



USAID | **ANGOLA**
FROM THE AMERICAN PEOPLE

**FAA 118-119 ANALYSIS
CONSERVATION OF TROPICAL FORESTS
AND BIOLOGICAL DIVERSITY**

USAID/ANGOLA

**PREPARED BY:
USAID/ANGOLA**

**WITH COLLABORATION FROM THE NATIONAL BIODIVERSITY STRATEGIC ACTION
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I Introduction

USAID/Angola developed a three year Strategy Framework for the period 2006-2009. An updated Environmental Analysis is a mandatory attachment for the new Strategy per requirements in Sections 118(e) and 119(d) of the Foreign Assistance Act, regarding Tropical Forestry and Biodiversity, respectively. Specifically, amendments to the Foreign Assistance Act (FAA) of 1961, imposed mandatory “Country Analysis Requirements” on the U.S. Agency for International Development related to the conservation and sustainable use of tropical forests and biological diversity. These amendments state:

FAA Sec 118 (e) Country Analysis Requirements: Each country development strategy statement or other country plan prepared by the Agency for International Development shall include an analysis of (1) the actions necessary in that country to achieve conservation and sustainable management of tropical forests and (2) the extent to which the actions proposed for support by the Agency meet the needs thus identified.

FAA Sec 119 (d) Country Analysis Requirements: Each country development strategy statement or other country plan prepared by the Agency for International Development shall include an analysis of (1) the actions necessary in that country to conserve biological diversity and (2) the extent to which the actions proposed for support by the Agency meet the needs thus identified.

The purpose of this analysis is to pull together the best available information for compliance with these requirements in conjunction with the new Strategic Framework.

Research for the drafting of this analysis was conducted by the Mission Environmental Officer during the period of June –July 2005. The assessment was based on a review of existing literature and consultations with local stakeholders and Mission staff. Some key Government of Angola (GOA) documents consulted during the research process included a draft analysis performed by the Ministry of Urbanism and Environment through the National Biodiversity Strategy and Action Plan Project funded by the UN Global Environment Facility (GEF), UNDP and (in Kuando Kubango) USAID. Information was also derived from non-governmental organizations and international donor organizations working in Angola. In March 2006, the format of the analysis was revised per USAID guidelines.

Given recent activities in the environment and forestry sectors of Angola, and the expected release of new strategic documents related to biodiversity and forestry from the corresponding Ministries in 2006, USAID/Luanda proposes to conduct a more detailed Assessment in the coming fiscal year, if funding can be obtained for this purpose.

II The Angolan Context as a Fragile State

Angola gained independence in 1975, following 500 years of Portuguese subjugation and 14 years of armed struggle between the Portuguese colonizers and a splintered Angolan nationalist movement. Upon independence, the nationalists – unable to reconcile their respective aspirations for national power but able to draw first on the largesse of respective Cold War sponsors and later on Angola’s abundant mineral wealth – plunged the country into a brutal, 27-year civil war. By the time this war finally ended in 2002, as many as 1 million Angolans had been killed, 4.5 million were internally displaced, and another 450,000 fled as refugees. The prolonged war left the country’s infrastructure in ruins, its interior areas heavily mined, and its social fabric in tatters. Political and economic institutions were impaired and entrenched in centralized planning.

One product of this history is that Angola ranks 133 out of 145 countries on Transparency International’s “Corruption Perceptions Index.”¹ Not surprisingly, Angola also falls near the bottom on most global measures of socio-economic development. The UNDP’s most recent Human Development Index places it 166 out of 177 countries globally. Angola’s poverty reduction strategy notes that 68 percent of the population lives below the poverty line of \$1.70 per day, with 28 percent living in extreme poverty on less than \$0.70 per day. Angola’s health indicators are some of the worst in sub-Saharan Africa: average life expectancy is only 40 years, the infant mortality rate is 154 per 1,000 live births, and the under-5 mortality rate is a staggering 260 per 1,000 live births.

In the short time since prolonged war and centuries of colonialism, Angola’s governmental institutions have been unable to develop strong technical or managerial capacities.² Power is highly centralized in the executive, and there are few checks on or balances to that power. The legislative branch is a fractious debating society and the federal judiciary is undeveloped; regional judicial systems are minimally functional; and municipal court systems exist only in name. With the exception of the churches, civil society remains in the nascent stages of maturity. Access to information is limited. While an independent print and radio broadcast media exists, its market is mainly limited to Luanda, both as a result of Government actions and, for the print media, high levels of illiteracy. Low levels of institutional and individual capacity are pervasive and constrain both the supply of and demand for good governance.

The quality of governance in Angola influences the use of the country’s enormous natural resources wealth. In addition to corruption, Angola’s mineral wealth has created disincentives for the development of stronger systems of governance by creating a powerful class with a stake in maintaining weak systems of governance. Moreover, because of the country’s mineral wealth, the Government does not need to rely on the taxation of its citizens to generate revenue. An important incentive for responsive government is thus missing.

A lack of economic opportunity persists in Angola due to both macro- and micro-economic problems. At both levels, Angola’s mineral wealth again comes into play.

III Angola Physical and Environmental Profiles

Angola is ecologically diverse due to its large size, tropical latitude, and physical variations in soils and altitudes. Angola has a total land area of 1,246,700 km². The population was estimated at 15.3 million in 2005 (approx. 12 inhabitants/km², average) with an average growth of 2.5-3%, one of the highest in Africa. Population density in Luanda is over 1000 people per km². The Angolan population is young, with average age in 2005 estimated at 21 years and the median 16 years.³ Fully 60% of the population is under 18 years of age and about 65% of the country is concentrated in urban areas due to the war. Since the end of the war, growing numbers of refugees and internally displaced people are returning to rural areas to try and make a living from the land.

The country is administratively divided into 18 provinces bordered by 1,650 km of Atlantic coastline on the west, by the Democratic Republic of Congo and Zambia on the north and east, and by Namibia to the south. Nearly three quarters of Angola lies on a plateau with altitude ranging between 1,000 and 1,300 meters. The highest mountain is Morro do Moco with an altitude of 2,620m. The climate is generally tropical but varies with latitude. Coastal zones are moderated by the cold Benguela Current. Rainfall ranges from over 1,800 mm in the northern part of the country down to a paltry 100 mm in Namibe Province (in the south, bordering Namibia). Significant agricultural production occurred in the “plan alto” (plateau) where average rainfall is above 850 mm.

Angola has a rich base of natural resources including large proven reserves of oil, gas, and minerals. Angola is the second-largest oil producer in sub-Saharan Africa production currently stands at 1.6 million barrels per day and is rising, mostly based on new off-shore fields. Oil accounts for almost half of GDP and about 75 percent of Government revenue. Angola is also the world’s fourth-largest producer of rough diamonds. Diamonds represent 95 percent of non-oil exports and are primarily mined in impoverished northern and eastern regions of the country. Deposits of phosphates and iron ore are mined in the south.

There are a large number of surface water sources in Angola, including small lakes and a network of rivers involving 77 watersheds recognized by the National Water Directorate. This gives Angola an enormous potential for hydroelectric energy production (approximately 100,000 MW).⁴ Most of Angola’s rivers rise in the central mountains and drain either to the Atlantic Ocean or the Congo River. Those in the southeast drain to the Kubango-Zambezi system or to the Kavango-Cuito system that crosses Namibia and drain’s into the Okavango Delta in Botswana. Despite these water resources, only about 11% of Angola’s population has access to clean water from a protected source.

IV Status of Tropical Forests in Angola

Angola possesses valuable and expansive forest resources and a large portion of the country was historically covered by natural forests and savannah. However, there has been no systematic survey or inventory of forest resources since the 1970s, producing significant discrepancies among the estimates of forest cover in Angola today, ranging from 40%-62%. A recent estimate from the Institute of Forestry Development indicated that forests cover approximately 50 million hectares, eight million of which had some form of protected status on paper. There is minimal capacity to control or enforce rules related to forestry, wildlife and protected areas.

Colonial Angola planted about 135,000 hectares of exotic species such as eucalyptus (*Eucalyptus sp.*), pine (*Pinus sp.*), and, to a lesser extent, cypress (*Cupressus lusitanica sp.*). Other forest species in Angola include Ibiza, Celtis, Ficus, Chlorophora campanulata, Pycnanthus angolensis, Combretodon africana, and Sterculia purpurea. The humid forest of Maiombe possesses the richest diversity of species and is composed of Gilbertiodendron ogoonense, Gossweiledendron balsamiferum, Psorospermum febrifugum, and Piliostigma thonningii.

Angola is developing a new national forest policy that is expected to be shared for review and comment in 2006, along with a draft Action Plan. These documents build upon the National Action Plan for Forests that was produced in 1994. This plan recommended management principles governing the Angolan forestry sector including natural resources management, reforestation, and improved use of forest resources. However, no formal forest policy was approved and due to the war and lack of resources, very little was done to implement the Action Plan.

FORESTRY DATA ON ANGOLA	
Total land area (ha):	124,670 000
Natural forest area 1990 (ha)/% of total:	3,074,000 (19%)
Annual deforestation 1980-90 ha / rate:	174,000 (1%)
Reported plantation area 1990 (ha):	140,000
Annual reforestation 1990 (ha):	100
Protected area (ha):	81,060 (7%)
Other wooded lands 1990 est. (ha):	50,700,000 (41%)

Source: Alfonso Zola, Senior Forestry Officer, Institute of Forestry Development, Luanda, Angola as reported in www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/003/X6685E/X6685E11.htm

In general, the forestry sector has received relatively little attention from government. Oil, diamonds, other minerals and fisheries have overshadowed the potential presented by Angola's forests. The limited budget, shortages of skilled personnel at all levels and lack of reliable data on forests will keep the sector from realizing its full potential for the foreseeable future.

In spite of limited management attention, forests play a very important role in ensuring the survival of a significant share of the population. They provide the primary fuels for cooking (wood and charcoal) for 90% of the population, construction materials

used in most rural homes, plants for medicinal use, habitat for game and other wildlife, and critical watershed protection. Angola's watersheds are internationally important as the Angolan highlands provide a source for several large shared river basins recognized by the Southern Africa Development Community (SADC) protocol. These shared basins include the Congo, Zambezi, Okavango, Cunene and Cuveli.

Biomass class	Area		Growing stock		MAI	
	100 ha	(% of country)	(mil. ton)	(% of total)	(mil ton)	(% of total)
Transitional rain Forest/Miombo Woodland	159,600	13	1,137	24	40	25
Dense High Miombo woodland	111,281	9	793	17	25	17
Dense medium–height Miombo woodland	221,164	18	1,575	33	50	35
Seasonal Miombo, woodland and wooded savannah	306, 946	25	609	13	15	10
Dry Deciduous Savannah	229,657	18	386	8	11	8
Dry Coastal savannah Arid coastal thicket	48,484	4	57	1	2	2
Dry Inland Savannah	26,263	2	31	1	1	1
Degraded Rain forest, Miombo woodland	33, 220	3	31	1	1	1
Degraded Dry deciduous Savannah	34, 987	3	82	2	3	2
Bushy Arid shrubland	15, 748	1	11	1	1	0
Chanas da Borracha grassland	37, 251	3	0	0	0	0
Montane Grassland	833	0	0	0	0	0
Coastal and desert vegetation	21, 184	2	0	0	0	0
Total	1,246,698		4,713		141	

Source: www.fao.org/documents/show_cdr.asp?url_file=//DOCREP/003/X6685E/X6685E11.htm

MAI (Mean Annual Increment): Estimated average growth rate

V Status of Biodiversity in Angola

Angola is thought to be one of the most biologically diverse countries in Africa, with a large number of species of almost all groups of organisms distributed in different biomass and terrestrial ecosystems. However, it has been impossible to conduct field

studies in most parts of Angola for the past three decades due to war, so only minimal recent data are available to confirm this and the existing information is rather diffuse. An effort to develop a National Biodiversity Action Plan is underway (2005-06) and will broaden the information base regarding biodiversity in Angola. This Strategy and Action Plan will provide a useful basis for future scientific inquiries and the development of policies and priorities for biodiversity conservation. Much of the information below is derived from the Draft Report of the National Biodiversity Strategy and Action Plan (NBSAP, 2006).

A. Terrestrial Biodiversity

The last extensive environmental study of Angola was undertaken by Brian Huntley four years before Angola became independent (1971). Other studies were published after 1975, but they were essentially based on the situation as it stood during the colonial era. Some very specific studies were conducted on the black sable antelope species, distribution of elephants, and turtles (especially leather turtles), with the objective of quantifying biodiversity. More recent biodiversity studies reflect direct economic interests in agriculture and, more specifically, forest, photogenic, and zoo-genetic resources.

The NBSAP Report (2006) from the Ministry of Urban Affairs and Environment states that Angola is considered the second-richest country in sub-Saharan Africa in terms of endemic plant diversity. It enjoys a wide range of habitats, from the desert ecosystem in the south (home to the rare and endangered *Welwitschia mirabilis*), to mountains and savannahs in the 'planalto' highlands. It enjoys 1,650 km of coastline, mangrove forests, estuaries, and rain forests in the northern Congo basin, including the lush Cabinda Province north of the mouth of the Congo.

Angola is estimated to have over 5,000 plant species (1,260 of which are endemic) and 275 mammal species, making it one of the most important in diversity on the continent. Angola also has 872 species of birds registered to date, representing over 90% of all species in southern Africa. Nineteen species of amphibians and twenty species of mammals are endemic to the country. Angola's national symbol, the Giant Black Sable antelope (*Palanca Negra Gigante*) is native to the north and central regions. A healthy population of this rare and highly endangered species was recently confirmed in the Candangala National Park (Malanje Province).

Angola's rich patrimony of species is severely threatened. NBSAP reports that 50 of the 275 mammal species that occur in Angola are listed as endangered or threatened. Without further study, it is difficult to know whether several species which were once documented as abundant (brown hyena, black rhino, mountain zebra) still survive within the national territory.

Recent research suggests that the status of biodiversity may be recovering somewhat along Angola's southeastern frontier. For example, more elephants appear to

be coming back to Angola each year. Researchers for Conservation International based in Kasane, Botswana, have been tracking elephant movements in the area for the past few years as well as prior movement patterns. They report that during the mid-late 1990s, no elephants were known to be moving into Angola. But after cessation of warfare, people began reporting elephants entering Angola along the border with Namibia. Aerial surveys were conducted using the same scientific sampling techniques used in wildlife parks in South Africa and Botswana.

According to the results of these surveys, in 2001, the population of elephants that had crossed into Angola was estimated at about 370 but nearly all of the elephants were within 50 km of the Namibian border, and none were as far north as Jamba. In 2005, the survey estimated over 1,200 elephants, and many of these were deep in the Luiana Reserve, hundreds of km into Angola from the border. Also in 2005, in addition to elephants, the team recorded other significant wildlife observations including; Zebra, Buffalo, Eland, Tsessebe, Giraffe, Sable, Roan, Reedbuck, Sitatunga, Warthog, Leopard and Lion, demonstrating that the ecological processes were recuperating. One hypothesis is that more elephants are moving further into Angola as (a) pressures for forage in Botswana increase and (b) they learn and remember routes where they are not molested do not encounter land mines (but do find greener pastures).

B. Aquatic Biodiversity

As an important center for maritime diversity, Angola's coastal waters include one of the richest fisheries ("halieutic" resources) in the world. The coast line is tropical with moderate temperatures. The Benguela Current flows in a north to northwesterly direction and brings cold Antarctic water into warmer subtropical regions. Seasonal southerly winds induce upwelling at the coast and make an abundant supply of nutrients available to the upper layers. These nutrients together with sunlight promote extensive blooms of phytoplankton, rich resources of zooplankton, and an abundance of fish that feed on the plankton. The 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 Angola coast has mean annual productivity rates 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 Angola's most important renewable natural resources. Productivity of the Benguela ecosystem is characterized by large variability between years and even between decades. Stocks of fish such as pilchard and anchovy frequently exhibit marked fluctuations in abundance associated with these changes.

While the full diversity of species in the territorial waters of Angola is not known and many taxonomic groups lack complete descriptions, biologists estimate highly diverse biota in these little explored ecosystems. Recent programs such as the Benguela

Current Large Marine Ecosystem (BCLME) along with private sector studies (sponsored by off-shore oil exploration programs) are making progress to improve knowledge and better understand the Benguela Current and its importance regionally and globally. Most of the available information on aquatic biodiversity relates to cartilaginous fishes, reptiles, birds, and marine mammals. There are some references to marine flora, including algae and marine angiosperm, but almost nothing is known regarding its taxonomy, distribution, and species ecology. The calm waters in mangrove forests and estuaries are important grounds for reproduction of fish and shrimp while aerial roots, small tree branches, and mud surfaces generally are home to crabs, oysters, snails, and other invertebrates.

The NBSAP indicates that populations of Cape Penguins and a dozen species of marine mammals that occur in Angola are considered highly vulnerable and in need of protection. Of 57 registered species of cartilaginous fish that occur in coastal waters, 12 are classified as at risk and in need of special conservation measures.

C. Values and Economics of Biodiversity and Forests

The value of forests and forest products should not be under-estimated. Fully 90% of the population *depends* upon fuelwood and charcoal for daily sustenance (cooking). The associated markets, informal and formal, are extensive. They have not been studied but estimates reflect the importance of this sector in the local economy (with 2.5 million households depending on fuelwood/charcoal and an estimated market value of \$1/day, this resources would be valued at over \$900 million/year). Forest products are also important for rural home construction, diets (fruits, nuts, honey, wildlife) and rural incomes. And forests provide many other important services including watershed protection and erosion control benefiting urban areas.

The NBSAP report states, “There is still much to discover and describe in terms of biodiversity in Angola, *particularly the importance of biodiversity resources for social and economic development* and the equitable distribution of benefits derived from these resources.”⁵

D. Angolan Fisheries

One example of economic value of biodiversity that has been recently studied is that related to the off-shore fishing sector.⁶ The Angolan coastline and two major currents – the warm Angola current and the cold Benguela – create a valuable production of marine resources, presently estimated to be about 360 000 t/yr, comprising 285 000 t of small pelagic species like horse mackerel and sardinellas, and 55 000 t of various demersal species, including 7 000 tons of deepwater shrimps. The area from Lobito to the mouth of the Cunene River is by far the most productive of Angola’s fishing zones, with an abundance of horse mackerel, sardines, tunas and a range of demersal species.

Angola's northern fishing zone extends from Luanda to the mouth of the Congo River, and the central fishing zone stretches from Luanda to Benguela.

The fishery sector is a major source of employment for many Angolans. In 2000, about 41000 people were employed directly in the fishery sector, with another 85000 people in fishing-related activities. The contribution of the fisheries sector to GNP is less than 3 percent but this is skewed by the tremendous revenues from petroleum and diamonds. Direct fisheries revenues are collected from fishing license fees for vessels, fishing quota fees and violations levy (excess on allowed by catch, fishing zones, species size, etc.). The Angolan fishing industry is further considered below.

Demersal (bottom dwelling) fisheries: In 2003, the industrial fleet (25-100 m length) had 49 licensed vessels, 16 of which were national and 33 foreign (of which 4 were under EU flags). The total catch by demersal trawlers was just over 44,000 t (2001), mainly sea breams, groupers, snappers, croakers, hakes and horse mackerel (as by-catch). The numbers for 2003 represent a 20% decline in vessels, from 59 in 2001, reflecting the falling productivity trend of recent years.

Pelagic (off shore/open sea) fisheries: Pelagic trawlers in 2003 numbered 17 (15-40 m length), comprising 6 national and 11 foreign vessels, with a total catch in 2001 of just over 10,000 t, mainly horse mackerel. Resource assessment in 2002 indicated that, of the major pelagic species, the sardinellas were not fully exploited, while the horse mackerel stocks had reached a critical state, requiring immediate decisions concerning continuing allowable levels of exploitation.

Purse-seine fishery: There was a fleet of 104 purse-seiners (15-35 m length) licensed in 2003, of which 96 were national and 8 were foreign-flag vessels. The purse-seine fleet targets only small pelagic species (sardinellas, pilchard, horse mackerel and others). In 2001, the licensed fleet of 75 purse-seiners caught a total of 171,000 t.

Shrimp fishery: The shrimp fleet comprised 43 vessels in 2003, including 4 semi-industrial (12-25 m length) and 17 industrial (26-40 m length), all national, plus 22 ships of EU flag nations. In 2001, the fleet of 50 shrimp vessels caught just over 1,700 t. The data available for recent years indicate decreasing catch per unit effort (CPUE). The contracting crustacean biomass during recent years gives cause for alarm regarding the future of this fishery.

Line gear: In 2003, the line-fish fleet comprised 28 industrial vessels (25 national and 3 foreign). In 2001, a fleet of 31 vessels caught 14,000 t of demersal species and 2,000 t of pelagic species (sharks, barracudas, etc.).

Tuna fishery: The tuna fishery occurs in deep water, with two foreign industrial fleets involved. The longline fleet is 18 vessels, and the purse-seine fleet has 15 vessels. The statistical data on capture by those fleets are irregular. In 2001, the tuna fleet comprised 35 vessels and reported a catch of about 3600 t.

Artisanal fisheries: Most employment is derived from the artisanal sector, which includes more than 4,600 fishing boats (0-14 m length) and 35,000 fishermen, with an estimated 85,000 persons involved directly and indirectly in the sector. Only around 20% of artisanal boats are motorized and their activities are therefore limited to the close inshore zone (up to 3 mi.). Between 1995 and 2002, the number of artisanal boats steadily increased, although the growth rate began to fall after 2000 (to about 2.5 percent increase between 2000 and 2002).

Despite the importance of this sector, over-fishing and changes in hydro-climatic conditions have reduced the fisheries productivity in Angola over the past five years.

E. Institutions, Policies & Laws Affecting Tropical Forests and Biodiversity

As noted in the USAID Strategic Framework, the Government of Angola (GoA) has limited capacity for basic governance and administration. Environmental issues have not been a priority given a focus on large extractive industries (petroleum and diamonds) as sources of income. The low budget and minimal staff assigned to the two National Directorates with environmental responsibilities within the Ministry of Urban Affairs and Environment, as well as the repeated shifting of environmental responsibilities over the past decade among ministries (it has previously been housed with fisheries and with agriculture) reflect a historic lack of support for this sector within central government.

Despite this, the GoA has taken several recent steps that reflect increasing commitment for sustainable development, environmental safeguards, and biodiversity conservation. These include recent legislation and regulations to control development activities, the support for the NBSAP that is finalizing a National Strategy and Action Plan for Biodiversity this year, and support for the Forestry Development Institute to produce a national policy and action plan for forests. Furthermore, the GoA (apart from Law No. 5/98, discussed below) plans to develop a National Program for Environmental Management, including structures and specialized organs, and creating the legislation that enables their enactment.

Angolan legislation related to the environment is listed in Annex 2. Some of the more relevant portions of the legal framework affecting environment in Angola include:

- The Constitution of the Republic (Law 23/92) in Article 12.2 and Article 24.1-3, which consecrates the obligation of the State to renew and correctly use available natural resources, guaranteeing sustainable development for all, and assuring a better quality of life for all its citizens.
- The Environment Law (or foundation law) No. 5/98, which defines the concepts and basic principles of environmental protection, preservation and conservation, promotion of improved quality of life and a rational use of natural resources. According to this law, all Angolan citizens have the right to live in a healthy

environment and to benefit from the use of natural resources of the country, as well as the responsibility to help, defend, and promote sustainable use of the natural resources.

- The Law on Land and Urban Organization (No. 3/04) and Land Tenure Law (No. 9/04).
- Law on Aquatic Biological Resources (No. 6-A/04)
- Decree No. 51/04 on Environmental Impact Analyses
- National Water Law (No. 6/02)
- Law on Petroleum Activities (no. 10/04)
- Regulations on Petroleum Industry operations, waste management and spills (Executive Decrees Nos. 8/05, 11/05 and 12/05).

It is noteworthy that most of the environmental protection legislation has been produced in the past 3-4 years and therefore the associated regulations, administrative procedures and trained officials necessary for application of these laws are still lacking. Additionally, a series of old colonial laws and decrees remain on the books related to wildlife, reserves and parks. The interpretation of responsibilities in the old decrees versus the new legislative framework has not been consistent, leading to institutional frictions.

Angola's Environment Law (Law No. 5/98) elaborates on the constitutional right for its citizens to live in a "healthy and non-polluted environment" and obliges the government to protect the environment. This Law also states that all legally registered NGO's and PVO's whose objectives include the defense/protection of the environment, the rational use of natural resources and the protection of citizens' rights to the quality of living standards have the right to participate and be heard in the environmental forum. It also states that Environmental Impact Assessment (EIA) reports are to be prepared when a proposed development activity might result in a significant environmental degradation.

Law 5/98 incorporates principles included in the Rio Declaration (1992) and portions of Agenda 21 (1992). The Environment Law also obliges Angola to incorporate regulations and policies that conform to the nation's commitment to international conventions. Angola has signed and ratified the CITES convention on commercialization of endangered species (ratified in 2001), and the Cartagena Protocol on Bio-Security (2002). Angola has signed but not ratified the following conventions and protocols:

- UN Convention to Combat Desertification
- UN Framework Convention of Climate Change
- Convention for the Protection of the Ozone layer
- Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol)
- UN Convention on the law of the Sea

RAMSAR Convention on Wetlands of International Importance

The status of international conventions and protocols, as reported in NBSAP is presented in Annex 3.

In addition to these international conventions, the Environment Law reflects Angola's commitment to regional agreements, such as the SADC Treaty of 1992, the Lomé IV Convention of 1989, the Global Water Partnership of Southern Africa (GWP-SA), the SADC Protocol on Wildlife Conservation and Law Enforcement, and the SADC Protocol on Shared Watercourse Systems.

The Environment Law lays down the concept of public participation on all matters related to the protection of the environment and the conservation of natural resources, especially those directly affected by proposed regulations (see Annex 4). Following the Universal Declaration of Human Rights and the Convention on the Rights of the Child, the Environment Law recognizes that all citizens have a right to environmental education and that the state bears responsibility for providing that education. The Environment Law also acknowledges that citizens and firms are obligated to protect the environment and abstain from activities that cause a negative impact.

The Environment Law is intended to provide a core set of principles, rights, and obligations that will guide the legislative process in the formation of specific regulations. Many other sectors have important environmental roles. For example, since providing potable water represents a major concern, the Angolan Ministry of Health committed itself to developing environmental regulations to control and monitor the construction of latrines, such that they do not adversely affect underground water resources or the surroundings of the locations where they are built. In addition to Health, Agriculture, and Urban Affairs, the Ministries of Tourism, Energy and Water, Fisheries, Geology and Mines, Education, Petroleum, Science and Technology, and Industry also have important roles to play with respect to environmental protection and biodiversity conservation. To facilitate coordination among government actors, the Multisector Technical Coordination Commission for Environmental Issues (CTMA) was established in 2001.

Other institutions that play important environmental roles include the Agostinho Neto University, National Center for Phytogenic Resources, Luanda Herbarium and the National Museum of Natural History. The Marine Research Institute (IIM) of the Ministry of Fisheries, among other functions, is responsible for evaluating the state of fishery resources. It conducts at least two survey cruises per year at least to assess the biomass of the main target species (pelagic and demersal). Since 1984, most survey cruises have been carried out using the Nansen Vessel (Norway). Bilateral cooperation agreements are in place with Namibia for research on shared resources, in particular pilchard and deep sea red crab. Angola is also a member of the Benguela Current Large Marine Ecosystem (BCLME) regional programs, together with South Africa and Namibia, aiming to acquire a greater knowledge on the Benguela Current Ecosystem.

Some observers feel that opposition by powerful financial interests and the legacy

of the civil war have blocked or diluted the application and effectiveness of the Environment Law. However, the overall weaknesses in governance discussed earlier are a core hurdle to implementing the many recent laws and decrees related to environmental protection. There is no capacity for enforcement nor an effective court system to process cases. Outside of Luanda, the Government of Angola is still in an early stage of the process to rebuild the administrative structures in Provinces and municipalities. In some provinces, local government officials are not aware of the environmental laws and have no access to the legal documents. Local awareness and environmental management capacity are essential tools for implementation of the Environment Law. Despite these obstacles, there have been examples of recent attempts of local enforcement in Kwanza Sul related to controlling deforestation caused by the local production of charcoal.

VI Principal Threats to Tropical Forests and Biodiversity in Angola

The recent NBSAP Report supports the thesis that rapid population growth, extreme poverty, slash-and-burn subsistence agricultural practices, social inequities (including land/resource tenure), weak institutions and policies (governance) and the recent movement of large numbers of families back to rural areas (from cities and refugee camps where they had sought protection during the war) are key underlying causes for destruction of tropical forests and loss of biodiversity. It also notes that the chaotic growth of cities during the war, especially in coastal zones, combined with the extreme poverty and lack of basic services, has led to serious environmental pollution, health issues, contaminated runoff and destruction of mangroves.

A. Direct Threats

The NBSAP report (pg 8) summarized direct threats as deforestation (for charcoal, fuelwood, conversion of natural vegetation to other land uses (primarily farming), uncontrolled fires (usually man-made in association with aforementioned) and over-exploitation of resources, especially fisheries, and including illegal hunting and commercialization of wildlife.

1. Conversion of natural habitats/deforestation:

Like most other statistics in Angola, deforestation estimates vary widely. The Angolan Institute of Forestry Development estimated a 1%/year deforestation rate for 1980-90, or about 174,000 hectares of forest per year. Deforestation and the conversion of natural habitat has been taking place in forest reserves, mountains, savannahs, parks and tropical rain forests in the Congo basin.

Indiscriminant use of fire for agricultural activities and illegal hunting, cutting for fuelwood and charcoal production, and commercial logging practices have been identified as key activities that continue to threaten forest resources and biodiversity. Land and natural resource degradation due to fires and deforestation is a notable problem in some parts of the country. Deforestation and erosion is evident along major travel routes and around urban areas, as well as along the coast in Luanda and Bengo Provinces, where great pressures due to war and associated migration devastated large areas of forests. The fires directly impact tropical forests and biodiversity, and increase water pollution and silt formation in rivers and dam reservoirs.⁷

The most significant disturbance to forests and biodiversity in Angolan eco-regions is fire. Over the past three decades, each year, large areas throughout the country, and especially where populations concentrated along the coast, are swept by fires. The fires are nearly all anthropogenic. The intensity and frequency of this burning regime is believed to have been the main cause of the replacement of previously extensive coastal forests with grassland and scrublands. Although it is unknown exactly how long fire has been a driving force in these eco-regions, and to what extent it has caused grassland to replace forest, fire definitely reduced forest habitats in the past three decades, and continues to do so today. Of special concern are the few surviving pockets of rare indigenous forest species, particularly where these may now be threatened by influx of returning displaced people.

The high and growing incidence of fires in Angola poses one of the largest direct threats to biodiversity conservation and tropical forests. Although fire is in some cases, an integral part of area's ecology, human setting of fires has greatly increased the frequency and size of fires far above the natural level. Most of the deliberate burning and the uncontrolled fires occur at the end of the dry season, just before the onset of the summer rains. In Angola, there is limited large-scale commercial agriculture. Most cultivation is either along streams and riverbanks or based on semi-shifting slash and burn cultivation. Fires set during the dry season are allowed to burn uncontrolled over huge areas. Repeated late-season burning diminishes soil quality, seed germination, biodiversity and the ability for natural vegetation to regenerate.

The civil war exacerbated deforestation in some parts of Angola as the armed forces often used fire to clear large areas as a security measure. In other areas, the exodus of the rural populations to urban centers allowed some natural forests and scrublands to regenerate. In recent years, however, observers believe that deforestation has increased as people return to the land and burn natural vegetation for farming. Clearing for agriculture is one of the major causes of habitat loss. Recent efforts to reestablish or expand cash crops – expected to continue in the future – result in either clearing new land of natural vegetation or displacing other subsistence farmers. Regardless, with over two-thirds of the population impoverished (living on less than \$1.70/day) and food aid and humanitarian assistance diminishing, slash and burn agriculture is expanding simply as a survival strategy.

Land tenure and resource rights have an important influence on people's attitude towards land use. The vast majority of Angola's slash and burn farmers do not have land tenure security. Without a guarantee that the land will remain theirs, farmers have no incentive to invest in making lands more productive. Under these circumstances, clearing the forest and planting annual crops for a few seasons before moving on to clear more land is a logical farming strategy.

2. Overexploitation of valuable species:

Research suggests that over-fishing may threaten Angola's commercial fisheries and marine biodiversity. Production has fallen from 467,000 tons in 1973 to 190,000 tons in 1999. Some of this may be related to the reduced capacity of Angola's fishing industry compared to that of Portugal, but over-fishing is thought to have reduced stocks of commercial species. Overexploitation by unlicensed fleets was reportedly common during the war, as policing coastal waters was a low priority.

Fishing is regulated by the Ministry of Fisheries. The Ministry is responsible for assessing taxes and authorizing equipment and techniques used for all types of fishing, including drift fishing, sport fishing, and industrial and semi-industrial fishing. Due to limited capacity, it is not able to provide sufficient oversight. Industrial fishing employs high-capacity stocking boats and fish nets that inadvertently trap mammals and birds attracted by the fish, as well as significant "bycatch" of undesired species. Further, people continue to fish areas that have been identified and proposed as marine reserves for species regeneration, owing in part to the limited information available about these areas and the lack of capacity to police them. This has detrimental impacts on ecosystem health and biodiversity. A dozen species have been identified as requiring special management and conservation to return to healthy population levels.

Apart from marine fisheries, fresh water fish and wildlife plays important roles in the diets and economy of rural Angola. Access to beef and meat from other domestic animals is often limited and food scarcity in certain regions is acute. Therefore, fishing and hunting provide important supplementary sources of protein for many inhabitants, including those who live in urban and peri-urban areas.

According to regulations developed during the colonial period, Angola recognizes three kinds of hunting: subsistence (hunting as part of a household food security strategy), commercial hunting, and sport hunting. Subsistence is the most common form of hunting and is largely practiced by rural inhabitants. It was believed to cause little damage to animal populations and biodiversity since its methods were traditional. With increased availability of modern weapons and ammunition, this assumption may no longer be valid. Commercial hunting theoretically requires a permit. However, with the disarray in the public sector and lack of staff, few hunters bother with formal permits. Equipment used for commercial hunting is sophisticated as the war contributed to the promulgation of guns among the population. Lack of control over commercial hunting may be one of the causes of the significant loss of animals from National Parks.

The quantity of bushmeat being sold in urban areas, and its origin, are very difficult to determine due to limited regulatory capacity on the part of the government. Some reports from the Ministry of Agriculture indicate that a large amount of bushmeat and smoked fish enters Luanda without permits, while the quantity actually registered per year is equivalent to that observed entering Luanda in the space of a single week.

During the decades of war, there were plenty of guns and no controls or wildlife management. Thus, much of the large mammal population was lost or took refuge in the most isolated areas of the nation. While most observers believe that significant losses of wildlife can be attributed to direct and indirect effects of war (extensive placement of millions of land mines, military patrols, trophy hunting and commercialization by armed combatants), such effects are generally quite difficult to quantify. The overarching problem was a lack of control to avoid overexploitation. According to the Ministry of Urbanism and Environment, by 2002, 90 percent of the animals once found in Kissama, the nearest National Park to Luanda and the best managed, had been lost, including elephants, red antelope, oryx, *Syncerus nanus*, and hippopotamus.

3. Pollution:

The NBSAP report notes that mangroves, coral reefs and coastal ecosystems are being damaged by destructive fishing practices such as blast fishing and cyanide fishing, as well as the clearing of mangroves for fuel, timber and unplanned residential developments in coastal zones. The growing human population in coastal zones is discharging ever greater amounts of sewage, garbage and harmful chemicals to freshwater and marine ecosystems. Although laws and decrees have recently come into effect to improve regulation of the petroleum sector, there is a general lack of regulations for solid and liquid waste management, and no capacity for enforcement. Thus, nearly all sewage (and a good portion of solid wastes) from the coastal population of some 6 million people, goes untreated into freshwater streams and eventually the sea. Regulations controlling discharges of specific pollutants are not yet in place and while the Government has signed onto to numerous international conventions regarding pollution, including the Convention for the Protection of the Ozone Layer, the Protocol on Substances that Deplete the Ozone Layer (i.e., Montreal Protocol), and the UN Convention on the Law of Sea, none of these have been ratified.

In the petroleum sector, several improvements have been made to reduce risks and impacts of accidental spills. However, the growing number of off-shore petroleum activities and new projects for liquefied natural gas, pose increasing threats and probabilities for accidental spills and contamination. It has also been reported that oil spills from poorly controlled oil operations in Nigeria have followed ocean currents to foul Angolan coasts and waters.

Angola's mining sector also poses threats to biodiversity, forests and health, with little control or regulation. For the last two decades, diamond-mining activities tended to be small operations focused on short-term revenues to fuel the war. This resulted in the use of environmentally damaging mining procedures and equipment. Presently, the major

environmental damage resulting from diamond mining is the diversion and dredging of rivers to reach alluvial diamond deposits. After mining is completed, the rivers are redirected to their original courses, which results in the pollution of waters and destruction of surrounding flora and fauna. Mining activities also deprive the surrounding land of nutrients by increasing soil erosion and leaching.

4. Introduction of non-native species and other threats:

There is little data available on the introduction and impacts of non-native species in Angola. This and macro-environmental change merit further study in the future.

B. Indirect Threats/Root Causes

The root causes for the loss of tropical forests include poverty, lack of capacity for governance (policies and institutions), land tenure and lack of awareness. Losses of forests and biodiversity in rural areas have been fueled in part by the recent returnee and resettlement processes, encouraging large numbers of people to move to rural areas to clear land for subsistence agriculture. The lack of institutional capacity and management of the nation's parks and reserves leaves many of these areas unprotected and open to exploitation.

C. Lack of adequate policies and weak institutional frameworks:

The lack of adequate policies and regulations combined with fundamental weaknesses in governance discussed in the Strategic Framework, have contributed to the loss of tropical forests and biodiversity in Angola.

One key weakness in the forestry sector was the absence of any formal forest policy. A new forest policy is now under development. To be comprehensive, it needs to address issues such as: legal status and management responsibilities for National Forests and wildlife/hunting reserves; legal and management regimes and interactions in other parks and protected areas; transparency in concession letting, management and revenues; community participation in the management of forests and natural areas; benefit sharing; allocated funding and generation of revenues; and criteria for identification and establishment of forest reserves for production including non-timber products and for watershed protection. Compatible policies are needed in other sectors to permit individual and community management of natural forests as productive enterprises.

The forestry, wildlife and natural resources sectors have been operating with colonial regulations in various government domains. The forestry and wildlife sectors in Angola have low status within government relative to competing land uses, reflecting the economic power base in the country. Forestry and wildlife sectors in Angola are handicapped by poorly paid staff, inadequate budgets, lack of training and equipment, and lack of skilled personnel in management and administration of forest and wildlife

resources. As a result, the forestry sector has not been able to inventory, manage and protect the nations valuable tropical forests.

Summary: Primary Threats in Angola to Tropical Forests and Biodiversity		
Threats (description):	To Forests	Biodiversity
Conversion of natural habitat to other uses	X	X
Overexploitation of resources (forest, fisheries, wildlife)	X	X
Pollution (especially in coastal zones, urban and mining areas)		X
Fire and unsustainable agricultural practices	X	X
Root Causes		
Weak governance (institutions, policies, regulations)	X	X
Poverty	X	X
Land tenure	X	X
Lack of information and awareness	X	X
Corruption/illegal exploitation	X	X
Economic policies and structures	X	X

Angola has a set of six national parks and seven other reserves and protected areas, most of which were established during the colonial era (See Annex 1). These represent approximately 6% of the national territory. However, with the years of fighting and other government priorities, for the most part these have remained “paper parks” with little or no infrastructure, demarcation and management. Adding to the challenges is the difficult communication and coordination among competing Ministries. The foundation Environment Law (5/98) places responsibility for protected areas with the Ministry housing Environment (presently the Ministry of Urban Affairs and Environment, National Directorate for Natural Resources). However, the minimal staff and budget allotted for protected areas has not been transferred and remains with the Ministry of Agriculture and Rural Development.

This is one of several examples of the difficulties encountered when trying to work in this sector. Communication and coordination among the various organization (within government, and among government, NGOs, and international organizations) working on forestry and biodiversity issues is very difficult. There is not a central repository for information, nor broad acknowledgement of who should and can serve in leadership roles. The lack of clear lines of authority and responsibility among entities ostensibly working toward common objectives makes productive collaboration uncommon.

Corruption and incapacity, coupled with over 20 years of war, had disastrous impacts on forests and biodiversity. The war occasioned a breakdown in law and order in large sections of the country and even those parts that were ostensibly under government

control fared no better, as forests and wildlife conservation were not considered important relative to the struggles to survive. Although the war has ended, the government still lacks the capacity to apply and enforce a recent set of improved environmental laws. Although recent laws require certain protections for forests and biodiversity, including environmental impact assessments, the regulations and procedures are often not clear and the government lacks the capacity to enforce the laws.

Thus, while Angola could further improve the legal and policy framework for forests and biodiversity, little can be achieved until the root causes are addressed more effectively, including weak governance, poverty and land tenure.

Threats to forests and biodiversity are the products of people's choices. Extreme poverty results in choices focused on short term survival rather than long-term sustainability. Similarly, the lack of secure tenure over land and resources creates incentives to use what you can, while you can, rather than to manage and conserve for long term productivity. Thus, the extreme poverty and lack of secure tenure are among the root causes leading to the overexploitation of resources and other direct threats to forests and biodiversity.

VII Actions Needed to Conserve Tropical Forests and Biodiversity in Angola

In a fragile state such as Angola, the root causes must be addressed to reduce the direct threats to biodiversity. Over time, interventions to strengthen governance, reduce poverty, provide more secure tenure over land and resources, and improve economic policies and awareness, will weaken the causal links and reduce the direct threats. Thus, key actions include:

- Improved governance (capacity to respond, transparency)
- Poverty reduction
- More secure tenure over land and productive resources
- Improved information and environmental awareness (more sustainable practices; awareness of laws and regulations)
- Improved accountability and enforcement capabilities
- Improved economic policies and incentives for sustainable production
- Improved information and awareness

A set of more specific goals (listed below) was derived from the report of the National Biodiversity Strategy and Action Plan (2006). These are listed by pre-determined categories (A-G) that were investigated during the NBSAP process (they are not listed in order of priority). For each goal, the NBSAP report presents a more detailed list of action items.

A. Information and research: (1) conduct coordinated inventories to improve knowledge of the status of Angola's biological resources; (2) apply environmental assessment and management to identify and mitigate environmental impacts of priority activities; (3) establish a database and share information to enable sustainable use and conservation of biological resources.

B. Education for sustainable development: disseminate information to improve environmental awareness and more sustainable practices.

C. Protected Areas: (1) conduct biological inventories and assess basic infrastructure for the existing protected areas; (2) identify and incorporate other areas of high biological importance to complete the national system; (3) develop and implement management plans to rehabilitate protected areas so they can fulfill services (ecotourism, environmental education, biodiversity conservation, watershed protection, etc); (4) establish a national system of integrated management that integrates conservation with community development.

D. Sustainable use of biodiversity: (1) Implement more sustainable agricultural practices; (2) Establish systems to assure sustainable harvesting of timber and other forest products (to include strategies to address sustainable ways to meet needs for household energy – firewood and charcoal or substitutes); (3) Implement systems to reduce negative impacts on biodiversity from fishing sector; (4) Ensure that mining and industry incorporate measures to conserve biodiversity; (5) Improve enforcement of laws governing exploitation of wildlife and forest products; (6) Formulate projects for ex-situ conservation of endangered species; (7) Control the introduction of exotic and invasive species.

E. Reinforce the role of communities in sustainable use and decision making related to biodiversity conservation.

F. Strengthen institutional capacity and decentralize environmental governance: (1) Train technical teams in issues related to biodiversity management and conservation; (2) Reinforce the institutional capacity at the provincial and municipal levels to improve environmental management.

G. Legal and policy framework: (1) Improve the legal framework and especially mechanisms to guarantee that laws are applied and enforced, including effective application of Environmental Impact Assessments; (2) Facilitate ratification of pending conventions and agreements and improve mechanisms for coordination among Ministries; (3) Assure Angolan participation in regional and international conservation initiatives.

H. Management, Coordination and Monitoring: (1) Direct and monitor the process of implementation of the NBSAP; (2) Assure ample dissemination of the results of NBSAP implementation at national and provincial levels.

VIII USAID/Angola Proposed Strategy Framework and Program

A. Overview

USAID's Program for Angola, covering the period 2006-09, has its underpinnings in the U.S. Department of State and USAID's 2004-09 "Strategic Plan." The Program will seek to have a positive impact on two of the Plan's Objectives:

- "Achieve Peace and Security," with an emphasis on that Objective's Goal of "Regional Stability;" and
- "Advance Sustainable Development and Global Interests," with an emphasis on the aims described under the Goals of "Democracy and Human Rights," "Economic Prosperity and Security," and "Social and Environmental Issues."

More specifically, USAID's Program for Angola will contribute to the Goal articulated in USAID's *Strategic Framework for Africa* to "Manage Crises and Promote Stability, Recovery and Democratic Reform."

In determining how best to address this goal, USAID, in co-sponsorship with Chevron, Esso and BP, held a number of roundtable discussions with Angolans from civil society, government, and the private sector, as well as with representatives of the international community, including donors and non-governmental organizations. It was clear from the discussions that stability for Angola in the short-term is contingent upon increased economic opportunity and improved service delivery. However, over the longer-term --for short-term gains to be sustainable, for the country to lock onto a path that will provide all citizens the opportunity to prosper, and for stability, thus, to become deeply rooted – transparent, accountable, participatory, and institutionally capable governance is essential. These conclusions led USAID-Angola to adopt three Strategic Objectives:⁸

- Inclusive Governance Reform Advanced (**SO9**);
- Basic Economic Opportunity and Livelihoods Maintained/Restored (**SO10**); and
- Increased Provision of Essential Services by Local and National Institutions (**SO11**).

In tackling these three Strategic Objectives, USAID/Angola proposes an integrated Program that will seek impact at the people level, over the short-term, to relieve the immediate sources of fragility; and impact on systemic reform, over the longer-term, to transform fragility to stability. To facilitate people-level impact, USAID/Angola will be active at the community level of governance; to facilitate systemic reform, it will be active at the central level of governance. To the extent possible, because it will be critical to both people-level and USAID systemic reform efforts, USAID/Angola will seek to fortify the bridge between the community and the central level of governance by

strengthening systems at the provincial and municipal levels of governance as well. In all three SOs, key actors will include the Government, civil society, and the private sector.

B. Extent to Which Proposed Strategy and Program Meet Needs Identified

USAID/Angola’s program is not designed to directly address the conservation and sustainable management of tropical forests and biodiversity. This is due to several facts and strategic choices. Primarily, with a very limited budget, priorities were required that were consistent with Angola’s classification as a “fragile state” and the root causes of instability that undermine its opportunities for development. A separate SO for environmental management was not feasible or recommended for this new Program. In addition, the Mission’s program builds on USAID/Angola’s comparative advantages in Angola and the opportunities to create a fully integrated Program.

In broad terms, however, USAID/Angola’s bilateral program does an admirable job in addressing the root causes for threats to tropical forests and biodiversity. It manages this with a very limited budget, in part due to the successful leveraging of private resources to co-finance the new strategic programs through GDAs and public-private partnerships. The SO1 “Inclusive Governance Reform Advanced” and SO3 “Increased Provision of Essential Services by Local and National Institutions” clearly address several of the key underlying causes for the threats to tropical forests and biodiversity that were identified earlier (see Table below). The new program also addresses some of the more specific goals identified in the NBSAP report to address threats to biodiversity, such as support for decentralized governance and reinforcing “the role of communities in sustainable use and decision making.”

USAID/Angola’s strategy seeks to build the problem-solving and management capacity of government, non-governmental organization and community-based groups. The tools and activities supported may include community or municipal-led initiatives to address identified needs. In some cases, these needs are likely to include access to clean water, sanitation and other initiatives that will incorporate more environmentally sound practices and pollution prevention. Also, as the Mission strengthens the role of Civil Society in Angola, as well as the governance capacity of the GoA, it will improve accountability and transparency – critical issues for improving the application of the broad set of recently passed laws, decrees and regulations for environmental protection and conservation of biodiversity.

The relationship between the USAID/Angola Strategy (2006-2009) and the actions identified as necessary to reduce the loss of tropical forests and biodiversity in Angola, is summarized in the table below.

USAID Support for Actions Needed to Protect Forests and Biodiversity	
Action Needed	USAID Programs
Strengthen governance (institutions, policies, regulations, capacity to respond)	SO9 will support inclusive governance reform, transparency, accountability and participation at central and local levels; SO11 will strengthen the capacity to respond to basic needs of the population, including an energy component
Reduce Poverty	SO10 aims to address this issue directly by restoring and improving livelihoods
Improve accountability and enforcement to reduce illegal exploitation	SO9 will support inclusive governance reform, transparency, accountability and participation at central and local levels
More secure tenure over land and productive resources	SO10 -USAID is working with EGAT to integrate a land tenure component that improves access to productive resources including land
Improved information and environmental awareness (more sustainable practices; awareness of laws and regulations)	SO9 strengthens governance systems including systems to link central and community governance. The regional USAID program addresses environmental awareness with a focus in the Okavango River Basin (southeastern Angola)
Improved economic policies and incentives for sustainable production	SO10 works with other partners (World Bank, IMF) on improving economic policies and is building capacity in civil society for dialogue on national issues
Strengthen the national system of protected areas	The regional USAID program will assist the GoA to implement NBSAP actions to identify biologically important areas and improve protected areas management in southeastern Angola

Through SO10, Basic Economic Opportunity and Livelihoods Maintained and Restored, USAID has an opportunity to support and encourage the identification of investment opportunities that cause no harm, or even benefit, biodiversity. Private international interests (such as petroleum, diamond and bottling companies) have already begun to contribute to environmental research and awareness projects, including the field work that recently confirmed the survival of the Giant Black Sable in Angola.

By partnering with others, USAID leverages significant resources and brings other parties to a common set of goals and objectives. Given that USAID requires assessments of potential environmental impacts, the program can strengthen the local initiative under the Environment Law for similar studies in several ways: by insuring all activities carry out assessments in a manner that complies with local rules and procedures; by integrating local consultants on assessment teams; by performing exemplary assessments that serve as models and case studies for others; and by training local staff in the procedures.

USAID's regional program to improve management of shared river basins is initially focused on the Okavango basin, with its headwaters in southeastern Angola. This

regional project works with the multilateral Okavango River Basin Commission (OKACOM) to improve monitoring and tracking systems, raise community awareness, involve communities in problem-solving and support pilot projects in communities that will promote improved practices to address environmental threats.

The USAID regional program will also work with NBSAP to support implementation of its recommendations in this strategic area. Specifically, the project aims to identify and conduct initial studies for at least two protected areas in the Angolan basin, and demonstrate a model process for developing a management plan. The regional program promotes the sharing of information and best practices across borders, so that Angola can become acquainted with the experiences of its neighbors, Botswana and Namibia, with community based natural resource management and ecotourism. Finally, at the request of the US Embassy in Botswana (and ESF funds) the program will provide modest support for Angolan participation in the Kavango-Zambezi Conservation Initiative (KaZa), a five-nation plan to promote conservation-based tourism regionally through a trans-frontier program.

Many years of war caused a major internal migration to urban areas and displaced nearly a quarter of the population. Many people now live in informal settlements without basic infrastructure and services. A strategic development issue is how to productively engage more of these people in the process of improving their livelihoods and the accountability of government. The Mission strategy attempts to address this issue with an integrated approach across all three SOs that focuses on public participation and strengthening of civil society organizations. This approach will be beneficial for the conservation of forests and biodiversity. The role of civil society in this process is well established legislatively (See Annex 4), but due to lack of experience and capacity, it has not frequently been applied.

C. Threats from USAID-proposed activities

The activities that will be implemented under the new Strategy Statement are not expected to have significant detrimental impacts on the physical environment, human welfare and wellbeing. However, in compliance with Regulation 216, all activities under the new strategy will be reviewed and analyzed against possible negative environmental impacts. Mitigation measures and best practices will be proposed to minimize any possible impacts, as appropriate. The Regional Environmental Advisor will assist with this process.

IX Government, NGO, and Donor Programs and Activities

The donor community in Angola, which could not completely address the needs of the people, has further shrunk its funding with the transition from emergency relief related support to a longer-term development approach. . Angola is a relatively wealthy nation and, therefore, many development partners that work on environmental issues in other countries (bilateral and multilateral programs), are not present, or have very small in-country presence, despite the inclusion of social investment requirements for contracts in extractive industries. However the government and private sector may have significant funding available for programs such as the one of Netherlands Institute for Southern Africa (NISA) which funds two major projects being implemented by Juventude Ecologica de Angola. These programs address corporate social responsibility by assessing the impact of oil companies and diamond exploration on environment and local communities.

This table summarizes biodiversity and tropical forestry conservation being implemented and/or planned to be implemented in the current year, implementing agencies and their sources of funding

Activity	Agency	Donor/Partners
1-Protection		
Bio-safety Social Cooperate Resposanbility	Juventude Ecologica	NISA
2-Management		
Preservation of germplasm and genetic diversity	Ministry of Urbanism and Environment	SADC
3- Restoration		
3.1. Recovery of species and their habitat (Black Sable Project)	Ministry of Urbanism and Environment/ Juventude Ecologica de Angola	ESSO
4- Knowledge		
Research of biological, social and economic topics (Survey on the Impact of Diamonds exploration on Environment and Local Communities)	Juventude Ecologica de Angola	NISA- Netherlands Institute for Southern Africa
Inventory and scientific collections	Institute of maritime investigation/ Ministry of fisheries	Norewgian Government/Angolan Government
5- Culture		
5.2. Environmental Education Institutional capacity Building and research	Juventude ecologica Juventude Ecologica	British Petroleum Group Africa - Germany

Activity	Agency	Donor/Partners
5.3. Participation	Juventude ecologica	British Petroleum
6- Policy planning & development		
Planning and Policy	Ministry of Urbanism and Environment	Global environmental fund/UNDP
Development and legislation	Ministry of Urbanism and Environment	Global Environmental Fund/UNDP

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The EBI Report http://www.theebi.org/pdfs/ebi_report.pdf; *Opportunities for Benefiting Biodiversity Conservation* <http://www.theebi.org/pdfs/opportunities.pdf>

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¹ It is worth mentioning that Angola's scores over the past couple of years have improved on governance indices. Angola demonstrated discernable improvements between 1996 and 2004 on the World Bank index in the areas of "voice and accountability" and "political stability" and saw its Transparency International score rise from 1.8 to 2.0 in the year between 2003 and 2004.

² A World Bank report notes that 29 percent of Angola's civil servants have only primary education or no schooling at all, and 64 percent have reached the secondary level of education. This leaves only 7 percent of all civil servants with higher levels of education.

³ Consortium: Foundation Joaquim Nabuco, CI, CEEA (2003)

⁴ From United Nations Environment Programme (UNEP), as reported by the GRA.

⁵ NBSAP Final Draft, pg. 7.

⁶ This section on fishing sector is excerpted from: FAO Country's Fishing Profile, Angola, December 2004

⁷ CIA World Fact Book.

⁸ The "Strategic Framework for Africa" has a fourth SO for Fragile states which the Mission considered: "Reintegration of Persons Affected by Conflict." We chose not to make this SO a focus of our attention given that the war will have been over for more than four years when the new Program begins. We do, however, expect to have a limited impact on the SO, particularly through community-level activities.

Annexes

The following three annexes on (1) Protected Areas, (2) Environmental Legislation and (3) International Agreements, formed part of the Angolan National Biodiversity Strategy and Action Plan (NBSAP) report dated February 2006, by the Ministry of Urban Affairs and Environment.

Anexo 1 – Áreas de Protecção Ambiental em Angola

Designação	Provincia	Area (em km ²)
Parques Nacionais		
Parque Nacional do Bikuar	Huíla	7,900
Parque Nacional da Cameia	Moxico	14,450
Parque Nacional da Cangandala	Malanje	630
Parque Nacional do Iona	Namibe	15,150
Parque Nacional da Kissama	Bengo	9,960
Parque Nacional da Mupa	Cunene	6,600
Parques Regionais		
Parque Natural Regional da Chimalavera	Benguela	150
Reservas		
Reserva Parcial do Namibe	Namibe	4,450
Reserva Parcial de Búfalo	Benguela	400
Reserva Parcial de Mavinga	Kuando Kubango	5,950
Reserva Parcial do Luiana	Kuando Kubango	8,400
Reserva Natural Integral do Ilhéu dos Pássaros	Luanda	2
Reserva Natural Integral de Luando	Malanje/Bié	8,280
Coutadas		
Coutada do Ambriz	Bengo	1,125
Coutada de Longa-Mavinga	Kuando Kubango	26,200
Coutada do Luengué	Kuando Kubango	13,800
Coutada do Luiana	Kuando Kubango	11,400
Coutada do Milando	Malanje	6,150
Coutada do Mucusso	Kuando Kubango	21,250

Notes:

Area designated in National or Regional Parks =	45,840 km ²
Area designated as a “Reserve” =	27,480 km ²
Subtotal (“protected areas” in Angola) =	82,322 km ²

The “Coutadas” were designated in the colonial era as hunting areas but were not demarcated or managed as protected reserves. Many have since been settled.

Anexo 2 – Legislação Ambiental em Angola

Geral	Data de Publicação
Lei Constitucional da República de Angola	Lei nº 23/92 de 16 de Setembro
Lei de Bases do Ambiente	Lei nº 5/98 de 19 de Junho
Lei do Ordenamento do Território e do Urbanismo	Lei nº 3/04 de 25 de Junho
Lei dos Recursos Biológicos Aquáticos	Lei nº 6-A/04 de 8 de Outubro
Lei de Defesa do Consumidor	Lei nº 15/03 de 22 de Julho
Decreto sobre a Avaliação de Impacte Ambiental	Decreto nº 51/04 de 23 de Julho
Estratégia de Combate à Pobreza	Resolução nº 9/04 de 4 de Junho
Flora Terrestre	
Regulamento sobre a Protecção do Solo, Flora e Fauna	Decreto nº 40.040 de 20 de Janeiro de 1955
Regulamento Florestal	Decreto nº 44.531 de 21 de Agosto de 1962
Estatuto das Estradas Nacionais	Decreto nº 77/91 de 13 de Dezembro
Determina que o abate ilegal de árvores e o trânsito ilegal de produtos florestais serão passíveis de multas	Decreto Executivo Conjunto nº 26/99 de 27 de Janeiro
Actualiza o Regulamento Florestal aprovado pelo Decreto nº 44.531	Despacho nº 149/00 de 7 de Julho
Fauna Terrestre	
Regulamento de Caça	Diploma Legislativo nº 2.873 de 11 de Dezembro de 1957
Estabelece os valores a cobrar na emissão de licenças de caça	Decreto Executivo Conjunto nº 36/99 de 27 de Janeiro
Reajuste dos valores das taxas de indemnização no abate dos animais cuja caça é proibida	Decreto Executivo Conjunto nº 37/99 de 27 de Janeiro
Recursos Genéticos	
Determina que as colecções e exportação de recursos fitogenéticos só poderão ser feitas quer por cidadãos nacionais ou estrangeiros, após autorização do Comité Nacional dos Recursos Fitogenéticos	Despacho nº 59/96 de 14 de Junho
Áreas de Protecção Terrestre	
Regulamento sobre a Protecção do Solo, Flora e Fauna	Decreto nº 40.040, 1ª Série de 9 de Janeiro de 1955
Regulamento dos Parques Nacionais	Portaria nº 10.375 de 15 de Outubro de 1958
Regulamento Florestal	Decreto nº 44.531 de 21 de Agosto de 1962
Lei de Terras	Lei nº 9/04 de 9 de Novembro
Lei de Águas	Lei nº 6/02 de 21 de Junho
Biossegurança	
Regulamento sobre a Protecção do Solo, Flora e Fauna	Decreto nº 40.040, 1ª Série de 9 de Janeiro de 1955

Regulamento de Caça	Diploma Legislativo nº 2.873 de 11 de Dezembro de 1957
Sobre a proibição de importação de sementes ou grãos transgénicos geneticamente modificados	Decreto nº 92/04 de 14 de Dezembro
Estabelece as condições fundamentais para a obtenção de Licença para a Importação de Sementes	Despacho nº 12/U/97 de 2 de Abril
Lei de Bases do Desenvolvimento Agrário	Lei nº 15/05 de 7 de Dezembro
Controlo de Poluição	
Lei de Águas	Lei nº 6/02 de 21 de Junho
Lei das Actividades Petrolíferas	Lei nº 10/04 de 12 de Novembro
Lei das Actividades Geológicas e Minerais	Lei nº 1/92 de 17 de Janeiro
Protecção do Ambiente no decurso das Actividades Petrolíferas	Decreto nº 39/00 de 10 de Outubro
Regulamento dos procedimentos sobre a Gestão, Remoção e Depósito de Desperdícios na Actividade Petrolífera	Decreto Executivo nº 8/05 de 5 de Janeiro
Regulamento sobre os procedimentos de notificação da ocorrência de Derrames na Actividade Petrolífera	Decreto Executivo nº11/05 de 12 de Janeiro
Regulamento sobre a Gestão de Descargas Operacionais no decurso das Actividades Petrolíferas	Decreto Executivo nº12/05 de 12 de Janeiro
Lei sobre o Regulamento Sanitário	Lei nº 5/87 de 23 de Fevereiro
Lei sobre as Transgressões Administrativas	Lei nº 10/87 de Setembro

Anexo 3 – Acordos Multilaterais de Ambiente

Acordo Multilateral de Ambiente	Data de Assinatura	Data de Ratificação
Convenção Internacional para a Conservação dos Tunídios do Atlântico	-	29.07.1976
Convenção sobre o Regulamento Internacional para Evitar Abalroamentos no Mar	-	03.10.1991
Convenção para a Protecção do Património Mundial, Cultural e Natural	-	07.11.1991
Convenção Internacional para a Salvaguarda da Vida Humana no Mar (SOLAS)	-	03.11.1993
Convenção sobre o Combate à Desertificação nos países afectados pela seca grave e ou desertificação, particularmente em África (CCD)	14.10.1994	03.06.1997
Convenção sobre a Diversidade Biológica (CDB)	12.06.1992	01.04.1998
Convenção Quadro das Nações Unidas sobre as Alterações Climáticas (UNFCCC)	14.06.1992	17.05.2000
Convenção de Viena sobre a Camada de Ozono	-	17.05.2000
Protocolo de Montreal sobre a Camada de Ozono	-	17.05.2000
Convenção sobre o Comércio Internacional de Espécies da Fauna e da Flora Selvagens Ameaçadas de Extinção (CITES)	-	2001*
Convenção sobre as Espécies Migratórias da Fauna Selvagem (Convenção de Bona)	-	15.04.2003

Annex 3 Continued:

Convenção sobre Zonas Húmidas de Importância Internacional, especialmente como Habitats de Aves Aquáticas (Convenção de Ramsar)	-	-
Convenção sobre o Direito do Mar	09.03.2001	20.12.2001
Convenção Internacional de 1973 para a Prevenção da Poluição por Navios e o Protocolo de 1978 (MARPOL 73/78)	-	21.12.2001
Convenção Internacional sobre a responsabilidade civil e indemnização de prejuízos devidos à poluição por substâncias nocivas e potencialmente perigosas no mar (HNS 96)	-	20.04.2001
Convenção Internacional sobre a criação do Fundo Internacional de Compensação pelos prejuízos devidos à poluição por hidrocarbonetos (FUND 92) e Protocolo de 1971	-	20.04.2001
Convenção Internacional sobre a Intervenção em alto mar em caso de acidentes que causem poluição por Hidrocarbonetos (INTERVENTION 69)	-	04.10.2001
Convenção Internacional sobre a responsabilidade civil pelos prejuízos causados pela poluição do mar por hidrocarbonetos (CLC PROT 92)	-	01.11.2001
Convenção Internacional sobre a Preparação, Combate e Cooperação contra a Poluição por Hidrocarbonetos (OPRC 90)	-	09.11.2001
Protocolo de Cartagena sobre a Biossegurança	-	2002*
Convenção de Estocolmo sobre Poluentes Orgânicos Persistentes (POPs)	-	2005*
Convenção de Roterdão sobre a Prévia Informação e Consentimento	-	2005*
Protocolo sobre as Pescas (SADC)	14.08.2001	01.04.2003
Protocolo Relativo à Conservação da Fauna e Aplicação da Lei (SADC)	18.08.1999	-
Protocolo sobre Actividades Florestais (SADC)	03.10.2002	-
Protocolo Revisto sobre Cursos de Águas Partilhadas (SADC)	07.08.2000	-
Protocolo sobre Energia (SADC)	24.08.1996	19.12.1997

* Agreement approved by the National Assembly but not published in the official Register of the Republic or an agreement not yet deposited with the corresponding Ministry.

Angolan Legislative Framework Related to Public Participation
Source: The Calabash Project

http://www.saiea.com/calabash/images/html/publications_nav.html

2.1 REPUBLIC OF ANGOLA

2.1.1 Brief description of legal framework and applicable laws

The Republic of Angola's legal system is a civil law one.⁴⁵ The laws applicable to public participation in the EA decision-making process are the Constitutional Law of the Republic of Angola 1992 ("the Angolan Constitution"), the General Environmental Law⁴⁶ and international law instruments. Customary law may also be applicable.⁴⁷ The Angolan Constitution gives all citizens the right to live in a healthy and unpolluted environment.⁴⁸ It also obliges the State to take the necessary measures to protect the environment and to maintain ecological balance.⁴⁹

These constitute a fundamental right of the citizen and duty of the State, respectively, in the Angolan Constitution⁵⁰ and form a solid foundation for opportunities for public participation in EA for citizens of Angola. There is also a fundamental constitutional principle which requires that "the State shall promote the protection and conservation of natural resources guiding the exploitation and use thereof for the benefit of the community as a whole".⁵¹

2.1.2 Is there a legal obligation to undertake environmental assessment?

The General Environmental Law was enacted in response to constitutional provisions referred to above.⁵² Under the General Environmental Law, there is an obligation to carry out EIAs for all undertakings which have an impact on the balance and well-being of the environment and society.⁵³ There is also an obligation on the Government to publish specific legislation defining the form to be taken by EIAs and other related requirements.⁵⁴

2.1.3 In what circumstances does that legal obligation apply?

EIAs and Social Impact Assessments must also be conducted for all planned undertakings which involve activities which may affect or impact on communities, interfere with the ecological balance or use of natural resources to the detriment of third parties.⁵⁵

2.1.4 Does the legal framework provide for rights and opportunities to participate in the environmental assessment process?

All EA processes must include a public consultation process⁵⁶ and there is therefore a clear opportunity for public participation. It states that:

"An Environmental and Social Impact Assessment shall be conducted for all planned undertakings which involve activities which may affect the interests of communities, interfere with the ecological balance or use natural resources to the detriment of third parties, such assessment shall include a

public consultation process.”⁵⁷

Importantly, the General Environmental Law gives all citizens the right to be informed about the management of the country's environment while it also safeguards the rights of third parties to the privacy of their information.⁵⁸ This further strengthens the opportunity of the public to participate in the EA process.

2.1.5 What rights and opportunities does the legal framework provide for recourse where a person feels aggrieved by the outcome of the environmental assessment decision-making process?

The question of what happens where a member of the public has participated in the public participation process but is not satisfied either with the process itself or with the manner in which the views of the public, or any member of the public, or any section of the public were considered, is governed by both the Angolan Constitution and the General Environmental Law. Simply put, where that happens it means that an opportunity to participate that is afforded to citizens may have been compromised. One of the fundamental rights of a citizen is the right to contest and take legal action against any acts that violate his or her rights as set out in the Angolan Constitution and other legislation.⁵⁹ The General Environmental Law gives content to this right in the context of EA as it provides that "any citizen who deems that his rights ... have been violated or are going to be violated may have recourse to the Court in order to restore his rights or prevent such violation."⁶⁰

2.1.6 Consideration of ancillary rights and opportunities for participating in environmental assessment decision-making

In addition to these rights, the General Environmental Law also gives a right to "all persons" to access to environmental education in order to be able to take part effectively in the management of the environment.⁶¹ Importantly, there is an ambiguity regarding this right. The Constitution and the General Environmental Law grant rights to "citizens" to participate in EA processes. The right that is given here to access environmental education is given to "all persons", i.e. the right to environmental education appears to be broader than the environmental right.

A further opportunity to participate in EA processes is afforded by the Angolan Constitution. Importantly, it provides that the constitutional rights do not exclude other rights stemming from laws and applicable rules of international law.⁶² It further states that even where one relies on fundamental rights in the Angolan Constitution, the laws involved must be interpreted and incorporated in a manner that is consistent with The Universal Declaration of the Rights of Man, the African Charter on the Rights of Man and Peoples and other international instruments to which Angola has adhered.⁶³ The international instruments to which Angola has acceded apply in the assessment of disputes by Angolan courts, even where they were not invoked by any of the parties to the legal proceedings.⁶⁴

As indicated in section 1.4.1 of this guide, the Convention on Biological Diversity (CBD) is one of the crucial international instruments to which Angola is a party and, since it is a civil law jurisdiction, the provisions of the CBD are immediately applicable. The CBD provides that each Contracting Party must, as far as possible and as appropriate, "introduce appropriate procedures requiring EIA of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures."⁶⁵

Importantly, the obligations that are imposed on the Angolan State may be viewed by the Angolan Courts as affording corresponding rights to Angolan Citizens and other people within the borders of Angola.

⁴⁵ <http://www.hrw.org/background/africa/angola/2004/4.htm> accessed on 2 December 2004.

⁴⁶ Law No. 5/98, of 19 June 1998.

⁴⁷ http://www.hrdc.unam.na/an_politics accessed on 17 January 2005.

⁴⁸ Article 24.1.

⁴⁹ Article 24.2.

⁵⁰ These provisions are part of Part II, which it titled "FUNDAMENTAL RIGHTS AND DUTIES."

⁵¹ Article 12.2.

⁵² The preamble of the General Environmental Law.

⁵³ Article 16.1.

⁵⁴ Article 16.2

⁵⁵ Article 10.

⁵⁶ Article 10 and article 16.3(d).

⁵⁷ Article 10.

⁵⁸ Article 21.

⁵⁹ Article 43.

⁶⁰ Article 23.1.

⁶¹ Article 22.

⁶² Article 21.