative Procurement Arrangements

Expenditure Category	ICB	NCB	Other	Non-GEF	Total
Civil Works		0.15 (0.15)		0.50	0.65 (0.15)
Goods	0.30 (0.30)	0.25 (0.25)	0.10 (0.10)	0.50	1.15 (0.65)
TA, Training & Studies			2.70 (2.70)	0.80	3.50 (2.70)
Community Pilot Activities			0.30 (0.30)	0.20	0.50 (0.30)
Incremental Operating Costs			1.70 (1.20)	0.70	2.40 (1.20)
Total	0.30 (0.30)	0.40 (0.40)	4.80 (4.30)	2.70	8.20 (5.0)

Note: Figures in parentheses refer to amounts to be financed by the GEF grant.

40. **Civil Works.** Civil Works financed by the GEF Grant will consist primarily of rehabilitation and construction of small facilities, road tracks, and fencing in scattered locations. These works would not be attractive to foreign or large local contractors. Contracts with a value of greater than US\$20,000 and less than US\$100,000 to an aggregate value of US\$150,000 will be procured following National Competitive Bidding (NCB) procedures acceptable to World Bank.
41. **Goods.** Contracts financed by the GEF Grant which will include vehicles, equipment, and spare parts will, to the extent possible, be grouped into contracts costing US\$100,000 or more and will be procured following ICB procedures. Contracts valued at less than US\$100,000, yet more than US\$30,000 to an aggregate total of US\$250,000 will be performed under NCB procedures acceptable to the World Bank. Contracts valued at less than US\$30,000 to an aggregate value of US\$100,000 may be procured through prudent shopping.
42. **Procurement with Communities.** Works, goods, and building materials costing up to \$20,000 primarily for community pilot activities to an aggregate amount of US\$300,000, may be constructed or procured through lump-sum contracts either negotiated with NGOs or awarded on the basis of at least three quotations from local contractors.
43. **Consultant Services and Training.** Consultant services including training will be procured in accordance with the IDA Guidelines on the Use of Consultants by World Bank Borrowers and by the World Bank as Executing Agency (August 1981).
44. **Bidding Documents.** Current IDA Standard Bidding Documents and sample Letters of Invitation (LOI) respectively will be used for ICB procurement and consultant selection. NCB Bidding Documents used in Mozambique and previously approved by IDA will be used wherever available. All other Bidding Documents to be used in the Project shall be acceptable to the World Bank.
45. **World Bank Review.** Contracts for goods estimated to cost US\$100,000 or more will be subject to prior review by IDA in accordance with the Guidelines. The first NCB procurement for civil works and the first NCB procurement for goods are also subject to prior review. IDA prior review for consultants will be required for: (i) contracts with an estimated value of US\$100,000 or more; (ii) contracts with individuals for US\$50,000 or more; (iii) all sole-source selections; (iv) critical assignments; (v) terms of reference for all contracts regardless of value; and (vi) amendments to contracts with consulting firms or individuals that result in revised contract values greater than US\$100,000 and US\$50,000 respectively. All other procurement will be subject to random post-review. DNFFB will be responsible for ensuring that all documentation is on file and readily available to facilitate post-review.

DISBURSEMENT

46. The GEF Grant, equivalent to US\$5.0 million, will be administered by the Bank and, as such, will follow the disbursement procedure outlined below. The GEF Grant will be disbursed over a period of five years. The anticipated disbursements are summarized in Table 4 and 5.

47. GEF Grant disbursements will be fully documented, except that a Statement of Expenditure (SOE) would be used for the training, operating costs and contracts for goods, works and services with consulting firms costing less than US\$100,000 equivalent and for individual consultant contracts costing less than US\$50,000 equivalent. The PM would retain all documents for review by the Bank and by the Auditors. Given the availability of the Special Account (SA), the minimum application for direct payment would normally be for the equivalent of 20 percent of the initial deposit to the SA.

48. To expedite disbursements and to ensure that funds are available when needed, the Government will open a *Special Account* (SA) in US dollars. This account will reside in a commercial bank acceptable to the World Bank. This account will be established under terms and conditions satisfactory to the World Bank and will be used to finance the local and foreign costs of eligible expenditures financed by the GEF Grant. The authorized allocation of the Special Account will be US\$500,000.

49. The Government, as represented by DNFFB, will prepare disbursement requests which will be submitted to the Bank which will then replenish the *Special Account* upon receipt of satisfactory proof of expenditures incurred and evidence that such expenditures were eligible for financing. Up-to-date bank statements and reconciliation of the account will accompany replenishment requests.

Project Implementation Schedule

50. An early start to the project implementation will be facilitated by the remainder of the GEF project preparation advance and early availability of SDC Grant financing. Activities for immediate implementation will include: (i) preparation of bidding documents for vehicles and equipment; (ii) establishment of Project accounting system at the national level; and, (iii) pre-selection and identification of candidates for recruitment (both national and international) under the Project. The bulk of the procurement work will be contracted to suitably qualified NGOs or local consulting firms.

Table 4: Summary of Disbursements (GEF Grant)

Totals Including Contingencies (US\$ million)						
Category of Items	1997	1998	1999	2000	2001	Total
Civil Works	0.05	0.05	0.05			0.15
Goods	0.30	0.25	0.05	0.05		0.65
TA, Training, Studies	0.60	0.60	0.55	0.35	0.30	2.40
Community Pilot Activities	0.05	0.05	0.05	0.10	0.05	0.30
Incremental Operational Costs	0.10	0.20	0.20	0.25	0.25	1.00
Unallocated			0.20	0.20	0.10	0.50
Total	1.10	1.15	1.10	0.95	0.70	5.00

Table 5: Disbursement of GEF Grant

	Category	Amount Allocated in US\$ millions	Percentage of Actual Expenditure Financed by GEF
1.	Civil Works	0.15	90 %
2.	Goods	0.65	100% of foreign 90% of local
3.	TA, Training, Studies	2.40	100%
4.	Community Pilot Activities	0.30	95%
5.	Incremental Operating Costs	1.00	100% until December 31, 1999 80% thereafter
6.	Unallocated	0.50	
	Total	5.00	

ACCOUNTS AND AUDIT

51. The *Special Account* and the accounts of the project will be maintained by the DNFFB Headquarters. These accounts will be maintained in a manner consistent with sound accounting practices which fairly reflect, in accordance with international accounting standards, the situation of the Project.

52. Audited accounts and reports (short-form report, special report on the utilization of the GEF and the management letter) for each year would be audited by qualified independent auditors acceptable to the World Bank. The audit will include specific verification of the legitimacy of all expenditures and an opinion on the reliability of the SOE procedures and the utilization of goods and services financed under the Project. The auditors will also provide a long-form report including detailed comments on the accounting and financial system and an assessment of the operational efficiency of the Project and its components. The final audit of the Project would be submitted to the Bank no less than six months after the end of the fiscal year. In addition, six-monthly audits would be undertaken for the first eighteen months of the project, or until such time as the Auditors propose and the Bank accepts that they are no longer necessary.

Appendices

MOZAMBIQUE**TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT****PROJECT AREAS: BIODIVERSITY, PEOPLE, AND KEY ISSUES****Introduction**

1. Achieving the project's objective of transfrontier conservation areas (TFCAs) - legally valid, effectively co-managed areas embracing sections of Mozambique and neighboring countries - will be a long-term process. TFCAs will straddle international frontiers, without prejudice to, or loss of, individual national sovereignty. The project will help to promote a dialogue, within Mozambique and in the international arena, to define the legal and management status of the TFCAs. It is likely this will lead to: (i) the opening up of wildlife corridors for the movement of species within historical migration routes facilitating the conservation of genetically diverse populations; (ii) adopting common conservation strategies on the same or similar habitats of adjacent conservation areas, facilitating the implementation of more efficient biodiversity conservation strategies; (iii) promoting cooperation, training, and exchange of information among the participating countries; and (iv) the fostering of socio-economic development for the TFCAs' inhabitants through development strategies that are conducive to sustainable multiple use of natural resources.

2. The project will cover three independent Transfrontier Conservation Areas (TFCAs): Maputo, Gaza, and Chimanimani. This appendix presents a summary of the main issues regarding the biodiversity significance, the human population, threats to and management of the TFCAs. The Biodiversity of the TFCAs is described in more detail in a project working paper which is available in the project files.

Maputo TFCA***Description of the Area***

3. The Maputo TFCA lies in the south-eastern part of the Maputo Province, which is in the extreme south-east of Mozambique. It includes the Maputo Elephant Reserve and the proposed Futi Corridor (on either side of the Futi River). The Maputo TFCA would link the Maputo Elephant Reserve with the Tembe Elephant Park and indirectly with the Nduma Game Reserve in Kwazulu, South Africa. The project area forms part of the Maputaland Centre, which has been recognized as an International Center of Plant Diversity by IUCN. Over 2,500 species of vascular plants are found in the Centre. Of these plants, about 225 species/infraspecific taxa and three genera are endemic/near-endemic to the region. The Maputaland Center also has more than 472

bird species (about 60% of South Africa's total) of which 5 species, and about 43 subspecies are endemic/near-endemic to the centre.

4. Within the Futi Corridor the sand forest, one of its most important habitats, has a number of known endemic animal and plant species, including the Swazi ordeal tree, Neergard's Sunbird and the endemic sub-species of red duiker. The Futi Corridor was once a traditional movement route for a population of elephants that is now divided by an electric fence on the border between Mozambique and South Africa. In the north, at least 150 elephants occupy an area comprising the Maputo Game Reserve, and the proposed Futi Corridor comprised of mainly cows and calves. In Kwazulu, a population of primarily bulls is found in Tembe Elephant Park. Neither population of elephants is genetically viable on their own, and the fence is challenged regularly from both sides. The corridor would provide a link between the Maputo Elephant Reserve and the Tembe Elephant Park, that will enhance the conservation of the habitats and biodiversity systems, and re-establish/maintain species and genetic movements along the north-south gradient. By removing the electric fence, it will also help to relieve elephant pressure on the vegetation. Tembe is already suffering from the effects of the compression of the elephant range, and if no other action is taken, it will be necessary to reduce the population of elephants through culling. Stringent conditions, however, must be met for the Kwazulu authorities to remove the fence. This would include the fencing of the corridor on the west and possibly east sides, and meeting veterinary requirements. Tembe Elephant Park contains black and white rhinos and the KwaZulu Department of Nature Conservation is concerned about the risk to these populations. Anti-poaching protection will be another major issue to resolve before the electric fence is removed.

5. The diverse vegetation within the 700 sq. km. Maputo Elephant Reserve is comprised of coastal forests, dry forests, grasslands, riverine vegetation, mangroves, wetlands including swamp forests and bushy savannah. The biodiversity which has been identified in the reserve includes 64 mammal species, 318 bird species, 43 reptile species, 27 amphibian species and 23 fish species. Two species of turtle are also known to nest along the beaches: the loggerhead turtle (*Caretta caretta*), and the leatherback turtle (*Dermochelys coarctata*). With the exception of the large mammals, the plant and animal communities in the Maputo TFCA are relatively intact in comparison to the degradation occurring on the South African territory of the Maputaland Centre from increasing population and inappropriate land use. The reserve also has a high diversity of habitat types, extremely attractive and varied landscapes, and the unique combination of coast and inland attractions for tourism, including game viewing in the future.

Population

6. The Maputo project area has never been densely populated and the majority of its inhabitants fled to South Africa and Swaziland during the war. Estimates are that there are now about 5,000 to 8,000 people living in the area between the Maputo River and the coast. Most local people are engaged in subsistence agriculture. For others, their livelihood is supplemented by fishing in freshwater pans and gathering shellfish and other forms of sealife from the coastal shoreline. Ilala palm wine production is one means of earning a cash income, particularly for the Ndlovu and Puzu communities. Hunting and snaring of small antelope and game birds is apparently common. There are very few livestock in the area, since most have been slaughtered

or removed across the Mozambique-South Africa border during the war. Within the Maputo project area, the tribal authorities are not formally recognized, and the effectiveness of the local government is limited.

7. The two communities that have been selected to implement the project's community based activities are both Ronga-speaking and located in the Matutuine District. In the community of Salamanga, located 10-20 km west of the Maputo Elephant Reserve, crop damage is the main issue. Elephants now travel frequently to the Maputo River for water, maize and sugar cane. Farmers in Salamanga, with the assistance of the Swiss rural development NGO, Helvetas, have formed four associations - Salamanga, Macassane, Tinungunine, and Fabrica de Cal - and through these associations will be able to gain control of the natural resources in their buffer zone and negotiate with representatives of SPFFB. Each of these associations has petitioned the Provincial Directorate of Agriculture (DPA) for a collective land title. Until recently, the associations did not address wildlife management as a central issue, concentrating their efforts on establishing agricultural credit and marketing cooperatives. The *Associacao de Salamanga* has already met with the Director of the Maputo Reserve to discuss solutions to the crop damage problem such as fencing and armed scouts for animal control. The other community, Majajane, is comprised of people who previously lived within the Maputo Reserve. Majajane suffers from wildlife intrusion and crop damage to an even greater extent than Salamanga. Like Salamanga, the residents of Majajane have also demanded fencing and scout patrols. Currently, Majajane has no association, although Helvetas plans to assist them with the formation of one. In the meantime, discussions with the Director of the Maputo Reserve have been held with the *induna* (traditional Ronga leader) and the Frelimo Secretary.

Threats to the Biodiversity of the Area.

8. The main threat to the biodiversity in the Maputo TFCA is the uncontrolled commercial poaching of wildlife and loss of habitat due to encroachment and conversion. Compared with pre-war levels, there has been a drastic reduction in wildlife. The elephant population has declined from around 350 elephants in the 1970s to about 150. White rhinos have been virtually eliminated and the population of antelope is also decreasing. The poaching in the area south of the Maputo Reserve lead the Kwazulu Department of Nature Conservation to construct the electric game fence on the South African-Mozambique border in 1988. Forest resources are also being commercially exploited on an uncontrolled and unsustainable basis, particularly valuable hardwoods, from the forests in and around the Reserve.

9. Poverty, and the lack of alternative sources of income, is a significant factor in the area's natural resources use. They can be defined as open access resources since there are few controls on unsustainable usage. Without active interventions to conserve the ecosystem, degradation will continue resulting in the loss of valuable plant and animal species. There is also the perception of a lack of land tenure security and the threat of concessions which limit the incentives for long-term sustainable approaches to resource use. The southern part of the Maputo Province is under heavy pressure for tourism, agriculture, and forestry concessions which would involve some loss of the population's rights to the natural resource base. Much of the land in the Matutuine District

has already been requested. While this area is now frozen to concessions by the Provincial Agriculture Directorate, including the east bank of the Maputo River and all land in the vicinity of the Futi River, the boundaries of the proposed Corridor will have to be defined soon so that other compatible developments can proceed. Concurrently, refugees are still returning after the war, and many people are resettling on land that has been requested for concessions. The new Land Policy, and the pending new legislation governing community rights over land and associated resources, should help to defuse a potentially explosive situation between the concessionaires and the local people. The work being undertaken by the National Institute of Physical Planning in developing a Land Use and Development Plan for the Matutuine District also is a positive step towards the resolution of possible conflicts in this TFCA.

Management of the Area

10. The widespread poaching within the Maputo TFCA indicates the breakdown of the wildlife law enforcement capacity in the project area and the official abandonment of the Maputo Elephant Reserve during the war. The Provincial Forestry and Wildlife Services (SPFFB) has very limited capacity due to the low number and level of training of personnel, available transport and equipment, inadequate infrastructure and insufficient operational funds. With these constraints, the SPFFB is impeded in its efforts to control illegal activities, control elephants from crop damage, and promote the long-term sustainable use and conservation of wildlife and forest resources.

11. The main management activity related to this area is undertaken by the Reserve Warden with the assistance from the Endangered Wildlife Trust of South Africa (EWT). Poaching control may have been at the expense of establishing good relations with the communities since anti-poaching activities have not been linked with community extension and awareness programs. The lack of a national policy for the management of protected areas has until recently also hindered biodiversity conservation. In 1995, during the preparation of this project, some funds have been used to prepare an emergency management plan for the Maputo Elephant Reserve. A longer term management plan is now being prepared. Other financial support to the reserve has been given by the Environmental Investigation Agency.

12. Helvetas has pioneered setting up "protected zones" for communities, which gives communities secure tenure rights through the granting of long term land concessions to "community associations". Helvetas has expressed interest in carrying out the initial freezing stage of developing a protected zone in the Futi Corridor so that the area remains free of concessions to outside interests while the Land Use Management Plan is being developed for the area. The work proposed in the Futi Corridor, with the assistance of Helvetas, will provide important input into the Project's implementation. A procedure for establishing protected zones will need to be clearly defined within the current legal framework, so that the process can be quickly adapted in other critical areas under pressure. It will also be important to develop community associations, as was done in the Salamanga, in order to protect communal smallholders from commercial concession interests

Gaza TFCA

Description of the Area

13. The Gaza TFCA covers 20,700 sq. km. of protected area in the districts of Mabalane, Chigubo, Chicualacuala, and Massangene in the Province of Gaza, and the district of Mabote in the Province of Inhambane. The Gaza Province borders on Zimbabwe in the north west and South Africa in the south west. This TFCA includes three main conservation areas: Coutada 16 (a 10,000 sq. km. wildlife utilization area), the Banhine National Park (7,000 sq. km.) and the Zinave National Park (3,700 sq. km.).

14. Due to the vastness of the Gaza TFCA, it has been divided into two zones - Gaza East and Gaza West. The Limpopo River and railway forms the dividing boundary. Gaza East, stretches from the boundary of Gona Rhe Zhou National Park in Zimbabwe to the area adjoining and incorporating the two national parks of Zinave and Banhine. The Gaza East TFCA forms a corridor between the rapidly developing wildlife and tourism industries in South East Zimbabwe and the more slowly developing, but potentially lucrative tourism industry along the Inhambane coast and Bazaruto Archipelago. Gaza West is mainly comprised of Coutada 16.

15. Four broad vegetation types are distinguishable in this TFCA. These are: (i) the dry deciduous tree savanna dominated by the *Colophospermum mopane*; (ii) the deciduous miombo tree savanna with gregarious dense dry woodland. These formations are characterized by the presence of the miombo species *Julbernardia globiflora* and nonspecific stands of *Androstachys johnsonii* occur as patches scattered throughout the miombo matrix; (iii) the deciduous tree savanna dominated by the *Terminalia sericea* occurs within the mopane woodland; and (iv) tree savanna (inland) dominated by *Acacia* spp.

16. The wildlife slaughters of the pre-independence tse-tse eradication program, the independence and civil wars, and the recurrent droughts have significantly reduced the wildlife populations in this TFCA. Although the wildlife now present in the Gaza TFCA appears limited, in the past the area was inhabited by populations of giraffe, ostrich, impala, buffalo, elephant, eland and the wildebeest, among others. The extent of this decline in wildlife however is difficult to determine because no systematic surveys have been carried out in the Gaza Province since the early 1970s. The lack of wildlife in Gaza East is compensated by the pristine quality of its nature and the richness of its woodlands. There are, however, still some wildlife populations in the west along the international border. These areas are being restocked by natural animal movements from the neighboring protected areas - Kruger, Gona Rhe Zhou and the game conservancy areas between them.

Population

17. Gaza West is sparsely populated with most of the population of the area settled along the Limpopo River. Recent population estimates for the Coutada 16 are at about 7,800 people. Similarly, populations in Gaza East are widely scattered. The total population of the Massengena District is about 20,000. Aerial observation suggests that the human settlements in the area

between the Coutada 16 and Banhine National Park are sparse with limited sized agricultural areas except for the Limpopo Corridor.

18. A high percentage of the households in this project area are headed by women. Most of the area's inhabitants are dependent on rainfed agriculture for their livelihoods. Prior to the war, Gaza was a major cattle producing area. Livestock production is currently limited to a few head of cattle per community and other small animals such as goats and chicken. During the dry season, the local inhabitants collect roots and tubers, honey and wild fruits. Game hunting for local consumption has traditionally been practiced by the local people of the area, and bushmeat constitutes their most important source of protein. Fishing is also an important economic activity for those communities living close to the rivers and the Massingir dam. The majority of the inhabitants in this TFCA value the natural resource base - wildlife, water, forests - and recognize its importance for meeting their subsistence needs. Only those communities that have been in direct contact with the private sector wildlife based initiatives realize the potential for income generation. Employment of the local people is limited and seasonal migration to work in other areas is common. The only exception is the Gaza Safaris-operated hunting safari in Coutada 16, where one tourist camp and nearly 600 km of roads have been built since 1993. The private operator pays about US\$18,000 per year for its three-year lease, plus trophies and hunting fees, to the central Government of Maputo. No revenues are retained at the community, district, or provincial levels.

19. Historically, villages in the project area were led by traditional leaders, or *regulos*, an inherited position. With the internal civil wars, the traditional social hierarchical system was replaced by a new political and administrative system headed by *secretarios*. Although the *regulos* are now reassuming their historical leadership role, in many villages both structures still co-exist and there is a division of power, based on an area and/or type of problem, between the *regulo* and the *secretario*.

20. The two communities identified to implement the community based activities in the Gaza TFCA are Makandezula A and B; and Catina. The Shangaan-speaking communities of Makandezulu A and B, located along the Chinguizi river, close to the border of South Africa and Kruger National Park, have been involved in and affected by the Gaza Safari sport-hunting activities since 1993. A seasonal hunting camp is 9 km from Makandezulu B, and residents have been employed at the camp and on road clearing crews, but they have not obtained a share of the company's revenues. Estimates are that together the population of Makandezulu A and B is about 360 inhabitants. Neither settlement has strong decision-making structures. The community of Catina located inside and around the eastern part of Banhine National Park has about 5000 inhabitants. Due to the area's extremely low rainfall, Catina residents rely on hunting, gathering, and cattle raising to a greater extent than on cultivation for their livelihoods. A private sector firm has expressed interest in developing the area of Catina for tourism and sport hunting.

Threats to the Biodiversity of the Area

21. The uncontrolled poaching, particularly during the war, has resulted in the depletion of large mammal species both within and outside the national parks. The area has, since colonial times, attracted big game hunters in the pursuit of elephant, buffalo, and kudu. Agricultural

production in most of the Gaza TFCA is limited by the frequent droughts and it does not constitute a development option beyond family subsistence. There is a well developed logging industry in the area, but the degree of control is largely unknown. Deforestation is also occurring due to fuelwood collection and charcoal production since producers do not have transport to go exploit more remote areas. Since the major centers of Mozambique are dependent on fuelwood for energy, the uncontrolled cutting of timber threatens the long-term sustainable land use of the project area. This will expand more rapidly once the communities become more established and transport systems improve. The absence of guidelines to manage the area is also responsible for environmentally degrading activities.

Management of the Gaza TFCA

22. The years of war have taken their toll on this TFCA. Most of the infrastructure has deteriorated or been destroyed. The management of the area's national parks and hunting reserves has been non-existent for many years. The National Directorate for Forestry and Wildlife's priorities for the Gaza TFCA are to rehabilitate the existing parks, develop their long term management, strengthen implementation capabilities at the provincial, district and local levels, and over the medium to long term create an international park connecting with Kruger National Park.

Chimanimani TFCA

Description of the Area

23. The Chimanimani TFCA is a relatively small area of 1740 km² contiguous with the Chimanimani National Park in Zimbabwe, and including the eastern escarpment and foothills of the Chimanimani massif. It has a large diversity of vegetation and fauna, spectacular landscapes, and rich historical and archeological sites. About 1000 vascular plant species have been recorded for the area, of which 45 are endemic. There are six vegetation types on the eastern side of the massif. The moist forest formations occur on the foothills, on slopes and in the valleys between 300 and 1500m. Typical tree species include *Azelia quanzensis* (*Fabaceae*), *Breonadia microcephala* (*Rubiaceae*), *Celtis africana* (*Ulmaceae*), *Cleistanthus apetalus* (*Euphorbiaceae*), *Khaya nyassica* (*Melaceae*), *Milletia stuhlmannii* (*Fabaceae*), *Pterocarpus angolensis* (*Fabaceae*), and *Xylopia aethiopica* (*Annonaceae*). *Chlorophora excelsa* (*Moraceae*), a commercially important hardwood tree is also found in these forests although it is rare in the area. Epiphytic orchids (*Ansellia*, *Bulbophyllum*, and *Polystachya* spp.) are common in the forests. Dry montane forests occur in the valleys and on gentle slopes at higher altitude (1000 to 1600 m). Commonly found tree species include *Ilex mitis*, *Macaranga capensis* and *Myrica pilulifera*. Open woodland comprising tree species such as *Brachystegia spiciformis* and *Uapaca kirkiana* occur on well drained schistic/quartzite soils up to 1600 m. Almost treeless grasses occur on schistic and quartzite soils between 1400 and 1800 m. Common graminaceous species include *Andropogon* spp., *Digitaria* spp., and *Eragrostis* spp. Fires are frequent in these grasslands. On the shallow rocky soils *Aloe* and *Euphorbia* species are commonly found.

24. Commonly occurring mammals on the Mozambican side of the Chimanimani Massif include bushbuck, eland, sable, klip-springer, common duiker, and blue duiker. Reed-buck occurs on the alluvial floodplains and along the river courses east of the Massif. The area is also rich in bird life. Over 160 bird species have been recorded for the Chimanimani, some of which are considered to be endemic to the Afro-montane regions of eastern Africa.

Population

25. The area of Chimanimani was an important field of political dispute both during the war and in present times. Renamo strongholds remain in the localities of Dombe and Mavita. Chimanimani is the only area where the traditional authority structures are relatively intact. These communities maintain a strong traditional organization that includes a council of elders headed by a chief (Sabhuku). All Sabhukus have clearly delimited territories which they can distribute among individual members and returning refugees. The protection of wildlife and flora remains under the control of the chiefs.

26. There are few, if any, permanent settlements located on the central core of the Chimanimani Massif above 1000m. There are several permanent settlements which occur below the 500m contour, particularly along the three major river systems (Lucite, Mevomozi, and Mussapa Rivers). Small-scale farms (machambas) are cleared annually through slash and burn of secondary vegetation, but also occasionally, of intact forest. The average size of each machamba is 0.25 to 1.0 ha. The main crop is maize, although cassava, groundnuts, sweet potatoes, beans and assorted horticultural crops are also grown. Traditional bee-keeping is widely practiced. A variety of indigenous fruits are harvested from the forests and woodlands. Traditional hunting of small game, duiker, and bush buck using dogs and snares is also common.

27. The two communities identified in the Manica Province for the TFCA project's community-based activities are Chief Mahate's Area and Chief Mafussi's Area. Chief Mahate is already making preliminary decisions and establishing his community's bargaining position on the use of its natural resources. Chief Mafussi's Area extends from the Lucite River, on the east and north, to the Puzuzuse River, on the south and to the Zimbabwean border, on the west. Just across the border from Chief Mafussi's area in Zimbabwe, residents in 1994, formed the Vhimba Area Development Committee. This Committee is now negotiating with Zimbabwe's Department of National Parks and Wildlife Management for community-based management of two botanical reserves. This committee will undertake all management activities and control tourism and its receipts in the two reserves which is already attracting bird watchers. This offers the opportunity for future bird watchers to cross the border into the Mozambican side of the Risitu Forest and explore Chief Mafussi's Area.

Threats to the Biodiversity of the Area

28. The major threat to this TFCA's biodiversity is from inappropriate commercial concessions, particularly timber and safari operators. The area is, however, currently frozen to concessions. Like the other TFCAs, the lack of trained personnel and equipment at the provincial

level is preventing the effective monitoring and management of the natural resource base of the region.

Management of the Chimanimani TFCA

29. On the Mozambique side of the Chimanimani National Park, the only protected areas are three lowland forest reserves comprising 160 km² leaving the majority of the forested massif within the country unprotected. The National Directorate for Forestry and Wildlife is considering acquiring protected status for the area. Control over the land will not be taken away from the Chiefs. Rather, in this process, emphasis is being given to the protection of community land rights against undesired concessions being granted to outside commercial and private interests. An intensive de-mining operation may also need to be undertaken before the area is declared completely safe.

MOZAMBIQUE**TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT****PREPARATORY ACTIVITIES**

1. Project preparatory work has evolved through three phases. In Phase I, an international consulting firm was hired to prepare a preliminary study focusing on the conditions necessary for the establishment of protected areas in the frontier regions that could complement existing or proposed protected areas in adjoining regions of neighboring countries. Phase II, involved a follow-up study by this same firm which recommended the TFCA concept, and made proposals for the strengthening of DNFFB, as well as the policy and legislative framework. This work was followed by the preparation of status quo reports for the Maputo and Chimanimani TFCAs. Phase III, has comprised a series of workshops, surveys and consultations in the three TFCAs, and the formulation of emergency management plans. This work is outlined below.

Consultative Workshops

2. Workshops were held in Maputo, Chimanimani and Greater Gaza with the objectives of :
- informing the provincial and district government, NGOs working in the area, community representatives and the private sector of the proposed project objectives and the implications for them.
 - obtaining initial feedback from the stakeholders.
 - promoting a base for collaboration and networking among the various entities.
 - identifying further activities needed to prepare the project document.

Surveys and Local Consultation, Maputo

3. In Maputo, two major activities were carried out. These are:
- a ecological survey to determine the ecological limits to the Futi Corridor and to review the management considerations.
 - a socio-economic survey to determine the numbers and location of the people living in the Futi Corridor, their use of the area, and attitudes towards elephants. This survey also furthered the process of community consultation about the Project.

Surveys and Local Consultation, Chimanimani

4. Two surveys were also undertaken in the Chimanimani area. These are:
 - an initial survey to determine the Project limits and the communities living within them, to further community consultations on the Project and the possibility of acquiring protected area status for Chimanimani, and to identify sites of cultural importance.
 - a second survey to expand the consultations on the Project, acquiring protected area status and determining the Project boundary.

Surveys and Local Consultation, Gaza

5. The activities in the Gaza area included:
 - further consultations with the Government, communities, and private sector.
 - the preparation of proposals for community pilot projects, Coutada 16, and Banhine.
 - an aerial survey of Greater Gaza and development of a proposal for a new protected area on the border with Kruger National Park.
 - a ground survey of Banhine and Zinave National Parks to develop proposals for their rehabilitation.

Protected Areas Management

6. This involved the preparation and interim funding of an emergency plan for the Maputo Game Reserve and determining the co-funding arrangements for the plan's implementation.

Institutional Strengthening - SPFFBs

7. This took the form of meetings with SPFFBs of Manica, Inhambane, Gaza and Maputo to identify logistical strengthening requirements under the project to enable the SPFFBs to support project implementation effectively (DNFFB 1995c, d, e, Zolho 1995d), and small-scale assistance to certain SPFFBs, mainly in terms of vehicle maintenance, to enable them to undertake Phase 3 activities.

National Level Consultations

8. Meetings were held with various government institutions to inform them about the project and discuss their possible participation.

Background papers

9. The following background papers were prepared:
 - review of community rights to land and natural resources (Tanner 1995)

- review of policy and legislation in relation to the project (IUCN 1995)
- review of the role of the private sector in relation to the project (Boyd 1995b)
- review of veterinary implications for the project (Pereira 1995)
- background paper for Greater Gaza TFCA (DNFFB 1995i)

Project proposal

10. A project proposal for the Maputo TFCA formulated and presented in draft form to SDC (DNFFB 1995a)

International Liaison

11. The following activities were taken to initiate international collaboration:

- **Kruger National Park:** liaison with staff of Kruger, joint aerial survey of Greater Gaza project area, and joint agreement for future collaboration (DNFFB 1995h)
- **Kwa Zulu Department of Nature Conservation:** informal contacts and collaboration with staff of KZDNC including joint survey work in the Futi Corridor (Ostrosky and Matthews 1995). (The Director of DNFFB will visit Tembe Elephant Park in the near future for further discussions.)
- **Department of National Parks and Wildlife Management, Zimbabwe:** informal contact with the Director (Soto 1995) followed up with a meeting in Harare in November 1995 with the Acting Director of DNPWM and the Director of DNFFB.

Phase 3 related contracts

12. Phase 3 involved a series of contracts under the umbrella of the IUCN contract. These included:

- Phase 3 management: IUCN
- Counterpart coordination: Roberto Zolho followed by Bartolomeu Soto
- Greater Gaza preparation studies funding: Novib
- Chimanimani's workshop: John Hatton
- Gaza workshop, consultation and pilot project formulation: CARE
- Community rights: Chris Tanner
- Policy and legislation: John Hatton
- Futi Corridor community work: Helvetas and Jose Machaque
- Assessment of veterinary implications: Lopes Pereira
- Second Chimanimani's survey: CEF

MOZAMBIQUE

TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT

INSTITUTIONAL ANALYSIS

Introduction

1. Although the National Directorate for Forestry and Wildlife (DNFFB) is responsible for managing Mozambique's rich forestry and wildlife resources, the years of war have severely constrained its operations in accomplishing this mandate. DNFFB, during this time, lost access to many of the country's protected areas resulting in the deterioration of natural resources and infrastructure, staff have not received training in over 20 years, communication and logistical arrangements with the provincial services is minimal, and the Directorate must rely on the Ministry of Agriculture for its budgetary resources.

2. This appendix examines the organizational setting for the forestry and wildlife sectors and provides insights into the design of the Project's institutional and policy development component to help Mozambique build its capacity to manage its natural resources. With support from NGOs and the private sector, the aim of the institutional building activities is to devolve project implementation to the provincial services, while also assisting communities to gain control and derive economic benefits from the multiple use of natural resources. At the national level, the project will help DNFFB's staff through training and study tours to acquire the skills needed to effectively run the country's protected area system. The Project's institutional and policy development elements will be closely monitored throughout implementation.

Organizational Setting*The National Directorate for Forestry and Wildlife (DNFFB)*

3. DNFFB is one of seven Directorates within the Ministry of Agriculture (MOA). As the largest Ministry in Mozambique, MOA has a broad range of functions including agricultural production, land management, fisheries, forestry and wildlife. With limited staff and resources, DNFFB's stature within MOA is modest. In 1995, only 2% of the Ministry's Development Plan budget was allocated to the forestry and wildlife sector.

4. With the assistance of IUCN, FAO and the World Bank, DNFFB recently completed an organizational review and produced a sectoral program - *The National Program of Forestry and Wildlife* for the period 1995 - 2000. The Program objectives are:

- Strengthening DNFFB to fulfill its central functions of policy formulation, planning and programming, technical guidance, program administration, and monitoring and evaluation;
- Strengthening the execution and implementation capabilities at the Provincial, District, and local levels for decentralized sector development, particularly in resource assessment, planning, and monitoring and evaluation;
- Consolidation of human resource development and applied research, to raise the professional and technical capabilities required for forestry and wildlife sector development;
- Improvement of the protection, management, and utilization of the conservation areas which will contribute to sustainable national development, biodiversity conservation, and appropriate land-use;
- Increased participation of the rural communities as direct agents and beneficiaries in the integrated management, utilization, and conservation of forest and wildlife resources; and
- Promotion of the role, interventions, and regulation of the private sector in sustainable forestry and wildlife management.

5. **Personnel** In 1995, DNFFB had 690 employees at the central, provincial and local levels. This number includes forestry and wildlife personnel in the teaching and research institutions and state forest industries. About 500 of these employees are technical personnel, 61 have completed professional training, 100 are mid-level technicians and the remaining staff have had basic elementary level training. At DNFFB headquarters, staffing is extremely modest with 39 people. The Center for Forestry Research employs 16 of these staff, while the Department of Wildlife has only 9 employees. For DNFFB to fulfill its function of effectively managing the existing forest preserves, state-owned plantations, national parks, reserves and other areas it will mean the recruitment of more technical staff at both headquarters and the provincial levels, and undertaking training in the key areas of protected area management and planning, community participation, and commercial and business opportunities.

6. **Budgetary Resources** DNFFB's budgetary resources have substantially declined in nominal terms over the past three years. The total operational and investment funding decreased from 3,555,749,000 Meticaís (US\$1.4 million) in 1992 to 2,184,781,000 Meticaís (US\$0.35 million) in 1994, representing a decline in real terms of about 75 percent. The majority of DNFFB's operational funds (about 95%) goes to salaries and other personnel costs, leaving only 5% for other operational expenses.

7. During the Project's policy reform workshops it will be discussed whether public service agencies should be allowed to retain revenues generated by their activities. User fees, charges, and proceeds from the sale of products are now all deposited in the national treasury. The lack of self-financing options is curtailing DNFFB's operations due to the declining budgetary resources and enforced austerity. This will have important repercussions for DNFFB, particularly as it seeks to establish an effective presence in the protected areas and re-open key National Parks and Reserves.

Provincial Forestry and Wildlife Services (SPFFB)

8. Mozambique's public services are organized vertically, with policy and program development at the national level. The vast size of Mozambique, and the lack of adequate communication infrastructure, has provided *de facto* autonomy for those regional governments that wanted to assume responsibility for their social and economic development. Generally, all provincial personnel are under the authority of the provincial hierarchy and are paid from the provincial budgets, with the exception of provincial service directors. The provincial budgets are heavily dependent on direct subsidies from the national treasury. There are few means for the provinces to generate revenue since commercial activities that are taxed by the province are limited, and personal income is not taxed at either the provincial or district levels. The high degree of subsidization of provincial budgets, coupled with limited revenue, suggests that the province acts as a formal representative of the State rather than as an autonomous level of governance.

9. At the provincial level, Mozambique's forestry and wildlife services are organized through the SPFFB. The SPFFB consists of three divisions - forestry, wildlife, and law enforcement. Currently, the heads of the SPFFB are foresters trained as mid-level technicians. The SPFFB Director reports to the head of the Provincial Agriculture Directorate (DPA), and shares funds from a combined operational account managed by the DPA. Projects managed by individual services (e.g. forestry or wildlife) may set up separate accounts for project funds in commercial banks. Service chiefs are then responsible for both funds management and project implementation. The SPFFB structure is replicated at the District level with forestry and wildlife staff working under the Director of the District Agriculture Directorate (DDA).

10. ***Personnel*** There are approximately 475 forestry and wildlife staff covering 10 provinces. Given the number of districts and the distribution of the forest preserves and protected areas, forestry and wildlife staff are very thin on the ground. In the Province of Gaza, there are only 44 employees for the 11 districts. Six of these employees are mid-level technicians, five are basic-level technicians, and the rest are auxiliaries and laborers. The Maputo Province has only 26 sector employees for its seven districts comprised of two mid-level technicians, one basic-level technician and 23 scouts. Many of these staff have not received training since the 1970s due to the destruction of the training facilities during the war.

11. ***Budgetary Resources*** At the Provincial level budgetary resources are extremely scarce. In 1995, the DPA for the Gaza Province received operating funds, not including salaries, of 180 million Meticaís (less than US\$17,000). These funds were to finance all of DPA's activities for the year including extension, land management, forestry and wildlife, agricultural research and training. Two million Meticaís, or US\$185.00 was specifically allocated for Gaza's Provincial Forestry and Wildlife Service. Given the extremely modest operating budget for the province, little, if any, trickles down to the district level.

MOZAMBIQUE**TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT****TRAINING PROGRAM****Introduction**

1. Capacity building, leading to the effective management of Mozambique's forestry and wildlife resources, will be a central feature of the Project. DNFFB recently completed a staff training needs assessment for all levels of the Parks and Wildlife Service (central, provincial, and protected area) and has designed an ambitious professional training program to improve its institutional capacity.

Training Needs

2. At the central level in Maputo, staff training is needed in strategic planning and policy formulation, private sector development, project planning and management, and monitoring and evaluation. Training will also be provided for DINATUR personnel in wildlife-based tourism. The Agronomy and Forestry Engineering Faculty at the University Eduardo Mondlane, where DNFFB's few wildlife professionals have been trained (mainly as biologists or veterinarians), does not have courses in these areas. DNFFB will establish partnerships with neighboring country universities such as the University of Pretoria's Eugene Marais Center for Wildlife Management to provide university and post-graduate training in wildlife management, and the University of Zimbabwe's Center for Applied Social Sciences for the social science aspects of natural resources management. The training program will include scholarships for one Bachelor of Science (BSc.) candidate in Wildlife Management and three Masters Degree (MSc.) candidates in the social sciences, including MSc. by correspondence.

3. Training will also be critical at the provincial level where most of the mid-level parks and wildlife technicians are located. During the civil war, the wildlife school at Gorongosa was closed. Many staff did not receive training during this period, and those few mid-level technicians that did were sent to the Mweka Wildlife School in Tanzania, despite their limited competence in English.

4. While Mweka continues to be an interim institution used for mid-level training of wildlife service technicians, DNFFB will develop more cooperation with the Southern African Wildlife College in South Africa. It will offer a one year, wildlife and protected area management course in Portuguese under its "Affirmative Action" Program. DNFFB also envisages re-opening the Gorongosa training school to become a major national center for training provincial wildlife and protected area officials. Introductory training in computer skills, and providing the technology, will be required to modernize both the central and provincial administration levels.

5. At the basic education level, a far-reaching program of short-term courses (30 and 60 day modules) is proposed for park guards, local game wardens (*fiscals*) and community outreach workers and agents. Training at this level will take place at Gorongosa when it is re-opened and in Botswana, where SADC has been sponsoring courses for park guards and other wildlife staff from countries in Southern Africa.

6. Training in community-based conservation will also be emphasized, and study tours to gain hands-on experience will be undertaken to programs such as CAMPFIRE in Zimbabwe and ADMADE in Zambia. NGOs and community representatives will participate in these study tours to strengthen partnerships and shared learning experiences among these people and staff from the forestry and wildlife sectors at the central, provincial, park and local levels.

7. The following tables outline the training program for upper and mid-level professional staff, courses for park guards and wardens, and courses for support-level staff and community members.

Table 1: Training Program for High and Mid-Level Technicians (National, Regional and International)

Year	1	2	3	4	5	Total
Short Courses	2	5	4	4	2	17
Seminars	5	5	5	4	3	22
Bachelor Degrees		1				1
Masters Degrees		1		1	1	3
Mid-Level Technical Courses	2	1	1	1	1	6
Affirmative Action	2	2	1			5
Study Tours	4	4	4	4	4	20

Table 2: Basic Level Training

Trained People during the Year	1	2	3	4	5	Total
Guards	24 + 18	24 + 18	24 + 18	25 + 16	25 + 16	122 + 86
Public Sector Law Enforcement Officer	3 + 4	3 + 4	3 + 4	3 + 4	3 + 4	15 + 20

N.B. The first number in the above table indicates the new guards and public sector law enforcement officers that DNFFB plans to recruit. The second number indicates those already active in the system who will be integrated into the training program.

Table 3: Training Program for Support Staff and Community Members

Trained People during the Year	1	2	3	4	5	Total
Support Personnel	5	5	5	3	2	20
Community Members	6	6	6	6	6	36

MOZAMBIQUE**TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT****GIS/EIS COMPONENT****Introduction**

1. The TFCAs which the Project will help develop, are relatively large areas. They represent complex ecosystems, are subject to a whole series of influences and pressures, and will be multiple use areas. Spatial monitoring will be critical to provide timely and composite information. Geographic/Environmental Information Systems tools are ideal for this purpose and will be used to assemble and process spatially based information. The Project will support the establishment of GIS/EIS capacity for DNFFB as part of the inventory unit. This is an integral part of the institutional building component of the Project, but will also be essential for the Monitoring and Evaluation component.

Objectives

2. The GIS/EIS unit will primarily concentrate on the planning, design, programming and full maintenance (data capturing, validation and report generation) of a spatial database for Resource inventory, and Forestry and Wildlife management both at national and provincial levels. The Unit will perform the same functions for a textual database management system for community area management, law enforcement, surveillance and economic/financial data management directed towards overall planning, monitoring and evaluation, revenues and tax collection from the public and private sectors operating in the TFCAs. The Unit will also be linked to similar units in South Africa and Zimbabwe to share eco-system wide information and monitor the TFCAs in the broader biosphere context. At a larger scale (lower level) the unit will perform area based management tasks for the protected areas defined within the project.

3. The GIS/EIS unit will provide timely and accurate relevant spatial data, with products including:

- Country overview (Standard Land Cover and Adequate zoning/Land Use)
- Biophysical indicator monitoring
- Thematic representation of (Resource Inventory, species location records, systematic reports on depletion of forests, degradation of soils and agricultural land, ecosystem maintenance)
- Human population and demographic patterns across selected communities
- Infrastructure and social indicators

- Limited cadastral spatial and attribute recording

4. As the capacity to provide these kinds of information develops, the Unit should be able to market its products (basic topographic mapping and remote sensing products, interpretation and analytical information) as a full-service provider.

Organization and Structure

5. The Unit will be formed and equipped at three levels:

- Central Unit at DNFFB
- Provincial Unit as Gaza SPFFB
- Protected Area Units for selected conservation areas (likely to be the Maputo Special Reserve, Banhine and Zinave National Parks or Chimanimani)

6. Staffing of the Unit will require a combination of dedicated GIS/EIS personnel and specialists in other areas drawn from the DNFFB. The total staff numbers will be kept to a minimum, with heavy emphasis placed on training staff in the use and application of GIS/EIS tools. The following minimum functions, which may be performed by the same staff, will be required:

- *Central Unit (DNFFB)*: Database/System Administrator; GIS/System Analyst; Programmer; Topographer/Cartographer/Surveyor; Computer Operator
- *Provincial Unit (SPFFB)*: Topographer/Cartographer/Surveyor;
- *Protected Area Unit (PA)*: Computer Operator (with general surveying knowledge)

7. Training and skills development will be a continuous process, through hands-on, formal and non-formal training. Refresher courses and exchange visits with institutions in the region will enable staff (both generalist and specialist) to acquire the facility to use GIS tools and techniques for project monitoring and decision-making.

External Linkages

8. Most of the necessary initial data for the unit to produce valuable information, is already available from other Information System Units, Remote Sensing Centres, Surveying Departments, Statistical boards and other entities both in-country and from the region. The Project will help foster close links with SADC, whose member countries are already implementing a Region-wide Network System in the various sectors such as forestry. More formal linkages will be established with the Environmentek/Council for Scientific and Industrial Research (CSIR) in South Africa, and the Famine Early Warning System (FEWS). For example, FEWS has been delivering to the region periodically the Normalized Difference Vegetation Index (NDVI) a very advanced satellite imagery interpretation system for systematic monitoring of vegetation cover. The Project will enable image acquisition/interpretation for professional remote sensing applications and products through CENACARTA. DINAGECA should be the natural source for topographic and geodetic applications as well as for specific surveying and cadastral tasks.

9. An electronic mail account will be established as a first priority. As full Internet services become available in Mozambique, links to access the World Wide Web through either a local or a regional Internet Services Provider will be added. These two communication tools will enhance the potential of downloading directly information from the suppliers, considerably reducing the time spent in data entry and validation. It will also greatly enhance the sharing of information with outside agencies in South Africa and elsewhere (e.g. World Conservation Monitoring Centre (WCMC)). The Project will also actively cooperate with the Environmental Information Systems Program for Africa based at the Council for Scientific and Industrial Research (CSIR - South Africa).

Technology and Equipment

10. Suitable technology (high powered computers with significant data storage/backup capacity, equipped with state of the art peripherals and appropriate professional software) will be provided. The unit will be established as a full **Local** (expandable to a wide) **Area Network** (LAN/WAN) using Unix operated workstations equipped with 17-19" Color SVGA monitors, an A0-A3 size digitizing tablet, an A3 Color scanner and an A3 inkjet pen/pencil color plotter and printer. The standard GIS software to adopt will be the workstation version of ARC/INFO (full modules) integrated by a complete office software package and standard utilities (antivirus, disk caches, optimizers, etc.) for DBMS and routine office tasks. High speed Modems and TCP/IP kits/package will be included for communications.

MOZAMBIQUE

TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT

PRIVATE SECTOR STRATEGY

Introduction

1. One central objective of the Project is to help establish an enabling environment in which the private sector can play an enhanced role within the TFCAs and in Mozambique generally. Private sector investment will be crucial to achieve the objectives set out for the Project. As demonstrated elsewhere in the region (South Africa, Zimbabwe) the private sector plays an indispensable role in sustainable conservation. Private sector activities within the wildlife and conservation sector in Mozambique are limited to: the tourism development and marketing of Bazaruto National Park; a hotel linked to the Pomene Reserve leased to a private sector operator through a tender process, and; the management of thirteen hunting *coutadas* (areas) and five game farms in the "free zones". Of the *coutadas*, management activities are only fully underway in five.
2. All other core conservation areas in Mozambique need substantial rehabilitation work before significant tourism activities can recommence. Emergency plans for all core conservation areas under the Project have been drawn up and implementation has already started. One important output of these emergency plans will be long-term management plans, which include tourism development. Based on these plans, tenders will be held for tourism development activities by the private sector. Elaboration of these plans is a priority. Substantial interest has been expressed for concessions within the TFCAs. No concessions will be granted until these areas have been zoned. The Project will also promote planning and zoning of these areas.
3. The Project itself will be a testing ground for collaboration between the private sector, communities, NGOs and the Government at all levels and the modalities of collaboration will evolve over time. This Appendix sets out the current policy of the GoM and outlines elements of a strategy and Action Plan. Detailed development and implementation of the Action Plan will be monitored as part of M&E and Project supervision.

Role of Private Sector

4. The Forest and Wildlife Policy and Strategy states:

"The prospect of lasting peace in association with a new private sector investment code and tax incentives establish the basic conditions and incentives for the participation of the private sector in development activities. In line with these policies, the forestry and wildlife administration will: encourage the private sector, which includes both formal and informal elements, to

contribute to the national economy and rural development through participation and investment in the conservation and management of forest and wildlife resources; seek the involvement of the private sector in all categories of land, including State Protected Areas; encourage potential concessionaires to enter into direct negotiations with recognized communities, and require that tenders for concession allocations incorporate community agreements guaranteeing existing customary rights; and foster a transparent, competitive process for private sector investors.

5. This statement of general principles will need to be reinforced by the adoption of a code of practice and policy statement by the Government. These statements will be developed and discussed with the private sector prior to being adopted. In the wildlife sector, private sector involvement will be promoted in tourism development and marketing (particularly linking coastal and wildlife-based tourism), and in wildlife management outside the core conservation areas, (e.g., in *coutadas* or hunting reserves and game farms in the "free areas" - communally held zones). Other specialized activities may also be contracted to the private sector, particularly the management of conservation areas, ecological monitoring, and in some cases law enforcement.

Role of Public Sector

6. In Mozambique, the likelihood of substantial inflows of resources for conservation and wildlife activities is low. The role of the public sector is likely to be limited for the foreseeable future, and the prospect of attaining a level of wildlife services found in East Africa or in Mozambique's neighbors is very slim. The public sector should therefore focus on its core role of creating and maintaining an enabling environment within which the private sector, communities and NGOs can fulfill Mozambique's conservation objectives. Key areas will be: (i) formulation of policy and legislation; (ii) law enforcement, conflict management and mediation; (iii) monitoring and regulating private sector activities; (iv) promotion of competition among tourism operators; (v) training and capacity building; (vi) promoting local community participation and protecting the interests of communities; (vii) maintaining a direct role in managing core conservation areas, such as National Parks and Game Reserves, but with private sector involvement where appropriate, and; (viii) donor coordination. Central and Provincial Governments will share these responsibilities.

Action Plan to Enhance Private Sector Role

7. The key elements of the action plan will be: (i) *policy and legislative review*; (ii) *review of the tendering and project approval mechanisms and policy on length of concessions*; (iii) *tax regime, fees and licenses*; (iv) *regulation and monitoring procedures*; (v) *law enforcement*, and; (vi) *community relations policy*.

Policy and Legislative Reform

8. A Forest and Wildlife Policy and Strategy was approved by the Consultative Council of the Ministry of Agriculture and Fisheries in May, 1996. This includes an overall policy statement, strategies for institutional development, biodiversity conservation, community participation in forestry and wildlife and private sector involvement (including the extent of private sector

management acceptable within core conservation areas), and considers the roles of various stakeholders. Other key issues on which decisions are urgently needed include: the proportion of revenues to be retained by communities and each level of government, and; the future status of *Coutada* 16. A review of forestry and wildlife legislation, supported by FAO, began in October 1995, and an interim report was issued in March, 1996. Revised legislation is being prepared and a draft is expected by the end of 1996.

9. At present there is no systematic policy review mechanism in place. The TFCA project will promote systematic policy review, based on working groups of key stakeholders and an *annual policy development and review workshop* for all stakeholders. The need for an annual review reflects the rapid pace of change and the pilot nature of the project. Professional hunters and private sector operators will be encouraged to form associations to facilitate cooperation, self-regulation and policy negotiations.

Tendering and Project Approval Mechanisms

10. One critical element in attracting serious and responsible private sector investors is the need to ensure an open and transparent process, with little room for unofficial negotiations. This implies public tendering where applicable and well documented approval processes. Tendering has to date been limited to the hunting concessions (*coutadas*). Proposals were submitted, and selection was based on a number of criteria including: wildlife management experience; technical capacity; financial capacity; financial proposal; investment, and; labor force. Game farm proposals and other wildlife-related activities in the "free zones" for which investment incentives are sought and submitted to the Investment Promotion Center (CPI), which coordinates the approval process. CPI evaluates the proposal in terms of the investment legislation. Environmental impact assessment is required by MICOA, and the proposal is reviewed by DNFFB, DINAGECA, MICOA and other relevant Government entities. Project approval, by the Director of CPI and the Minister of Planning and Finance, is based on the recommendations of the technical departments. A separate process through DINAGECA is required for approval of the land concession.

11. A detailed document to regulate tendering and project approval mechanisms in *coutadas* has been prepared. Another document governing activities with protected areas is currently being drawn up. This aspect will be monitored during project implementation. The document will focus on two types of tourism development activity: (i) in core conservation areas and *coutadas*, and; (ii) in "free areas" (communally-owned). The following steps are proposed:

- Tenders will be advertised in the national press and in the regional tourism or safari hunting press as appropriate. Regional tourism and professional hunting associations will be informed. Interested investors will then request a briefing document to be generated from the tourism development component of the long-term management plans of a given area
- The briefing document will contain information about the tender process, including: the evaluation criteria which will be standardized for all tenders of the same type; a description of the type of investment opportunity offered, (e.g., the *coutada* or type of tourism facility); broad guidelines on sensitive issues (e.g., maximum number of beds, materials and methods

of waste disposal, environmental standards). Evaluation criteria will include environmental impacts.

- Interested investors should be invited to submit general proposals for pre-qualification. These should include information on the identity of the investor, and a general description of the project, and proof of financial capacity. These should be evaluated within a few days.
- Pre-qualified bidders will be invited to submit a final proposal, detailing: technical and financial capacity; projected accounts; proposed labor force; proposed relations with communities, and; detailed description of construction and facilities.
- Prequalification and final proposals will be opened in public to ensure transparency. A summary of the Selection Board's findings will be made available to the public. Environmental impact assessments will be undertaken after final selection.
- The Selection Board will include representatives of DNFFB, DINATUR and MICOA and their provincial services, National Park or Reserve staff and representatives of local communities. Community representation is particularly significant in the case of *coutadas*, as many communities live inside the area being offered, and have traditional use rights over some of the land.
- *Preliminary Guidelines for Community Natural Resource Management* (Appendix 7) outline how private sector operators will work with communities, in the "free areas" of the TFCAs. Communities will form local management councils with responsibility for natural resource management, and will be enabled to offer use of their natural resources through a simplified tender process. Standard project approval will be modified to reflect the needs of communities to involve them in the decision-making process, and at the final consultative meeting, facilitated by the community development officer. Zoning of TFCAs will be undertaken as soon as possible, in order to enable private sector proposals to go ahead.
- A review is being undertaken to establish the most appropriate length of concession time. In the wildlife management sector, where existing infrastructure and wildlife stocks are low, pay-back periods of 10 years and longer are accepted by the operators, but concession agreements must be for similar periods and be transferable to encourage investment and good management practices. Land ownership is vested in the state, but rights to land can be transferred. Subject to the provisions of the Land Law and the final approval of DNFFB, concession agreements will be fully transferable.

Tax Regime, Fees, Licenses and Revenue Retention

12. The current system of taxation, fees, licenses and revenue retention will be reviewed during the first year of the project. The purpose of the review will be to rationalize the fees and taxes paid by concession holders, and to determine how revenue retention for conservation purposes can best be achieved. The private sector operators have indicated that they would be willing to pay higher fees if this would directly contribute to public sector law enforcement activities.

13. Currently, private investors pay a range of taxes to the Ministry of Planning and Finance, including: industrial contribution tax, import duties, consumption tax, circulation tax and supplementary tax. Tax incentives are negotiated with the CPI. Investors who hold wildlife management concessions pay fixed annual concession fees, negotiated during the tender process. Hunting operators pay hunting license and trophy fees. Investors in the tourism sector, including safari hunting, pay a 10% tax on net profits to the National Directorate of Tourism (DINATUR), which retain them. At present none of the core conservation areas is open to the public except Bazaruto National Park and the system of entrance fees will be reviewed and updated.

14. Revenues from concession fees, hunting licenses, trophy fees, export fees and entrance fees are paid to DNFFB, but then passed to central treasury. (One exception, on a pilot basis, is a hunting concession in Tete Province, where revenues are divided between the local community, and provincial and national level governments). DNFFB has no financial autonomy, while the central government budget barely covers salaries and other recurrent costs. Sustainability of the wildlife sector requires that a minimum public function, such as regulation and law enforcement, be maintained. To accomplish this, it is essential that a proportion of revenues generated by the wildlife sector are retained. A new system will be developed along the following lines:

- standard taxes on private investment continue to be paid directly to the Ministry of Planning and Finance;
- 100 percent of hunting licenses and trophy export fees: retained by DNFFB and SPFFBs;
- at least 50 percent of the existing tourism tax: retained by DNFFB and SPFFBs;
- 50 percent of concession fees, trophy fees and entrance fees retained by DNFFB/SPFFBs and 50 percent allocated to local communities;
- in the case of wildlife-related tourism activities, tourism operators pay a levy per bed-night to local communities.

Regulation and Monitoring

15. Regulation of private sector activities are constrained by inadequate resources for effective monitoring. The project will reinforce monitoring capabilities in each of the TFCAs. Hunting quotas are proposed for *coutadas* by SPFFB, based on wildlife inventories undertaken by concessionaires accompanied by DNFFB/SPFFB staff, analyzed by DNFFB, and approved by the Minister. Monitoring activities are based on annual reports submitted to the Provincial Directorates for Agriculture and Fisheries (DPAP) and DNFFB, at the end of each hunting season. The reports cover the following: infrastructure and construction; labor force; safaris, hunters and observers; animals killed; trophies; law enforcement; wildlife inventory; demographic report; links and cooperation with local authorities; links with provincial agricultural structures; official visits to the tourist camp. The annual reports also cover perspectives for the non-hunting season and the following year, and suggestions by the concessionaire. Financial information is submitted to the Ministry of Planning and Finance.

16. On-the-ground verification by SPFFB staff is very limited due to a lack of resources. Legislation stipulates that a public sector law enforcement officer, *fiscal*, should be permanently

based in each *coutada*, and accompany all commercial hunts to provide on-the-ground training and facilitate monitoring of poaching activities within the *coutadas*. However, the number of *fiscais* and resources available to SPFFB are very low,¹ so that these requirements are not always implemented. This system is inherently open to abuse as the *fiscal* is dependent on the operator for food and transport. Each *coutada* or game farm is visited by senior SPFFB staff at least once in the hunting season.

17. The project will test new methods of monitoring and regulation. Some concessionaires have proposed the creation of a fund to finance independent baseline studies as the basis for quota allocations, annual monitoring of wildlife population dynamics and effective wildlife management. Concessionaires will be required to contribute to this fund in proportion to the size of their concessions. All annual reports and financial reports should be passed to DNFFB for analysis. Fines will be imposed for late submission of reports. DNFFB will produce an annual report on private sector activities, including recommendations for the following hunting season. This report will be discussed by private sector operators and other relevant stakeholders, and will form part of the annual policy review process. The Project will provide resources to enable field visits to private sector activities. Private sector operators should be able to support the training and equipping of further *fiscais*. The Project, will provide senior SPFFB staff with the means to visit TFCA *coutadas* and game farms at least once in the hunting season. These visits will include discussions with staff and local residents, and unannounced spot checks will be carried out by pairs of *fiscais*. As far as possible, different *fiscais* should be detailed for each spot-check. A similar system should be established for other types of private sector concessions.

Law Enforcement

18. Law enforcement activities are also limited by the low capacity of the provincial wildlife services. Anti-poaching activities are implemented by *fiscais*. In the *coutadas* granted to private sector concessionaires, these are supported by game guards employed by the concessionaires. In most cases private sector game guards have limited rights to charge and arrest offenders. The lack of *fiscais* and accredited game guards is constraining private sector attempts to secure their concessions against non-subsistence poaching.

19. Government intends to test new methods of involving the private sector in law enforcement, through training *fiscais* and game guards. The private sector would also equip the guards with uniforms, equipment (e.g., communications), and transport. Government would then be responsible for the salaries of *fiscais*, while concessionaires would continue to pay the salaries of game guards. Game guards who have passed the course would be accredited with law enforcement powers. One option for managing this process would be to establish a law enforcement fund with private sector contributions and managed by a board consisting of private and public sector stakeholders.

¹ A report published for DNFFB in 1993, *Formação de Pessoal para os Serviços de Florestas e Fauna Bravia*, found only 282 *fiscais* for the whole country, an average of 1 *fiscal* per 2836 km².

Community Relations

20. The Project will help test new approaches to private sector/community collaboration (*Preliminary Guidelines for Community Natural Resource Management - Appendix 7*). Within the framework of the new Land Policy, community rights to land will be extended beyond cultivated areas. Provisional demarcation of community land will be undertaken by the provincial geographical and land registration services (SPGC), and mechanisms will be developed to facilitate communities to gain legal title to land rights. The Land Policy alters the relationship between concessionaires and communities. Communities may gain legally recognized rights to land within *coutadas*, as well as land in the "free areas" where private sector concessions are proposed. Pilot projects within TFCAs will explore mechanisms for involving communities in the management of *coutadas* and concessions, through contracts or equity participation in the form of land rights. The new Land Policy, reaffirms that private concessionaires who forcibly remove local inhabitants from *coutadas* or concessions will be in contravention of the law.

MOZAMBIQUE**TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT****PRELIMINARY GUIDELINES AND ACTION PLAN FOR COMMUNITY NATURAL RESOURCES
MANAGEMENT****Introduction**

1. This Appendix provides preliminary guidelines and an action plan for community participation and empowerment in natural resource management which form the basis for the planning and implementation of the community-based development and conservation pilot activities in Mozambique. These guidelines are based on a November, 1995, DNFFB-sponsored workshop held in Tchumo Tchato (Tete Province) to discuss the experience of two pilot projects for community management of natural resources in Mozambique together with several other similar regional experiences, and recent work developed by DNFFB with IUCN support.
2. A central objective of the Project is to help establish an enabling environment in which communities can play an enhanced role in the management of their natural resources within the TFCAs. DNFFB is now formalizing the establishment of a unit for community based natural resource management. The TFCA Project is viewed as a testing ground for collaboration among local communities, the private sector, NGOs, and the Government at all levels. Through piloting, the concepts incorporated in these guidelines and the experience generated by the project will be expanded to other areas and form the basis for establishing a national policy framework for community participation in conservation and protected area management.

Role of Communities

3. As demonstrated elsewhere in Africa and the world, the involvement and empowerment of communities is the only sustainable strategy for biodiversity conservation and natural resource management. The poorest and most vulnerable sectors of the population are often the most dependent on renewable natural resources for income generation and risk aversion. Rural communities often bear direct and indirect costs of living in or near protected areas, in terms of marauding animals and loss of access to resources. To become partners in biodiversity conservation, local communities must derive sufficient benefits from it to compensate for these costs.
4. An important corollary to the critical role of local communities is also that public or private sector law enforcement (often seen as the alternative to community participation) is costly and usually unsustainable. It implies high costs for conventional protective strategies, and high costs for communities in terms of loss of access to resources. Success and sustainability of

conservation activities will thus depend upon direct and visible flows of benefits to the local communities, and maximizing the proportion of benefits captured at local community levels.

5. Mozambique is committed to the concept of involving communities in natural resource management. The Forest and Wildlife Policy and Strategy states:

"The rural population has always been the main user of natural resources, and these rights are enshrined in the constitution of Mozambique. The current policy of open access to these resources outside government reserves has also allowed their exploitation under license for commercial purposes. This will increase as more concessions within customary areas are sought by private enterprises. Since there has been no overall management of those natural resources, equitable access to benefits and long run sustainability have not yet been ensured. Whilst Government policy now addresses these issues, enabling legislation is incomplete, and contingent upon high level political decisions regarding the legal basis of customary rights, municipal election law and district financial law. As far as relevant laws permit, DNFFB is committed to implement schemes which will: promote and enable the development of community resource management regimes involving recognized communities, and which reflect the role of women; introduce mechanisms which progressively empower communities by affirming existing customary rights and ensuring exclusive access to natural resources in customary areas, permitting the sustainable commercialization of these resources for community benefit and provide for concession arrangements with government; involve the rural communities in the management of State Protected Areas through such mechanisms as Biosphere Reserves. On the basis of its accumulated experience in these schemes, DNFFB will develop proposals for further enabling legislation. "

6. Experience is being gained in conservation activities in Mozambique. The Bazaruto Marine National Park has been supported for a number of years by the World Wildlife Fund (WWF) and the Endangered Wildlife Trust (EWT). The Ford Foundation and IDRC support community-based programs in Tete Province. The EWT has also supported conservation efforts in the Maputo Game Reserve. These activities, and others from neighboring countries, provide useful lessons -- the most important being that there are no rapid solutions or simple blueprints which can be applied to all circumstances.

Objectives

7. The objectives of community involvement in natural resource management systems can be summarized as follows:

- to provide local communities with the institutional capacity to plan and implement activities designed to improve management of natural resources;
- to improve their quality of life through information, training, and technical and financial support;
- to empower local people by providing them with greater authority and legal power to manage natural resources;
- to reduce conflicts between communities and wildlife (e.g., animal hazards, crop damage, livestock loss, competition for water);

- to reduce management costs for the State or private sector;
- to reduce dependence of local communities on the State.

The Approach

8. Rather than setting out a blueprint for mobilizing a large number of communities for purposes of conservation and protected area management, the approach is based on a set of pilot activities which will be essentially experimental in nature. These activities will provide the provincial forestry and wildlife services (along with other entities such as NGOs, the scientific community, and collaborating government agencies) with critical learning experiences in how to design, implement and monitor projects carried out in partnership with local communities. The critical elements of this approach are described below.

Joint Management Committees

9. Community participation is based on the establishment of "learning partnership structures" comprised primarily (though not exclusively) of representatives of the local communities. These partnership structures will function as *Joint Management Committees* (JMCs). JMCs will emphasize understanding and working with local communities, involving them in project planning and implementation and, to the extent possible, relying on local institutions and traditional structures to implement components which involve public participation. Their primary role will be designing and implementing a series of pilot community-based conservation and development activities. JMCs will be also responsible for receiving, managing and distributing revenues generated through wildlife management and for allocating quotas between local residents and professional hunters.

10. The JMCs will be comprised of members who actually represent the key stakeholders in the communities - traditional community leaders, district authorities, provincial government representatives, NGOs. The final membership will be decided by the communities themselves based upon their needs and interests. JMC members must possess adequate knowledge of local community structures, cultural values, economic needs, and environmental perceptions. The committee members must strengthen their capacity to work with other members for the wider goals of regional conservation and development.

Facilitator institutions

11. Institutions such as NGOs will be contracted to provide technical assistance and training to the JMCs. Institutions which may serve in such a facilitator role include: IUCN, CARE, Helvetas, the Eduardo Mondlane University, the Center for Forestry Research, and the Cultural Patrimony Archives. Institutions in neighboring countries, such as the Zimbabwe Trust or the Center for Applied Social Sciences (CASS) at the University of Zimbabwe, may also assist in research and local capacity building. Such institutions will help in conducting of social and environmental assessments, consensus building among committee members, consultations with local communities, and the design of community-based development and conservation activities.

Security of tenure

12. Security over use of land and other natural resources by local communities is essential to provide incentives for sustainable management, and to facilitate enforceable contracts between local people, the Government, and the private sector. The following actions related to the control of land and natural resources are needed to enable community-based natural resource management:

- acceleration of the ongoing legislative review to ensure clear and secure management rights for local communities over natural resources;
- disseminate and discuss with communities information about the new Land Policy and legislation, and their implications;
- acceleration of the demarcation of community land, according to the principles of the new Land Policy and proposed Land Law.

Community/private sector contracting

13. The current lack of an efficient, equitable and transparent community/private sector contractual process creates unrealistic expectations, confusion and suspicion. To ensure the commitment of local communities to wildlife management, mechanisms are needed for returning financial benefits to those communities who bear the costs. The following measures are proposed to facilitate negotiation and equitable revenue-sharing between communities and the private sector for commercial natural resource-based activities (see also Appendix 6 *Private Sector Strategy*):

- ensure that legislative review makes provision for adequate financial returns to local communities;
- support local capacity building of JMCs and local communities to evaluate private sector bids for conservation and tourism activities and negotiate the sharing of revenues gained from these activities with district and national government agencies and private companies;
- ensure that community representatives and community development officers have membership in conservation area administrative boards.

Training and technical support

14. GoM recognizes that sustainable use of natural resources will require that local people have skills in a wide variety of areas including: community relations, organization and leadership, business and financial management, economic analysis, public administration, proposal writing, land-use planning, wildlife conservation and management, poaching control, hunting, handling and processing and marketing of wildlife related products and services. Training in these fields is necessary to promote capacity building and self-sufficiency at the community level to lay the groundwork for transferring authority for implementation of conservation activities to local organizations and communities.

15. Training and financial assistance will be needed to help local entrepreneurs develop small-scale enterprises to take advantage of new economic opportunities. Examples include organizing

tourism or hunting safaris, providing accommodation, preparing hunting trophies, and production of curios and souvenirs. Communication will be facilitated between local communities and public sector agencies and the private sector for technical assistance and investment opportunities. The communities will contribute to the activities and investments undertaken through labor and eventually through some financing.

Decentralization

16. Empowerment of local people entails the transfer of central government authority to communities so that they have the legal status and internal decision-making power to manage natural resources and receive the benefits of improved conservation activities. Current government efforts to decentralize through the new Law of the Municipalities and empower local communities, will be strengthened with the following actions:

- focusing financial resources, institutional strengthening and capacity building on lower levels of government, community institutions, and local NGOs;
- defining the role of each level of decision-making;

Community Conservation and Development Fund

17. Financial assistance is needed to assist local communities until tourism and other revenues are captured. A small community conservation and development fund will be established to support community generated projects and programs.

18. Initially pilot-scale community development funds will be established. These funds will be financed by grants from donors, as well as a percentage of revenues from tourism, safari hunting and other concessions. The funds will be managed by the JMCs, based on guidelines that will be produced by the DNFFB. Small grants of US\$1-5,000 will be made to local communities for social infrastructure (rustic school buildings, health posts, water systems, etc.) or small-scale conservation and rural development activities (fencing, game farming, beekeeping, eco-tourism, traditional medicine gardens and pharmacies).

Designing a National Policy Framework

19. Simultaneous with the formation of JMCs and the implementation of the above strategy, the DNFFB will establish an institutional process for formulating a national policy framework for community participation in conservation and protected area management. At the national level, policies and procedures will be formulated in the following key areas: (i) zoning and demarcation of community lands and gazetting of proposed new conservation areas; (ii) granting of tourist and other concessions within TFCAs; (iii) sharing of revenues gained from tourism and conservation activities among local communities, district and national government agencies, and private companies; and (iv) protecting cultural properties such as sacred forests, medicinal plants and burial sites.

20. The DNFFB will organize a series of national policy workshops to bring together representatives of the JMCs, national policy makers, national and international NGOs, and other

experts to discuss these issues. The findings and recommendations of these workshops will serve as the basis for legislative and policy reforms.

Implementation Strategy and Actions

21. The approach outlined above is designed to transfer authority and responsibility for project planning and execution to local communities. The following actions are central to implementing this approach. The time required to complete each action will be determined by site-specific conditions:

- detailed socio-economic assessments and geographic surveys of focus communities;
- provisional demarcation of community lands;
- participatory district-level natural resource and socio-economic planning process;
- dissemination and discussion with communities of new land policy and its implications, including land use options;
- creation of JMCs in focus communities;
- development of training and study tour programs;
- establishment of conservation and development funds - managed by JMCs; and,
- negotiation with private sector for commercial natural resource-based activities.

Social Assessments

22. The first step in the community planning process will be to carry out social assessments of the communities and groups which use or are affected by wildlife and other natural resources. NGO facilitators in collaboration with JMCs will conduct participatory assessments to build consensus and resolve outstanding conflicts between biodiversity preservation and local household and community needs.

23. A major purpose will be to ensure that the land-use and protected area management plans are adapted to the socio-cultural and ecological realities of each region and that ownership rests with the majority of stakeholders. The initial concern will be to define the pilot communities, including those which are losing crops or livestock to wildlife depredation or where politically explosive situations exist. In each community, measures will be taken to minimize the problems that wildlife protection are posing to the agricultural/livestock regimes of the local people.

24. New processes and mechanisms for conflict resolution will be introduced. A simple monitoring system for crop damage will be established as a priority and support for increased employment of local community members as game guards, guides, camp workers, cooks, manual laborers, construction workers, carpenters, mechanics, etc. will be made available.

Community Perceptions and Authority

25. In planning this process, NGO facilitators and DNFFB personnel will develop an understanding of the local community histories and political dynamics, particularly in relation to the authority structures and patterns of resource use which form the basis for both conflicts and opportunities in sustainable resource management. Communities will only participate and

cooperate in an activity if it is consistent with their perceptions and aspirations. Critical perceptions include: wildlife and other natural resources (positive economic or cultural values versus threats to self or property); history of conflicts with government authorities or outsiders in relation to natural resources or protected areas; and their goals for maintaining or improving their standard of living.

Community-Based Conservation and Development Initiatives

26. Community-based conservation initiatives will address the priority economic and social problems of local communities. This means integrating development of services and infrastructure and seeking new sources of income for communities. On the social side, it means emphasizing basic health and education and seeking a balance between productive and welfare components. The particular concerns of women, youth, returning refugees and other significant resource users will be considered in the over-all analysis of resource users interests and needs.

27. The overall prospects for generation of revenues or other benefits from improved natural resource management in any given area are highly variable, depending on specific ecological and economic factors. There is a need for trained people to evaluate and monitor biodiversity, develop management plans and monitoring systems, and for community mobilization and organization.

MOZAMBIQUE

TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT

ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

Environmental Analysis

1. The Project is designed to help Mozambique protect and conserve ecologically sensitive sites. With heavy emphasis on institutional development, community capacity building through participatory assessments, and pilot activities, the Project is expected to promote social and environmental sustainability. Key environmental considerations include the following:

Positive environmental impacts

2. The project will have a number of positive direct and indirect environmental impacts. Direct impacts will be in improving the management and protection of conservation areas (whether community related or formally protected areas such as the Maputo Game Reserve, Banhine and Zinave National Parks, Coutada 16, and the Futi Corridor). Indirect impacts include the general increase in awareness about conservation and protection of ecologically sensitive zones. Direct impacts include:

- identification, zoning and demarcation of land, the rehabilitation of protected areas, the construction, improvement, and maintenance of infrastructure, including roads, tracks, field housing, guard posts, and water supply points
- immediate rehabilitation of the Maputo Game Reserve, and Zinave and Banhine National Parks, and the preparation of long-term management plans
- renovation of the Maputo Reserve park center as a community training facility and a study on the tourism potential of the area to identify potential economic opportunities for local communities based upon wildlife utilization and improved natural resource management
- aerial surveys, ecological monitoring, a demographic study and the preparation of a land-use plan for the Gaza TFCA which may eventually lead to the creation of an international conservation area contiguous to South Africa, connecting Kruger National Park and Coutada 16.
- In Chimanimani ecological and social monitoring and preparation of a resource management plan developed in coordination and under the control of traditional leadership.
- the Futi Corridor provides a link for biodiversity conservation and the exchange of genetic material between conservation areas in South Africa and Mozambique. The Project will help define the boundaries of the proposed corridor based on socioeconomic, and ecological studies and extensive participatory rural appraisal with the intent of protecting

traditional land rights according to the new Land Policy and forthcoming Land Law. The Project includes the construction of section and patrol bases, road and track rehabilitation and construction, and water supply points. Wildlife control, through fencing or other methods would be subject to environmental and social assessment

3. Indirect impacts result from the improved institutional capacity of the public sector agencies (DNFFB, SPFFBs), capacity building in communities and improved interaction with the private sector. Increasing awareness about the importance of conservation will also contribute to environmental sustainability. Project preparation has already contributed to awareness raising, particularly in the Maputo area, and has provided additional justification for freezing commercial concessions in sensitive areas pending further studies.

Negative Environmental Impacts and Mitigatory Actions

4. Without proper attention some activities promoted by the Project might have negative environmental impacts. However, the project has been designed to avoid adverse environmental impacts through a series of mitigation measures integrated within the different components.

5. The proposed management plans to be developed for each project area will include an impact assessment to ensure the protection of the area's biodiversity and natural habitat. The management plans will clearly distinguish between national parks and other formally protected areas, whose purpose will be to preserve intact ecosystems, and game reserves and buffer zones, in which the sustainable exploitation of biological resources will be a legitimate objective. For the actual management of biological resources, particularly those targeted for consumptive use, the project will provide financing to develop adequate scientific knowledge of the population dynamics of the key species in order to determine sustainable offtake levels and desirable population structures. Where necessary due to potential problems with Foot and Mouth and other animal diseases, the project will support the construction of veterinary cordon fences and operation of quarantine camps.

6. ***Environmental tourism*** generally is considered to have a positive impact by encouraging the maintenance of habitat in a fairly natural state (although not completely natural, as tourists' comfort and convenience is an important consideration). Poorly managed tourism can have serious negative impacts. High populations of wildlife may be encouraged to enhance the attraction, but this can result in environmental damage as the carrying capacity is exceeded. Large numbers of tourist vehicles can damage vegetation and disrupt animal feeding and behavior. In the drier areas, water may be channeled to tourist facilities at the expense of habitats, the wildlife and local communities. Poorly planned infrastructure can also generate problems, such as erosion caused by roads, or water contamination from sewage and garbage disposal

7. Although not directly financed by the Project, eco-tourism activities will be assessed to determine the carrying capacity of project areas and the acceptability to local communities. Siting and sizing of tourist facilities and roads will be planned to ensure that tourist numbers are consistent with the goal of biodiversity protection. Siting tourist accommodations on private or communal lands immediately outside protected areas will be promoted to increase economic benefits to local communities. All tourism facilities will adopt best practices for the region in

terms of sewage and garbage disposal, water supplies, renewable energy, use of local building materials and respect of traditional styles. Environmental assessments will be required for any community development activity planned in the areas surrounding the protected areas.

8. ***Environmental impacts of wildlife utilization*** The Project will contribute to the development of policies on non-consumptive and consumptive wildlife utilization. Economic utilization of wildlife can take many forms, and the Project will help Mozambique establish a framework for determining the most economically and environmentally sustainable forms of use. These questions can only be addressed during Project implementation. Environmental impacts of the various types of utilization will be evaluated in comparison to those alternative land uses.

9. ***Safari hunting*** probably has the least environmental impact of all types of economic utilization of wildlife. Hunters generally require and cause less modification of the habitat than do tourists and they are content with much lower animal population densities. They kill and remove only a small proportion of animals from the population. The product sold is really the experience of tracking and killing the animal, the services that go with this, and the prestige of taking home the trophy. This high value means that a trophy-quality animal is worth a great deal more if sold to a sport hunter than if harvested for its meat and hide. Marketing of safari hunting depends on the quality of trophies (mostly mature males) offered, and this in turn requires that the population is not over-harvested. Offtake rates from safari hunting are often so low that populations must be controlled by cropping non-trophy animals.

10. Increasing income from a hunting enterprise can be achieved by increasing the number of hunters or tourists, the fees, or the quality of services. Increased income results not from extracting environmental capital at a higher rate, but from selling the commodities in a higher quality form, and from selling non-environmental inputs such as provision of services. The main negative ecological impact is on species with social systems in which removal of certain individuals can be disruptive, such as "lone bulls" which are in fact territorial males, or threatening the survival of family troops if the mature adults are killed (such as among elephants).

11. ***Subsistence hunting and live animals trade*** The major hazard in using wildlife for meat and durable products is obvious: non-selective harvesting and over-exploitation of the population are difficult to control. In addition, subsistence hunters may set brush fires to drive the game or make it easier to control. On the positive side is the proposal that promoting the use of meat from wildlife may in some cases provide at least a partial alternative to livestock, whose grazing leads to deterioration of marginal areas.

12. The live animals trade represents a wide range of environmental impacts. If well controlled, it can support an effective wildlife management system by providing a relatively high-value market for excess animals (e.g. zoos, game ranches, etc.). Except on private lands, it is difficult to control and the demand for some species (e.g. birds, reptiles, etc.) has greatly contributed to overexploitation, sometimes leading to the brink of extinction. In addition, free-lance collectors tend to be unselective and many additional animals also die in capture and transport.

Social Dimensions

13. The social challenge of the Project relates to understanding and mobilizing local communities and finding common objectives for integrated conservation and development. The project has been conceived to minimize or avoid potential risks associated with the internal sociological and institutional constraints in Mozambique through its experimental learning approach and a range of mitigatory measures. Project activities will aim to increase rural incomes, improving standards of living, strengthening local community structures and developing human resources. They are intended to empower local communities to manage their natural resources with minimal external input or control. Despite these potential benefits, there are a number of sources of risk. These are discussed below.

14. ***Complex demographic and social situation*** The dynamic demographic situation within Mozambique and the existence of parallel or overlapping community institutions make it extremely difficult to determine who represents local communities. Given these conditions, the Project will not set out a standard project design, but will organize and finance pilot activities. These activities will be relatively small in number and simple in design. They will provide the SPFFBs, NGOs, the scientific community, and other government agencies with critical learning experiences in designing, implementing and monitoring projects carried out in partnership with local communities. The project will work within existing local institutions rather than create new structures, and will ensure that disadvantaged minorities and women are not excluded from the consultative process and project benefits.

15. ***Limited experience in community development*** The limited experience in Mozambique in designing and implementing conservation and development projects with local communities poses another possible source of risk and conflict for achieving meaningful community participation. This problem will be addressed by establishing “learning partnership structures” - Joint Management Committees - comprised primarily (though not necessarily exclusively) of representatives of the local communities with assistance from facilitating NGOs. The role of the JMCs will be to design and implement pilot community-based conservation and development activities and increase the experiential knowledge base in each area. Technical assistance will be used to augment the capacity of JMCs, DNFFB, and SPFFB. Project activities will be phased and adjusted according to the acquired capability and implementation experience, and augmented by active NGO and private sector participation.

16. ***Private concessions granted without community consultation*** In many parts of Mozambique, including Project areas, serious challenges exist associated with the indiscriminate granting of concessions. Commercial agriculture, forestry, hunting, tourist, fishing, and mining concessions are being considered in the areas adjacent to and surrounding protected areas. In very few cases have there been prior consultations with local communities or standard social and environmental impact assessments. The granting of these concessions impact upon on the traditional rights of the communities.

17. The recently approved Land Policy guarantees customary land rights of communities and concessionaires would need to negotiate directly with local communities for the use of their land. GoM also plans to introduce new policies allowing communities to control wildlife and other

natural resources and retain the benefits accruing from them. Until these policies become enshrined in the new Land Law, the opportunity remains for investors to obtain concessions directly from the State.

18. A series of actions are proposed to mitigate these risks in the Maputo TFCA, the most volatile area. In advance of Project approval, a forum is being established for participatory planning of development and livelihood options in the Maputo TFCA. MICOA is undertaking a participatory Land Use planning exercise for Matutuine District which is subject to the heaviest pressure for concessions for tourism, agriculture and forestry. The area has been frozen to concessions by the provincial government. The Project, through the JMCs and the pilot activities, will address land issues and access rights, and build on these efforts. The Chimanimani TFCA is also frozen to concessions pending the elaboration of a land-use management plan.

19. ***Changing livelihoods and community uncertainty*** Given current levels of poverty and lack of livelihood, local community interest in conservation will decrease if the Project does not yield immediate benefits or if rural incomes decline due to new land use strategies. The Project will establish pilot-scale community development funds to finance community-based development and conservation projects. Initially financed by the Project, these funds will receive additional resources from other donors, tourism, safari hunting and other concessions. The funds will be managed by the JMCs, based upon funding guidelines produced by DNFFB. They will provide grants to local communities for purposes of social infrastructure (schools, clinics, water systems, roads, etc.) or small-scale conservation and rural development activities.

20. Other Project activities will generate local employment in multiple aspects through the proposed wildlife and habitat management and monitoring activities - fire management, biodiversity inventory, poaching control, etc. - and infrastructure - wildlife area boundaries, local tracks, road construction and improvement, water pans, tourist facilities - to be built, rehabilitated and maintained during the life of the project. Ecotourism activities are also expected to generate employment (e.g., game guards, guides, camp workers, cooks, manual laborers, construction workers, carpenters, mechanics).

21. ***Conflicts between human activities and conservation*** While no involuntary resettlement will be required by the project, negotiation procedures will be put in place for dealing with resource use/tenure conflicts related to the presence of communities within protected areas, compensation for limitations imposed by conservation activities on the traditional livelihood regimes of local people, community/private company joint ventures (e.g., poaching control, conservation-related tourism enterprises, etc.), or other issues that may arise during implementation. Participatory assessment and planning processes will help build consensus and resolve outstanding conflicts between biodiversity preservation and local household and community needs. This process will be organized by the JMC for each TFCA with the assistance of the NGO facilitator organization(s). A major purpose of this process is to ensure that land-use and protected area management plans are adapted to the socio-cultural and ecological realities of each region and that ownership rests with the majority of stakeholders in each TFCA.

22. ***Futi Corridor*** The Project will finance socioeconomic and ecological studies and participatory rural appraisals to determine the viability of the Corridor and, if consensus is reached

with the affected communities, define its boundaries with the intent of gazetting it as a conservation zone. Based upon recommendations in social assessments, the project will introduce measures to minimize possible problems that wildlife protection may pose to the agricultural/livestock regimes of the local people. A decision on the fencing of the corridor will depend on analysis of its social and environmental impact. The project will also provide funds to expedite the official demarcation of traditional lands according to the new Land Policy and forthcoming Land Law.

23. *Inadequate policy and legislative framework* Underlying many of the problems outlined above is the currently inadequate legislative and policy framework. The Project will help DNFFB establish a process for formulating national policies for community participation in conservation and protected area management. Key areas include: (i) zoning and demarcation of community lands and gazetting of proposed new conservation areas; (ii) granting of tourist and other concessions within TFCAs; (iii) sharing of revenues gained from tourism and conservation activities among local communities, district and national government agencies, private companies; and (iv) the protection of cultural properties such as sacred forests and burial sites. National policy workshops will bring together representatives of the JMCs, national policy makers, national and international NGOs, and other experts to discuss these issues. The findings and recommendations of the workshops will serve as the basis for legislative and policy reforms. To start the process DNFFB has issued two discussion papers dealing with community participation in resource management activities and a private sector strategy. These will be discussed and revised based on the input provided by communities, district and national authorities, the private sector, and other stakeholders in all three TFCAs (see Appendices 6 and 7).

MOZAMBIQUE

TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT

ECONOMIC CONSIDERATIONS

Introduction

1. The project is of a pilot and experimental nature, with heavy emphasis on institutional development, and as such is not subjected to formal cost benefit evaluation. Economic valuation of environmental assets is not yet able to capture all of the potential benefits, and proxies have had to be developed through techniques such as contingent valuation. The benefits of wildlife and habitat conservation in the TFCAs to Mozambique fall into several broad categories: (i) direct value for non-consumptive tourism (e.g. game viewing); (ii) consumptive use of wildlife (e.g., game ranching, hunting, live animal trade); (iii) subsistence and commercial use of plants and wild foods (e.g., medicines, food supplements, reeds for construction, edible caterpillars, silk worms, beekeeping); (iv) overall ecosystem integrity (e.g. watershed management, land husbandry). This Appendix is intended to give an indication of the benefits which can be derived from enhanced conservation activities in Mozambique. Costs of conservation, other than the direct costs, include loss of income from alternative forms of land use (e.g. agriculture or animal husbandry). In many cases, particularly in the southern Africa region, alternative land uses are not sustainable, and may lead to irreversible conversion of habitat. Conservation does not eliminate alternative future uses.

Tourism

2. Tourism overall is one of the world's fastest growing industries, already ranking second to oil in terms of revenue generation. In 1994, global tourism generated an estimated US\$3,400 billion of gross output, equivalent to 10 percent of global GDP. Responsible for over 10 percent of consumer spending, tourism generates over US\$600 billion in tax revenues.

3. Currently, Africa's share of world tourism is estimated at less than 2 percent but Sub-Saharan Africa generates only a tiny fraction of this. Tourism receipts of the major SSA tourist countries such as Kenya (US\$420 million), South Africa (US\$1,200 million), Zimbabwe (US\$100 million), Namibia (US\$100 million) and Swaziland (US\$30 million) combined total only about US\$1.2 billion or less than 0.01 percent.

4. Southern Africa can capitalize on the re-entry of South Africa into the international fold and the global tourism market. The South African Tourist Board expects the number of foreign tourists to rise from 3.6 million in 1994 to 9 million in 2000. At a ratio of 1:4 overseas (outside Africa) to continental (within Africa) tourists, this would translate to 1.8 million overseas visitors. At about US\$1,500 per overseas visitor, about US\$2.5 billion would be generated from this

category of visitor by the year 2000 at 1995 prices. The advent of peace in the sub-region, together with initiatives in the Southern Africa Development Community (SADC), such as the proposal to introduce a single tourist visa for overseas tourists, are likely to stimulate tourism generally in the region, building on the existing tourism base.

5. Although the current contribution of tourism to the economy of Mozambique is unknown, the country's tourism potential is considerable. With over 2700 km of coastline, Mozambique has the opportunity to develop potent tourism combinations: inland, nature and wildlife-based experience combined with coastal tourism. Two of the three TFCA's (Maputo and Gaza) offer direct opportunities for this. Information on the Kruger Park indicates that demand for nature/wildlife based tourism could soon begin to outstrip supply. With a total number of visitors of 700,000 in 1994, occupancy rates of overnight facilities run at over 70 percent, and the park itself is reaching a saturation point. Gross expenditures run at over US\$60 million per year in and around the park. Progressively soaking up some of the excess demand would be entirely feasible in the Gaza area, taking advantage of the infrastructure and marketing potential through association with KNP. In the Maputo TFCA, coastal tourism is already developing rapidly, and with the improvement of conservation activities the area will become even more attractive. The Project, as part of the TFCA management planning, will finance additional studies on the tourism potential in each of the three TFCA's.

Consumptive

6. Safari hunting is the highest value use of wildlife, as the animal sold as a hunter's trophy is worth many times more than the same animal sold for its meat and hide. The market for safari hunting is very large, apparently price inelastic, and far from being saturated. Trophy fees for elephants in Southern Africa range between US\$20-30,000, and fees for other species are generally in the US\$3,000-6,000 range. Daily rates for hunting safaris are also high, in the \$1,000 range. Safari hunting generally exploits the more remote areas which are generally less suitable for wildlife viewing.

7. Other forms of consumptive use (which are not mutually exclusive with either tourism or safari hunting) is game ranching either by communities or by private landowners. Experience in areas which are very similar from an ecological perspective demonstrates the potential for Mozambique. Zimbabwe's Lowveld Conservancies, where more than a million acres of formerly private cattle ranches have been converted to wildlife management areas, demonstrate that wildlife represents a more sustainable and economically viable proposition than cattle ranching. Wildlife are more suited to the eco-climatic conditions (particularly drought resistance). Employment generation, through tourism and other spin-offs in these and other areas (e.g. in South Africa) is up to ten times that in the cattle ranches. Financial projections yield short term gross revenues per hectare at US\$5-6 per hectare, rising to US\$20-25 in the medium term from mixed wildlife and tourism. This compares with US\$3-6 in cattle ranching, with the upper end considered unsustainable. No increase is expected in the medium term. Game ranches also provide the opportunity for wildlife farming such as crocodile and ostrich farming for which important niche markets exist.

8. In communally owned areas, the CAMPFIRE experience has begun to demonstrate that in some areas, wildlife-based enterprises are financially more attractive than livestock systems when combined with safari hunting. In some districts, household incomes have increased by a third. Other benefits include development of community-based institutions and reduced incentive to overstocking of livestock areas.

Wildfoods, Plants and Other Products

9. In Mozambique, as elsewhere in Africa, the economic value of wildfoods, plants and other non-wood forest products, is hard to estimate. However, there is a significant amount of evidence that these products are critically important for survival by rural communities. Wildplants are estimated to provide more than 35 percent of food intake for remote communities in Gaza, while the socio-economic survey in the Maputo TFCA indicated that over 80 percent of the population depended on natural/herbal medicines, in addition to all of the other natural resources products (reeds for construction and baskets, thatch, honey, palm wine and other products). Many wild foods are collected, including several types of fruit, tubers, and vegetables. In the Maputo TFCA, medicinal plants which have a high economic value, are in relative abundance compared to across the border in Kwazulu, South Africa. The socio-economic assessments to be carried out under the Project, will attempt to improve the knowledge base in this area.

Ecosystem Management

10. To these direct economic benefits to be obtained from improved conservation in Mozambique, should be added the value of improved eco-system management in all its dimensions. Quantification is difficult, but the benefits include improved watershed management with important downstream benefits in terms of water supply and quality, better (more sustainable) management of woodlands, and overall biodiversity integrity. In the case of the TFCAs - particularly in Gaza and Maputo, the linkages with the conservation areas in South Africa will provide additional benefits through extension of the habitat. By having more extensive areas the viability of the existing conservation areas will be enhanced, and the need for culling (particularly elephants) will be reduced.

MOZAMBIQUE**TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT****MONITORING AND EVALUATION****Introduction**

1. An effective monitoring and evaluation program will be integral to the success of the Project. The pilot nature of many Project activities will require timely and constant feedback to ensure that problems, as well as opportunities, are identified early in implementation and that appropriate actions are taken.
2. An experienced NGO or consulting firm will be contracted to help DNFFB design and implement the monitoring and evaluation program. The main objective in designing this system will be to use the simplest, most cost-effective and replicable methods, involve local communities at the field level, and ensure long-term sustainability. The M&E process will be enhanced through the GIS/EIS unit within DNFFB which will provide valuable input into the Project's adaptive management approach. Local communities will be trained to undertake systematic field monitoring and evaluation of Project activities, and provide direct data to the relevant Project staff and implementing institutions. Implementation support by the Bank and other donors to evaluate overall implementation and achievement of the objectives over the life of the Project will also be an important tool in M&E.
3. Four different aspects of the Project will be monitored. These are: (i) institutional strengthening/policy changes; (ii) ecological monitoring; (iii) socio-economic and community assessments; and (iv) project implementation and accountability. The following paragraphs outline some of the indicators that could be used in developing the monitoring and evaluation program.

Institutional Strengthening/Policy Changes

4. This activity will provide feedback on the progress being made with capacity building efforts, involvement of the local communities in planning and implementation, achievement of the policy and regulatory changes, and the extent of international collaboration in the TFCAs. The main indicators are:

Training

(a) DNFFB Staff

- No. of training days
- No. of people trained
- No. and type of new skills acquired
- Level of nationally protected area management
- Use and impact of new skills to achieve priorities for the forestry and wildlife sectors

(b) SPFFB Staff

- No. of training days
- No. of people trained
- No. and type of new skills acquired and feedback from the users of these skills: the communities
- Ability to undertake field level activities related to these new skills particularly in community program development and extension, participatory rural appraisal, management planning, and financial management activities

(c) Local Authorities and DDA Staff

- No. of training days
- No. of people trained
- No. and type of new skills acquired
- Quality and impact of activities for natural resources management

(d) Indigenous NGOS

- No. of training days
- No. of people trained
- No. and type of new skills acquired
- Enhancement of work with Joint Management Committees and local communities in natural resource management and evaluation by the JMC of NGO skills

(e) Local Communities

- No. of training days
- No. of people trained
- No. and type of new skills acquired
- Level of community management of their natural resources and impact on the communities

Geographic/Environmental Information System

- No. of training days in GIS/EIS
- No and type of new skills acquired
- Production of spatially based data in place by December, 1997
- Level of integration of GIS/EIS into the development of activities - planning, programming, community area management, enforcement, and monitoring and evaluation
- Impact of GIS/EIS in the dissemination of information and stimulating public interest
- Institutional linkages established with SADC, Environmentek/CSIR, and FEWS by December, 1997
- Establishment of a four year regional action program with indicators

Policy Development

- First draft revision to the forestry and wildlife legislation by December, 1996
- Completion of an annual policy development and review workshop for all stakeholders
- Adoption of a policy ensuring equitable distribution, transparency, and equity for the granting of concessions in the protected and unprotected areas by December, 1997
- Establishment of indicators to monitor policy implementation
- Level of recognition of customary rights and the extent of community involvement in the negotiation of concessions on traditional land
- Degree of decentralization of governance and local government participation
- Enabling environment for tourism flows into the country

Enhancing the Role of the Private Sector

- No. of professional hunter and private sector operator associations established and functioning
- No. of joint ventures between the communities and the private sector
- Facilitation of bi-annual meetings with the TFCAs for the private sector to discuss issues related to the development of forestry and wildlife resources
- Draft revision of taxes, fees, and revenue system by December, 1997
- Development of a standard format for the private sector reporting for DNFFB
- Completion of a DNFFB annual report on private sector activities by December, 1998

Enhancing the Role of the Communities

- No. of people contacted to generate community awareness on sustainable natural resources use
- Change in awareness on value of biodiversity
- Number and impact of training and exchange programs to generate community awareness

- Level of development of local initiatives related to training and the effectiveness of the Commercial Business Officer
- Level of management rights for communities
- Quantity, type, and distribution of economic benefits
- Level of Community/Private Sector Collaboration
- Perceptions of the communities on the direct benefits from the private sector's activities

International Collaboration

- Two meetings per year of the international working groups with the first to be held by December, 1997
- First bi-annual newsletter to disseminate information on transfrontier issues by December, 1997
- Establish coordination mechanism with neighboring countries
- Integrated tourism and wildlife strategic planning process initiated by December, 1997
- Finalization of monitorable indicators for regional tourism and wildlife strategic planning
- Completion of an annual regional workshop
- Number and effectiveness of TFCA Commissions established
- Level of identifying, assessing and mitigating threats (e.g. mining) at the national and regional levels

Ecological Monitoring

5. Ecological aspects will be monitored to determine whether the Project is achieving its goal of conserving biodiversity, is stabilizing natural resource use and production systems and has improved habitat management techniques. GIS/EIS activities will be combined with on the ground monitoring. The indicators are:

- No. of ground observations and aerial surveys
- Status and distribution of target flora and fauna
- Dynamics and resilience of the habitat
- Establish presence on the ground with conservation officers in the Maputo TFCA , Zinave, Banhine, Coutada 16 and Futi Corridor by December, 1997
- No. of anti-poaching patrols undertaken
- No. of poachers caught
- Changes in wildlife population
- Animal Offtake
- Changes in the vegetation cover and land use
- Measurement of hydrological cycles and climatic parameters
- Number of boreholes constructed
- Freezing of concessions in the southern part of Coutada 16 by December, 1997

- **Number of Management Plans Produced**
 - Adoption of a Management Plan for the Maputo Game Reserve by December, 1997
 - Development of a Management Plan for the Futi Corridor by December, 1997
 - Completion of a final Management Plan for the Gaza TFCA by December, 1998
 - Development of a Management Plan for Banhine by December, 1998
 - Development of a Management Plan for Zinave by December, 1997
 - Development of a Management Plan for Coutada 16 by December, 1998
- Effectiveness of implementation of Management Plans to be refined with indicators by December, 1997 and December, 1998
- Extension of the Maputo TFCA reserve boundaries by December, 1998
- Completion of an Action Plan for the Chimanimani TFCA by December, 1998

Socioeconomic and Community Assessments

6. The goal of the M&E activities under this category will be to assess the effectiveness and number of Joint Management Committees that are being created, to monitor the management of the pilot-scale community development funds, to determine the extent to which the expected benefits are being realized, to identify the local perceptions of project progress and applicability to local concerns, to monitor change in local capacity, and to provide input into the development of national conservation and protected area policies. To obtain baseline data on the population, land tenure system, economic and production activities against which impacts can be measured, the Project will undertake a number of household surveys and group discussions involving local communities living in the project sites, buffer zones and surrounding areas. The socioeconomic indicators will include:

- **No. of Social Assessments undertaken:**
 - By December, 1997 four will be undertaken
 - By December, 1998 four will be undertaken
 - Social assessments on-going
- **No. of Joint Management Committees created:**
 - By December, 1997 two will be created
 - Formation, operation and review of Joint Management Committees will be on-going
- **Changes in local perceptions of potential use and value of natural resources**
- **Changes in resource allocation, access, controls for encroachment**
- **Adoption of improved land management and agricultural techniques**
- **Effectiveness of conflict resolution mechanisms**
- **Changes in migration patterns**
- **Development of sustainable activities generated through the community funds:**
 - Subprojects: 2 by December, 1997
 - 3 more by December, 1998
 - 4 more by December, 1999
 - 5 more by December, 2000
 - 6 more by December, 2001

- Economic benefits measured at two levels. First, those that the communities generate themselves. Second, those direct and indirect benefits that the communities receive from hunting concessions and tourism revenues.
- Impacts of the project's activities on the cultural and social values of the communities
- Levels of impacts and opportunities for disadvantaged groups

Project Implementation and Accountability

7. This category will include M&E on the use of funds from GEF and account audits; procurement and disbursement; and beneficiary assessments. The main indicators will be:

- Results of quarterly and external audits
- Attainment of the objectives of the annual work plans and programming
- Disbursement Rates
- Procurement Rates
- Beneficiary Assessments
- Project expenditure by component
- Level of coordination of participating institutions at all levels

Mozambique
Transfrontier Conservation Areas & Institutional Strengthening Project
Table 1. DNFFP
Detailed Costs
(US\$)

	Unit	Quantities					Unit Cost	Base Cost						
		1997	1998	1999	2000	2001		Total	1997	1998	1999	2000	2001	Total
I. Investment Costs														
A. Civil Works														
Rehabilitation of Offices	lump sum							10,000	-	-	-	-	10,000	
B. Technical Assistance														
Adviser to Project Co-Ordinator	man months	12	12	12	3	3	42	8,000	96,000	96,000	96,000	24,000	24,000	336,000
Short-term TA - Park Management	man months	3	2	-	-	-	5	8,000	24,000	16,000	-	-	-	40,000
Short-term TA - Community Program Adviser	man months	3	2	-	-	-	5	8,000	24,000	16,000	-	-	-	40,000
Short-term TA - Commercial/Business Adviser	man months	2	2	2	-	-	6	8,000	16,000	16,000	16,000	-	-	48,000
Subtotal Technical Assistance								160,000	144,000	112,000	24,000	24,000	464,000	
C. Vehicles & Equipment														
4x4 Vehicle	no	1	-	-	-	-	1	30,000	30,000	-	-	-	-	30,000
2x2 Vehicle	no	1	-	-	-	-	1	20,000	20,000	-	-	-	-	20,000
Repairs to 4x4 Vehicle	no	1	-	-	-	-	1	10,000	10,000	-	-	-	-	10,000
Repairs to 4x4 Vehicle	no	1	-	-	-	-	1	6,000	6,000	-	-	-	-	6,000
Computer & Printer	no	1	-	-	-	-	1	4,500	4,500	-	-	-	-	4,500
Photocopier	no	-	-	-	1	-	1	8,000	-	-	-	8,000	-	8,000
Repairs to Photocopiers	no	3	-	-	-	-	3	3,000	9,000	-	-	-	-	9,000
Radio Equipment	vehicle sets	3	-	-	-	-	3	2,000	6,000	-	-	-	-	6,000
Office Furniture	no	4	-	-	-	-	4	3,500	14,000	-	-	-	-	14,000
Subtotal Vehicles & Equipment								99,500	-	-	8,000	-	107,500	
D. International Collaboration														
Regional Travel, Meetings and Consultations	lump sum							30,000	30,000	30,000	30,000	30,000	150,000	
E. Environmental & Biodiversity Monitoring														
BIS Equipment - Central Unit	hardware & software							100,000	-	-	-	-	-	100,000
BIS Equipment - Provincial Unit	hardware & software							10,000	-	-	-	-	-	10,000
BIS Equipment - Protected Area Units (3)	hardware & software							17,600	-	-	-	-	-	17,600
Technical Assistance	man months	3	3	-	-	-	6	8,000	24,000	24,000	-	-	-	48,000
Training	courses	3	3	-	-	-	6	6,000	18,000	18,000	-	-	-	36,000
Other Studies and Support	lump sum							20,000	20,000	20,000	20,000	15,000	25,000	
Subtotal Environmental & Biodiversity Monitoring								189,600	62,000	20,000	20,000	15,000	306,600	
F. Unallocated														
Unallocated	lump sum							200,000	200,000	57,900	-	-	457,900	
Total Investment Costs								689,100	436,000	219,900	82,000	69,000	1,496,000	
II. Recurrent Costs														
A. Incremental Salaries														
Project Coordinator	man months	12	12	12	12	12	60	1,000	12,000	12,000	12,000	12,000	12,000	60,000
Commercial/Business Development Officer	man months	12	12	12	12	12	60	800	9,600	9,600	9,600	9,600	9,600	48,000
Secretary/Administrator	man months	12	12	12	12	12	60	100	1,200	1,200	1,200	1,200	1,200	6,000
Driver	man months	12	12	12	12	12	60	50	600	600	600	600	600	3,000
BIS/GIS Database/System Administrator	man months	12	12	12	12	12	60	500	6,000	6,000	6,000	6,000	6,000	30,000
BIS/GIS System Analyst	man months	12	12	12	12	12	60	500	6,000	6,000	6,000	6,000	6,000	30,000
BIS/GIS Programmer	man months	12	12	12	12	12	60	500	6,000	6,000	6,000	6,000	6,000	30,000
Topographer/Cartographer/Surveyor	man months	24	24	24	24	24	120	400	9,600	9,600	9,600	9,600	9,600	48,000
Computer Operator	man months	60	60	60	60	60	300	300	18,000	18,000	18,000	18,000	18,000	90,000
Subtotal Incremental Salaries								69,000	69,000	69,000	69,000	69,000	69,000	345,000
B. Subsistence & Travel Allowances														
Project Coordinator	per month	12	12	12	12	12	60	1,000	12,000	12,000	12,000	12,000	12,000	60,000
Park Management Officer	per month	12	12	12	12	12	60	1,000	12,000	12,000	12,000	12,000	12,000	60,000
Community Development Officer	per month	12	12	12	12	12	60	1,000	12,000	12,000	12,000	12,000	12,000	60,000
Commercial/Business Development Officer	per month	12	12	12	12	12	60	1,000	12,000	12,000	12,000	12,000	12,000	60,000
Secretary/Administrator	per month	12	12	12	12	12	60	100	1,200	1,200	1,200	1,200	1,200	6,000
BIS/GIS Database/System Administrator	per month	12	12	12	12	12	60	500	6,000	6,000	6,000	6,000	6,000	30,000
BIS/GIS System Analyst	per month	12	12	12	12	12	60	500	6,000	6,000	6,000	6,000	6,000	30,000
BIS/GIS Programmer	per month	12	12	12	12	12	60	500	6,000	6,000	6,000	6,000	6,000	30,000
Topographer/Cartographer/Surveyor	per month	24	24	24	24	24	120	300	7,200	7,200	7,200	7,200	7,200	36,000
Computer Operator	per month	60	60	60	60	60	300	100	6,000	6,000	6,000	6,000	6,000	30,000
Driver	per month	12	12	12	12	12	60	30	360	360	360	360	360	1,800
Subtotal Subsistence & Travel Allowances								80,760	80,760	80,760	80,760	80,760	80,760	403,800
C. Other Operating Costs														
Vehicle Operating Costs /a	lump sum per month	12	12	12	12	12	60	1,250	15,000	15,000	15,000	15,000	15,000	75,000
Office Supplies	lump sum							2,000	2,000	2,000	2,000	2,000	2,000	10,000
Subtotal Other Operating Costs								17,000	17,000	17,000	17,000	17,000	17,000	85,000
Total Recurrent Costs								166,760	166,760	166,760	166,760	166,760	166,760	811,800
Total								855,860	602,760	386,660	248,760	235,760	2,329,800	

/a Vehicles \$250 pm; motor bikes \$100 pm.

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Mozambique
 Transfrontier Conservation Areas & Institutional Strengthening Project
 Table 2. Maputo SPPFB
 Detailed Costs
 (US\$)

	Unit	Quantities					Unit Cost	Base Cost					Total	
		1997	1998	1999	2000	2001		1997	1998	1999	2000	2001		
I. Investment Costs														
A. Infrastructure Development														
Rehabilitation of Guard Posts	no	2	3	-	-	-	5	300	600	900	-	-	-	1,500
Construction of Guard Posts	no	3	4	-	-	-	7	500	1,500	2,000	-	-	-	3,500
Guards Houses	no	2	3	-	-	-	5	2,000	4,000	6,000	-	-	-	10,000
Subtotal Infrastructure Development								6,100	8,900					15,000
B. Technical Assistance														
Adviser to Regional Co-Ordinator	man month	12	12	4	4	-	32	8,000	96,000	96,000	32,000	32,000	-	256,000
C. Vehicles & Equipment														
4x4 Vehicle	no	1	-	-	-	-	1	30,000	30,000	-	-	-	-	30,000
2x2 Vehicle	no	3	-	-	-	-	3	20,000	20,000	-	-	-	-	20,000
Repairs to 4x4 Vehicle	no	1	-	-	-	-	1	10,000	10,000	-	-	-	-	10,000
Motorizedas	no	10	-	-	-	-	10	4,000	40,000	-	-	-	-	40,000
VHF Radio Base	sets	1	-	-	-	-	1	5,000	5,000	-	-	-	-	5,000
Portable Radios	sets	10	-	-	-	-	10	870	8,700	-	-	-	-	8,700
Repeater & Installation	no	1	-	-	-	-	1	5,500	5,500	-	-	-	-	5,500
Batteries	no	10	-	-	-	-	10	85	850	-	-	-	-	850
Computer & Printer	no	1	-	-	-	-	1	4,500	4,500	-	-	-	-	4,500
Typewriters	no	2	-	-	-	-	2	500	1,000	-	-	-	-	1,000
Subtotal Vehicles & Equipment								125,550						125,550
D. Camping Equipment														
Uniforms	no	10	-	-	-	-	10	100	1,000	-	-	-	-	1,000
Canteen sets	no	10	-	-	-	-	10	20	200	-	-	-	-	200
Generators	no	3	-	-	-	-	3	3,000	9,000	-	-	-	-	9,000
Gas Coolers	no	3	-	-	-	-	3	300	900	-	-	-	-	900
Tents	no	10	-	-	-	-	10	75	750	-	-	-	-	750
Compasses/Bussulas	no	10	-	-	-	-	10	20	200	-	-	-	-	200
Binoculars	no	10	-	-	-	-	10	150	1,500	-	-	-	-	1,500
Sleeping Bags	no	10	-	-	-	-	10	60	600	-	-	-	-	600
Rucksacks	no	10	-	-	-	-	10	30	300	-	-	-	-	300
Camping Crockery	no	10	-	-	-	-	10	100	1,000	-	-	-	-	1,000
Subtotal Camping Equipment								14,550						14,550
Total Investment Costs								242,200	104,900	32,000	32,000			411,100
II. Recurrent Costs														
A. Subsistence/Travel Allowances														
Regional Coordinator	per month	12	12	12	12	12	60	1,000	12,000	12,000	12,000	12,000	12,000	60,000
Secretary	per month	12	12	12	12	12	60	100	1,200	1,200	1,200	1,200	1,200	6,000
Administrator	per month	12	12	12	12	12	60	100	1,200	1,200	1,200	1,200	1,200	6,000
Driver	per month	12	12	12	12	12	60	30	360	360	360	360	360	1,800
Guards	per month	120	120	120	120	120	600	30	3,600	3,600	3,600	3,600	3,600	18,000
Subtotal Subsistence/Travel Allowances								18,360	18,360	18,360	18,360	18,360	18,360	91,800
B. Other Operating Costs														
Vehicle Operating Costs	lump sum per month	12	12	12	12	12	60	950	11,400	11,400	11,400	11,400	11,400	57,000
Maintenance	lump sum								3,000	3,000	3,000	3,000	3,000	15,000
Office Supplies	lump sum								2,000	2,000	2,000	2,000	2,000	10,000
Subtotal Other Operating Costs									16,400	16,400	16,400	16,400	16,400	82,000
Total Recurrent Costs								14,760	14,760	14,760	14,760	14,760	14,760	173,800
Total								276,960	139,660	66,760	66,760	34,760		584,900

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Mozambique
Transfrontier Conservation Areas & Institutional Strengthening Project
Table 3. Gaza SPPFB
Detailed Costs
(US\$)

	Unit	Quantities					Unit Cost	Base Cost						
		1997	1998	1999	2000	2001		Total	1997	1998	1999	2000	2001	Total
I. Investment Costs														
A. Civil Works														
Rehabilitation of Guard Posts	no	2	-	-	-	-	2	500	1,000	-	-	-	-	1,000
Construction of Guard Posts	no	10	-	-	-	-	10	1,000	10,000	-	-	-	-	10,000
Subtotal Civil Works								11,000	11,000					11,000
B. Technical Assistance														
Adviser to Regional Co-Ordinator	man months	12	12	4	4	-	32	8,000	96,000	96,000	32,000	32,000	-	256,000
C. Vehicles & Equipment														
4x4 Vehicle	no	1	-	-	-	-	1	30,000	30,000	-	-	-	-	30,000
Motorbikes	no	10	-	-	-	-	10	4,000	40,000	-	-	-	-	40,000
Repair to Vehicles	no	1	-	-	-	-	1	5,000	5,000	-	-	-	-	5,000
VHF Radio Base	sets	1	-	-	-	-	1	5,000	5,000	-	-	-	-	5,000
Portable Radios	sets	10	-	-	-	-	10	870	8,700	-	-	-	-	8,700
Repeater & Installation	lump sum	1	-	-	-	-	1	5,500	5,500	-	-	-	-	5,500
Batteries	no	100	-	-	-	-	100	85	8,500	-	-	-	-	8,500
Computer & Printer	no	1	-	-	-	-	1	4,500	4,500	-	-	-	-	4,500
Office Furniture	sets	1	-	-	-	-	1	3,500	3,500	-	-	-	-	3,500
Beds	no	8	-	-	-	-	8	150	1,200	-	-	-	-	1,200
Uniforms	no	10	-	-	-	-	10	100	1,000	-	-	-	-	1,000
Subtotal Vehicles & Equipment								112,900	112,900					112,900
D. Camping Equipment														
Fardamentos	no	10	-	-	-	-	10	-	-	-	-	-	-	-
Mosquito Nets	no	10	-	-	-	-	10	50	500	-	-	-	-	500
Tents	no	10	-	-	-	-	10	75	750	-	-	-	-	750
Sleeping Bags	no	10	-	-	-	-	10	60	600	-	-	-	-	600
Camping Kit Sets	no	10	-	-	-	-	10	10	100	-	-	-	-	100
Rucksacks	no	10	-	-	-	-	10	30	300	-	-	-	-	300
Hand Tools - Shovels, Axes etc	lump sum								2,000	-	-	-	-	2,000
Compasses/Bussulas	no	10	-	-	-	-	10	20	200	-	-	-	-	200
Binoculars	no	10	-	-	-	-	10	150	1,500	-	-	-	-	1,500
Subtotal Camping Equipment								5,950	5,950					5,950
Total Investment Costs								225,850	96,000	32,000	32,000			385,850
II. Recurrent Costs														
A. Subsistence/Travel Allowances														
Regional Coordinator	per month	12	12	12	12	12	60	1,000	12,000	12,000	12,000	12,000	12,000	60,000
Driver	per month	12	12	12	12	12	60	30	3,600	3,600	3,600	3,600	3,600	18,000
Guards	per month	120	120	120	120	120	600	30	3,600	3,600	3,600	3,600	3,600	18,000
Subtotal Subsistence/Travel Allowances									15,960	15,960	15,960	15,960	15,960	79,800
B. Other Operating Costs														
Vehicle Operating Costs	lump sum per month	12	12	12	12	12	60	650	7,800	7,800	7,800	7,800	7,800	39,000
Office Supplies	lump sum								1,000	1,000	1,000	1,000	1,000	5,000
Maintenance	lump sum								3,000	3,000	3,000	3,000	3,000	15,000
Subtotal Other Operating Costs									11,800	11,800	11,800	11,800	11,800	59,000
Total Recurrent Costs									27,760	27,760	27,760	27,760	27,760	138,800
Total									253,610	123,760	59,760	59,760	27,760	524,650

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Mozambique
Transfrontier Conservation Areas & Institutional Strengthening Project
Table 4. Manica SPPFB
Detailed Costs
(US\$)

	Unit	Quantities					Unit Cost	Base Cost					Total
		1997	1998	1999	2000	2001		1997	1998	1999	2000	2001	
I. Investment Costs													
A. Infrastructure Development													
Rehabilitation of Guard Posts	no	2	-	-	-	-	2 500	1,000	-	-	-	-	1,000
Construction of Guard Posts	no	10	-	-	-	-	10 1,000	10,000	-	-	-	-	10,000
Subtotal Infrastructure Development								11,000	-	-	-	-	11,000
B. Vehicles													
Motorbikes	no	10	-	-	-	-	10 4,000	40,000	-	-	-	-	40,000
C. Equipment													
Batteries	no	100	-	-	-	-	100 85	8,500	-	-	-	-	8,500
VHF Radio Base	sets	1	-	-	-	-	1 5,000	5,000	-	-	-	-	5,000
Repeater & Installation	lump sum	1	-	-	-	-	1 5,500	5,500	-	-	-	-	5,500
Portable Radios	sets	10	-	-	-	-	10 870	8,700	-	-	-	-	8,700
Uniforms	no	10	-	-	-	-	10	-	-	-	-	-	-
Mosquito Nets	no	10	-	-	-	-	10 50	500	-	-	-	-	500
Tents	no	10	-	-	-	-	10 75	750	-	-	-	-	750
Sleeping Bags	no	10	-	-	-	-	10 60	600	-	-	-	-	600
Camping Kit Sets	no	10	-	-	-	-	10 10	100	-	-	-	-	100
Rucksacks	no	10	-	-	-	-	10 30	300	-	-	-	-	300
Hand Tools - Shovels, Axes etc	lump sum							2,000	-	-	-	-	2,000
Compasses/Bussulas	no	10	-	-	-	-	10 20	200	-	-	-	-	200
Binoscopes	no	10	-	-	-	-	10 150	1,500	-	-	-	-	1,500
Subtotal Equipment								11,500	-	-	-	-	11,500
Total Investment Costs								84,650	-	-	-	-	84,650
II. Recurrent Costs													
A. Subsistence/Travel Allowances													
Guards	per month	120	120	120	120	120	600 30	3,600	3,600	3,600	3,600	3,600	18,000
B. Other Operating Costs													
Vehicle Operating Costs	lump sum per month	12	12	12	12	12	60 500	6,000	6,000	6,000	6,000	6,000	30,000
Total Recurrent Costs								9,600	9,600	9,600	9,600	9,600	48,000
Total								94,250	9,600	9,600	9,600	9,600	132,650

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Mozambique
Transfrontier Conservation Areas & Institutional Strengthening Project
Table 5. Training Program
Detailed Costs
(US\$)

	Unit	Quantities					Unit Cost	Base Cost					Total	
		1997	1998	1999	2000	2001		1997	1998	1999	2000	2001		
I. Investment Costs														
A. Training - Maputo Province														
1. Training														
a. High and Medium Level														
Bachelor Courses	courses	-	1	-	-	-	1	30,000	-	30,000	-	-	-	30,000
Masters Courses	courses	-	1	-	-	-	1	15,000	-	15,000	-	-	-	15,000
Subtotal High and Medium Level													45,000	
b. Basic Level														
Guards training	course	20	20	20	20	20	100	100	2,000	2,000	2,000	2,000	2,000	10,000
Guards supervisors training	courses	2	2	2	2	2	10	200	400	400	400	400	400	2,000
Subtotal Basic Level													12,000	
c. Community Support Training														
Support Personnel	course	2	2	2	1	-	7	1,000	2,000	2,000	2,000	1,000	-	7,000
Community Training	courses	4	3	3	3	3	16	200	800	600	600	600	600	3,200
Community Awareness Exchange Program (CAMPFIRE)	lump sum	-	-	-	-	-	-	-	10,000	10,000	10,000	10,000	10,000	50,000
Regional Visit - Community Leaders	per community	2	-	2	-	-	4	2,000	4,000	-	4,000	-	-	8,000
Workshops	per community	2	2	2	2	-	8	1,000	2,000	2,000	2,000	2,000	-	8,000
Short course in Financial Administration	per community	2	-	2	-	-	4	500	1,000	-	1,000	-	-	2,000
Subtotal Community Support Training													78,200	
Subtotal Training													135,200	
2. Training Infrastructure														
Rehabilitation of Training Centre at Maputo Elephant Res	lump sum	-	-	-	-	-	-	-	25,000	-	-	-	-	25,000
Subtotal Training - Maputo Province													160,200	
B. Training - National, Gaza, Manica														
1. Training														
a. High and Medium Level														
Short courses	course	2	5	4	4	2	17	6,000	12,000	30,000	24,000	24,000	12,000	102,000
Seminars	courses	4	4	5	3	3	19	3,000	12,000	12,000	15,000	9,000	9,000	57,000
Bachelor Courses	courses	-	-	1	-	-	1	30,000	-	-	30,000	-	-	30,000
Masters Courses	courses	-	-	-	1	1	2	15,000	-	-	-	15,000	15,000	30,000
Medium level courses	courses	2	1	1	1	1	6	6,000	12,000	6,000	6,000	6,000	36,000	
Affirmative Action Courses	courses	2	2	1	-	-	5	6,000	12,000	12,000	6,000	-	-	30,000
Subtotal High and Medium Level													285,000	
b. Basic Level														
Guards training	course	32	32	32	32	32	160	100	3,200	3,200	3,200	3,200	3,200	16,000
Guards supervisors training	courses	3	3	3	3	3	15	200	600	600	600	600	600	3,000
Subtotal Basic Level													19,000	
c. Community Support Training														
Support Personnel	course	3	3	3	2	2	13	1,000	3,000	3,000	3,000	2,000	2,000	13,000
Community Training	courses	6	5	5	5	5	26	200	1,200	1,000	3,000	3,000	1,000	5,200
Community Awareness Exchange Program (CAMPFIRE)	lump sum	-	-	-	-	-	-	-	10,000	10,000	10,000	10,000	10,000	50,000
Regional Visit - Community Leaders	per community	4	-	4	-	-	8	2,000	8,000	-	8,000	-	-	16,000
Workshops	per community	4	4	4	4	-	16	1,000	4,000	4,000	4,000	4,000	-	16,000
Short course in Financial Administration	per community	4	-	4	-	-	8	500	2,000	-	2,000	-	-	4,000
Subtotal Community Support Training													104,200	
Subtotal Training													408,200	
Total													568,400	

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Mozambique
 Transfrontier Conservation Areas & Institutional Strengthening Project
 Table 6. TFCA Emergency Establishment Plans
 Detailed Costs
 (US\$)

	Unit	Quantities					Unit Cost	Base Cost				
		1997	1998	1999	2000	2001		1997	1998	1999	2000	2001
I. Investment Costs												
A. Coutada 16 TFCA												
1. Studies												
Aerial Survey	lump sum						5,000	-	-	-	-	5,000
Demographic Study	lump sum						5,000	-	-	-	-	5,000
Resource Management Plan	lump sum						-	5,000	-	-	-	5,000
Subtotal Studies							10,000	5,000	-	-	-	15,000
B. Chimanisani TFCA												
1. Studies												
Aerial Survey	lump sum						5,000	-	-	-	-	5,000
Demographic Study	lump sum						2,000	-	-	-	-	2,000
Resource Management Plan	lump sum						-	5,000	-	-	-	5,000
Subtotal Studies							7,000	5,000	-	-	-	12,000
Total							17,000	10,000	-	-	-	27,000

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Mozambique
 Transfrontier Conservation Areas & Institutional Strengthening Project
 Table 7. Banhine National Park - Emergency Plan
 Detailed Costs
 (US\$)

	Unit	Quantity					Unit Cost	Base Cost						
		1997	1998	1999	2000	2001		1997	1998	1999	2000	2001	Total	
I. Investment Costs														
A. Vehicles														
Vehicle 4x4	no	1	-	-	-	-	20,000	20,000	-	-	-	-	20,000	
Motorbikes (125 cc)	no	6	-	-	-	-	2,500	15,000	-	-	-	-	15,000	
Subtotal Vehicles								35,000	-	-	-	-	35,000	
B. Infrastructure														
Construction of Main Camp	lump sum	-	-	-	-	-	-	4,000	-	-	-	-	4,000	
Construction of Posts	each	5	-	-	-	-	500	2,500	-	-	-	-	2,500	
Boundary Demarcation	lump sum	-	-	-	-	-	-	600	-	-	-	-	600	
Road Rehabilitation & Construction	km	10	-	-	-	-	1,500	15,000	-	-	-	-	15,000	
Subtotal Infrastructure								22,100	-	-	-	-	22,100	
C. Equipment														
VHF Radio Base	no	1	-	-	-	-	2,000	2,000	-	-	-	-	2,000	
Radio for Vehicle	no	1	-	-	-	-	2,000	2,000	-	-	-	-	2,000	
Portable Radios	no	5	-	-	-	-	870	4,350	-	-	-	-	4,350	
Batteries	no	7	-	-	-	-	85	595	-	-	-	-	595	
Furniture - Patrol Office	lump sum	-	-	-	-	-	-	1,000	-	-	-	-	1,000	
Work Equipment	lump sum	-	-	-	-	-	-	1,000	-	-	-	-	1,000	
Generator	no	1	-	-	-	-	3,000	3,000	-	-	-	-	3,000	
Water Tanks	no	6	-	-	-	-	200	1,200	-	-	-	-	1,200	
Solar Energy Sets	sets	8	-	-	-	-	500	4,000	-	-	-	-	4,000	
Gas Cooler	no	1	-	-	-	-	200	200	-	-	-	-	200	
Tents	no	12	-	-	-	-	75	900	-	-	-	-	900	
Compasses	no	5	-	-	-	-	20	100	-	-	-	-	100	
Binoculars	no	5	-	-	-	-	150	750	-	-	-	-	750	
Sleeping Bags	no	12	-	-	-	-	60	720	-	-	-	-	720	
Rucksacks	no	12	-	-	-	-	20	240	-	-	-	-	240	
Camping sets	sets	12	-	-	-	-	10	120	-	-	-	-	120	
Uniforms	sets	24	-	-	-	-	90	2,160	-	-	-	-	2,160	
Canteen Sets	sets	12	-	-	-	-	10	120	-	-	-	-	120	
Subtotal Equipment								23,575	-	-	-	-	23,575	
D. Studies														
Aerial Survey	lump sum	-	-	-	-	-	-	5,000	-	-	-	-	5,000	
Demographic Study	lump sum	-	-	-	-	-	-	2,000	-	-	-	-	2,000	
Management Plan	lump sum	-	-	-	-	-	-	15,000	-	-	-	-	15,000	
Subtotal Studies								7,000	15,000	-	-	-	22,000	
Total Investment Costs								87,675	15,000	-	-	-	102,675	
II. Recurrent Costs														
A. Incremental Salaries														
Additional Guards (15)	man months	180	180	180	180	180	200	25	4,500	4,500	4,500	4,500	4,500	22,500
B. Subsistence/Travel Allowances														
Reserve Director	per month	12	12	12	12	12	60	800	9,600	9,600	9,600	9,600	9,600	48,000
Guards (15)	per month	180	180	180	180	180	300	30	5,400	5,400	5,400	5,400	5,400	27,000
Subtotal Subsistence/Travel Allowances								15,000	15,000	15,000	15,000	15,000	15,000	75,000
C. Incremental Operating Costs														
Vehicle Operating Costs	monthly rate	12	12	12	12	12	60	450	5,400	5,400	5,400	5,400	5,400	27,000
Miscellaneous	lump sum	-	-	-	-	-	-	2,000	2,000	2,000	2,000	2,000	2,000	10,000
Subtotal Incremental Operating Costs								7,400	7,400	7,400	7,400	7,400	7,400	37,000
Total Recurrent Costs								26,900	26,900	26,900	26,900	26,900	26,900	134,800
Total								114,575	41,900	26,900	26,900	26,900	26,900	237,475

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Mozambique
 Transfrontier Conservation Areas & Institutional Strengthening Project
 Table 8. Zinave National Park - Emergency Plan
 Detailed Costs
 (US\$)

	Unit	Quantities					Unit Cost	Base Cost					
		1997	1998	1999	2000	2001		Total	1997	1998	1999	2000	2001
I. Investment Costs													
A. Vehicles													
Vehicles 4x4	no	1	-	-	-	-	1 30,000	30,000	-	-	-	-	30,000
Bicycles	no	15	-	-	-	-	15 300	4,500	-	-	-	-	4,500
Subtotal Vehicles								34,500	-	-	-	-	34,500
B. Infrastructure													
Rehabilitation of Main Camp	lump sum							5,000	-	-	-	-	5,000
Construction of Posts	each	2	-	-	-	-	2 500	1,000	-	-	-	-	1,000
Boundary Demarcation	lump sum							700	-	-	-	-	700
Road Rehabilitation & Construction	km	10	-	-	-	-	10 1,500	15,000	-	-	-	-	15,000
Subtotal Infrastructure								21,700	-	-	-	-	21,700
C. Equipment													
VHF Radio Base	no	1	-	-	-	-	1 2,000	2,000	-	-	-	-	2,000
Radio for Vehicle	no	1	-	-	-	-	1 2,000	2,000	-	-	-	-	2,000
Portable Radios	no	3	-	-	-	-	3 870	2,610	-	-	-	-	2,610
Batteries	no	5	-	-	-	-	5 85	425	-	-	-	-	425
Furniture - Patrol Office	lump sum							1,000	-	-	-	-	1,000
Work Equipment	lump sum							1,000	-	-	-	-	1,000
Generator	no	1	-	-	-	-	1 3,000	3,000	-	-	-	-	3,000
Water Tanks	no	6	-	-	-	-	6 200	1,200	-	-	-	-	1,200
Solar Energy Sets	sets	3	-	-	-	-	3 500	1,500	-	-	-	-	1,500
Rehabilitation of Water Pumping Station	lump sum							50	-	-	-	-	50
Gas Cooler	no	1	-	-	-	-	1 200	200	-	-	-	-	200
Tents	no	10	-	-	-	-	10 75	750	-	-	-	-	750
Compasses	no	5	-	-	-	-	5 20	100	-	-	-	-	100
Binoculars	no	15	-	-	-	-	15 150	2,250	-	-	-	-	2,250
Sleeping Bags	no	15	-	-	-	-	15 60	900	-	-	-	-	900
Rucksacks	no	15	-	-	-	-	15 30	450	-	-	-	-	450
Camping sets	sets	15	-	-	-	-	15 10	150	-	-	-	-	150
Uniforms	sets	15	-	-	-	-	15 90	1,350	-	-	-	-	1,350
Canteen Sets	sets	15	-	-	-	-	15 10	150	-	-	-	-	150
Subtotal Equipment								21,085	-	-	-	-	21,085
D. Studies													
Aerial Survey	lump sum							5,000	-	-	-	-	5,000
Demographic Study	lump sum							2,000	-	-	-	-	2,000
Management Plan	lump sum							-	15,000	-	-	-	15,000
Subtotal Studies								7,000	15,000	-	-	-	22,000
Total Investment Costs								84,285	15,000	-	-	-	99,285
II. Recurrent Costs													
A. Incremental Salaries													
Guards (15)	man months	180	180	180	180	180	900 25	4,500	4,500	4,500	4,500	4,500	22,500
B. Subsistence/Travel Allowances													
Reserve Director	per month	12	12	12	12	12	60 800	9,600	9,600	9,600	9,600	9,600	48,000
Permanent Guards (15)	per month	180	180	180	180	180	900 30	5,400	5,400	5,400	5,400	5,400	27,000
Subtotal Subsistence/Travel Allowances								15,000	15,000	15,000	15,000	15,000	75,000
C. Incremental Operating Costs													
Vehicle Operating Costs	monthly rate	12	12	12	12	12	60 150	1,800	1,800	1,800	1,800	1,800	9,000
Miscellaneous	lump sum							2,000	2,000	2,000	2,000	2,000	10,000
Subtotal Incremental Operating Costs								3,800	3,800	3,800	3,800	3,800	19,000
Total Recurrent Costs								21,300	21,300	21,300	21,300	21,300	116,500
Total								107,585	36,300	21,300	21,300	21,300	215,785

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Mozambique
Transfrontier Conservation Areas & Institutional Strengthening Project
Table 9. Puti Corridor
Detailed Costs
(US\$)

	Unit	Quantities					Unit Cost	Base Cost						
		1997	1998	1999	2000	2001		1997	1998	1999	2000	2001	Total	
I. Investment Costs														
A. Vehicles														
Vehicle 4x4	no	1	-	-	-	-	30,000	30,000	-	-	-	-	30,000	
Motorbikes	no	4	-	10	-	-	4,000	16,000	-	40,000	-	-	56,000	
Subtotal Vehicles								46,000	-	40,000	-	-	86,000	
B. Infrastructure														
Construction of Section Bases	each	1	1	-	-	-	2,500	5,000	5,000	-	-	-	10,000	
Construction of Patrol Bases	each	2	-	10	-	-	500	1,000	-	5,000	-	-	6,000	
Road and Track Rehabilitation & Construction	km	10	10	25	25	-	1,500	15,000	15,000	37,500	37,500	-	105,000	
Subtotal Infrastructure								21,000	20,000	42,500	37,500	-	121,000	
C. Equipment														
Radio for Vehicle	no	1	-	-	-	-	2,000	2,000	-	-	-	-	2,000	
Repeater Station	no	1	-	-	-	-	5,500	5,500	-	-	-	-	5,500	
Portable Radios	no	4	-	10	-	-	870	3,480	-	8,700	-	-	12,180	
Batteries	no	4	-	10	-	-	85	340	-	850	-	-	1,190	
Furniture - Section Bases	lump sum	-	-	-	-	-	-	1,000	-	1,000	-	-	2,000	
Work Equipment	lump sum	-	-	-	-	-	-	2,000	-	2,000	-	-	4,000	
Generator	no	1	-	1	-	-	3,000	3,000	-	3,000	-	-	6,000	
Water Tanks	no	3	-	3	-	-	600	600	-	600	-	-	1,200	
Solar Energy Sets	sets	3	-	-	-	-	500	1,500	-	-	-	-	1,500	
Gas Cooler	no	2	-	-	-	-	200	400	-	-	-	-	400	
Tents	no	10	-	60	-	-	75	750	-	4,500	-	-	5,250	
Compasses	no	5	-	10	-	-	20	100	-	600	-	-	700	
Binoculars	no	10	-	60	-	-	150	1,500	-	9,000	-	-	10,500	
Sleeping Bags	no	10	-	60	-	-	60	600	-	3,600	-	-	4,200	
Rucksacks	no	10	-	60	-	-	30	300	-	1,800	-	-	2,100	
Camping sets	sets	10	-	60	-	-	10	100	-	600	-	-	700	
Uniforms	sets	10	-	60	-	-	90	900	-	5,400	-	-	6,300	
Canteen Sets	sets	10	-	60	-	-	10	100	-	600	-	-	700	
Subtotal Equipment								24,170	-	42,250	-	-	66,420	
D. Studies														
Social and Environmental Study of Fencing Options	lump sum	-	-	-	-	-	-	50,000	-	-	-	-	50,000	
E. Fencing														
Fencing Materials	per km	-	-	80	-	-	80	900	-	72,000	-	-	72,000	
Energising Equipment	per 12 km	-	-	8	-	-	8	1,800	-	14,400	-	-	14,400	
Clearing and Construction	per km	-	-	80	-	-	80	1,000	-	80,000	-	-	80,000	
Supervision	lump sum	-	-	-	-	-	-	-	-	10,000	-	-	10,000	
Subtotal Fencing								-	-	176,400	-	-	176,400	
Total Investment Costs								141,170	20,000	301,150	37,500	-	499,820	
II. Recurrent Costs														
A. Incremental Salaries														
Guards (70)	man months	120	120	840	840	840	2,760	25	3,000	3,000	21,000	21,000	21,000	69,000
B. Subsistence/Travel Allowances														
Area Co-Ordinator	per month	12	12	12	12	12	60	800	9,600	9,600	9,600	9,600	9,600	48,000
Section Co-Ordinators (2)	per month	25	25	25	25	25	125	200	5,000	5,000	5,000	5,000	5,000	25,000
Permanent Guards (70)	per month	120	120	840	840	840	2,760	30	1,600	1,600	25,200	25,200	25,200	82,800
Subtotal Subsistence/Travel Allowances								18,200	18,200	39,800	39,800	39,800	155,800	
C. Incremental Operating Costs														
Vehicle Operating Costs	monthly rate	12	12	12	12	12	60	150	1,800	1,800	1,800	1,800	9,000	
Motorbike Operating Costs	monthly rate	24	24	168	168	168	552	50	1,200	1,200	8,400	8,400	27,600	
Fencing Repair Materials	lump sum	-	-	-	-	-	-	-	-	5,000	5,000	5,000	15,000	
Miscellaneous	lump sum	-	-	-	-	-	-	-	2,000	2,000	2,000	2,000	10,000	
Subtotal Incremental Operating Costs								5,000	5,000	17,200	17,200	17,200	61,600	
Total Recurrent Costs								26,200	26,200	78,000	78,000	78,000	285,400	
Total								167,370	46,200	379,150	115,500	78,000	786,220	

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Mozambique
 Transfrontier Conservation Areas & Institutional Strengthening Project
 Table 10. Maputo Elephant Reserve - Emergency Plan
 Detailed Costs
 (US\$)

	Unit	Quantities					Unit Cost	Base Cost					Total	
		1997	1998	1999	2000	2001		1997	1998	1999	2000	2001		
I. Investment Costs														
A. Vehicles														
Vehicle 4x4	no	2	-	-	-	-	2 30,000	60,000	-	-	-	-	60,000	
Reconditioning Landcruiser	lump sum	1	-	-	-	-	1 4,000	4,000	-	-	-	-	4,000	
Subtotal Vehicles								64,000					64,000	
B. Infrastructure														
Rehabilitation of Main Camp	lump sum							20,000	-	-	-	-	20,000	
Construction of Posts	each	10	-	-	-	-	10 500	5,000	-	-	-	-	5,000	
Construction of Field Housing	each	5	-	-	-	-	5 1,500	7,500	-	-	-	-	7,500	
Road Rehabilitation & Construction	km	25	25	-	-	-	50 1,500	75,000	37,500	-	-	-	112,500	
Sign Posts	lump sum							2,500	-	-	-	-	2,500	
Enclosures (Vedacao)	lump sum							2,000	-	-	-	-	2,000	
Subtotal Infrastructure								74,500	37,500				112,000	
C. Equipment														
Portable Radios	no	10	-	-	-	-	10 870	8,700	-	-	-	-	8,700	
Repeater & Installation	lump sum							5,500	-	-	-	-	5,500	
Batteries	no	3	-	-	-	-	3 85	255	-	-	-	-	255	
Solar Energy Sets	sets	3	-	-	-	-	3 500	1,500	-	-	-	-	1,500	
Furniture - Patrol Office	sets	6	-	-	-	-	6 1,000	6,000	-	-	-	-	6,000	
Furniture - Main Office	set	1	-	-	-	-	1 3,500	3,500	-	-	-	-	3,500	
Work Equipment	lump sum							1,000	-	-	-	-	1,000	
Generator	no	1	-	-	-	-	1 3,000	3,000	-	-	-	-	3,000	
Bomba de Agua Electrico	no	1	-	-	-	-	1 2,000	2,000	-	-	-	-	2,000	
Gas Freezer	no	1	-	-	-	-	1 400	400	-	-	-	-	400	
Gas Cooler	no	1	-	-	-	-	1 200	200	-	-	-	-	200	
Computer & Printer	no	1	-	-	-	-	1 4,000	4,000	-	-	-	-	4,000	
Tents	no	5	-	-	-	-	5 75	375	-	-	-	-	375	
Compasses	no	5	-	-	-	-	5 20	100	-	-	-	-	100	
Binoculars	no	10	-	-	-	-	10 150	1,500	-	-	-	-	1,500	
Sleeping Bags	no	35	-	-	-	-	35 60	2,100	-	-	-	-	2,100	
Rucksacks	no	35	-	-	-	-	35 30	1,050	-	-	-	-	1,050	
Camping sets	sets	35	-	-	-	-	35 10	350	-	-	-	-	350	
Uniforms	sets	70	-	-	-	-	70 90	6,300	-	-	-	-	6,300	
Canteen Sets	sets	35	-	-	-	-	35 10	350	-	-	-	-	350	
Subtotal Equipment								49,180					49,180	
D. Studies														
Study on Tourist Potential	lump sum								10,000	-	-	-	10,000	
Management Plan	lump sum								15,000	-	-	-	15,000	
Subtotal Studies									25,000				25,000	
Total Investment Costs								186,680	62,500				249,180	
II. Recurrent Costs														
A. Incremental Salaries														
Additional Permanent Guards (20)	man months	240	240	240	240	240	1,200	25	6,000	6,000	6,000	6,000	6,000	30,000
B. Subsistence/Travel Allowances														
Reserve Director	per month	12	12	12	12	12	60	800	9,600	9,600	9,600	9,600	9,600	48,000
Assistant Director	per month	12	12	12	12	12	60	200	2,400	2,400	2,400	2,400	2,400	12,000
Area Heads (3)	per month	36	36	36	36	36	180	100	3,600	3,600	3,600	3,600	3,600	18,000
Permanent Guards (20)	per month	360	360	360	360	360	1,800	30	10,800	10,800	10,800	10,800	10,800	54,000
Subtotal Subsistence/Travel Allowances									26,400	26,400	26,400	26,400	26,400	132,000
C. Incremental Operating Costs														
Vehicle Operating Costs	monthly rate	12	12	12	12	12	60	450	5,400	5,400	5,400	5,400	5,400	27,000
Miscellaneous	lump sum								2,000	2,000	2,000	2,000	2,000	10,000
Subtotal Incremental Operating Costs									7,400	7,400	7,400	7,400	7,400	37,000
Total Recurrent Costs									33,800	33,800	33,800	33,800	33,800	172,000
Total									220,480	96,300	39,800	39,800	39,800	421,180

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Mozambique
 Transfrontier Conservation Areas & Institutional Strengthening Project
 Table 11. Community Awareness & Pilot Activities
 Detailed Costs
 (US\$)

	Unit	Quantities					Unit Cost	Base Cost					
		1997	1998	1999	2000	2001		1997	1998	1999	2000	2001	Total
I. Investment Costs													
A. Maputo Province													
1. Pilot Communities													
a. Community Field Workers													
Salaries	man years	3	3	3	3	3	15	12,000	16,000	16,000	16,000	16,000	160,000
Subsistence/Travel Allowances	man years	3	3	3	3	3	15	5,000	15,000	15,000	15,000	15,000	75,000
Motorbike	no	3	-	-	-	-	3	4,000	12,000	-	-	-	12,000
Training Materials	lump sum	3	-	-	-	-	3	1,000	3,000	-	-	-	3,000
Subtotal Community Field Workers									66,000	51,000	51,000	51,000	270,000
b. Community Activities													
Provisional Demarcation - DINAGECA	per community	4	-	4	-	-	8	3,000	12,000	-	12,000	-	24,000
Unspecified Studies	per community	4	-	4	-	-	8	2,000	8,000	-	8,000	-	16,000
Funds for Urgent Wildlife/Community Conflicts	lump sum p.a.	1	1	1	1	1	5	10,000	10,000	10,000	10,000	10,000	50,000
Community Conservation Investment Fund	per community	4	-	4	-	-	8	10,000	40,000	-	40,000	-	80,000
Subtotal Community Activities									70,000	10,000	70,000	10,000	170,000
Subtotal Pilot Communities									136,000	61,000	121,000	61,000	440,000
2. Capacity Building for Local NGO's	lump sum								10,000	10,000	10,000	10,000	50,000
Subtotal Maputo Province									146,000	71,000	131,000	71,000	490,000
B. Gaza & Manica Provinces													
1. Pilot Communities													
a. Community Field Workers													
Salaries	man years	6	6	6	6	6	30	12,000	72,000	72,000	72,000	72,000	360,000
Subsistence/Travel Allowances	man years	6	6	6	6	6	30	5,000	10,000	30,000	30,000	30,000	150,000
Motorbike	no	12	-	-	-	-	12	4,000	48,000	-	-	-	48,000
Training Materials	lump sum	12	-	12	-	-	24	1,000	12,000	-	12,000	-	24,000
Subtotal Community Field Workers									162,000	102,000	114,000	102,000	582,000
b. Community Activities													
Provisional Demarcation - DINAGECA	per community	12	-	12	-	-	24	3,000	36,000	-	36,000	-	72,000
Unspecified Studies	per community	12	-	12	-	-	24	2,000	24,000	-	24,000	-	48,000
Funds for Urgent Wildlife/Community Conflicts	lump sum p.a.	4	4	4	4	4	20	10,000	40,000	40,000	40,000	40,000	200,000
Community Conservation Investment Fund	per community	12	-	12	-	-	24	5,000	60,000	-	60,000	-	120,000
Subtotal Community Activities									160,000	40,000	160,000	40,000	440,000
Subtotal Pilot Communities									322,000	142,000	274,000	142,000	1,022,000
2. Capacity Building for Local NGO's	lump sum								15,000	15,000	15,000	15,000	75,000
Subtotal Gaza & Manica Provinces									337,000	157,000	282,000	157,000	1,097,000
Total									483,000	228,000	420,000	228,000	1,587,000

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ID	Task Name	Duration	1997				1998				1999				2000				2001							
			Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1		
1	INSTITUTIONAL & POLICY	1327d																								
2	Policy Development	261d																								
4	Equipment & Infrastru	412d																								
5	Vehicle Procuremen	64d																								
6	Equipment Procure	64d																								
7	Equipment Procure	64d																								
8	Infrastructure Devel	326d																								
9	Technical Assistance	1304d																								
10	Advisor (DNFFB)	1304d																								
11	Advisor (SPFFB-Ma)	1043d																								
12	Advisor (SPFFB-Ga)	1043d																								
13	Park Management	522d																								
14	Community Progra	522d																								
16	Commercial/Busine	783d																								
16	Monitoring & Evalua	522d																								
17	Training Programme	1304d																								
19	International Collabora	1305d																								
20	Information Sharing/	1304d																								
21	Formal Agreemen/	0d																								
22	Transfrontier Conse	522d																								
23	HABITAT & WILDLIFE MAN	1304d																								
24	Maputo Elephant Rese	1304d																								
25	Vehicle Procuremen	64d																								

Project:
Date: Mon 4/22/96

Task Summary Rolled Up Progress
 Progress Rolled Up Task
 Milestone Rolled Up Milestone

ID	Task Name	Duration	1997				1998				1999				2000				2001						
			Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1					
26	Equipment Procure	64d		■																					
27	Equipment Procure	64d						■																	
28	Infrastructure Devel	326d			■	■	■	■	■																
28	Management Plan/S	129d						■	■																
30	Staffing/Operations	1304d	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
31	Zinave National Park	1304d	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
32	Vehicle Procuremen	64d	■																						
33	Equipment Procure	64d	■																						
34	Equipment Procure	64d						■																	
35	Infrastructure Devel	326d			■	■	■	■	■																
36	Management Plan/S	129d						■	■																
37	Staffing/Operations	1304d	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
38	Banhine National Park	1304d	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
39	Vehicle Procuremen	64d	■																						
40	Equipment Procure	64d	■																						
41	Equipment Procure	64d						■																	
42	Infrastructure Devel	326d			■	■	■	■	■																
43	Management Plan/S	129d						■	■																
44	Staffing/Operations	1304d	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
45	Futi Corridor	1304d	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
46	Vehicle Procuremen	64d	■																						
47	Vehicle Procuremen	64d																							
48	Equipment Procure	64d	■																						

Project:
Date: Mon 4/22/96

Task  Summary  Rolled Up Progress 
 Progress  Rolled Up Task 
 Milestone  Rolled Up Milestone 

ID	Task Name	Duration	1997					1998				1999				2000				2001				
			Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1
49	Equipment Procure	64d																						
60	Infrastructure Devel	719d																						
61	Consultation/Socioe	197d																						
62	Resource Use/Man	129d																						
63	Staffing/Operations	1304d																						
64	Coutada 16	261d																						
66	Aerial Survey/Studie	129d																						
66	Management Plan	130d																						
67	Chimanmani TFCA	261d																						
68	Aerial Survey/Studie	129d																						
69	Management Plan	130d																						
60	COMMUNITY AWARENESS	1326d																						
61	Community Activities	1326d																						
62	Equipment Procure	64d																						
63	Staffing/Operations	1304d																						
64	Awareness Raising/	651d																						
65	Local Management	261d																						
66	Demarcation/Securi	393d																						
67	Resource Use Plan	261d																						
68	Conflict Resolution	261d																						
69	Community Conserv	196d																						
70	Negotiation with Priv	129d																						
71	Awareness Raising/	651d																						

Project:
Date: Mon 4/22/96

Task		Summary		Rolled Up Progress	
Progress		Rolled Up Task			
Milestone		Rolled Up Milestone			

ID	Task Name	Duration	1997				1998				1999				2000				2001				
			Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1			
72	Local Management	261d																					
73	Demarcation/Securi	393d																					
74	Resource Use Plan	261d																					
76	Conflict Resolution	262d																					
76	Community Conserv	195d																					
77	Negotiation with Priv	131d																					
78	Capacity Building for L	1304d																					
80	MONITORING & EVALUATI	1304d																					
81	Equipment Procurement	64d																					
82	Institutional/Policy Chang	1304d																					
83	Biological Monitoring	1304d																					
84	Socioeconomic Assessm	1304d																					
85	Project Implementation a	1304d																					

Project:
Date: Mon 4/22/96

Task		Summary		Rolled Up Progress	
Progress		Rolled Up Task			
Milestone		Rolled Up Milestone			

**MOZAMBIQUE TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL
STRENGTHENING PROJECT**

IMPLEMENTATION SUPPORT SCHEDULE

<u>Project Year</u>	<u>Mission N°</u>	<u>Activity</u>	<u>Skill Requirement</u>	<u>SW</u>
PY1 Feb. 1997/ Jan. 1998	1 Feb. 1997	Project Launch: review of organization and management, establishment of accounting system, procurement arrangements and plan, establishment of service contracts, training program, work plans PY1.	- Task Manager - Financial Analyst/Disbursement - Procurement Specialist - Sociologist - NGO Technical Expert - M&E Specialist	2 2 2 2 2 2
	2 June 1997	Project launch review: procurement, accounting, training M & E system, PRAs and baseline surveys, and international collaboration.	- Task Manager - M & E Specialist - Procurement Specialist - Sociologist - Ecologist NGO Representative	2 2 2 2 2
	3 Oct. 1997	Review of field activities, training, procurement, disbursements, and PRA. Discuss PY1 performance and PY2 work program.	- Task Manager - Conservation NGO Representative - Sociologist - Procurement Specialist	2 2 2 2
PY 2 Feb. 1998/ Jan. 1999	4 Feb. 1998	Review of field activities, training, procurement, disbursements, PRA, M&E, international coordination.	-Task Manager -M&E Specialist -Sociologist -NGO Representative	2 2 2 2
	5 June 1998	Review of activities, training, procurement, and disbursements.	-Task Manager -Ecologist -Sociologist -NGO Technical Representative -Procurement Specialist	2 2 2 2 2

	6 Oct 1998	Review of activities, training, procurement, and disbursements. Discuss PY2 performance.	- Task Manager - Sociologist -Ecologist -NGO Representative	2 2 2 2
PY 3				
Feb. 1999/Oct. 2000	7 Feb. 1999	Mid-term review and discuss annual work plan for PY 3. -Project Design -Progress in institutional development -Effectiveness of community and government training programs -Effectiveness of policy and legal framework -Monitoring and evaluation -Procurement -Audits -Disbursements.	- Task Manager -Ecologist -M&E Specialist -Sociologist -Procurement Specialist -NGO Technical Expert	2 2 2 2 2 2
	8 June 1999	Review of activities, procurement, disbursements, financial performance, and international cooperation.	-Task Manager -Sociologist/Ecologist -NGO Conservation Specialist	2 2 2
	9 Oct. 1999	- Review of activities PY 3 and work plan PY 4.	-Task Manager -M&E Specialist -Sociologist/Ecologist -NGO Technical Representative	2 2 2 2
PY4				
Feb. 2000/Jan. 2001	10 Feb. 2000	Review of activities.	-Task Manager -Ecologist -NGO Representative	2 2 2
	11 Oct. 2000	Review of activities PY 4, disbursements.	-Task Manager -Ecologist -M&E Specialist	2 2 2
PY5				
Feb.2001/Jan. 2002	12 Feb. 2001	Review of activities.	-Task Manager -Ecologist -NGO Representative	2 2 2
	13 Oct. 2001	Review of activities, PY5, disbursements.	-Task Manager -Financial Analyst	2 2

Feb. 2002/ Aug. 2002	14 June 2002 15 Aug. 2002	Grant Closing. Review of activities disbursement, implementation completion report.	-Task Manager	2
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MOZAMBIQUE

TRANSFRONTIER CONSERVATION AREAS PILOT AND INSTITUTIONAL STRENGTHENING
PROJECT

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