

Guinea 118/119 Report

INTRODUCTION

This report accompanies USAID/Guinea's 2006-2008 Strategy Statement. The report has three sections. The first is an overall assessment of the status of biodiversity and forests conservation in Guinea, which includes an understanding of existing conditions (see Map 1). The second is an overview of what USAID/Guinea is currently doing to address the concerns and threats to these existing conditions. Finally, it suggests additional ways USAID can address these issues.

Environmental Requirements: The core environmental requirements of USAID operating unit strategic plans are spelled out in ADS 201.5.10g, and are derived from provisions of the Foreign Assistance Act (FAA). 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. 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.

SECTION 1: Biodiversity and Forestry Resources

Guinean Forest Region

Tropical forests and biodiversity in Guinea are a heritage of all Guineans and are important resources for future generations. Guinea is home to numerous endemic species of plants, mammals, birds, and other unique life. Many of these species are threatened due to a host of problems.

Conservation International has classified the Guinean Forests as a Global biodiversity HotSpot (<http://www.biodiversityhotspots.org>). The Guinean Forests of West Africa encompass all of the lowland forests, stretching from Guinea and Sierra Leone eastward to the Sanaga River in Cameroon. In addition to Guinea and Sierra Leone, this includes the countries of Liberia, Côte d'Ivoire, Ghana, Nigeria and Cameroon, which maintain remnant fragments of the forests. The Guinean Forest block is interrupted by the "Dahomey Gap", where annual precipitation from just west of Accra, eastward to Nigeria is considerably less than the rest of the West African coast due to cooler ocean currents in the Gulf of Guinea along this stretch of coast. The lower rainfall levels cannot support the dense humid Guinean Forest type. This part of the coast is covered by wooded savannah vegetation. The Guinean Forest also includes four islands in the Gulf of Guinea: Bioko and Annobon, which are both part of Equatorial Guinea, and São Tomé and Príncipe, which together form an independent nation. Bioko and the other three islands are all part of a volcanic chain; Bioko is the closest to the mainland (32 kilometers offshore) and by far the largest island.

The Guinean forests consist of a range of distinct vegetation zones varying from moist forests along the coast, freshwater swamp forests (for example, around the Niger Delta), to semi-deciduous forests inland with prolonged dry seasons. Of all West African countries, only Liberia lies entirely within the moist forest zone, although a substantial portion of Sierra Leone also falls within this area (Conservation International, 2005).

Guinea

Guinea is bordered by six countries and divided into four natural regions: Guinée Maritime (36,000 km²), the Fouta Djallon (or Moyenne Guinée (63,000 km²), Haute Guinée (97,000 km²) and Guinée Forestiere (49,000 km²). Guinea Maritime stretches from the coast up to the Fouta region, which is in central Guinea and is mountainous. To the east of the Fouta are the plains of Haute Guinée, where average elevation is about 300 meters. South of Haute Guinée is the region of Guinée Forestiere, which includes Pic de Fon and Mount Nimba (elevation 1,752 meters). The climate of Guinea gets progressively hotter and drier as one moves south to north and west to east. There are two seasons: a relatively long dry season from October to June and a wet season from July through September. Annual precipitation varies from 1300 mm in Haute Guinée to over 4,000 mm in Guinée Maritime.

Guinea straddles three main climatic and vegetation zones. The rain forests of the south form part of the Upper Guinea Forest block. The transitional woodland-grassland mosaic extends across the middle of the country and the dry Sudanian savanna vegetation zones lie in the northeast. Mangroves are found along the northern coastline. In addition to these larger ecosystems, the coastal areas of Guinea have some unique characteristics related to the mangrove systems, created by the numerous river outlets and islands which are home to some threatened species. The offshore areas also contain a wide array of marine species and provide an important breeding ground for some of Africa's most important fisheries.

Guinea covers about 260,000 km² of which forest areas (including savannas and woodlands) equal about 130,000 km², or 53% of the total land area. Guinea's forests are considered original forest. The predominant natural ecosystem in Guinea is shrubland, grassland or savanna. Guinea has six main ecosystems: forests, grasslands/shrublands/savanna, cropland, urban areas, barren vegetation, and wetlands (Earthtrends 2003). Four types of forests have been identified: mangrove (1% of total land area), dense humid forest (2.8%), dense dry forest (6.5%), and wooded savanna and other (43.3%).

Guinea's protected area system includes 156 classified forests covering 12,000 km² or 4.6% of the land area. In addition, there are two national parks: Parc du Haut Niger and Parc du Nyokolo-Badiar, which combined equal about 920 km². There are four biosphere reserves in Guinea totaling an area of 11,000 km², including Mt Nimba, Siam, Badiar, and Haut Niger Nimba (IUCN Report, Kormos et al. 2003). In total, Guinea's protected area system covers about 24,000 km², or roughly 10% of the country is under protected status. Deforestation rates are estimated to be about 300 km² per year with the majority occurring in the dense humid forest zone (Baker et al, n.d.).

It is difficult to discuss biodiversity and forests in Guinea without touching on the importance of chimpanzees. Numerous studies, action plans, and programs have been enacted to understand and conserve the Western Chimpanzee (*Pan troglodytes verus*), making Guinea's chimpanzees the best documented in the world (IUCN 2003). It is generally agreed that Guinea has the largest existing population of western chimpanzees. Their historic range runs throughout the country. Today, however, chimpanzees are located principally in the northern and southern region and have largely disappeared from the eastern dry zones (IUCN report, Kormos et al, 2003). It was estimated in 2003 that Guinea has over 17,000 individual chimpanzees, with over 80% of those living outside protected areas. More than half of the chimp population is believed to be living in the Fouta Djallon region, where people do not generally hunt chimps.

Table 1: Species diversity and status are as follows (EarthTrends 2003).

Status of Species	Total Number	Number Threatened
Higher Plants (total)	3,000	21
Mammals	190	12
Breeding Birds	109	10
Reptiles	94	1
Amphibians	33	1
Fish	121	X

Other threatened or vulnerable mammalian species in Guinea*

Endangered:

- Diana Monkey (*Cercopithecus diana*).
- Liberian Mongoose (*Liberiictis kuhni*).
- Nimba Otter Shrew (*Micropotamogale lamottei*).
- Red Colobus (*Procolobus badius*).
- Wild Dog (*Lycaon pictus*).

Vulnerable:

- Aellen's Roundleaf Bat (*Hipposideros marisae*).
- African Elephant (*Loxodonta africana*).
- Buettikofer's Epauletted Fruit Bat (*Epomops buettikoferi*).
- Lion (*Panthera leo*).
- Pygmy Hippopotamus (*Hexaprotodon liberiensis*).
- Spotted-necked Otter (*Lutra maculicollis*).
- West African Manatee (*Trichechus senegalensis*).
- Zebra Duiker (*Cephalophus zebra*).

*The list includes all mammals which occur in Guinea and are rated as critically endangered, endangered or vulnerable in the 2004 IUCN Red List of Threatened Animals.

Threats to Biodiversity and Forests

The Critical Ecosystem Partnership Fund has identified a host of threats to the health of the Guinea Forest System (2000). For Guinea proper all these threats are present, although presumably with varying threat levels depending on the species. Included in their 2000 report are:

- limited local capacity to conserve and maintain biodiversity
- governance problems
- the effects of agriculture, and shifting cultivation
- hunting
- overharvesting of forest resources, including timber
- overgrazing (particularly in the Fouta)
- mineral extraction (artesian and industrial)
- population growth

In addition, for Guinea one could add:

- discontinuous donor activities
- uncertain forestry code
- land tenure

Limited local and national capacity to conserve

Of critical concern to donors and local partners is the limited capacity of the government to actively and effectively conserve its natural resources. Numerous problems exist at the institutional level, including limited technical capacity, ineffective and outdated laws, unclear administrative authority, corruption, cronyism, and so forth. USAID/Guinea has worked in the past with the Department of Water and Forestry (DNEF, by its French acronym) under the Ministry of Agriculture. The GOG recently created a new ministry, the Ministry of the Environment, which apparently has a similar mandate to that of DNEF. This sort of bureaucratic confusion and competition is somewhat common within the GOG.

Limited or discontinuous donor activity

There are few donors in Guinea who have consistently supported biodiversity and forestry programs. The Europeans (EU) recently stopped their AGIR project whose goal was to support the management and maintenance of national parks. Likewise, the French Development Agency (AFV) and the German Bank for Development (KFW) have stopped or severely curtailed their natural resource management programs. They left due to the problems of poor governance, ineffective oversight, and poor budgetary management. The key factors, however, were the government's lack of will and capacity to undertake the reforms necessary to make the GOG a transparent, reasonably fair and effective institution in all sectors. These decisions were part of a larger move by donors, particularly in Europe, to enforce anti-corruption measures on the government.

Land tenure, the forestry code, and weak institutional capacity

Land tenure in Guinea is a complex set of legal, historic, cultural and political rights and duties that plays a significant role in the maintenance of biodiversity and forests. For local users, land tenure, which in the country-side tends to be ancestral in nature, blocks the intensification of agricultural production by blurring the relationship between use rights and ownership. Farmers and herders are reluctant to improve land for intensive use, not certain if the improvements they

make will remain in their custody long enough to realize a gain from those investments. Systematic corruption and cronyism also tend to discourage investments in land. Limited investments in land mean that intensification of production, e.g. through the introduction of an irrigation system, is not typically done. This encourages extensive use of land, which usually implies shifting cultivation and the burning of vegetation. The Guinean Forestry Code, which is outdated, not well enforced, and limited in scope, does not clarify these relationships. In addition, in the traditional land tenure system, which has been in effect for generations and was codified by colonial French administrations, farmers do not own the natural trees found on their land. Under these circumstances, there is limited motivation for farmers to conserve forestry resources, with the exception of specific species such as Nere (*Parkia biglobosa*) and Shea (*Butyrospermum parkii*), both of which are marketable. This problem is especially true for naturally occurring forest species. Further complicating this issue is the presence of herders, who also have a traditional claim on forest resources and compete with farmers and rural inhabitants for forest-based resources.

Weak institutional capacity is a reality in every ministry in the GOG. The technical capacity to manage national parks, classified forest, and community forests is severely limited. Where able staff are present, limited funds to maintain vehicles and support field visits often restrict effective management.

Fragmentation of forests

Forests in Guinea, both classified and community, have been fragmenting for many years. This has many causes, including controlled and uncontrolled burning, unclear tenure arrangements or lack of enforcement of tenure where it does exist, historic patterns of land tenure which contradict the legal system. These practices have the effect of absolving government agencies and local people from any management or safeguarding responsibilities for these forests, which encourages uncontrolled exploitation of forest resources.

The one area where the government does have some control is in the classified forests. These forests have shrunk in size in the recent past. They were originally established by the French colonial power to provide wood for construction and fuel for the railroad and other infrastructure projects. They were, in other words, clearly identified as government-owned resources. The largest classified forests, particularly those in the Forest Region (including *Ziama* and *Pic de Fon*) do have a significant amount of diversity and forest cover remaining, although lack of attention by the government will certainly lead to eventual degradation of these resources as well. On the other hand, most community forests are small, fragmented, and of limited value beyond their value to local communities as a source of firewood (and charcoal), non-timber products, and as sites for shifting cultivation.

Logging, wood harvesting, secondary forest products, and industrial timber production

Harvesting of primary and secondary forest resources can have a serious impact on local environments. For instance, wood harvested from river banks (where trees naturally grow in drier regions) can cause serious soil erosion, siltation, and eventual degradation of local waterways. Secondary forest products harvested in Guinean forests include salt (from mangrove), palm wine, leaves, and roots. Not all of these practices are detrimental to the natural environment.

Industrial timber production is not commonly practiced in Guinea. It is estimated that 8,643,000 cubic meters of wood are harvested annually in Guinea, of which greater than 90% is used as fuel (EarthTrends, 2003). Industrial timber production, where it does exist, such as in the Forest Region, is large-scale and intensive. However, overall, industrial timber production does not represent a national threat to biodiversity or forestry in Guinea. Local, small-scale timber production is present throughout the country. Typically these activities, although small in scale are so pervasive that they should be considered a threat to the overall health of forest ecosystems and biodiversity.

Although industrial timber production is not a significant contributor to overall wood harvesting in Guinea, the practice does tend to select the best trees in the most remote locations. This process is referred to as hygrading and is destructive to genetic biodiversity and ultimately encourages lower forest productivity levels. An example of this can be found in Guinea today. A plywood factory was recently granted access rights to some of the most remote and pristine forests in the Forest Region of Guinea. This concession includes unlimited access to local timber resources. Industrial production in this case has the capacity to harvest very large trees, which are generally too big for small-scale timber producers. In addition, the granting of this concession was done in a non-transparent manner and without local consultation or mechanisms for local compensation. It is clear that with the limited management controls in place and a non-transparent bureaucratic structure, this situation can only worsen.

Shifting cultivation and the encroachment of farmers

Farmers and destructive farming practices pose a significant risk to biodiversity and forestry in Guinea. This is because farmers continue to use extensive and inefficient farming practices. They exploit bushmeat for home consumption and sale and they compete for land with other species, e.g. chimpanzees. They have a competitive relationship with numerous wild species, such as birds and rodents, which are hunted and trapped as pest-control measures. In addition, there are many species of wild animals which are part of the human food supply, including chimpanzee, rodents, birds, and fish. Consumption of these animals supplements meat consumption from the expanding livestock populations (UNDP/GEF, 2002). In addition, farmers tend to have little regard or understanding of the role of national parks in the conservation of Guinea's natural heritage. They regularly enter classified forests and national parks to harvest wood and forest products.

Shifting cultivation or slash and burn agriculture is widely practiced throughout Guinea. Under low population pressure shifting cultivation need not be considered a destructive practice. However, in Guinea today, it is a significant threat. Farming practices typically associated with shifting cultivation, e.g. hillside rice production, are not sustainable where periodic movement of the plot is required. A single plot may be fertile for as little as two seasons, thus requiring frequent movement onto plots have only recently been abandoned. This extensive practice reduces both yields to farmers and the capacity of forests to survive periodic burning. In addition, herders may set fires to encourage new grass growth which is palatable to livestock.

Currently very little national-level work is being done on livestock intensification in Guinea. An improved system may include more barn or stall feeding, improved forage production, better and

more consistent breeding practices, and better control of open grazing. These improvements would decrease pressure on forests and savannahs and would likely decrease the labor costs per kilogram of meat or milk produced.

Uncontrolled bush fires

Rural Guineans set bush fires for many reasons, not all related to agriculture. For instance, it is not uncommon for households to set fires on roadsides to clear the roadside of dry material. High winds often add to the potency of these small fires and makes them much more likely to spread. These uncontrolled fires may encroach on habitat of important species as well as threaten homes and kitchen gardens.

Charcoal production

Wood and charcoal products represent 90 percent of all energy consumed in Guinea (UNDP/GEF 2002). Charcoal and wood are the main sources of cooking fuel and even hotels, in some areas, may use charcoal to heat bath water for guests. Natural gas is available in canisters but is not widely used. In addition, there are few plantations devoted to the utilization of fast-growing species harvested for the charcoal market. In general, the charcoal production system is based on the harvesting of natural tree species by rural residents as a source of revenue.

Hunting and the consumption of bush meat

Hunting is a persistent threat to biodiversity in Guinea. This is particularly a problem for aquatic species and primates. Chimpanzees are consumed only in certain parts of the country. However, the sale and trade of bush meat means that animals are hunted throughout Guinea. The most intensive location for hunting of chimpanzees is the Forest Region, where chimp habitat is available and there is a thriving local market for the meat. The largest populations of chimps are found in the Fouta region and coastal Guinea, but there is only limited consumption of chimp meat there. However, hunters from the forest region are increasingly coming to the Fouta Djallon to hunt for chimpanzees which are then sold in markets in the forest region. Other bush meats, such as deer, are harvested and sold.

International pet and hide trade

Hunting or trapping for the purposes of the international pet and hide trade also poses a problem for Guinea. Leopard hides, for instance, are prized souvenirs. Likewise, it is not uncommon to learn of foreigners who have chimps as pets. Little is done at the local or national level to deter this trade, even though Guinea is a signatory to the Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES). The number of species available for export for the trinket and live animal pet trade include numerous reptiles (e.g. python, turtle, crocodile), bird, living mammals, halieutique resources (skark, carp, other fish). In addition, bio-prospecting may be a threat, (UNDP/GEF 2002). Interestingly, the N'Dama species of cattle is considered valuable breeding stock for its hardiness (resistance to trypanosome) and adaptability to plains regions.

Economy

Guinea possesses major mineral, hydropower, and agricultural resources. Principal among these is bauxite. The country possesses over 30% of the world's bauxite reserves and is the world's

second-largest bauxite producer. Joint venture bauxite mining and alumina operations in northwest Guinea historically provide about 80% of Guinea's foreign exchange. The Compagnie des Bauxites de Guinea (CBG) is the main player in the bauxite industry. CBG is a joint venture, in which 49% of the shares are owned by the Guinean Government and 51% by an international consortium led by Alcoa and Alcan. CBG exports about 14 million metric tons of high-grade bauxite every year. The Compagnie des Bauxites de Kindia (CBK), a joint venture between the Government of Guinea and Russki Alumina, produces some 2.5 million MT annually, nearly all of which is exported to Russia and Eastern Europe. Dian Dian, a Guinean/Ukrainian joint bauxite venture, has a projected production rate of 1 million MT per year, but is not expected to begin operations for several years. The Alumina Compagnie de Guinée (ACG), which took over the former Friguia Consortium, produced about 2.4 million tons of bauxite in 2003, which is used as raw material for its alumina refinery. The refinery supplies about one million MT of alumina for export to world markets. Currently, there are two proposed refinery projects under development that would boost Guinea's alumina production substantially. (<http://www.state.gov/r/pa/ei/bgn/2824.htm>).

The government's reliance on the extractive industries can be seen as a threat to forest and biodiversity if those resources are not mined in a sustainable and environmentally sensitive way. This is not to say that the mining companies in Guinea are acting improperly. Rather, there is competition for land and the power exerted by the mining sector has no counterbalance in the environment and natural resources areas. There are few local NGOs that have the capacity to effectively draw attention to environmental problems when they do arise, particularly if the offenders are in the mining sector. In addition, due to lack of transparency, it is difficult to state what measures are being taken to address environmental concerns. Some of these problems may be indirectly caused by the influx of populations to mining communities to provide services and supplies (e.g. charcoal) to the miners.

Likewise, it is clear that Guinea has not used the wealth generated from the extractive industries to improve the human or institutional capacity of the country. Opportunities exist to improve Guinea's track record in this regard. Guinea has recently signed an agreement with Global Alumina for the construction of a \$2.8 billion alumina refinery and other value-added activities in the extractive industries may be on the way. Guinea has also recently signed on to the Extractive Industry Transparency Initiative.

In 2002, the IMF suspended Guinea's Poverty Reduction and Growth Facility (PRGF) because the government failed to meet key performance criteria. In reviews of the PRGF, the World Bank noted that Guinea had met its spending goals in targeted social priority sectors. However, spending in other areas, primarily defense, contributed to a significant fiscal deficit. The loss of IMF funds forced the government to finance its debts through Central Bank advances. The pursuit of unsound economic policies, like increased money generation, have created severe economic imbalances including rampant inflation. Periodic panic buying has created food shortages and inflation and caused riots in local markets. Until the recent end of their civil wars, fighting along the Sierra Leonean and Liberian borders, as well as refugee movements, caused major economic and ecologic disruptions in Guinea, aggravating a loss in investor confidence.

Starting in December 2004, the government has pursued a rigorous reform agenda designed to return Guinea to a PRGF with the IMF. Exchange rates have been allowed to float, price controls on gasoline have been loosened, and government spending has been reduced while tax collection has been improved. These reforms have not slowed down inflation, which hit 27% in 2004 and has maintained that rate in 2005. In addition, the Guinea franc has depreciated about 50% to the dollar since the beginning of 2005 (<http://www.state.gov/r/pa/ei/bgn/2824.htm>). Growth rose slightly in 2004, primarily due to increases in global demand and commodity prices on world markets.

Signatory Status

Guinea is a signatory of CITES (Convention on the International Trade in Endangered Species) and the CBD (Convention on Biological Diversity). The country also has a Forestry Code and a Faunal Code that specify rules and regulations about the use of natural resources including hunting, burning.

Guinea is party to a number of other international agreements, including Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Ozone Layer Protection, Wetlands, and Whaling. See Appendix 1 for a complete description of the relevant international accords.

SECTION 2: Mission Response to These Threats

The picture one derives from the list of problems is indeed bleak for the future of natural resources in Guinea. However, USAID/Guinea has been working with Guineans to improve their capacity to manage natural resources in an effective and sustainable way. Our work generally falls into three categories: 1) work with natural resource managers (at all levels), 2) work with agricultural producers, and 3) leverage funds and expertise through public private partnerships. In our work with resource managers the emphasis of USAID/Guinea has been to support co-management of forests (cooperative management between the government and local partners/community based associations). The intention is to enhance government capacity and legitimacy through cooperation with knowledgeable local partners. Ideally this will lead to local partners asserting their rights to local resources and managing those resources in a sustainable and effective way.

Improving partnership between local communities and officials

USAID/Guinea has been working for many years on the concept of co-management, which is the practice of fostering communication between local users and government officials on forest resource use to create a sound model for the protection and management of natural resources. A typical co-management scheme includes a map and inventory of the forest and water resources to be managed, the creation of a sustainable management plan, agreement at some level on tenure arrangements, the vesting a local users group with authority to properly manage this resource and provide training where necessary to fulfill the goals of the scheme. These schemes have been primarily implemented in classified forests, although some work is underway in community forests.

One of the most important impacts of the co-management system is the increase in the empowerment of local users to be effective land stewards. Ideally, because the groups have direct participation of the government's forest service, and some technical data with which to make management decisions, their capacity for stewardship is greatly increased. In addition, since much of the management occurs in the classified forests, some of the more diverse and remote ecosystems in Guinea have come under the system. To date more than 100,000 ha of classified forest has come under this scheme within the past six years.

USAID/Guinea's involvement in the development of community based organizations (CBOs) for Forestry Management can point to several lessons learned from the Expanded Natural Resource Management Activity (ENRMA):

- CBO's have succeeded in reducing or stopping encroachment in forest reserves. This conclusion is based on a comparison between forest with supported CBOs and those without. In Nyalama Forêt Classée, for example, the CBO has stopped encroachment and the forest has not suffered from deforestation over the past several years. In the Balayan and Sincery forests the CBOs have only been in existence for three years but they have succeeded in stopping the establishment of new villages within the forest and in some cases succeeding in removing farmers from protected areas. The hunting associations have also become more proactive and empowered to stop poachers.
- The ENMRA has worked in forests ranging in size from 3,000 to 10,000 hectares; CBOs seem to be most effective in smaller forests where the community can provide surveillance and there is a memory of traditional (i.e. pre-colonial) use and ownership.
- Consistent with common property theory, those protected resources which are remote are more likely to be protected regardless of the management entity. For example, Bokoum, which is under the ENMRA management scheme, has suffered little destruction primarily due to its isolation and low population density.
- GOG commitment to the CBOs has been limited or nonexistent. The little authority that has been given to local CBOs has been provided on an ad hoc basis and has never been recognized or made official at the local, regional, or national level.
- The ultimate aim of CBO development needs to be more clearly defined. Are forest management CBOs simply surveillance units with better access to forest resources or are they intended to become more formalized governance units that can operate sustainable management schemes with recognized powers to tax, license or engage directly in harvesting? The type of training, linkages to outside actors, and nature of the local authority are dependent on the ultimate objectives of these CBOs. Clarity in their future is essential.

The GOG Department of Water and Forestry has worked closely with USAID/Guinea's partners in the management of natural resources. They have stationed a permanent staff member at the partner's up-country office and have worked closely with area NGO and CBO partners. This has given GOG staff exposure to many of the important technical skills necessary to do large scale natural resource management.

Currently work is being done to promote co-management as a part of Guinea's forestry code and a potentially broad policy framework for the country as a whole. At this time, co-management has been adopted within the code but the code itself has not been ratified at the national level.

Under the new strategy, USAID/Guinea plans to continue supporting co-management as a management tool thus promoting both resource management and sound governance. In addition, it is very likely that the emphasis on governance will be continued under the proposed strategy.

Work with agricultural producers

A goal of USAID/Guinea has been to improve and/or intensify agricultural production practices to reduce shifting cultivation. The objective is to promote practices that improve the water-holding capacity of upland soils while simultaneously improving production. Some work has also been done with tree crops, including cashew, to increase the likelihood that farmers will reduce their reliance on shifting cultivation.

USAID/Guinea has worked with farmers and hunters in the resolution of land tenure issues. This allows farmers to improve land, plant perennial crops on permanent fields and thus reduce their reliance on destructive agricultural practices. This is difficult and tedious work, in part because of the short time frame in project design (see Clausen et al 2003 for a description of the value of long time frames in project design). But also, the GOG appears to have limited capacity at this point to pursue the inherent problems in the land tenure code.

In addition, our PL 480 portfolio includes a significant amount of work with farmers to intensify their production processes, thus decreasing pressure on the land. This is particularly true in the tall grass region in north-eastern Guinea.

Education of resources users

Using a model similar to co-management, particularly those in forests with high chimpanzee populations, the ENRMA formed an association which links hunters and other resource users in sustainable hunting. Included in this activity is an agreement among hunters to avoid killing chimps and to hunt sustainably. In addition, because hunters form an agreement among themselves, they can control, to varying degrees, the intensity of hunting by nonmember hunters.

USAID/Guinea recently initiated a chimpanzee conservation and education program . This program educates people, Guineans and expatriates alike, in the importance of chimpanzees and the negative effects certain behaviors have on chimps in Guinea. For instance, the program provides education regarding the danger of owning a chimp as a pet and the legal ramifications of trading in endangered species.

Working through public private partnerships

USAID/Guinea has worked on collaborations with private companies and international organizations to promote sustainable agricultural development. This includes incorporating partners of all types (NGO, private sector, GOG) into a cohesive network of actors.

SECTION 3: Other Means to Address These Issues

Guinea's National Strategy

Guinea's 15 year strategy states (as translated in the UNDP/GEF report):

For the national and regional benefit and for the welfare of present and future generations, the working populations that comprises the socio-economic structure must be sufficiently informed on the values of biological diversity and the risks involved in its loss and be made responsible and must be engaged in the conservation and sustainable use of the resources (UNDP/GEF 2002).

This strategy has four principle objectives, with selected sub-objectives (adapted from UNDP/GEF 2002):

1. Conservation of biological diversity
 - a. identify components of biological diversity
 - b. observe pressures from biological diversity and reduce them
 - c. reinforce in-situ conservation
 - d. reinforce infrastructure for ex-situ conservation
 - e. establish a system of control for the growth of biological diversity
2. Sustainable use of resource from biological diversity
 - a. maintain a sustainable ecological development program for biological resources
 - b. improve pastoral and fisheries practice to make them sustainable
 - c. make hunting and fishing practices sustainable
 - d. promote durable eco-tourism
 - e. promote access to bio-technology while ensuring their bio-safety.
3. General actions for conservation and sustainable use of biological diversity
 - a. strengthen regulations to ensure balance between use and conservation of biological resources
 - b. development legislation to sustain the CBD
 - c. encourage unity among partner and avoid bureaucratic duplication
 - d. develop incentive systems for conservation
 - e. promote effective planning for aquatic and terrestrial systems
 - f. encourage research that focuses on sustainable use of biodiversity
 - g. promote sustainable institutions and research for conservation of biodiversity.
 - h. Create a national coordination body to oversee enactment of the Convention
4. International cooperation
 - a. support regional and international cooperation for conservation.
 - b. initiate and begin strategic action plans

That national strategy also highlights various other necessary conditions for these objectives to be achieved. They recognize the importance of good legislation, regulation and finance. There must, likewise, be equitable distribution of available funding, goals and activities must be consistent with the Convention on Biological Diversity, processes and plans for biological diversity but be adaptable, cyclical, and integrated into decision-making processes, and finally, consensus among key stakeholders must prevail.

As is evident, the national strategy is very keen on adhering to important international conventions on biological diversity (especially the CBD) and is interested in promoting the sustainable use of natural resources. Likewise, sustainable and safe use of biotechnology is mentioned.

USAID/Guinea's possible response

USAID/Guinea was recently designated a fragile state by the White Paper (2005). This designation carries some broad implications for the forestry and biodiversity program within the mission. First and foremost, this implies a restructuring of the program toward linking biodiversity and forestry management activities to governance, the key "source of fragility." As Clausen et al. (2003), noted

Links between forestry and democracy and governance issues are crucial and clear. Forest resource exploitation is often a driving force behind conflict, but properly managed forests can contribute to the resolution or prevention of conflict conditions. With few exceptions, these links are often undervalued and underutilized. Knowledge sharing and field-level implementation of joint activities between forestry and democracy and governance programs should be encouraged.

USAID/Guinea is forging the link between forest and biodiversity management and democracy and governance. Clearly governance, at many levels, is a problem in Guinea. However, one needs to be clear on what is meant by governance. Governance includes both the capacity to conduct technical oversight of a process or resource, and the institutional framework that allows for inclusive decision-making, transparency and accountability. Recent history in Guinea suggests that working on inclusive governance alone, divorced from technical capacity building, will have only limited impact on forest health.

USAID/Guinea also proposes to undertake a systematic analysis of laws and policies related to forestry and biodiversity. Many of the existing laws are outdated and not effective for the management of natural resource. Likewise, national policies often run counter to effective administration of a biodiversity and forestry conservation plan.

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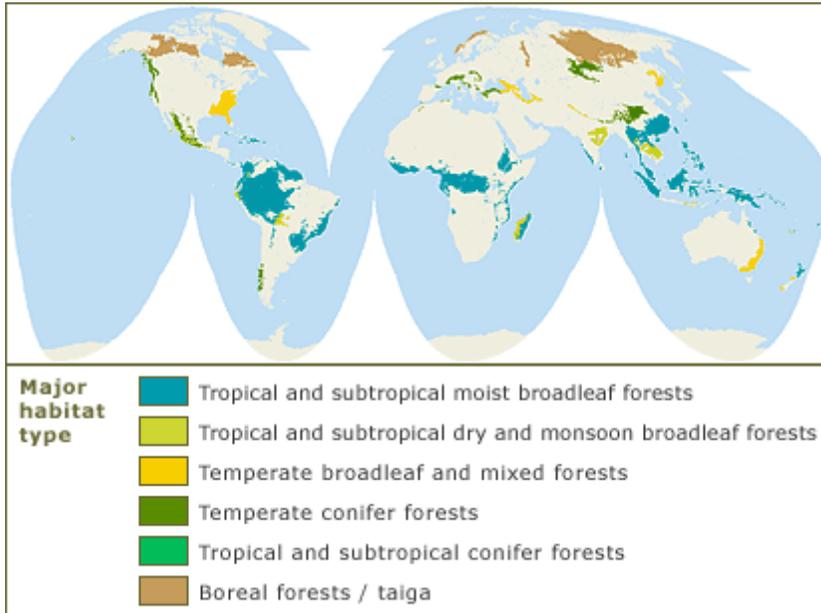
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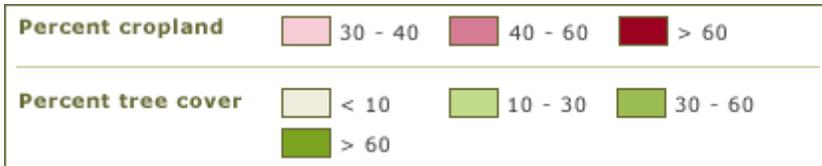
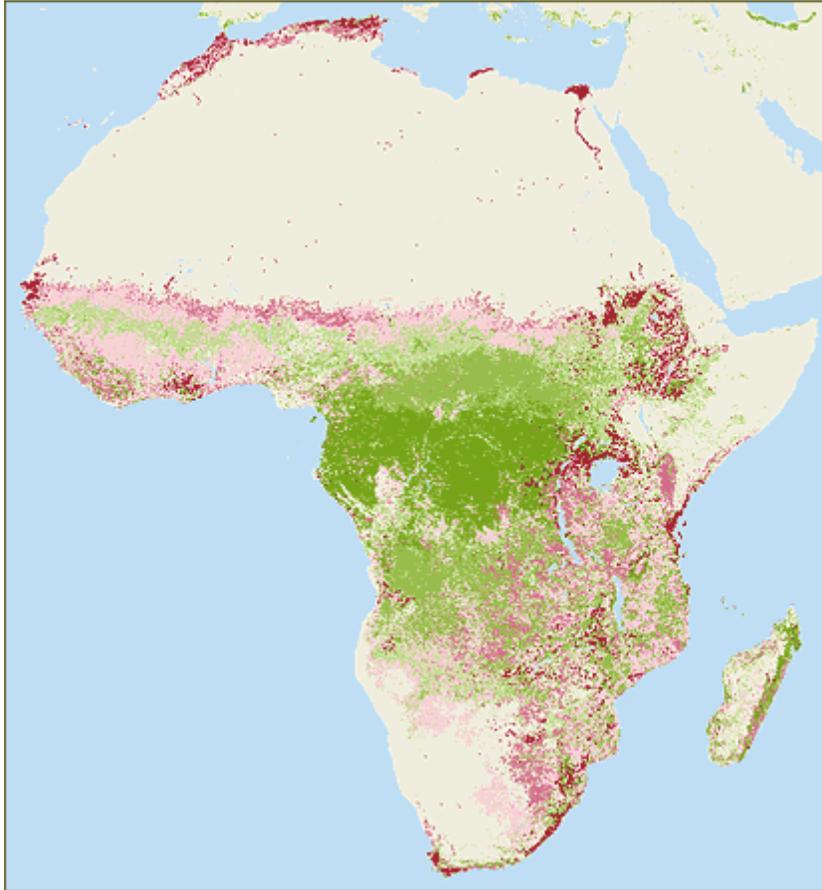
Map 1: Guinea Political



Map 2: Forest ecoregion world wide (EarthTrends 2003)



Map 3: crop versus forest lands in Africa (EarthTrends 2003)



Appendix 1: Lists of Environmental agreements to which Guinea has both signed and ratified (adapted from www.cia.gov).

Convention on Biological Diversity	<i>note - abbreviated as Biodiversity opened for signature - 5 June 1992 entered into force - 29 December 1993 objective - to develop national strategies for the conservation and sustainable use of biological diversity</i>
United Nations Framework Convention on Climate Change	<i>note - abbreviated as Climate Change opened for signature - 9 May 1992 entered into force - 21 March 1994 objective - to achieve stabilization of greenhouse gas concentrations in the atmosphere at a low enough level to prevent dangerous anthropogenic interference with the climate system parties -</i>
Kyoto Protocol to the United Nations Framework Convention on Climate Change	<i>note - abbreviated as Climate Change-Kyoto Protocol opened for signature - 16 March 1998 entered into force - 23 February 2005 objective - to further reduce greenhouse gas emissions by enhancing the national programs of developed countries aimed at this goal and by establishing percentage reduction targets for the developed countries parties</i>
United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa	<i>note - abbreviated as Desertification opened for signature - 14 October 1994 entered into force - 26 December 1996 objective - to combat desertification and mitigate the effects of drought through national action programs that incorporate long-term strategies supported by international cooperation and partnership arrangements parties</i>
Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES)	<i>note - abbreviated as Endangered Species opened for signature - 3 March 1973 entered into force - 1 July 1975 objective - to protect certain endangered species from overexploitation by means of a system of import/export permits parties -</i>
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	<i>note - abbreviated as Hazardous Wastes opened for signature - 22 March 1989 entered into force - 5 May 1992 objective - to reduce transboundary movements of wastes subject to the Convention to a minimum consistent with the environmentally sound and efficient management of such wastes; to minimize the amount and toxicity of wastes generated and ensure their environmentally sound management as closely as possible to the source of generation; and to assist LDCs in environmentally sound management of the hazardous and other wastes they generate parties -</i>
United Nations Convention on the	<i>note - abbreviated as Law of the Sea opened for signature - 10 December 1982</i>

Law of the Sea (LOS)	<i>entered into force - 16 November 1994 objective - to set up a comprehensive new legal regime for the sea and oceans; to include rules concerning environmental standards as well as enforcement provisions dealing with pollution of the marine environment parties -</i>
Montreal Protocol on Substances That Deplete the Ozone Layer	<i>< I>note - abbreviated as Ozone Layer Protection opened for signature - 16 September 1987 entered into force - 1 January 1989 objective - to protect the ozone layer by controlling emissions of substances that deplete it parties</i>
International Convention for the Regulation of Whaling	<i>note - abbreviated as Whaling opened for signature - 2 December 1946 entered into force - 10 November 1948 objective - to protect all species of whales from overhunting; to establish a system of international regulation for the whale fisheries to ensure proper conservation and development of whale stocks; and to safeguard for future generations the great natural resources represented by whale stocks parties -</i>
Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar)	<i>note - abbreviated as Wetlands opened for signature - 2 February 1971 entered into force - 21 December 1975 objective - to stem the progressive encroachment on and loss of wetlands now and in the future, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value parties -</i>