Environmental Threats and Opportunities in Namibia and Their Implications for USAID/Namibia's Country Strategic Plan 2004-2010

Prepared for

USAID/Namibia

by

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Any errors of fact or interpretation found in this report are my responsibility. The opinions expressed here are my own, and are not necessarily shared by USAID/Namibia or the Namibian partner organizations with which it works. I hope this assessment will contribute to the USAID's support for environmentally sustainable development in Namibia and the conservation of its irreplaceable biological diversity.

Abbreviations and Acronyms

ADS	Automated Directives System
AGOA	African Growth and Opportunity Act
AIDS	Acquired Immunodeficiency Syndrome
AWF	African Wildlife Foundation
BCLME	Benguela Current Large Marine Ecosystem
CBD	Convention on Biological Diversity
CBNRM	Community Based Natural Resources Management
CBO	Community Based Organization
CCF	Cheetah Conservation Fund
CITES	Convention on International Trade in Endangered Species
CSP	Country Strategic Plan
DEA	Department of Environmental Affairs (MET)
DFID	Department for International Development (UK)
DG	Democracy and Governance
DOF	Directorate of Forestry (DOF)
DRFN	Desert Research Foundation of Namibia
DRM	Department of Resource Management (MET)
FIRM	Forum for Integrated Resource Management
FSC	Forest Stewardship Council
GEF	Global Environment Facility
GRN	Government of the Republic of Namibia
GTZ	Gesellschaft fur Technische Zusammenarbeit
HIV	Human Immunodeficiency Virus
IRDNC	Integrated Rural Development and Nature Conservation
ISP	Integrated Strategic Plan
LAC	Legal Assistance Centre
LIFE	Living in a Finite Environment
MAWRD	Ministry of Agriculture, Water and Rural Development
MET	Ministry of Environment and Tourism
MFMR	Ministry of Fisheries and Marine Resources
MLRR	Ministry of Lands, Resettlement and Rehabilitation
MTI	Ministry of Trade and Industry
NACOBTA	Namibia Community Based Tourism Association
NACSO	Namibian Association of CBNRM Support Organizations
NAPCOD	Namibian Programme to Combat Desertification
NDT	Namibian Development Trust
NNDF	Nyae Nyae Development Foundation
NNRC	Namibia Natural Resource Consortium
NORAD	Norwegian Development Agency
NRM	Natural Resources Management
NTFP	Non-Timber Forest Products
PTO	Permission to Occupy
RCSA	Regional Center for Southern Africa (USAID)

REDSO	Regional Economic Development Support Office (USAID)
RF	Rossing Foundation
RISE	Rural People's Institute for Social Enterprise
SARDEP	Sustainable Animal and Range Development Programme
SARPO	Southern Africa Regional Programme Office (WWF International)
SMA	Social Marketing Association
SME	Small and Medium Enterprise
SO	Strategic Objective
SWAPO	South West Africa Peoples Organisation
TBNRM	Trans-boundary Natural Resources Management
UNAM	University of Namibia
UNEP	United Nations Environment Programme
VCT	Voluntary Counseling and Testing
WILD	Wildlife Integration for Livelihood Diversification
WWF	World Wildlife Fund

Executive Summary

Background

USAID/Namibia is currently in the process of developing a seven-year Country Strategic Plan (CSP) to guide its activities for 2004-2010. The assessment described in this report aimed to inform the development of that plan and assure that it complies with all USAID environmental requirements by:

- reviewing the environmental and institutional context of USAID's program in Namibia
- updating the Environmental Threats and Opportunities Assessment (ETOA) conducted in 1996 for USAID/Namibia
- identifying potential threats to biodiversity, tropical forests, or the environment that may result from activities proposed in the new CSP
- identifying opportunities and entry points under the new CSP that will positively influence the conservation and sustainable management of biodiversity, tropical forests, marine and freshwater resources, and the Namibian environment in general.

In the information-gathering phase of this assessment, the consultant reviewed relevant literature and documents, both published and unpublished, and interviewed a wide range of people in Namibia and Washington, D.C. Information about Namibia's environment and natural resources is abundant and accessible, and several excellent sources of information have come out in the last few years. General background information on the country's natural environment – on climate, water resources, vegetation, wildlife, freshwater and marine fisheries, and mineral resources – is summarized here. The social and economic context in which the management and conservation of the natural environment takes place is reviewed. Population and demographic factors, the economy, land and resource tenure, governance issues, and the capacity of some of the key public institutions that supervise and govern the utilization and conservation of environmental resources are considered.

Summary of Environmental Threats and Trends

A key task of this assessment was to look for changes and trends that have occurred since 1996, when a comprehensive assessment of environmental threats and opportunities in Namibia was conducted for USAID/Namibia. That "ETOA" identified four main categories of direct threats to the sustainable management of Namibia's environment, and six root causes of those threats. Changes and trends in these threats and their causes can be summarized as follows:

- Water resources continue to be the main limiting factor and development challenge in Namibia. Demand for water continues to increase, and all Namibian sources will be fully developed in just over a decade. In terms of living aquatic resources, a positive development is the Inland Fisheries Act, approved in 2002. This legislation should

help to institute the mechanisms for sustainable management of Namibia's freshwater fisheries.

- With regard to rangeland degradation the trends are mixed. Reduction of subsidies to the livestock industry and a reduction in livestock in some areas are positive developments, but bush encroachment continues in commercial rangelands, and traditional flexible grazing systems continue to break down.
- Although many of the threats to biodiversity and biotic resources identified in 1996 continue, a number of significant positive developments have occurred. One is the preparation of a biodiversity country study and a national biodiversity strategy and action plan under the Convention on Biological Diversity. Wildlife populations in the communal lands of North-West Namibia, compiled since 1996, show significant increases in several species. This is another positive trend. Legislation passed in 1996 allowed the development of conservancies in communal areas, and the number of gazetted communal area conservancies has grown from zero in 1996 to 19 today. Wildlife and nature-based tourism, including sport hunting, has increased significantly since 1996, and has provided significant benefits to local conservancies.
- Good fisheries management since 1996, when many marine fish stocks were badly depleted from overexploitation, has been successful in stabilizing the catch of some of the most important species. For some species, however, stocks remain depleted and the trends are not hopeful. Significant threats to marine resources remain to be addressed.
- The lack of tenure over land and resources continues to be a root cause of threats to the environment, but there have been some positive developments since 1996, most notably the conservancies legislation of 1996 which affected tenure over wildlife resources. In 2001 the national Forest Policy and Forest Law were approved and passed, in principle giving tenure over forest resources to local communities who organize and apply to manage community forests. Land itself, and other natural resources associated with it such as water and grazing, still need tenure reform through policy and legislation.
- The 1996 ETOA report noted that the lack of intersectoral coordination was one of the root causes of environmental degradation in Namibia. Unfortunately, this is largely still true, although there are a few hopeful signs.
- Lack of human resources and capacity for sustainable planning and management at all levels was noted in the ETOA report of 1996 as a root cause of many of the environmental threats facing the country. Unfortunately, is still the case, underscoring the difficult challenge and slow pace of human resources development.
- There have been some significant positive trends since 1996 in making the knowledge and information for sustainable environmental management accessible to decision-makers and the public in Namibia. This is especially true for biological diversity information. Research is currently underway or being planned that will improve the state of knowledge about transboundary freshwater fisheries in northern Namibia, and about the Benguela Current Large Marine Ecosystem, and training and education programs for environmental professionals are expanding slowly.
- Significant positive developments have occurred since 1996 with regard to international agreements to manage natural resources shared with Namibia's neighboring countries. The gradual strengthening of the Permanent Okavango River

Basin Water Commission, OKACOM, and the development in 1998 of the SADC Protocol on Shared Watercourse Systems, has established a framework for cooperation in the management of the Okavango River system. Sustainable management of shared marine resources are also improving since 1996, in part because of the GEF-funded Benguela Current Large Marine Ecosystem (BCLME) Project

- The population growth rate in Namibia has decreased from more than 3% per year in 1996, when the ETOA report deemed it to be a significant root cause of environmental threats, to around 1.6% (PRB, 2002). Unfortunately, much of this decrease is due to the impact of HIV/AIDS, the prevalence of which has increased to an estimated 23% of adults. Population growth is still a concern, because even with the impact of HIV/AIDS, Namibia's population will grow by about 800,000 people in 20 years, and by then some critical natural resources such as water and grazing lands will be facing unsustainable pressures.

Conclusions and Recommendations

The assessment discussed here reviewed the condition of the Namibian environment, and the trajectories and trends in the factors that threaten it. Such an assessment allows needs, gaps, opportunities, and entry points for useful interventions to be identified. Some of the most important of these needs and opportunities involve:

1) consolidating gains in tenure over resources at the local level that have been made through conservancies;
2) promoting intersectoral coordination for improved environmental management, from the national level down to the local level;
3) addressing the lack of human resources and capacity for environmentally sustainable planning and management at all levels, from national to local;
4) improving international environmental cooperation in the region and linking it with CBNRM through international river basin management; and
5) supporting legislation and building capacity in Environmental Impact Assessment for the entire country, in all sectors.

These general needs and opportunities lead to a rich and diverse menu of possibilities, entry points, and options for support, not only for USAID/Namibia, but also for any of its governmental and nongovernmental partners. USAID/Namibia is in the process of preparing its 2004-2010 CSP, and the results framework to be proposed is still not finalized. Because the details of the results framework may change before it is finalized, the recommendations given in this report will probably need to be adapted, focused, and refined to fit within USAID/Namibia's programmatic interests. Recommendations made in this report include:

Recommendations for Environmental Impact Assessment including:

- training and technical assistance;
- support for capacity building in the MET/DEA Environmental Assessment and Enforcement Units to enable Namibia to implement its National Environmental Assessment Policy of 1994; and
- supporting passage of an Environmental Management Act to give legal force to the Environmental Assessment Policy already adopted by the GRN in 1994.

Recommendations for small and medium enterprises support, trade, and workforce development including:

- conducting environmental assessments or building capacity for SMEs involving small-scale mining, the cotton sector, nature and wildlife based tourism, craft products using natural resources; and
- ccontributing to workforce development in land management, CBNRM, and natural-resources-based enterprises development

Recommendations for natural resources management, CBNRM, and conservancies including:

- continuing to emphasize institutional development at the community level as the core, key activity for promoting improved natural resources management and integrated rural development;
- Continuing to support NACSO as a secretariat and coordination mechanism for CBNRM support organizations, and as a forum for dialogue between the GRN and NGOs involved in CBNRM;
- emphasizing and expanding the business/enterprise development aspects of conservancies, including tourism development;
- supporting pilot conservancies that integrate more natural resources than wildlife (e.g. grazing, forestry including non-timber forest products, water, freshwater fisheries) developing CBNRM models that work in North Central Namibia because of the unique challenges of that region
- supporting the integration/harmonization of policy and legislation that implement the general GRN policy on decentralization in all sectors and ministries (not only MET and the wildlife & tourism sectors); and
- coordinate and cooperate with USAID/RCSA on Okavango and Zambezi Rivers international river basin management initiatives, and emphasize the view that CBNRM has a major role to play in this regard.

Recommendations for Democracy and Governance including:

- supporting parliamentary strengthening in order to better address environmental and natural resources issues through policy and legislation; and
- supporting local and regional CBOs and NGOs in developing and strengthening advocacy skills, including advocacy related to environmental and natural resources issues;

- supporting activities of NACSO, individual NGOs, and emerging conservancy associations to raise awareness and increase knowledge of members of parliament and regional councillors about environmental issues; and
- emphasizing conservancy support as a DG activity. Provide training and support services for conservancies in DG issues (e.g., representation, participation, accountability, transparency, planning, facilitation, dispute resolution). This will increase the demand for environmental policy and legislation to which government should respond.

Recommendations for HIV/AIDS including piloting HIV/AIDS services, including possibly Voluntary Counselling and Testing (VCT) in some/selected conservancies.

Environmental Requirements and the USAID/Namibia 2004-2010 Country Strategic Plan

The Constitution of the Republic of Namibia (Article 95) requires the government to actively promote and maintain the welfare of the people, including "the maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of Namibians both present and future." USAID's environmental regulations, embodied in Section 117 of the Foreign Assistance Act and Reg 216, also require that USAID activities support, and do not jeopardize, environmentally sustainable development.

USAID/Namibia, through the 2002-2010 CSP being developed, will have ample opportunities to support the GRN and civil society organizations to bring about environmentally sustainable developed in Namibia and conserve its tropical forests and biodiversity. It can do so as a partner to the country of Namibia, assisting it to implement it's own policies, laws, and international commitments. In doing so, USAID/Namibia will ensure that it is in full compliance with the agencies formal environmental requirements, mandated by the Foreign Assistance Act (Sections 117, 118, and 119) and Reg 216.

1. Introduction

1.1 Purpose and Objectives of this Assessment

USAID/Namibia is currently in the process of developing a seven-year Country Strategic Plan (CSP) to guide its activities for 2004-2010. The Mission will align its proposed strategic objectives with the Namibian government's Second National Development Plan (NDP II). USAID anticipates that the new CSP program will be focused from the current program of about $10-11 million per year and five strategic objective program areas.

USAID/Namibia recognizes that protection of the environment and wise management of the natural resources base are absolute requirements of any successful development program. This assessment is one mechanism for ensuring that environmental issues are integrated into USAID/Namibia's development planning. The objectives of this assessment, as described in the Scope of Work (Appendix 1) and defined through discussions with staff from USAID/Namibia and USAID/REDSO include:

- reviewing the environmental context of USAID's program in Namibia
- assessing the effectiveness of relevant public institutions that supervise and govern the utilization, development and/or monitoring of environmental resources in terms of how they achieve environmental sustainability and mitigate negative development impacts, prevent degradation and/or achieve restoration of tropical forests and biodiversity
- updating the Environmental Threats and Opportunities Assessment (ETOA) conducted in 1996 for USAID/Namibia (Byers, 1996; 1997) and the Environmental Report prepared in 1999 for the 2000-2005 Country Strategic Plan (CSP) (Jones, 1999)
- identifying potential threats to biodiversity, tropical forests, or the environment that may result from activities proposed in the new CSP
- reviewing the results framework proposed in the new country strategic plan (CSP) and assure compliance with all USAID environmental requirements
- identifying opportunities and entry points under the new CSP that will positively influence the conservation and sustainable management of biodiversity, tropical forests, marine and freshwater resources, and the Namibian environment in general

The formal environmental requirements for USAID strategic plans are specified in the Automated Directives System (ADS, 2003). These environmental requirements include an assessment of any proposed new strategic plan with regard to Sections 117, 118 and 119 of the Foreign Assistance Act (FAA), and with "Reg 216" (USAID 2002a; Russo 1994). FAA Section 117 requires that:

> "Special efforts shall be made to maintain, and where possible, restore the land, vegetation, water, wildlife, and other resources upon which depend economic growth and human well-being, especially of the poor."

FAA Section 118 deals with tropical forests, and requires that every country strategic plan include an analysis of:

> "The actions necessary in that country to achieve conservation and sustainable management of tropical forests, and the extent to which the actions proposed for support by the Agency meet the needs thus identified."

FAA Section 119 concerns the conservation of biological diversity, and requires that every country strategic plan include an analysis of:

> "The actions necessary in that country to conserve biological diversity, and the extent to which the actions proposed for support by the Agency meet the needs thus identified."

Reg 216 (22 CFR 216):

- Requires that environmental factors and values are integrated into the USAID decision-making process;
- Assigns responsibility for assessing the environmental effects of USAID's actions; and,
- Implements the requirements of the National Environmental Policy Act (NEPA) as they affect USAID programs.

Reg 216 basically mandates an environmental impact assessment process for all USAID activities, beginning with an Initial Environmental Examination (IEE). This initial examination may come up with a "negative determination," so a full Environmental Impact Assessment is not always required for new activities.

Because of the interrelated character of environmental issues and the fundamental importance of environmental conservation to sustainable development, USAID's Automated Directives System (ADS) states that missions can often save time and be more efficient by conducting a broader "environmental threats and opportunities" assessment when undertaking the mandatory tropical forestry and biological diversity (FAA 118 and 119) assessments. USAID/Namibia had chosen this broader approach; hence this assessment of environmental threats and opportunities related to the new USAID/Namibia CSP for 2004-2010.

1.2 Methods

This assessment was conducted by Bruce Byers, who led the team that conducted a comprehensive assessment in 1996. Before travelling to Namibia, interviews were conducted in Washington, D.C., with a number of USAID staff and other knowledgeable experts. The consultant worked in Namibia from 24 February to 14 March. More than sixty people were interviewed during the information-gathering phase of the assessment (see Appendix 2, Persons Contacted). From 24-26 February, the consultant traveled to the Kunene Region for field site visits to two of Namibia's nineteen registered communal lands conservancies at Torra and =/Khoadi //Hoas. The consultant also visited the National Marine Fisheries Research Centre in Swakopmund and the Gobabeb Training and Research Centre. Relevant documents and other sources were reviewed (see Appendix 3, Documents and Sources Consulted). An exit debriefing was held on 14 March with relevant staff of USAID/Namibia, including the Mission Director, Assistant Mission Director, Director of Technical Programs, SO#3 Team Leader, and Environmental Officer.

USAID/Namibia is in the process of preparing its 2004-2010 CSP, and the results framework to be proposed is still not finalized. In order to understand the general themes of the new results framework to the extent possible, the consultant met with relevant Mission staff, including the Team Leaders whose SOs are likely to continue in some form in the new CSP. The recommendations given in the final chapter of this ETOA report are based upon this understanding, but it should be recognized that because the details of the results framework may change before it is finalized, these recommendations may need to be adapted.

1.3 Overview of this Report

Following this Introduction, Chapter 2 gives a brief summary of the state of Namibia's environment and natural resources, and of the threats to their sustainable management. Chapter 3 identifies changes and trends that have occurred since 1996, when a comprehensive assessment of environmental threats and opportunities in Namibia was conducted for USAID/Namibia by the Environmental Policy and Training Project (EPAT) and Winrock International (Byers, 1996; Byers, 1997). Chapter 4 discusses the implications of the current state of the Namibian environment and the trends in its management for the USAID/Namibia results framework being developed for 2004-2010 CSP. Chapter 5 focuses more specifically on issues of environmental sustainability, tropical forests, and biodiversity in Namibia (the topics of Sections 117, 118, and 119 of the Foreign Assistance Act), and seeks to identify the needs, gaps, and actions necessary to maintain and conserve them. This analysis reveals a number of opportunities for USAID, its partners, and other donors in Namibia. The final chapter, Chapter 6, provides a diverse menu of recommendations for USAID and its partners.

2. Overview of Namibia's Environment and Natural Resources

2.1 The Natural Environment

Information about Namibia's environment and natural resources is abundant, accessible and up to date. Three excellent recent sources are the ***Atlas of Namibia: A Portrait of the Land and its People*** (Mendelsohn, et al., 2002), ***Namibia's Natural Resource Sector: A Contribution to Vision 2030*** (NNRC, 2002) and ***Biological Diversity in Namibia – a country study*** (Barnard, et al., 1998). High-quality information about the Namibian environment has been available for many years (Jacobson, et al., 1995; Marsh and Seely, 1992; Tarr, et al., 1996). USAID/Namibia has recently commissioned a study titled ***Selected Natural Resource Management and Limited Rural Development Assessment*** (Jones, 2003), and it provides further background on the environmental context of USAID's program. Because such a wealth of information is widely available elsewhere, extensive background information will not be given here. Instead, the brief summary that follows will highlight the main environmental factors and issues, and set the stage for a discussion of environmental threats and trends in the next chapter.

Climate and Water: The single most important environmental factor in Namibia is its aridity. Namibia is sub-Saharan Africa's driest country, and one of the most arid countries in the world. The entire western coastal zone is true desert, with a mean annual rainfall of less than 100 mm , and mean annual evaporation about thirty times as great. Rainfall increases from the south-west to the north-east, ranging from less than 50 mm to about 700 mm in the Caprivi strip. Only 8% of the country receives more than 500 mm of rain per year, the minimum considered necessary for dryland cropping. As is the case in most arid regions, rainfall is extremely variable from year to year. In the north, the variability of annual precipitation is about 30% while in the south and west it exceeds 70%. From ecological and agricultural perspectives this variability and unpredictability is even more important than the low levels of precipitation. Because of its dry climate, water is scarce in Namibia, and surface water particularly so. Access to water is the dominant limiting factor for the region's natural biota and for both for urban and rural development.

Most of Namibia's water catchments are characterised by ephemeral rivers, which flow following heavy rains in their interior highland headwaters. These ephemeral rivers act as linear oases (Jacobson, *et al.*, 1995). Although water is not found on the surface, the beds of most of these rivers hold significant quantities of water, and deep-rooted trees and other plants can tap directly into these subsurface aquifers. This vegetation provides food and shelter for a variety of other organisms that may even include lions, hyenas, gemsbok and baboons – and of course humans.

The only perennial rivers in Namibia are found along the northern and southern borders. The Kunene and Okavango Rivers form the northern border with Angola; the Kwando, Linyati, Chobe and Zambezi Rivers form the borders with Botswana and Zambia in the northeast; and the Orange River forms the border with South Africa. The headwaters of all of these rivers are in other countries.

The Cuvelai-oshanas drainage system is a unique and ecologically important feature of north-central Namibia, the country's most fertile and populous region (Marsh and Seely, 1992). As with the perennial rivers, the oshanas have their headwaters outside of Namibia, in Angola.

Vegetation and Wildlife: Namibia has three major vegetation biomes: deserts, covering approximately 16% of the land area; savanna grasslands, which occupy about 64% of the land; and savanna woodlands, covering about 20% of Namibia. These biomes reflect the south-west to north-east rainfall gradient.

The annual variability in rainfall causes the amount of standing vegetation, and thus the carrying capacity of terrestrial ecosystems, to vary significantly from year to year. Because of the generally arid and variable climate, Namibia has a very limited potential for reliable crop production. Consequently, extensive livestock production is the major agricultural activity. The soils in areas where rainfall is sufficient to support exploitable vegetation are generally poor, and are dominated either by Kalahari sands of very low nutrient status or by highly saline or rocky soils with low production potential.

Large areas of the country still support populations of large wild mammals, and in some areas such as the communal lands of the Kunene Region, wildlife populations have increased dramatically in roughly the last decade, since Independence in 1990 (NACSO, 2001; 2003).

Freshwater Fisheries: Despite the fact that Namibia is an extremely arid country, and has no perennial rivers except at its borders, the Namibian freshwater fish fauna is fairly rich (van Zyl and Hay, 1994). Almost all of these are found in the northern and north-eastern rivers, particularly associated with the rich floodplain wetlands of the Okavango and Zambezi catchments. Freshwater fisheries are very important to the food economy of northern Namibia. The human populations of the Okavango and Zambezi drainages rely very heavily on fish as a major source of protein in their daily diets. Of the two systems, the Okavango is under greater pressure because it is smaller and has a relatively larger population. "Approximately 50% of Namibia's total population live close to the northern perennial and seasonal rivers. Although the country's freshwater fish resources contribute little directly to GDP, they play a vital role in enhancing the livelihoods of many of these people through informal employment and subsistence fishing (NNRC, 2002). Fishing opportunities in the Cuvelai Drainage System, the most densely populated area in Namibia, rely on sufficient rains falling in the Angolan highlands and are highly episodic. According to Day (1997) the annual value of the catch in Caprivi is N$9 million. Fishing directly supplies some cash and a valuable supplementary food supply to 79% of rural Caprivians and 90% of all households in Kavango. In total, more than 50% of Namibia's population fish and 45% derive some income from the sale of fish (NNRC 2002)." (Jones, 2003)

Marine Resources: Just off the coast of Namibia, the Benguela Current flows in a north to northwesterly direction, bringing cold Antarctic water into warmer subtropical regions. Seasonal southerly winds induce upwelling at the coast and make available an abundant supply of nutrients in the upper layers. These nutrients together with sunlight promote extensive blooms of phytoplankton, rich resources of zooplankton, and an abundance of fish. Abundant fish support large populations of seabirds and marine mammals. Bivalves, such as oysters, and crustaceans, such as lobsters and crabs, are also found in these rich waters. The Benguela

Current ecosystem off the Namibian coast has one of the highest primary production rates in the world, in stark contrast to the country's mostly arid terrestrial ecosystems, which have one of the lowest. The mean annual productivity of the Benguela ecosystem is exceeded only by the Humboldt Current off the west coast of South America; both of these systems are 4-6 times as productive as other areas with rich fishing grounds, such as the North Sea or the northeast shelf of North America. This means that living marine resources are one of Namibia's most important renewable natural resources. Productivity of the Benguela ecosystem is characterised by large variability, between years and even between decades, however. Stocks of fish such as pilchard and anchovy frequently exhibit marked fluctuations in abundance associated with these changes.

Mineral Resources: Namibia has important mineral resources, and mining is one of the main components of the economy. Diamonds, uranium, copper, gold, zinc, tin, rare earth metals, semi-precious gemstones, marble and granite, and oil and gas are among Namibia's valuable mineral resources.

2.2 The Social Environment

Population (growth, density, distribution): The population of Namibia is presently approximately 1.8 million people. It is one of the least densely populated countries in the world with an average of about 2 people per square km (Mendelsohn, et al., 2002; PRB, 2002) – about one-thirtieth the population density of Turkey or Pakistan, which are of similar area. The Population Reference Bureau (PRB, 2002) estimates the current population growth rate at 1.6%.

The majority of Namibia's population lives in the northern communal areas, which hold approximately 60% of the total population. Population is concentrated especially in the four north central regions (former Owamboland, or Owambo), which support about two thirds of the total population of the northern communal areas, or almost half of the total population in Namibia (Mendelsohn, et al., 2002). In the Cuvelai drainage and oshanas area, about 28% of the entire Namibian population lives on less than 1% of Namibia's land area. Densities exceed 100 people per km^2 in places, although the average population density here is approximately 11 people per km^2 (Byers, 1996; 1997; Mendelsohn, 2002). The concentration of population in this area results from the fact that the Cuvelai catchment is rich in alluvial soil and therefore has some of the highest agricultural potential in Namibia.

The distribution of the rural population is also skewed as a legacy of the colonial land tenure system in operation before Independence. The privately owned commercial farmland is divided into about 5,000 farms belonging to about 4,400 farmers and occupied only by these farmers, their dependants and employees (Jones, 2003). These farms mainly occupy the better quality pastoral land of the central savannas and the southern arid shrublands. Over 60% of Namibia's population live as subsistence farmers in communal lands, over 85% of which are located in the north, concentrated in the well watered areas of the former Owambo, Kavango and Caprivi. A large fraction of the proclaimed conservation and diamond mining areas are in very arid and largely unpopulated regions.

Economy (livelihoods, sector contributions, poverty): Renewable natural resources are the basis of the Namibian commercial economy. Agriculture, marine fisheries, and nature and wildlife-based tourism, three of the four major economic activities, all depend on such resources (Jones, 2003). Only mining, the fourth major economic sector, is based on non-living, non-renewable resources. Most of the population of Namibia is rural, and depends heavily on natural resources for subsistence.

The agricultural sector is the main source of employment and livelihoods for the population as a whole, with about 70% dependent to a greater or lesser extent upon it. About half of the population depends on agriculture (largely subsistence agriculture) for its livelihood, but Namibia must import a large percentage of its food (CIA, 2002).

"The economy is heavily dependent on the extraction and processing of minerals for export. Mining currently accounts for around 12-15% of GDP (Mendelsohn, et al., 2002). "Namibia is the fourth-largest exporter of nonfuel minerals in Africa and the world's fifth-largest producer of uranium. Rich alluvial diamond deposits make Namibia a primary source for gem-quality diamonds. Namibia also produces large quantities of lead, zinc, tin, silver, and tungsten." (CIA, 2002)

Tourism is a rapidly growing sector. In 1999 it is estimated that tourism contributed 9.6% of GDP, but some estimate that the overall multiplier effect of tourism on the economy was about 20% of GDP (Jones, 2003). Between 1990 and 1996, tourism grew at about 14% per year (Jones, 2003), and according to the World Travel and Tourism Council, a tourism growth is expected to average 5% per year over the next decade (WTTC, 2002).

"Although per capita GDP is five times the per capita GDP of Africa's poorest countries, the majority of Namibia's people live in pronounced poverty because of large-scale unemployment, the great inequality of income distribution, and the large amount of wealth going to foreigners." (CIA, 2002) "With the richest one percent of the population earning more in aggregate terms than the poorest fifty percent, Namibia has one of the highest income disparities in the world. The income disparities mask a poverty that is both deep and pervasive, and growing worse with the HIV/AIDS epidemic." (USAID, 2002c)

Land Ownership and Tenure: There are three basic forms of rural land tenure in Namibia. At present, about 45% of Namibia, mostly in the southern and central areas, is freehold land (i.e., privately owned); about 40% is state owned communal tenure land; and the last 15% is proclaimed state land, designated mainly for conservation (national parks, nature reserves, and protected areas) and mining (Mendelsohn, et al., 2002).

Institutions and Governance: Namibia is a Constitutional republic with three branches of government: a parliament consisting of two houses; an executive branch consisting of the president, his cabinet, and 19 ministries; and judiciary branch. The central government is heavily dominated by a single political party, SWAPO. The central government is often characterized as being overstaffed with poorly paid staff, often young and with little depth of experience because it has been little more than a decade since independence. In many central government ministries, donor aid provides much of the financial support.

There are thirteen political regions, which were established in 1993 to ensure regional representation. These in turn are divided into constituencies, which elect representatives to regional councils. Compared to the central government, regional governments are new and relatively weak. In addition to these modern government institutions, traditional political leaders often have significant powers in communal areas.

Civil society in Namibia is represented by a developing NGO sector. Among the environmental and conservation NGOs, some have technical capacities that are world-class. In terms of ability to provide the public with environmental awareness and information there is considerable capacity among these NGOs as well, but in terms of advocacy skills and political power considerable capacity development is still needed.

3. Environmental Threats and Trends Since the 1996 ETOA

3.1 Threats

The environmental threats and opportunities assessment conducted in 1996 (Byers, 1996; 1997) identified four main categories of direct, or proximate, threats to the sustainable management of Namibia's environment:

- overexploitation, depletion and degradation of water and aquatic resources
- overgrazing, desertification, and unsustainable range management
- loss of biodiversity and biotic resources
- overexploitation and decline of marine fish stocks

The ultimate, root causes of these direct environmental threats identified in the 1996 ETOA assessment include:

- lack of secure and exclusive tenure over land and resources at the local level;
- lack of intersectoral coordination at the national level;
- lack of human resources and capacity for sustainable planning and management at all levels;
- lack of knowledge and information for sustainable management;
- lack of international agreements; and,
- population growth

3.2 Trends Since the 1996 ETOA

The direct or proximate threats that were identified in 1996, listed above, represented unsustainable environmental trends caused mainly by human activities. These threats and trends were reviewed during this ETOA, and a summary of each is given below:

Overexploitation, depletion and degradation of water and aquatic resources: The threat of overexploitation, depletion and degradation of water has not abated since 1996. In the 1996 ETOA report, it was noted that "... the groundwater potential is frequently fully committed and even overutilised in some cases." That report also noted that "...if current trends continue, by 2015 AD at the latest, Namibia will no longer be self-sufficient in water – this assumes that water will be redistributed nationwide." The trends have continued in the same direction. According to a recent assessment (Jones, 2003) "Water demand in Namibia continues to rise and, as a result, water scarcity has become a problem for all areas ... far from the perennial water sources. Based on projections for future water demand (estimated to grow at 2.2% per annum) these developed sources are likely to be fully exploited by 2016. Even if stricter water demand management practices are enforced, the central areas of Namibia (in particular the high growth points in the Khomas Region) are expected to experience full use of currently developed sources by 2012."

This threat of water shortages has serious implications for any policies or activities to expand irrigated agriculture in any part of the country. It also is a major barrier to developing industries which require large amounts of water (e.g. cloth manufacturing), or even any industries that will

increase the population of cities (e.g. Windhoek) that are far from perennial water sources. The ecological importance and value of water is still not fully recognized or accounted for. For example, the upstream diversion and storage of water in the upper catchments of Namibia's many ephemeral rivers (Marsh and Seely, 1994), as well as the mining of water at the lower ends of these rivers, continues to lower the water table in the lower aquifers of many ephemeral river. This presents an ecological threat to the linear oases – essentially riparian tropical forests – along these riverbeds.

In terms of aquatic resources, a positive development since 1996 is that the Inland Fisheries Act was approved in December, 2002. This legislation should help to institute the mechanisms for sustainable management of Namibia's freshwater fisheries, most of which are found in the perennial rivers of the Caprivi area or the Cuvelai-oshanas area in North-Central Namibia. The need now is to establish regulations based on this legislation and to implement them.

Overgrazing, desertification, and unsustainable range management: With regard to rangeland degradation the trends are mixed. There are positive developments in terms of reducing subsidies to the livestock industry and a reduction in livestock in some areas, but bush encroachment continues in commercial rangelands, and traditional flexible grazing systems continue to break down. In 1996, the ETOA report stated that subsidies to livestock farmers on both commercial and communal lands had promoted overstocking and overgrazing. Overestimation of the carrying capacity of rangelands in a highly variable environment was identified as a major problem, and water provision and drought aid were noted as major subsidies in the livestock sector. The gradual breakdown of traditional, flexible, transhumant grazing systems was noted as a cause of overgrazing and rangeland degradation. It was also noted, however, that "there has been significant progress since independence to reduce the subsidies to commercial farmers." (Byers, 1996; 1997)

Since 1996 the positive trend to reduce subsidies has continued (Jones, 2003), and commercial farms have been gradually destocking and diversifying, often by adding tourism and wildlife enterprise activities. "On freehold farms, the number of cattle and goats dropped by between 20 and 25% between 1988 and 2000." (Mendelsohn, et al., 2002) It has been estimated that 60% to 80% of the commercial [freehold] farms are not profitable (Harring and Odendaal, 2002).

In communal areas, however, numbers of cattle, goats, and sheep continue to increase slowly (Kruger, 2002b; Mendelsohn and Obeid, 2002; Mendelsohn, et al., 2002). Traditional, flexible livestock grazing systems that involve long distance seasonal movements of herds continue to breakdown, mainly because of illegal fencing of communal rangelands by the most wealthy herd owners, and in some places because of the expansion of crop fields into former grazing areas (Kruger, 2002a; 2002b).

The threat of bush encroachment continues, mainly on the freehold farms in the north and northeastern commercial rangelands, and in pockets on communal lands (Mendelsohn, 2002). This is occurring in part because continuing overgrazing favors woody vegetation over grass, in part because of fire suppression, and in part because of the extirpation of large mammalian browsers.

USAID/Namibia is supporting an experimental project through the Cheetah Conservation Fund (CCF) to evaluate the commercial feasibility of mechanical thinning of bush, using revenue from export products such as compressed wood fireplace logs (Mwakaje, et al., 2002). CCF hopes to develop ecological standards for bush harvesting with the goal of restoring landscape-scale patches of cheetah habitat throughout Namibia (http://www.cheetah.org, 2003). Making charcoal from the main species contributing to bush encroachment might also help generate revenue to pay for mechanical thinning if markets could be found. "Natural forests, totalling about 54,000 ha, of two charcoal producing enterprises have been FSC certified." (http://www.gtz.de/capacity_building/english/countries/land43.htm, 2003) Certification of forests and their products may help to add value to these products and link them to high-value export markets.

Loss of biodiversity and biotic resources: Several kinds of threats to biodiversity were identified in the 1996 ETOA. Although many of these threats continue, a very significant positive development since 1996 has been the preparation of a biodiversity country study (Barnard, et al., 1998) and a national biodiversity strategy and action plan under the Convention on Biological Diversity (National Biodiversity Task Force, 2002).

Data on wildlife populations in the communal lands of North-West Namibia, compiled since 1996, show significant increases in several species (NACSO, no date; NACSO, 2003). This is another positive trend. Legislation passed in 1996 allowed the development of conservancies in communal areas, which could manage and benefit from wildlife found there. The number of gazetted communal area conservancies has grown from zero in 1996 to 19 today, with approximately 35 more at various stages in the process of organizing and registering (see Appendix 3, Map of Registered and Emerging Conservancies). Wildlife and nature-based tourism, including sport hunting, has increased significantly since 1996, and has provided significant benefits to local conservancies.

Overexploitation and decline of marine fish stocks: Living marine resources are one of Namibia's richest natural assets. The bottom line regarding threats and trends identified in 1996 is that good fisheries management has been successful in stabilizing the catch of some of the most important species. For some species, however, stocks remain depleted and the trends are not hopeful. Significant threats remain to be addressed.

In 1996, marine fish stocks were just beginning to recover from severe overfishing during the 1980s and negative environmental factors in the highly variable Benguela Current ecosystem (Byers, 1996; 1997). Because of careful management, in which total allowable catch limits have been set conservatively to allow stocks to rebuild, populations of many important fish species are increasing (Jones, 2003). For hake, the most important commercial species, there has been a turnaround in the catch. The hake catch dropped from more than 500,000 tonnes in the mid-1970s to less than 100,000 tonnes by late the late 1980s, due to overharvesting. With careful management the catch is now up to about 200,000 tonnes (Mendelsohn, et al., 2002), and is relatively stable now. The horse mackerel, catch, a lower-value species, is also relatively stable. However, populations of pelagic species such as pilchard and anchovy remain very depressed, and may not recover. Recent allowable catch limits have been set either at zero, or at around

10,000 tonnes -- 1/50th of former catch levels – in order to keep pelagic fleets and pilchard canneries from shutting down completely.

A positive development aimed at addressing threats to living marine resources is the Benguela Current Large Marine Ecosystem (BCLME) programme (BCLME, 1999). This programme is developing increased regional cooperation between Namibia, Angola and South Africa in research on, and management of, fish and other marine resources within the Benguela Current marine ecosystem. The aim of the BCLME Programme is to understand and adapt to the changing state of the ecosystem, and to manage its living resources on an integrated and sustainable basis. An Interim Benguela Current Commission was established between the three countries to strengthen regional cooperation and to implement the BCLME Strategic Action Programme (Jones, 2003).

The ultimate, root causes of these direct environmental threats identified in the 1996 ETOA assessment include:

Lack of secure and exclusive tenure over land and resources at the local level: The lack of tenure over land and resources continues to be a threat, but there have been some positive developments since 1996. The 1996 ETOA report noted that "The introduction of secure and exclusive tenure at the community level is the single most important policy reform needed to prevent degradation. Tenure reform … should embrace all natural resources on the land (grazing, trees, wildlife, water." (Dewdney, 1996).

The land ownership and land tenure situation in Namibia remains more or less as it was in 1996 (Jones, 2003; Mendelsohn, et al., 2002). However, some significant and positive developments have occurred since the 1996 ETOA. The 1996 communal areas conservancy legislation – officially titled the "Nature Conservation Amendment Act, 1996," and the amended regulations that accompany it – give tenure over wildlife to local communities which organize into conservancies. In 2001 the national Forest Policy and Forest Law were approved and passed, in principle giving tenure over forest resources to local communities who organize and apply to manage community forests (Directorate of Forestry, 2001a; 2001b). Land itself, and other natural resources associated with it such as water and grazing, still are in need of tenure reform through policy and legislation.

Lack of intersectoral coordination at the national level: The 1996 ETOA report noted that the lack of intersectoral coordination was one of the root causes of environmental degradation in Namibia. Unfortunately, this is largely still true, although there are a few hopeful signs. The Ministry of Environment and Tourism, in which resides authority for wildlife, forestry, and environmental management in general (including environmental assessment responsibilities), is a relatively weak ministry. Still, as in 1996, "addressing the root causes of Namibia's environmental threats will require substantial cooperation between the MET and the far stronger line ministries." (Byers, 1997)

Lack of human resources and capacity for sustainable planning and management at all levels: The ETOA report of 1996 concluded that: "The vast lack of human resources and capacity in

Namibia is widely recognized and acknowledged. Given the diverse actions that are required to bring about sustainable development, this capacity gap is an ultimate, root cause of many of the environmental threats facing the country. This gap... is a legacy of the colonial history of Namibia. Education, training, and capacity-building at all levels, from central government to grassroots resource users, will be required." Unfortunately, these statements are still strikingly true, underscoring the difficult challenge and slow pace of human resources development and capacity building.

Lack of knowledge and information for sustainable management: The 1996 ETOA noted that although a great deal of information about the Namibian environment existed, it did not always reach decision-makers and other important audiences. Since 1996 there have been some significant positive trends. Information about the Namibian environment in general, and about biological diversity in particular, is more accessible (e.g., Barnard, 1998; Mendelsohn, et al., 2002). Research is currently underway or being planned that will improve the state of knowledge about transboundary freshwater fisheries in northern Namibia, and about the Benguela Current Large Marine Ecosystem (<http://www.ioinst.org/bclme/>). Training and education programs for environmental professionals are expanding at the Polytechnic of Namibia and the University of Namibia (UNAM), although in both cases more is needed. There is a significant lack of information on the extent and impact of mining, esp. offshore diamond prospecting and mining; mining of small scale semi-precious stones; and the quarrying of dimension stone such as marble and granite.

Lack of international agreements: Significant positive developments have occurred since 1996 with regard to international agreements to manage natural resources shared with Namibia's neighboring countries. The 1996 ETOA noted that the GRN was aware of the need for international cooperation to conserve and sustainably manage shared natural resources. For example, in 1994 the then new Draft Inland Fisheries Act recognized Namibia's need "to enter into co-operative agreements with neighboring states whose freshwater catchments are inter-dependent with those of Namibia." Namibia, Angola, Botswana, which share the Okavango River catchment, established the Permanent Okavango River Basin Water Commission, OKACOM. In 1998 the SADC Protocol on Shared Watercourse Systems entered into force, solidifying the framework for cooperation to manage this international river. The advent of peace in Angola has greatly improved the prospects for tranboundary cooperation in this river basin since 1996. The Global Environment Facility (GEF) funded a transboundary diagnostic analysis, which was completed in 1999 (Permanent Okavango Basin Water Commission, 1999). "The OKACOM is a relatively young institution that is still evolving to become a major driving force in sustainable development of the Okavango Basin. The Commission will seek financial support to develop capacity and to implement projects to avoid conflicts between the parties and these noble objectives will certainly attract the support of the international donor community" (Pinheiro, et al., 2003). In the Every River has its People Project (NNF, Rossing Foundation, IRDNC, DRFN, funded by SIDA – see <http://www.everyriver.net>), links are beginning to be forged between the high-level government commissioners of OKACOM and community stakeholders who use the fish, riparian forests, and floodplains of the Okavango River. Sustainable management of shared marine resources are also improving since 1996, in part because of the GEF-funded Benguela Current Large Marine Ecosystem (BCLME) Project (<http://www.ioinst.org/bclme/>).

Population growth: The 1996 ETOA identified population growth as one of the important root causes of environmental threats in Namibia. At that time, the population growth rate was estimated to be above 3% per year, and even though the absolute population was relatively small and average population density very low compared to other countries, Namibia's climate and vegetation do not have the potential to support a much larger population than now. Since 1996 the population growth rate has slowed, and is now estimated to be around 1.6% (PRB, 2002). Population growth is still a concern, because even with the impact of HIV/AIDS, Namibia's population will grow by about 800,000 people in 20 years, and by then some critical natural resources such as water and grazing lands will be facing unsustainable pressures (Mendelsohn, et al., 2002). In addition to HIV/AIDS, education for women is expected to help lower the population growth rate.

A significant positive development since 1996 is the increasing public recognition of the HIV/AIDS pandemic, which in 1996 was only beginning to be recognized or admitted by the government and society. Prevalence surveys show extremely rapid increases in HIV/AIDS prevalence over last decade or so since Independence (Mendelsohn, et al., 2002). The average adult prevalence rate is now estimated at about 23% according to a national seroprevalence survey done in 2002. Availability of birth control technology and maternal counselling is improving, in part linked to AIDS awareness and prevention campaigns.

North-Central Namibia: The 1996 ETOA identified North-Central Namibia as a geographic area of special concern, stating that "Northern communal areas, especially Owambo, are *the* main geographic areas of environmental concern. It is in the densely populated northern areas that all of the root causes and problems come together; there is the most need for biodiversity conservation outside of protected areas; the most need for sustainable water management and sustainable rangeland management; the most need to bring rapid population growth under control." (Byers, 1996; 1997). Northern Namibia, and especially the North-Central area, is still an area of special concern. This is still where the full range of environmental threats and unsustainable trends intersect, and it is an area with special political significance as the core area of SWAPO support.

4. Environmental Requirements and USAID's 2004-2010 CSP

4.1 Environmental Sustainability (FAA Section 117) and Environmental Impact Assessment (Reg 216)

The Constitution of the Republic of Namibia (Article 95) requires the government to actively promote and maintain the welfare of the people, including "the maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of Namibians both present and future." This concern with sustainable care of the environment, ecosystems, and natural resources of the country can be taken as a definition of environmental sustainability. USAID's environmental regulations, embodied in Section 117 of the Foreign Assistance Act and Reg 216, also require that USAID activities support, and do not jeopardize, environmentally sustainable development.

In the United States, a fundamental tool for ensuring environmental sustainability is the National Environmental Policy Act, which requires environmental impact assessments for federal projects. Reg 216 essentially requires the same for USAID programs (USAID, 2002a).

Namibia has an Environmental Policy, which was adopted by Cabinet in 1994. The policy declares that "All listed policies, programmes and projects, whether initiated by the government or the private sector, should be subjected to the established Environmental Assessments (EA) procedure as set out in Appendix A." In announcing this policy at that time, the Minister of Environment and Tourism stated that: "This policy aims to promote sustainable development and economic growth while protecting the environment in the long term. Without clean air, water and soil, and without a full and healthy stock of natural resources, there will be little prospect for future generations of Namibians. Therefore, Sector Ministries, the Private Sector, NGOs, and prospective investors and donors are urged to comply with this policy for all future development projects, programmes and policies." (MET, 1995)

Finally, the Minister of the MET stated in 1994 that "The next phase in this process is to decide on the institutional structures and procedures needed for its effective implementation, and the establishment of appropriate legislation." Now, almost ten years later, Namibia still has not passed legislation to give legal force to and to implement its Environmental Policy, although a draft Environmental Management Bill is under discussion (MET, 2003). Efforts to move forward with this legislation seem to have stagnated over the last decade.

This lack of environmental impact assessment requirements under an Environmental Management Law is a major need and gap in Namibia's efforts to achieve environmentally sustainable development.

A further significant problem is that, although Namibia has a rather strong Environmental Assessment Policy, the capacity to raise public awareness about it and to monitor compliance with it is very weak. Staffing and resource levels within the Environmental Assessment Unit of the MET's Directorate of Environmental Affairs are very low. If and when an adequate Environmental Management Bill is passed into law, oversight and enforcement capacity will be

needed. Significant political will, leadership, time and investment will be required to develop such capacity.

The Minister of the MET also stated in 1994 that: "Recent EA's in Namibia have concentrated on individual projects. However, the EA policy also stresses the need for the assessment of programmes and policies." This need for broad, strategic and programmatic environmental assessment should be underscored. Donors, such as USAID, should set an example for Namibia by ensuring that all of their activities undergo not just site-specific environmental assessment, but broader strategic assessment as well.

Two examples may serve to illustrate the need for sectoral environmental assessments.

One example relates to the cotton growing, textiles production, and apparel manufacturing sector. Providing ginning factories close to cotton growing areas is often looked upon as a way of stimulating smallholder cotton production, as, for example, in the Zambezi Valley of northern Zimbabwe. This is apparently the thinking behind the support provided by USAID/Namibia, with links to the African Growth and Opportunity Act (AGOA), to facilitate investment in a cotton gin in northern Namibia. Funding for an environmental assessment (EA) for this facility is currently being sought by the investors.

The cotton textile industry involves a range of activities, from farm production of cotton to spinning, weaving, and dyeing, and finally cut, make and fit operations. Each of these has potential environmental impacts. At present, Namibia's fledgling cotton textile industry is not vertically integrated.

Cotton growing by small farmers without irrigation in northern Namibia may appear to be internationally competitive, give the extremely low wages that currently prevail in that sector. An EA for small scale cotton cultivation would undoubtedly identify a range of negative ecological, economic and social costs. Small scale cotton cultivation elsewhere, such as in northern Zimbabwe, has been devastating to tropical forests, as natural forests and woodlands are cleared for cotton cultivation. Cotton growing is highly dependent on the use of chemical fertilizers and pesticides, and costs for these inputs often rise rapidly as soil fertility is depleted and pest populations increase. It is not likely that Namibia will have a global competitive advantage in cotton production, either by small farmers or on irrigated plantations. On the other hand, the development of cotton agriculture may not be compatible with other land uses in which Namibia does have a global competitive advantage, such as wildlife and tourism. Sectoral environmental assessments will identify these tradeoffs.

Apparel manufacturing (cut, make and trim operations) – such as at the new Ramatex plant in Windhoek – are probably internationally competitive given the low wages now prevailing in Namibia. Cloth manufacturing, which includes dyeing, requires large amounts of water and requires toxic and polluting chemicals. The shortage of water is likely to prevent the development of this part of the industry in Namibia.

Offshore marine diamond prospecting and mining is another sector that should be subjected to a broad, sectoral environmental assessment. Extensive offshore diamond prospecting is taking

place along the Skeleton Coast, which is gazetted as a national park (Mendelsohn, et al., 2002). Prospecting permits are such that much of this prospecting amounts to mining. Namibia has a Policy for Prospecting and Mining in Protected Areas and National Monuments, developed in 1999 (MET, 1999). This policy recommends screening of all project proposals, and environmental assessments for those deemed to have significant impact. However, as with the national Environmental Assessment Policy, this policy seems not to have the legislation and regulations needed to effectively implement it. In addition, it suffers from the same lack of capacity and resources for oversight as the general Environmental Assessment Policy. Although USAID/Namibia is not likely to be able to address this problem directly, a number of the general recommendations regarding environmental assessment given later in this report could help indirectly.

The mining of diamonds from coastal gravel deposits along the southern part of Namibia is developing into a major industry attracting international attention and investment. Already, marine diamonds make a sizeable contribution to the national GDP and a very valuable export commodity. The trend in current activities and future plans by mining companies suggest an intensification of marine diamond mining especially in the use of a greater number of large surface vessels with on-site processing plants. In the long-run, fisheries will remain one of the most important sectors of the Namibian economy. In the short-term, however, marine mining contributes to much needed government revenue and employment opportunities. As a result, increasing pressure is exerted on the very habitat that shelters Namibia's most significant renewable resource. If not managed well, marine diamond mining poses a real danger to the marine ecology. It also presents an interesting Constitutional problem, namely the dilemma between a short-term gain through the exploitation of a non-renewable versus the long-term loss of a renewable resource. Offshore oil and gas development could pose a similar challenge in the future.

4.2 Tropical Forests – FAA Section 118

When some people hear the words “tropical forests,” they may picture the rainforests of the equatorial tropics of the Congo Basin, Amazon Basin, or Southeast Asia. These are not the only tropical forests, however. The savanna woodlands of the northeast and the Caprivi are Namibia’s tropical forests – they are, after all, within the tropics, and trees and woody vegetation are the major component of the biomass of these ecosystems. Thus, for the purposes of this assessment, it can be said that about 20% of Namibia is covered by tropical forests, in the form of savanna woodlands. Trees are a major natural resource for the people of who live in these woodlands, and forestry activities of all kinds are important components of their livelihoods (Marsh, 1994). Even in the desert and savanna grassland ecosystems of Namibia the linear oases of trees along the ephemeral rivers are extremely import to human and nonhuman species.

Namibia approved a national Forest Policy in November, 2001. The Policy has four main aims:

- to reconcile rural development with biodiversity conservation by empowering farmers and local communities to manage forest resources on a sustainable basis;

- to increase the yield of benefits of the national woodlands through research and development, the application of silvicultural practices, and protection and promotion of economic support projects;
- to create favorable conditions to attract investment in small and medium industry based on wood and non-wood forest raw materials; and,
- to implement innovative land-use strategies including multiple use conservation areas, protected areas, agroforestry and a variety of other approaches.

Legislation to provide the institutional arrangements for implementing this policy, the Forest Act of 2001, was passed and signed by the President almost simultaneously, in December, 2001 (Directorate of Forestry, 2001b). The legislation allows for state and regional forest reserves, for community forests, and for forest management areas. Community forests should provide a point of linkage with communal area conservancies established under the 1996 conservancies legislation.

Permits are currently the main policy instruments used by the Directorate of Forestry to regulate private sector forestry activities. A permit is required for harvesting, transportation and marketing of forest products, both from commercial and communal areas (Directorate of Forestry, 2001a).

About fifty species are listed as protected trees under the Forest Act No. 72 of 1968 and the Forest Ordinance of 1952 (Directorate of Forestry, 1968), including such commercially important timber trees as *Pterocarpus angolenesis* (dolf or kiaat).

4.3 Biological Diversity – FAA Section 119

Biological diversity, or biodiversity for short, is the variety and variability of life. The best way to think of biodiversity is as a system consisting of many elements or aspects: genes, species, ecosystems, and ecological processes that both support and result from this diversity (USAID, 2002a). Namibia's Constitution recognizes that biological diversity is essential for a healthy and productive environment, and is a resource for sustainable development (National Biodiversity Task Force, 2001).

The diversity of species in Namibia is not exceptional high because Namibia is such a dry country. However, focusing on species richness as the only, or the most important, measure of biological diversity is misleading. For any country, its biodiversity is essential for a healthy and productive environment, no matter whether it is relatively rich in species or relatively poor. In every country biological diversity provides the natural resources and the irreplaceable ecological services upon which human livelihoods depend.

Rather than species richness, what is exceptional about Namibia's biodiversity is the high level of uniqueness and endemism found here. Many of Namibia's plants and animals are found nowhere else on Earth (Barnard, 1998; Mendelsohn, et al., 2002). The high level of unique species results partly from the fact that the Namib Desert is thought to be the oldest desert in the world, and species found there have a long evolutionary history of adaptation to arid conditions.

Namibia is a party to the Convention on Biological Diversity (CBD). Parties to the CBD seek to conserve biological diversity, encourage the sustainable use of its components, and achieve the equitable sharing of the benefits arising through the use of genetic resources. Specific obligations of Parties to the CBD include:

- Development of national strategies, plans or programs for the conservation and sustainable use of biological diversity;
- Integration of the conservation and sustainable use of biological diversity into the relevant sectoral and cross-sectoral plans, programs and policies;
- Identification of components of biological diversity, important for its conservation and sustainable use;
- Identification of processes and activities which have, or are likely to have, significant adverse impacts on the conservation and sustainable use of biodiversity;
- Establishment of a system of protected areas to conserve biological diversity; and,
- Establishment of mechanisms to respect, preserve and maintain the knowledge, innovations, and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biodiversity. (USAID, 2002a)

With support from the GEF, United Nations Environment Programme (UNEP), and the German technical cooperation agency, GTZ, Namibia has established a National Biodiversity Task Force, situated in the Directorate of Environmental Affairs of the MET. This Task Force compiled information about Namibia's biodiversity and produced a country study report in 1998 (Barnard, 1998). That report became the background for the development of a national strategy and action plan, ***Biodiversity and Development in Namibia***, which was published in 2001 (National Biodiversity Task Force, 2001). The quality of the country study is almost unparalleled anywhere in the world.

The national strategy and action plan is comprehensive and ambitious. In keeping with the objectives of the CBD, the strategy is grounded in a sustainable use philosophy that emphasizes the potential contribution of biological diversity to sustainable development. This document outlines a framework of objectives and activities that have clear linkages to significant parts of the results framework being developed by USAID/Namibia under its new CSP for 2004-2010. It will be possible for USAID/Namibia to assist Namibia in moving forward with its action plan for conserving biological diversity through its portfolio of planned activities. Every effort should be made to do so whenever possible.

Namibia is a Party to the Convention on Wetlands of International Importance – often called the Ramsar Convention (National Biodiversity Task Force, 2001; USAID, 2002a). Parties to the Ramsar Convention are obligated to:

- designate at least one national wetland for inclusion in a List of Wetlands of International Importance;
- accept the responsibility for conservation, management and wise use of migratory birds, waterfowl in particular; and,
- establish wetland nature reserves, cooperate in the exchange of information, and train personnel for wetland management.

"Walvis Bay is the largest and, together with Sandwich Harbor, the most important coastal wetland in southern Africa," according to Namibia's National Biodiversity Task Force (Barnard, 1998). It is a feeding site for 83% of the lesser flamingos and 49% of the greater flamingos in southern Africa, as well as 70% of the world population of chestnut-banded plovers and 40% of the world population of black-necked grebes. Walvis Bay Lagoon, together with Sandwich Harbor at the mouth of the Kuiseb River, is a Ramsar Site designated by Namibia (Barnard, 1998; Mendelsohn, et al., 2002). While Sandwich Harbor is within the Namib-Naukluft Park and is a specially protected area, Walvis Bay Lagoon currently is not protected by any legislation or special status. Etosha Pan is also a designated Ramsar Site, of regional value as a breeding area for flamingos, and is protected within Etosha Park.

Namibia is a party to the Convention on International Trade in Endangered Species, CITES. Along with its neighbors Botswana and Zimbabwe, Namibia wants its elephant population downlisted to Appendix II, so that limited international trade in ivory from Namibian elephants would be permitted. Namibia and its neighbors have argued that because of good protection and management, elephant populations are stable or growing, poaching is controlled, and a limited ivory trade would provide funds for elephant management and habitat conservation. At the most recent Conference of Parties in 2002, such trade was not approved, but it is likely that Namibia will continue to argue for such trade.

Namibia is also a full party to the United Nations Framework Convention on Climate Change and the Convention to Combat Desertification. Both of these international treaties also are important to the conservation of biological diversity (National Biodiversity Task Force, 2001; USAID, 2002a).

5. Conclusions and Recommendations for USAID and Partners

5.1 Implications of Conditions and Trends for USAID/Namibia's 2004-2010 CSP

The condition of the Namibian environment, and threats to it, have been summarized above, and trends in the immediate causes and root causes of those threats have been discussed. That analysis allows needs, gaps, opportunities, and entry points for useful interventions to be identified. Some of the most important of these needs and opportunities include:

1) The need, and opportunity, to consolidate gains in tenure over resources at the local level that have been made through conservancies. Continued support for establishing and strengthening conservancies will help to improve democracy and governance, intersectoral cooperation and integration, and the protection of biodiversity and tropical forests.

2) The need, and opportunity, to promote intersectoral coordination, from the national level down to the local level.

3) The need, and opportunity, to address the lack of human resources and capacity for sustainable planning and management at all levels, from national to local.

4) The need, and opportunity, to improve international cooperation in the region and to link this with CBNRM through international river basin management.

5) The need, and opportunity, to support legislation and build capacity in Environmental Impact Assessment for the entire country, in all sectors.

6) The need, and opportunity, to develop models of integrated, community-based natural resources management that will work in North-Central Namibia. It is in this densely populated area that almost all of the environmental threats and their root causes discussed here come together in one place, and it is very important to develop models that will work in this region.

5.2 Recommendations -- General

The illustrative recommendations given below seek to provide not only USAID/Namibia, but its governmental and nongovernmental partners also, with a rich and diverse menu of possibilities, entry points, and options. These recommendations have emerged from this review of the current environmental conditions in Namibia and the trends in environmental conditions and threats since the 1996 ETOA.

For USAID/Namibia, some of these represent "hooks" or "handles" for the 2004-2010 CSP results framework. I tried not to prejudge these options and possibilities, but to present a full spectrum of recommendations even if I could not envision the USAID's programmatic implementing mechanism. I do not expect that all of these will fit within USAID/Namibia's strategic framework for 2004-2010, and I assume the Mission will be creative in developing implementing mechanisms for any recommendations they accept.

5.3 Recommendations for Environmental Impact Assessment

1. Support environmental assessment training and technical assistance for staff of partners in Small and Medium Enterprise development, including communal areas conservancies under SO #3. This will lead to an institutionalization of best practice, and internalize the environmental screening and review that is consistent with Namibia's National Environmental Assessment Policy and with USAID environmental procedures and requirements.
2. Support the development of political will to implement the National Environmental Assessment Policy and to pass legislation to implement it in Parliament and all ministries of the GRN.
2. Support capacity building in the MET/DEA Environmental Assessment and Enforcement Units to enable Namibia to implement its National Environmental Assessment Policy of 1994.
3. Support passage of an Environmental Management Act to give legal force to the Environmental Assessment Policy already adopted by the GRN in 1994.
4. Require and support EAs for any deals facilitated through the African Growth and Opportunities Act (AGOA), in compliance with Namibian Environmental Assessment Policy.

5.4 Recommendations Relevant to SO #1

<u>Small and Medium Enterprises Support, Trade</u>

1. Conduct systemic EA of smallholder/SME cotton production prior to supporting investment in this cluster.
2. Support a study of the EA needs and capacity in the small and medium-scale mining sector, especially for semi-precious stones and dimension stone (marble and granite).
3. Support EAs and resource inventories and sustainable management plans for any craft products (e.g., palm crafts such as baskets, woodcarving, palm ivory carving) or non-timber forest products (NTFPs, e.g. marula, devil's claw, manketti nuts) targeted for SME development/support prior to any investment.
4. Support experimental/pilot development of SMEs based on wood products from encroaching woody species (e.g. charcoal, compressed fireplace logs) that would help fund mechanical thinning of bush-encroached areas; assist those SMEs in obtaining international certification, such as from the Forest Stewardship Council (FSC).

Workforce development, training, capacity-building

1. Contribute to workforce development/training/capacity-building in land management, CBNRM, and natural-resources-based enterprise development through support for certificate and diploma courses at Polytechnic of Namibia and UNAM/MRCC.
2. Contribute to workforce development, training, and capacity-building in Environmental Assessment.

5.5 Recommendations Relevant to SO #3

Natural Resources Management, CBNRM, Conservancies

1. Continue and emphasize support for institutional development at the community level as the core, key activity for promoting improved natural resources management and integrated rural development.
2. Continue to support NACSO as a secretariat and coordination mechanism for CBNRM support organizations, and as a forum for dialogue between the GRN and NGOs involved in CBNRM.
3. Continue, emphasize, and possibly expand the grants program as the key demand-driven mechanism for providing support to conservancies.
4. Continue to emphasize and expand the business/enterprise development aspects of conservancies, including tourism development.
5. Continue to support and consolidate institutional development in the most successful conservancies as models for other conservancies, and link this with workforce development and SME support activities in the Mission portfolio.
6. Develop and support pilot conservancies that integrate more natural resources than wildlife (e.g. grazing, forestry including non-timber forest products, water, freshwater fisheries):
    - Expand "event book" monitoring to include other resources whenever possible,
    - Establish links at local level between community forests and conservancies, and between MET DOF and DPWM at the local and regional level (example Salembala),
    - Begin where possible to establish links at local/regional level with MLRR and Land Boards to be organised under the Communal Lands Act of 2001.
7. Support pilot conservancies in North Central Namibia because of the unique challenges of that region (e.g., high-population density, grazing issues, water issues) as well as because of its importance for political buy-in and legitimacy.
8. Support and encourage communication and collaboration between communal and freehold ("commercial") conservancies in pilot areas (e.g., Spitzkoppe (communal) and Erongo Mountains (freehold); eastern Namibia, east of Waterberg Park).
9. Support conservancies to purchase neighboring freehold lands to expand livestock management options (e.g., Uibasen-Twyfelfontein conservancy).
10. Support the development of conservancy associations at the regional and national levels for cross-conservancy transfer of experience and skills, legal assistance, business assistance, and technical assistance regarding natural resources management.

11. Support the integration/harmonization of policy and legislation that implement the general GRN policy on decentralization in all sectors and ministries (not only MET and the wildlife & tourism sectors).
12. Support the development of a policy and legal framework for communal grazing rights and communal management of grazing resources.
13. Continue to build awareness of and support for conservancies at the regional government level.

Trans-Boundary Natural Resources Management

USAID/Namibia and its development partners should:

1. Emphasize the view that international water management is largely a matter of sustainable management of the terrestrial ecosystems within catchment basins, and that CBNRM has a major role to play in this regard.
2. Support linkages between CBNRM for fisheries and floodplain management in Namibia and OKACOM, the international commission on management of the Kavango River basin
3. Support studies and pilot activities related to water and fisheries management in the transboundary Cuvelai-oshanas system shared by Angola and Namibia.
4. Coordinate and cooperate with RCSA on Okavango and Zambezi (incl. Chobe and Linyati) Rivers international river basin management.

5.6 Recommendations Relevant to SO #4

Democracy & Governance

1. Support parliamentary capacity building and strengthening in order to better address environmental and natural resources issues through policy and legislation (e.g., provide parliamentarians with information that is focused and timely (e.g. policy briefs, white papers), organize workshops and other forums for discussion of environmental issues, organize study tours for parliamentarians to visit sites of environmental successes or problems).
2. Support local and regional CBOs and NGOs in developing and strengthening advocacy skills, including advocacy related to environmental and natural resources issues.
3. Support activities of NACSO, individual NGOs, and emerging conservancy associations to raise awareness and increase knowledge of members of parliament and regional councillors about environmental issues (e.g., the need for EAs), CBNRM, etc.).
4. Emphasize conservancy support as a DG activity. Provide training and support services for conservancies in DG issues (e.g., representation, participation, accountability, transparency, planning, facilitation, dispute resolution). This will increase the demand for environmental policy and legislation to which government should respond.

5.7 Recommendations Relevant to SO #5

HIV/AIDS

1. Pilot HIV/AIDS services, including possibly Voluntary Counselling and Testing (VCT) in some/selected conservancies.
2. Conduct/support an EA of the biomedical/hazardous waste disposal system in rural clinics through which VCT may be conducted.

Appendix 1. Persons Contacted

Washington, D.C.

Jon Anderson, USAID AFR/SD
Paul Bartell, USAID AFR/SD
Rosalind Best, USAID AFR
Carl Gallegos, USAID AFR
Curt Grimm, USAID PPC
Art Westneat, USAID AFR
George Taylor, International Resources Group

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John Hazam, CBNRM Coordinator in MET/DNPWM
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Monica Koep, Senior Program Development Specialist SO#4
Kirk Lazell, Team Leader SO#5
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GRN

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Joseph Hailwa, Acting Director of Forestry, MET Directorate of Forestry
Hashali Hamakuaya, Director, Benguela Current Large Marine Ecosystem (BCLME)
Living Marine Resources Activity Center, Swakopmund, DFMR
Clinton Hay, Chief Fisheries Biologist, Ministry of Fisheries and Marine Resources
Maria Kapere, MET Undersecretary for Natural Resources
S. Andrew Long, Team Leader, WILD Project, MET/DEA
Christina Mansfeld, MET/DEA Environmental Assessment Unit
Mick O'Toole, MFMR, Benguela Current Large Marine Ecosystem (BCLME) Programme
Rob Simmons, MET/DSS
Jo Tagg, MET/DEA

NGOs and Associations

Chris Brown, Executive Director, NNF
Richard Diggle, IRDNC in Caprivi
Pierre du Plessis, CRIAA
Joh Henschel, Executive Director, DRFN, Gobabeb
Sue Holland, Country Representative & VCT Project Director, Population Services International
Margaret Jacobsohn, Co-Director, IRDNC
Harrison Kojwang, Sub-regional Representative, WWF Southern Africa Regional Programme Office, Harare, Zimbabwe
Bertus Kruger, Deputy Director, DRFN, Gobabeb Training and Research Centre
Gus Le Breton, Acting CEO, SANProTA
Len Le Roux, Director, Rossing Foundation
Nadia Manning, Training Coordinator, Gobabeb Training and Research Centre, DRFN, Gobabeb
Simon Mayes, Training Facilitator, NNF
Karen Nott, IRDNC
Garth Owen-Smith, Co-Director, IRDNC
Paul Sheller, Acting Manager, Gobabeb Training and Research Centre, DRFN, Gobabeb
Patricia Skyer, Director, NACSO
Greg Stuart-Hill, Natural Resources Planner, WWF LIFE Project
Neville Sweijd, Director, Benuela Environment Fisheries Interaction &Training Programme (BENEFIT), Swakopmund
Chris Weaver, Chief of Party, WWF LIFE Project

Kunene Region Conservancies

=/Khoadi //hoas Conservancy

Gabes /Goagoseb, Technical Advisor, Conservancy and Grootberg Farmers Union
Bob =/Guibeb, Head of Environmental Shepherds
Helga /Howoses

Torra Conservancy

Paula Adams, Community Activator, Conservancy Committee
Janci Rhyn, Chairperson, Conservancy Committee

Donors

Vesa Kaarakka, Consultant Team Leader, Namibia-Finland Forestry Program, MET/DOF

Other (Private Sector, Consultants, etc.)

Dhyani Berger, Senior Consultant, Eco-Development Education and Training (ECODET)
Rod Davis, Namibia Resource Consultants
Brian Jones, Consultant
Kevin McGuire, U.S. Ambassador to Namibia
Alphons Mosimane, University of Namibia (UNAM), Multidisciplinary Research and Consultancy Centre (MRCC)
James Murombedzi, Ford Foundation
Martin Shapi, UNAM, MRCC
C.J. Steenkamp, Department of Land Management, Polytechnic of Namibia
Ibo Zimmermann, Head, Department of Agriculture, Polytechnic of Namibia

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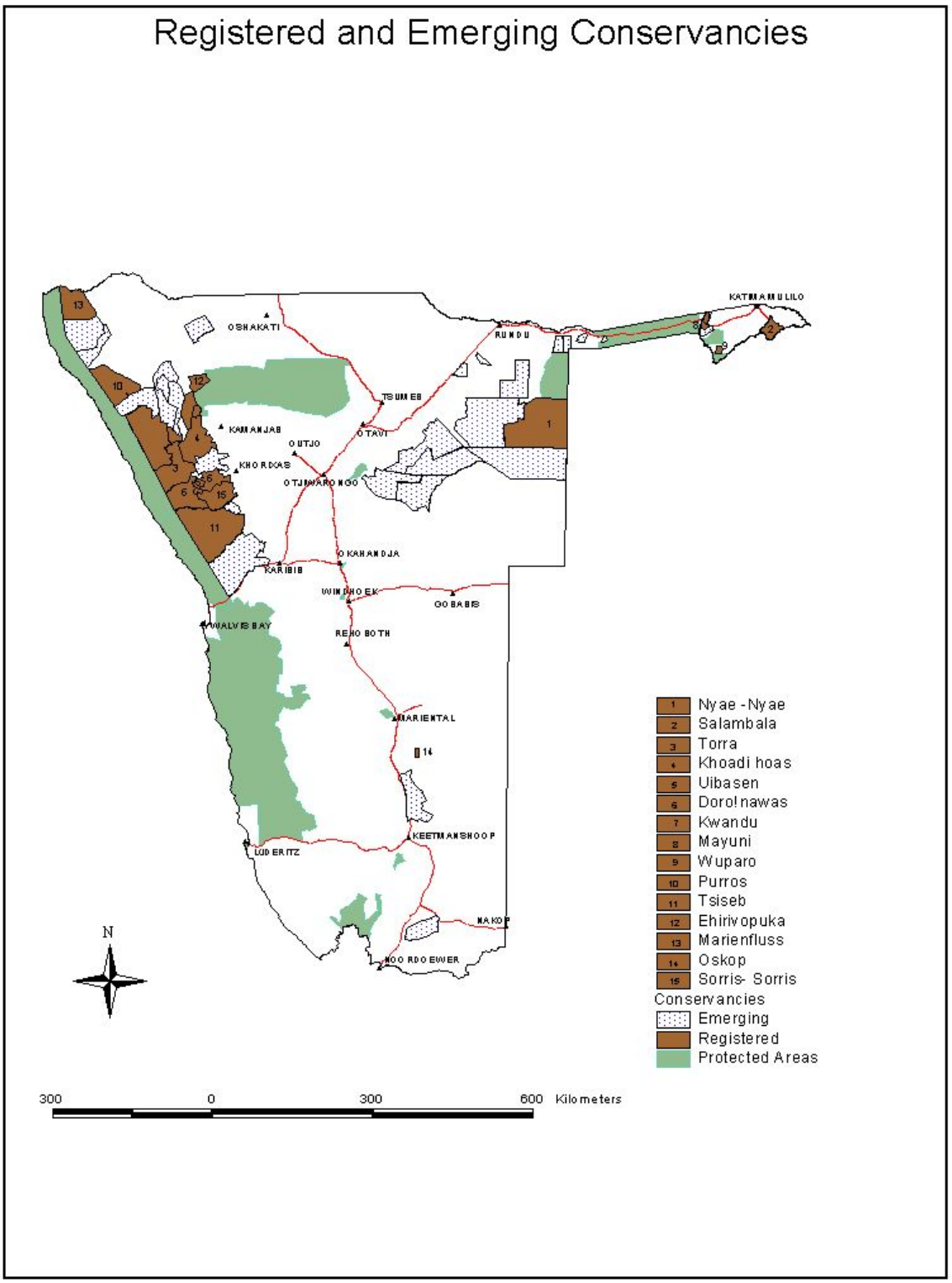
Appendix 3. Map of Registered and Emerging Conservancies



Appendix 4. Scope of Work

Scope of Work
Environmental Considerations for USAID/Namibia's Country Strategic Plan (CSP)
2004-2006

The objective of this work is to deliver to USAID/Namibia an update of 1999 Country Strategic Planning (CSP) Environmental Report and update of a synthesis of the 1997 Environmental Threats and Opportunities Assessment (ETOA). This update will be included in USAID/Namibia's CSP 2004-2010. It will also fulfill USAID requirements for Section 117-119 of the Foreign Assistance Act of 1961. It will also identify the issues that, by USAID or USG directive or initiative, USAID/Namibia should be aware of, for example with respect to global climate change reporting requirements, if any.

1. Background and Purpose

Strategic Planning Process. USAID/Namibia is currently in the process of developing a five-year Country Strategic Plan (CSP) beginning October 1, 2004 through September 30, 2010 wherein the Mission will align its proposed strategic objectives with the Government of the Republic Namibia's (GRN's) Second National Development Plan (NDP II). The NDP II has become the GRN's guiding strategy for all its development efforts. Alignment of the USAID's Namibia's program with the NDP II will signal support for the GRN's strategy. Moreover, it will enhance synergy across sectors, and increase management efficiency. As well, USAID will seek to complement other donor investments. USAID anticipates that the new CSP program will be considerably downsized and focused from the current program of about 10-11 million per year and five strategic objective program areas.

Environmental Requirements. The core environmental requirements of USAID operating unit strategic plans are spelled out in ADS 201 Technical Analysis for Strategic Plans, Environmental Analysis, and are derived from provisions of the Foreign Assistance Act (FAA).

- Environmental Sustainability. USAID/Namibia recognizes that protection of the environment and wise management of the natural resources base are absolute requirements of any successful development program. Section 117 of the FAA *"Environment and Natural Resources,"* dictates that operating units will implement their programs with an aim toward maintaining (and restoring) natural resources upon which economic growth depends, and to consider the impact of their activities on the environment. The legal requirements of the FAA are reflected in USAID's *ADS Chapter 204 "Environmental Procedures,"* which provides essential procedures and policy on the application of *22 CFR Part 216.* This regulation codifies the Agency's procedures "to ensure that environmental factors and values are integrated into the USAID decision making process." Further, 22 CFR 216.5 requires USAID operating units to conduct their assistance programs in ways that are sensitive to the protection of endangered or threatened species and their critical habitats.

- Tropical Forestry and Biological Diversity. Sections 118 *"Tropical Forests"* and 119 *"Endangered Species"* of the FAA codify the more specific U.S. interests in forests and

biological diversity. These two provisions require that all country plans include: 1) an analysis of the actions necessary in that country to conserve biological diversity and tropical forests; and 2) the extent to which current or proposed USAID actions meet those needs. Section 118/119 analyses are specific legal requirements of all USAID operating unit strategic plans.

Translating the intent of the above legal requirements into a practical strategic planning approach, the ADS provides a priority-setting framework for missions to use in determining environmental threats and opportunities. This provision responds to statutory pre-obligation requirements of FAA Section 611(a), which requires that there be adequate technical and financial planning for all obligations in excess of $500,000. The priority-setting process is intended to guide the setting of environmental strategic objectives, as well as to inform strategic objectives in other sectors.

This consultancy, and the resulting update of a 1997 synthesis of the 1997 ETOA for Namibia, will be used by the Mission SO teams, the Mission Environmental Officer (MEO) and the Bureau Environmental Officer (BEO) as well as the Agency's reviewers of CSPs as the basis for the following analyses:

- The positive and negative impacts on FAA 117, 118 and 119 issues of each of these laws/policies/initiatives as currently implemented and/or as projected;
- Plans and outcomes of efforts to mitigate the impacts of the foregoing;
- The effectiveness of relevant public institutions that supervise and govern the utilization, development and/or monitoring of environmental resources in terms of how they achieve environmental sustainability and mitigate negative development impacts, prevent degradation and/or achieve restoration of tropical forests and biodiversity.

2. USAID's Program in Namibia

Currently, the Mission's program seeks to strengthen Namibia through social, economic and political empowerment of Namibians historically disadvantaged by apartheid.
USAID/Namibia's initiatives support:

-- Economic empowerment of historically disadvantaged Namibians through accelerated private sector growth
-- Improved delivery of quality primary education to Namibian learners in grades 1-4 in the most disadvantaged schools
-- Increased benefits received by historically disadvantaged Namibians from sustainable local management of natural resources
-- Increased accountability of legislators to all Namibian citizens
-- Increased service utilization and improved behaviour related to STDs and HIV/AIDS in target communities in Namibia

The Environment and Development Trust, a Namibian consulting firm. is currently preparing for USAID/Namibia a selected natural resource management and limited rural development assessment which will provide:

- A profile of Namibia's Natural Resource management base;

- A profile of Namibia's Agricultural sector;
- An assessment of the food security situation in Namibia; and
- An assessment of the extend to which competition for resources in Namibia has the potential to lead to violent conflict.

3. Scope of Work

3.1 Specific Tasks

Under this SOW, the Supplier will use the following approaches and provide the following deliverables:

1) Meet with environmental specialists in Washington to gain an understanding of specific environmental issues and priorities for USAID/Namibia's program
2) In Namibia, review the ETOA synthesis prepared for USAID in 1997;
3) In Namibia, carry out research through discussions with Namibian experts, a two-day field trip, a review of current literature including a USAID environmental study (being carried out in January-March 2003) to determine how the ETOA has changed since the 1997 synthesis was prepared;
4) Review existing documentation on USAID/Namibia's planned FY 2004-2010 Country Strategy Plan;
5) Prepare a 20-30 page report (Deliverable #1) that updates the ETOA synthesis based on current trends in the environment from a resource, institutional capacity, and policy and regulatory perspective, and which analyses areas of USAID programmatic concern vis-a-vis proposed CSP programs;
6) Present these findings to USAID/Namibia staff and USAID's Regional Environmental Officer (REO) at some point during the week of March 10-14;
7) In Namibia and after return to the U.S., and based on feedback from USAID/Namibia and the REO, prepare a 15-20 page Environmental Annex (Deliverable #2) for the new CSP which summarizes the ETOA synthesis update, provides environmental analyses regarding USAID/Namibia's proposed CSP areas of engagement, and responds to all legislative and USAID agency requirements for environmental considerations for USAID programs.

4. Expertise Required

International Technical Assistance (1). **Senior Natural Resources & Environmental Management Specialist** with post-graduate qualifications in biology, zoology, forestry or closely related field in natural resource management. Background in tropical biodiversity and natural resource conservation. Knowledge of Namibia and of USAID Strategic Planning process related to Environmental Threats and Opportunities Assessment. Knowledge of 22 CFR 216 and of FAA Sections 117, 118 and 119, and related USAID and USG directives. Demonstrated expertise in assessing development programs for impacts on environment and tropical ecosystems. Demonstrated expertise in the design and production of environmental impact assessments (EIA). Strong verbal and written English communication skills required.

5. Period, Level of Effort and Supervision

A maximum of 26 working days based on a six-day work week is authorized. The consultancy will be carried out within the period o/a February 20 – March 15, 2003. 14 days will be in-country, 2 days preparation and 6 days drafting and finalizing in Washington, and 4 days travel. The international consultant will work under the technical direction of the USAID/Namibia Program Officer Kirk Dahlgren and MEO, Stiaan Titus. The Senior Regional Environmental Officer based at USAID/REDSO, Nairobi, will have an advisory role.

6. Deliverables

- One report containing the information described in 3.1, items.1 to 5 above, not to exceed 30 pages.
- A copy of the draft report will be submitted March 10-14, 2003 in electronic as well as hard copy to USAID/Namibia.
- A short (15-20 p.) CSP Environmental Annex, which consists of a summary and syntheses of the findings and recommendations of the full ETOA. The complete parent document, "Namibia environmental threats and opportunities" will be in the master Mission CSP files and available on request. The introduction to the Summary will include this statement: "The Environmental Annex is a CSP-specific analysis that examines environmental threats and opportunities inherent to the Mission's strategy and assesses the extent to which the Mission's strategy incorporates or addresses tropical forests and biodiversity concerns. This assessment does not substitute for the Initial Environmental Examination (IEE). Each SO Team is responsible for ensuring that an IEE or a Request for a Categorical Exclusion is conducted at the SO level for all activities funded by USAID."