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Biodiversity Analysis and Technical Support for the Sustainable and Thriving Environment for West African Regional Development Program (STEWA)

An Assessment of Environmental Threats and Transboundary Development Opportunities in the Upper Guinean Forest Region

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**Biodiversity Analysis and Technical Support for the
Sustainable and Thriving Environment for
West African Regional Development Program (STEWARD)**

**An Assessment of Environmental Threats and Transboundary Development
Opportunities in the Upper Guinean Forest Region**

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Executive Summary

The Sustainable and Thriving Environment for West African Regional Development (STEWARD) is a recent initiative conceptualized by USAID and the US Forest Service to increase collaboration, improve regional natural resource management, promote transfer of knowledge among countries, and initiate transboundary development projects at select sites within the Upper Guinean forest region of West Africa. The Upper Guinean forest includes the countries of Guinea, Sierra Leone, Liberia, Côte d'Ivoire, and Ghana; this region is a high global priority for biodiversity conservation, and is of strategic importance in terms of peace building, extractive industries, and other key global commodities such as rubber, cocoa and oil palm.

The Upper Guinean forest is part of the larger Guinean Forest, which is considered a world biodiversity “hotspot” and a priority conservation area because of its high species endemism. The forest also borders one of the world's most productive marine areas; the Guinea Current Large Marine Ecosystem is rich in fishery resources, petroleum production, and is an important global region of marine biological diversity with mangrove forests, turtle nesting beaches, wetlands, and coastal lagoons.

As an early step in determining STEWARD activities, this assessment was undertaken to gather background information, identify potential partners and provide strategic direction. As required under Sections 118 and 119 of the Foreign Assistance Act (FAA), this assessment identifies key threats and issues related to tropical forests and biodiversity within the region, as well as opportunities and recommendations for action.

Presently, the Upper Guinean forest is a highly fragmented system; it is estimated that only 20 percent of the original closed canopy forest remains today. Direct threats to the forest and aquatic ecosystems in this area include: agriculture, mining, logging, bushmeat hunting, water pollution, coastal development, and fishing practices. Indirect threats to these ecosystems include: poverty, migration and urbanization, political instability, unprotected borders (both land and water), inadequate and uneven policies, limited institutional capacity, and lack of regional conservation planning.

Given the transnational character of most forest and aquatic threats, trends in natural resource management and sites of existing conservation activities, there is a tremendous opportunity for USAID and the US Forest Service to bridge the gap in regional coordination and connectivity – not only ecological but also political, social, and administrative coordination. Additionally, organizations already working in the region are capable of bringing significant amounts of public and private funding as well as networks of professionals, scientists, and dedicated field researchers in support of sustainable development and conservation. It is important to recognize that differences in language, culture, interests, and priorities can be obstacles to cross-border collaboration. However, there is a large “knowledge-shed” in which STEWARD can draw lessons learned and best practices from that goes beyond the Upper Guinean region. For example, the Sahelian countries have substantial experience and knowledge in regards to

sustainable development and conservation activities. This body of knowledge can help guide the development and implementation of future STEWARD activities

Finally, this assessment recommends five potential pilot sites for natural resource management and conservation action. These sites offer the greatest potential for integrating conservation, livelihoods and natural resource management, based on biodiversity patterns and political, economic and social significance:

- Nimba Highlands (Côte d'Ivoire, Guinea and Liberia)
- Grebo-Tai Forests (Côte d'Ivoire and Liberia)
- Abi Lagoon-Cape Three Points Complex (Côte d'Ivoire and Ghana)
- Gola and Lofa-Mano Forests (Liberia and Sierra Leone)
- Outamba-Kilimi (Guinea/Sierra Leone)

In general, STEWARD can emphasize economic growth activities in these areas because providing communities with alternative livelihoods could reduce the threat that poverty poses on the environment. Similarly, democracy and civil society objectives should also be considered as they help to organize communities, raise awareness of rights, and build capacity to manage communal resources. These activities contribute to biodiversity conservation by improving a community's capacity to organize themselves around natural resources, including the ability to create institutions for managing natural resources. Before designing or implementing any specific activities, it is recommended that STEWARD first 1) develop a transboundary conservation agreement that describes the mission, goals, and objectives for the area, as well as participants and stakeholders, and 2) develop an action plan for each site.

I. Introduction

The STEWARD Concept

The Upper Guinean Forest ecosystem, located in West Africa, extends from southern Guinea into Sierra Leone, through Liberia and southern Côte d'Ivoire, into Ghana and western Togo. This region is a high global priority for biodiversity conservation, under threat, and is of strategic importance in terms of peace building, extractive industries, and for other important global commodities such as rubber, cocoa and oil palm.

National boundaries are arbitrary in the context of natural resource functioning. Individual West African countries share the same forest, freshwater, and marine ecosystems. For example, Guinea contains 14 watershed basins at an international level within its borders. Therefore, a regional approach and dialogue are integral to maintaining these ecosystems.



(Source: United Nations)

The US Agency for International Development (USAID) has already made significant investments in biodiversity and community-based natural resource management in Liberia, Guinea, Ghana and Sierra Leone. For example, in Côte d'Ivoire and Ghana, lessons are being learned about cocoa production in relation to natural forest conservation. Guinea has pioneered community participative forest management in the region, while other West African countries, such as Burkina Faso, Niger and Senegal are advanced in approaches to natural regeneration of degraded lands and in decentralized natural resource management.

The region as a whole, however, remains a major area of biodiversity significance that has been historically overlooked and under-resourced. In response, USAID and the US Forest Service have conceptualized a program to address regional threats to biodiversity, capitalize on regional opportunities to spread best practices, harmonize policies, promote transboundary collaboration, and improve regional natural resource markets. This program is named STEWARD: Sustainable and Thriving Environment for West African Regional Development.

USAID has experience in developing and supporting regional and transboundary conservation initiatives such as the Central African Regional Program for the Environment (CARPE) and the Amazon Basin Conservation Initiative (ABCI). These multi-stakeholder regional platforms have leveraged other donors, non-governmental organizations (NGO), and host governments and have led to advances in biodiversity

conservation, forest policy reform, governmental and inter-governmental capacity building, and private sector investment.

The overarching goal of STEWARD is to foster regional strategies for, and approaches to, biodiversity conservation, improved livelihoods, and sustainable natural resource management in the Upper Guinean Forest. STEWARD will focus on activities in the countries of Guinea, Sierra Leone, Liberia, Côte d'Ivoire, and Ghana. The specific objectives of STEWARD are fourfold:

- Build capacity for increased regional collaboration
- Improve policies for regional conservation and natural resource management
- Pilot transboundary natural resource management and conservation action at selected sites
- Promote the transfer of knowledge and lessons learned among countries

Purpose of this Assessment

As an early step in determining STEWARD activities, this assessment of the region was completed to gather background information, identify potential partners and provide strategic direction. The objectives for this initial assessment are to research existing literature and information, summarize key threats in the region, and assess opportunities for action in order to determine the next steps in a two-stage (desk study and field component) regional biodiversity and tropical forestry assessment. These types of assessments are required under Sections 118 and 119 of the Foreign Assistance Act (FAA) for country planning purposes. USAID has recently conducted 118/119 assessments for each of the STEWARD-area countries, with the exception of Côte d'Ivoire, which is in process¹ (*see* Annex 2: "USAID Resources").

Because STEWARD is regional in scope, this assessment is written from a broader, transboundary perspective. Exhaustive detail about the state of the environment and associated threats for each country within the STEWARD study area are not provided here, as this has already been documented in each of the individual country mission assessments. This assessment instead focuses on identifying key regional issues, trends, threats, and major participants in the biodiversity and forest sectors, as well as information on current US Foreign Assistance and USAID programming, with recommendations for transboundary pilot sites and activities under the STEWARD program.

Study Area Profile

The Guinean Forest is a belt of tropical rainforest spanning the coast of West Africa from Guinea to Cameroon. There are three distinct vegetation zones within the Guinean Forest: moist coastal forests; freshwater swamp forests (e.g. Niger delta); and semi-deciduous forests inland. The rainforest belt is comprised of two distinct sub-regions: the Upper Guinean block to the west, which extends from Guinea to Togo, which is the STEWARD focus area, and the Nigeria-Cameroon block to the east. The forest blocks

¹ Expected spring 2008

are biogeographically separated by the Dahomey Gap, a mixture of savanna and dry forest in Togo and Benin; the extent of forests in these two countries has been greatly reduced relative to what existed at the turn of the century. The Upper Guinean and Nigeria-Cameroon forest blocks also correspond to two important centers of endemism - places where species are found nowhere else. Endemic species can easily become endangered or extinct due to their restricted habitat and vulnerability to the actions of man, including the introduction of new organisms.

The STEWARD study area focuses on the Upper Guinean forest block and the countries contained within its extent: Guinea, Sierra Leone, Liberia, Côte d'Ivoire, and Ghana. The Upper Guinean forest is further segregated into two ecoregions: Western and Eastern Guinean Lowland forests.² The two ecoregions are separated by the Sassandra River in Côte d'Ivoire, an important biogeographical boundary for primates, duikers, amphibians, lizards, and other groups (WWF 2007).

Tropical Forests

The Guinean Forest was once a closed canopy tropical rainforest estimated to have extended over 620,300 km² (<http://www.biodiversityhotspots.org>). Human activities over the course of several centuries have reduced the original forest cover by more than 80 percent; closed canopy forest cover now extends only 93,045 km². The forest is highly fragmented and interspersed with blocks of agriculture and degraded lands. The three largest complexes of forest in the Upper Guinean ecosystem are in Sierra Leone and Liberia; Liberia and Côte d'Ivoire; and eastern Côte d'Ivoire and western Ghana, although even these are highly fragmented.

It is believed that Liberia is the only country in West Africa that was once entirely covered with rain forests, yet less than half remains today (CBD 2007). Of the intact forest remaining in the Guinean Forest, Guinea contains 8%; Sierra Leone 5%; Liberia 43%; Côte d'Ivoire 28%; and Ghana 16%. As depicted in Table 1, there continues to be a net loss of forest in the region (as well as Africa as a whole), primarily the result of conversion of forest to agricultural land, including estate crops and illegal logging. Restocking trees in legally logged areas also take several years to mature into true forested areas. The West African region has the highest deforestation rate in Africa and one of the highest in the world (FAO 2007). These figures are based on total forest area, which includes primary and secondary forests and forest plantations.

² A relatively large unit of land that contains a geographically distinct assemblage of natural communities and species; ecoregion is the next smallest biogeographic unit beneath "realm" and "biome" (WWF 2007).

Table 1. Forest area and area change in the Upper Guinean countries

	Forest Area, 2005				Annual Change Rate			
	Total forest	% of land area	Area per capita	Forest plantations	1990-2000		2000-2005	
	(1,000 ha)	(%)	(ha)	(1,000 ha)	(1,000 ha)	(%)	(1,000 ha)	(%)
Côte d'Ivoire	10,405	32.7	0.6	337	11	0.1	15	0.1
Ghana	5,517	24.2	0.3	160	-135	-2	-115	-2
Guinea	6,724	27.4	0.8	33	-50	-0.7	-36	-0.5
Liberia	3,154	32.7	0.9	8	-60	-1.6	-60	-1.8
Sierra Leone	2,754	38.5	0.5	3	-19	-0.7	-19	-0.7

Source: FAO 2007

Biodiversity

The region's tropical forests support a large assemblage of terrestrial and aquatic organisms. The entire Guinean Forest (Guinea to Cameroon) is considered a biodiversity "hotspot" (Annex 1, Map 1). Conservation International (CI) categorizes a "hotspot" based on its biodiversity significance and degree of threat. The Guinean Forest Hotspot is one of 34 biodiversity "hotspots" in the world and is considered a priority conservation area because of its high species endemism. The Guinean Forest supports more than a quarter of all mammals found on the African continent. The forest is also one of the most critical areas in the world for primate conservation – five species are Critically Endangered and another 21 are Endangered; 92 percent of the hotspot's primates are endemic (CEPF 2000). Table 2 summarizes this forest's biodiversity status.³

Table 2. Guinean Forest Hotspot Diversity and Endemism

Taxonomic Group	Species	Endemic Species	Percent Endemism
Plants	9,000	1,800	20.0
Mammals	320	67	20.9
Birds	785	75	9.6
Reptiles	210	52	24.8
Amphibians	221	85	38.5
Freshwater Fish	512	143	27.9

Source: www.biodiversityhotspots.org

Hotspots are not the only system devised for assessing global conservation priorities. The Guinean Forest Hotspot also contains three terrestrial and one freshwater Global Ecoregions (all of which are rated Critical/Endangered), five Endemic Bird Areas, and is considered a Center of Plant Diversity with 14 centers of plant endemism. All of these special classifications illustrate the importance of this area's unique biodiversity and need for conservation and protection. All STEWARD countries have ratified the following international conventions and agreements to support worldwide conservation efforts:

³ It is important to note that these figures correlate to the entire Guinean Forest including Nigeria and Cameroon; the Upper Guinean forest block is a subset of the hotspot. Therefore, the quantity of species present within the STEWARD study area is likely to be less. It is recommended the final assessment more precisely quantify species presence specific to only the Upper Guinean forest block.

- Convention on Biological Diversity (CBD)
- United Nations Framework Convention on Climate Change (UNFCCC)
- Kyoto Protocol⁴
- UN Convention to Combat Desertification (CCD)
- Convention on International Trade in Endangered Species (CITES)
- Ramsar (Wetlands) Convention
- World Heritage Convention

In December 1999, CI organized a five-day Conservation Priority-Setting Workshop (CPW) bringing together more than 140 scientists, regional experts, and government officials from over 90 institutions to establish integrated conservation priorities specific to the Upper Guinean forest block. The CPW identified 41 priority areas for integrating biodiversity conservation, improved livelihoods, and natural resource management in the Upper Guinea ecosystem, of which 25% are transboundary areas (CI 2001). These integrated priorities are grouped into five regions: Northwestern (Sierra Leone, Guinea, Liberia); Mount Nimba Range (Guinea, Liberia, and Côte d'Ivoire); Southwestern (Liberia and Côte d'Ivoire); Eastern (Côte d'Ivoire and Ghana) and Togo Highlands/Eastern Ghana Coastal (Annex 1, Maps 2-5). Particular sites within these high priority regions (with the exception of the Togo/Ghana region) will be discussed in greater detail in section V of this report as areas for USAID to focus pilot transboundary natural resource management and conservation activities under STEWARD.

Approximately 12.5% (20,270 km²) of the forests and other lands within the STEWARD study area are under a protected area (PA) status. While the IUCN has defined six protected area management categories based on primary management objective,⁵ in practice PA management differs greatly from country to country. Likewise, an area's protected status is not always adequate and "protected" is not necessarily equivalent to a no-use or preservation policy. For example, Bia National Park in Ghana was reduced to a quarter of its size by logging alone two years after it was established as a National Park in 1974. This gap between policy and action will be discussed in more detail later in this report; nonetheless conservation strategies require collaboration and consistency across nations as remaining forests extend beyond political boundaries. Existing protected areas, by designation type, within the STEWARD-specific countries are listed in Table 3. Most of these PAs overlap with the integrated priority areas identified in the CPW. Some PAs also retain other important worldwide biodiversity designations, such as a World Heritage Site or UNESCO Biosphere Reserve, as in the case of Mount Nimba.

⁴ Not yet ratified by Côte d'Ivoire.

⁵ <http://sea.unep-wcmc.org/wdbpa/index.htm>

Table 3. Protected areas by country and type

Country	National Designation	Number
Guinea	Classified Forest	138
	Reforestation Area (Foret Classee)	10
	National Park/Buffer Zone	2
	Strict Nature Reserve	1
	<i>Total area (1,000 ha)</i>	<i>1,070</i>
Sierra Leone	Forest Reserve	44
	No or Non-Hunting Forest Reserve	6
	Game Reserve/Sanctuary	1
	National Park	*2
	Strict Nature Reserve	1
	<i>Total area(1,000 ha)</i>	<i>324</i>
Liberia	National Forest	14
	National Park	1
	Nature Conservation Unit	1
	<i>Total area(1,000 ha)</i>	<i>1,523</i>
Côte d'Ivoire	Classified Forest	298
	National Park	8
	Strict Nature Reserve	2
	Botanical Reserve	2
	Fauna and Flora Reserve	1
	Partial Faunal Reserve	1
	<i>Total area(1,000 ha)</i>	<i>5,453</i>
	Ghana	Forest Reserve
National Park		7
Strict Nature Reserve		1
Resource Reserve		1
Wildlife Sanctuary		3
Game Production Reserve		5
<i>Total area(1,000 ha)</i>		<i>3,687</i>
		TOTAL PROTECTED AREA

Source: (Earthtrends 2003; UNEP-WCMC 2006)

*Reflects the newly created Gola National Park

Aquatic Ecosystems

Aquatic resources in the study area are vitally important to the region. Guinea's mountain peaks rise up to 1752m and are considered to be the "water tower" of Western Africa. Fish stocks of Sierra Leone are considered the most diverse along the West Coast of Africa. In Liberia, 13.5% of the country is covered with water from six major rivers and the fishery sector provides about 65% of the protein needs of the country, employs thousands of people and contributes about 10% to the GDP. Hydropower provides 25% of the regions electricity and in Ghana 60%. Guinea, Côte d'Ivoire and Ghana all contain portions of the Guinean-Congolian Coastal Mangroves (CBD 2007).

Wet conditions have persisted over evolutionary time in the Upper Guinea Rivers and Streams Global Ecoregion, allowing species to survive here when dry conditions dominated other portions of the continent. The Guinean mountain range and its many waterfalls and rapids further limit the dispersal of aquatic species in the coastal basins into other West African basins (WWF 2006). These isolated conditions have resulted in high species endemism. This ecoregion is distinguished by two endemic genera of crabs

and dozens of endemic fish species, several of which are adapted to turbulent, fast-flowing waters found in this area.

The Guinea Current Large Marine Ecosystem (GCLME) is considered one of the world's most productive marine areas: it is rich in fishery resources, petroleum production, and is an important global region of marine biological diversity with mangrove forests, turtle nesting beaches and coastal lagoons.⁶ The GCLME is defined as the shallow ocean system located off the coast of West and Central Africa stretching from Guinea Bissau in the north to Angola in the south (Annex 1, Map 6). Mangroves typically occur almost everywhere along the coast in the GCLME but Guinea has the most extensive network of mangroves in all of West Africa. Mangroves serve as important spawning and breeding grounds for many transboundary aquatic species.

Ramsar sites are wetlands designated as internationally important under the Convention on Wetlands (Ramsar 1971). Within the study area, there are a total 34 Ramsar sites – half of which are within Guinea – and many of them connected to one another along the coastline (Annex 1, Map 7). However, while Ramsar sites may be internationally recognized as important, none of those within the study area are formally protected. In fact, less than 1% of the entire world's marine resources fall under PA status.

⁶ <http://www.chez.com/gefgclme>

II. Key Threats and Issues Related to Biodiversity and Tropical Forests

The Upper Guinean Forest and connected aquatic resources face numerous direct threats to their functioning and continued existence. A review of threats to biodiversity across the study area, as documented by USAID missions and various conservation stakeholders, reveals a number of common issues, which have been organized here by ecosystem type (forested and aquatic). Many of these direct threats are also related to larger indirect political and socioeconomic issues, discussed at the end of this section under “Key Policy Issues.”

Forest Ecosystem Threats

Overall, the forest ecosystem is most threatened by habitat fragmentation and deforestation. Some of this is exacerbated by illegal practices; however perhaps more of this condition can be attributed to the incremental, cumulative impact of traditional land use practices by a growing population throughout the region. Among the general population and even at the national level, there is also a lack of awareness or consideration of the link between biodiversity and economic growth. With a limited awareness and understanding of the benefits of biodiversity, there is often little public support for conservation.

Agriculture

Forested lands are being converted to both industrial and subsistence agriculture as the population grows and areas of cultivation shift. Tropical forest soils are not highly fertile and generally not suitable for continuous cultivation without additional natural or man-made inputs. Mainly foreign-owned plantations (cocoa, coffee, rubber) are replacing forested areas. Cocoa farming along the Ghana-Côte d’Ivoire border is of particular concern because of its high export value and the expansive production base (USAID/Ghana 2006). Traditional shade-grown/low-no chemical cocoa farming is giving way to full-sun/high input cultivation in this area to achieve greater yields. Following the trend of population growth, traditional slash-and-burn practices are being used more frequently; increased fire use, in conjunction with a lack of sensitivity to the dangers of fire, is resulting in more uncontrolled bushfires.

Mining

The region is rich in iron ore, diamonds, gold, rutile⁷, and bauxite. Both large-scale, industrial mining and small-scale, artisanal mining can affect the health of freshwater systems and regional watersheds, and result in both deforestation and increased demand and hunting for bushmeat. There is a lack of effective reclamation programs for mined areas in all of the study area countries.

⁷ Rutile is a form of titanium oxide and used as a base in paints, plastics, papers, foods, and other applications that call for a bright white color.

Timber and Fuelwood

Commercial logging directly leads to loss of forest and changes in the closed canopy structure, which in turn impacts shade-dependent flora and wildlife habitat. Illegal logging is on the rise as sanctioned commercial timber areas are becoming scarce. For instance, Ghana is able to sustainably produce one million cubic meters of timber from its forest reserves and the wider agricultural landscape. However, in 2002, Ghana's Minister for Lands and Forestry admitted that “the total quantity of logs removed in 1999 amounted to 3.7 million cubic meters, four times the annual allowable cut” (Bakarr et al. 2004). The extensive development of logging roads further fragments forested habitat and also facilitates easier access to the forest for farming, mining, and hunting. Fuelwood has a high economic value and is the major source of each nation's energy consumption, along with charcoal.

Hunting

Commercially-driven bushmeat hunting is one of the major threats to larger animal species in the Upper Guinean forest. Although bushmeat has long been an important component of the rural West African diet, growing urban demand, improved road networks, and increased access to forests have created a huge commercialized trading system at both the national and international levels (Bakarr et al. 2004). Demand for bushmeat is largely linked to wealthier urban households, within both Africa and abroad (Wilkie et al. 2005, Milius 2005). Illegal hunting of bushmeat and the pet trade tends to focus on highly exotic species, which are often also endangered and threatened species. Over-exploitation of wildlife harms the region's high mammalian endemism and can lead to an “empty forest syndrome.” The depletion of marine and freshwater fish has also been linked to an increase in bushmeat consumption (Brashares 2004).

Aquatic Ecosystems Threats

Aquatic systems, freshwater as well as coastal wetlands and near-shore marine communities, are affected by upstream changes in terrestrial--especially forested--environments. The conservation of aquatic systems and watersheds is complicated by their transnational character, reflecting the impact of political fragmentation on the West African landscape.

Water Pollution

The quality of north-south river systems that flow through the region reflect the impact of growing human populations, deforestation, expansion of commercial agriculture, and mining. Logging operations lead to increased sedimentation, which in turn leads to temperature change, reduction in nutrient levels, and other water quality impairments. Pollution from industrial, municipal, and agricultural sources also impairs water quality and impacts aquatic organisms downstream and in the ocean. Although the petroleum industry has been singled out as a major polluter in the Gulf of Guinea, improper domestic and industrial waste disposal also poses a significant threat (Gilpin 2007).

Coastal Development

The main threats to the coastal zone are conversion, fragmentation, and alteration of natural habitats. Wetlands are being filled in for development. Mangroves in Guinea are being cleared for rice cultivation at a steady rate (USAID/Guinea 2007). Unsustainable development, with the accompanying destruction of mangroves, leads to a loss of biodiversity and many consequent problems for local people, including a lack of firewood, reduced coastal protection against floods, water flow changes, and the disappearance of important spawning areas for fish and crustaceans.

Fishing Practices

Coastal habitats are important for both near-shore artisanal and commercial marine fisheries. Techniques employed by artisanal fisherman are frequently unsustainable due to the use of poisons, explosives, netting with excessively small mesh sizes, and inappropriate gear use such as bottom trawls in sea grass beds (USAID/Liberia 2007). Meanwhile, the region's marine fisheries are being depleted by foreign fleets, returning virtually no value to the countries (Gilpin 2007). Not only are the fish and income derived being exported out of the region; over-fishing leads to stock depletion and upsets the ecological balance of individual species and specialized marine ecosystems. Additionally, a recent study has highlighted the correlation between over-fishing and increased bushmeat hunting (Brashares 2004). As people seek sources of protein for food, if the availability of fish as a food source declines, then they will turn to alternatives provided by the forest. Therefore, sustainable management of coastal and fisheries resources can influence forest and wildlife management.

Key Policy Issues

A widespread lack of institutional capacity and political will across the study area, combined with poverty and a low level of environmental awareness, creates a challenging landscape for sustainable development and natural resources management. The key policy issues outlined below contribute to the threats previously identified. Some historians will argue that a legacy of colonialism and post-colonial land and resource distributions as well as ill-suited institutions (e.g. forestry departments based on the English model) are root causes of these issues.

Poverty

Poverty is widely accepted as one of the most pressing underlying threats to sustainable development and conservation in the region (CEPF 2006). Interventions are unsustainable if poverty is not addressed because the environment is the foundation for life. Natural resources are a direct source of raw materials for sustaining livelihoods and economies. Urgent short-term needs override long-term opportunities. Unemployment can exacerbate social unrest and stimulate human migration, ethnic tension, and conflicts regarding land tenure.

Migration and Urbanization

Migration, within and between countries (e.g. refugees fleeing conflict and/or poverty), contribute to over-exploitation and unsustainable practices. Municipal and natural resources in coastal areas and cities are facing increased population pressure; many people are moving to these areas because they offer better economic and social opportunities, including education and health services. Migration from rural areas to urban areas results in the transformation of land at the urban fringe and adds pressure to adjacent natural resources. Therefore, STEWARD should consider interventions and sustainable development opportunities aimed at urban populations, as well as rural subsistence populations.

Political Instability

Political instability, both domestically and throughout the sub-region, threatens governments and disrupts the availability of basic public services. Sierra Leone and Liberia are still recovering from the civil strife that plagued those countries for years. Recent conflicts in Côte d'Ivoire have resulted in differing levels of encroachment and unrest. In the 1990s, the United Nations High Commission for Refugees documented over a million refugees fleeing civil wars and persecution in Liberia and Sierra Leone to seek safety in Guinea, Côte d'Ivoire, and Ghana. This number has increased in recent years with the outbreak of conflict in Côte d'Ivoire. The flow of refugees from one country to the next is a problem, as people arrive without resources and require at the very least food, shelter, and fuel. Large refugee camps use wood to construct new homes, need firewood, and also depend on large quantities of wildlife for food.

Environmental impacts of refugees do not necessarily end when peace accords are signed. Many times, there is a need for more land during repatriation and resettlement (CEPF 2006). In Liberia, for example, the areas around northwest Montserrado, Monrovia and its surroundings have a high concentration of internally displaced people (IDP) camps, as well as hosting refugees from Sierra Leone and Côte d'Ivoire over recent years. In this particular area, the absence of adequate waste and sanitation measures poses potential threats to the water quality and mangrove areas around Monrovia (UNEP 2004). Poverty and political instability are inextricably linked and, although creating political stability is an enormous challenge, actions can be taken to support democracy, good governance, and transparency at both the local, national, and regional levels.

Cross-Border Issues

In addition to the influx of refugees, government leaders in the region have identified other difficulties related to the management of shared resources across borders (RoG 2007). First and foremost among these, is the illegal exploitation of shared forest resources by traders operating beyond their authorized licenses into a neighboring country and illicitly exploiting forest products either alone or in collaboration with the local population. For instance, while the bushmeat trade in Sierra Leone is limited, most of the hunting and trapping that takes place is done by Liberians who cross the border (JGI 2007). This situation is a result of both insufficient communication among forest agencies in the various countries and corruption at international border control points.

There is also a lack of monitoring within the sub-region and an inability to monitor all border crossing areas. Illegal forest products traded in local neighboring country markets are in violation of international regulations and trade standards. Because borders are areas where much money is to be made in both illicit trade and in exploiting differences in currency value, it is difficult to shut down these trades.

Inadequate and Uneven Policy and Legislation

As national conflicts are resolved, the investment climate in the region is improving and extractive industries are returning to harvest the region's natural resources. Private investment is starting to pour in as nations struggle to rebuild institutions and policy frameworks. Mining industries are a huge part of the landscape and the economies of West Africa. Many mines in the region are exploited by foreign companies (e.g. UK-Australian based Rio Tinto, US-based Newmont, Canadian-based Mano River Resources, Alcoa and Alcan). While some mining companies are trying to be more responsible (e.g. Rio Tinto and Newmont) and are even working with USAID and partners to develop environmental and social guidelines, existing laws pertaining to mining are very weak. Expanded investment and economic development in the mining sector poses a significant threat to the natural resource base and could result in substantial environmental degradation in the absence of appropriate regulation and enforcement mechanisms. As such, government leaders in the region have expressed the need to come up with regional mining standards that provide better control and consistency across West Africa (RoG 2007). Standards such as disclosure of environmental impacts, public involvement, best management practices, monitoring, and reclamation requirements would help strengthen regulatory control over mining activities no matter where they occur.

Any regional environmental effort in West Africa must recognize that "resource curse" issues directly and indirectly impact livelihoods, governance and overall development context in the region. A robust approach toward the goals of environmental stewardship and sustainable development within the STEWARD framework cannot ignore the historic mismanagement of natural resource wealth. For example USAID's pioneering work through Management Systems International (MSI) led to a decrease in the illegal diamond trade over the past four years. Sierra Leoneans are now just beginning to see material benefits from the exploitation of alluvial diamonds. How we build on these successes is an important lesson learned that should be broadcast and shared across the region.

Most conservation efforts to date have focused on forest ecosystem protection and rarely target the coastal zone. There are no established coastal protected areas within the study area, nor are there any marine reserves, and protection is only through fisheries and endangered species (CITES) legislation. Inland wetlands, mangrove forests, peat swamps, and freshwater swamps (MES 2002) are also under-represented in the PA estate. Artisanal coastal and inland fisheries management has so far been relatively neglected in policy (Payne 2000).

The International Maritime Bureau ranks the Gulf of Guinea as one of the most troubled global waterways; a vast majority of piracy attacks resulted in an actual boarding and

reflects a heightened level of maritime insecurity (Gilpin 2007). An inability to exercise control over their maritime domain has made it difficult for Gulf of Guinea states to enjoy the full benefits of a significant fisheries resource. Recent studies suggest that poaching by vessels from Asia, Europe and other parts of Africa (MRAG 2005) costs the sub-region some \$370 million annually. Guinea, Sierra Leone, Liberia and *Côte d'Ivoire* are among the most vulnerable to illegal, unreported and unregulated (IUU) fishing based on the level of governance and monitoring, control, and surveillance capability of these countries (MRAG 2005). In addition to financial losses, poaching also has human costs. Households and individuals are affected directly via reduced availability of seafood in local markets. Poaching also indirectly reduces the income and loss of means of livelihood in subsistence fishing communities (Gilpin 2007).

Gap between Policy and Action

Weak and inefficient governance constitutes a problem in most of the countries in this region; laws and protected areas on paper may not be well enforced (Bakarr et al. 2004). These weaknesses have led to corruption and participation of officials in the accelerated extraction of the resources of the country. For example, the prohibition against the commercial sale of bushmeat is often unknown or overlooked by market officials and government agencies lack funding and human resources necessary to enforce regulations (USAID/Guinea 2007). As another example, it is widely recognized that Ghana's legal framework for conserving biodiversity is adequate, but implementation is deficient and the challenge is to translate the framework into actions on the ground (USAID/Ghana 2006). Putting into place the rule of law is a first step to institutional reform but there must also be leadership and cultural norms in place, most particularly respect for national patrimony. If people feel that there is corruption at the top and weak enforcement, resources will continue to be "up for grabs" (USAID/Liberia 2005). The role of citizens and communities, and how they contribute to and build good governance should be considered in future STEWARD activities.

Limited Capacity

There is little investment in personnel to manage natural resources as well as a lack of quality education for the population in general, leaving the talent pool for recruitment by these ministries and departments very shallow. The forest management training provided by Mario Gauthier and the community groupement management by Winrock are examples of successful capacity building relevant to the STEWARD study area (*see* "Additional Recommended Resources" in Annex 2). In turn, limited training, lack of enforcement, and lack of resources are substantial obstacles to effective natural resource management (NRM). There is also a general lack of reliable scientific data across the study area for government agencies to assess and make decisions about biodiversity, forests, and marine resources. Part of this stems from a lack of skilled capacity (training) as well as lack of tools and software to help resource planners organize and visualize information. Local communities are often unaware of NRM policies and "illegal" practices and/or are reluctant to point out observed illegal practices to authorities for fear of reprisal. The region as a whole also lacks sufficient infrastructure to facilitate economic trade and communication. Travel within and across borders is hampered by poor roads and lack of reliable public transportation and air services, which hinders

ecotourism. Liberia is still without essential services as it struggles to build its public utilities after 14 years of civil conflict.

Lack of Regional Natural Resources Management and Conservation Planning

There is an overall lack of regional mechanisms and limited cross-border collaboration. Generally, forest management and conservation activities in West Africa are sporadic, lacking coordination and adequate planning at the regional level for effective monitoring and performance evaluation. The greatest threat to the region's conservation includes the lack of coordination among agencies and departments, and between government, civil society, and traditional communities. This results in some overlap of responsibilities and incomplete programs for biodiversity conservation. Programs to create biological connectivity between highly fragmented ecosystems, and to build local economies on environmentally and culturally sustainable practices, are particularly absent (JGI 2007). A proper assessment of valuation of the contributions of the forestry sector to wealth creation, poverty alleviation and development of the economy of the sub-region still needs to be identified.

III. Current NRM and Conservation Activities in the Region

To help address the lack of regional planning in the Upper Guinean forest region, one of the core principles of the STEWARD concept is to focus on activities at the regional and transboundary level complementing current USAID mission country programs.

Likewise, STEWARD programming should be complementary to - rather than redundant with - other ongoing donor and private sector efforts and initiatives within the region. A key component of this assessment, therefore, is to understand the primary actors working in the biodiversity, forestry and marine sectors within the region, in order to highlight opportunities for future USAID action. The next section of this report assesses current USAID programming within the study area; existing donor and private sector investment in natural resources; and potential partnerships for conservation and sustainable NRM at the regional level.

Additionally, it is important to note here that while STEWARD activities will be focused on a particular set of countries within the Upper Guinean forest region, the “knowledge-shed” in which STEWARD can draw information and best practices from is much broader. For example, the Sahelian countries have a substantial amount of experience and knowledge on topics relevant to STEWARD. During development and implementation of future STEWARD activities, that body of knowledge should be tapped even though most of the countries are outside of the STEWARD zone of action. “Additional Recommended Resources” in Annex 2 of this report provides an initial listing of relevant case studies and development project reviews that begin building this body of knowledge.

USAID Programming

USAID missions operate in each of the STEWARD area countries, with the exception of Côte d’Ivoire and Sierra Leone which are limited presence countries. The agency also manages a larger West Africa Regional Program (WA), which provides regional assistance to 18 countries within western Sub-Saharan Africa. Because STEWARD is intended to be regional in scope, USAID/WA is the obvious implementer for future programming. It is, however, also important to consider individual country mission programs so that future STEWARD activities can be complementary to these. In fact, are opportunities to expand successful biodiversity activities from one mission’s portfolio into a transboundary STEWARD activity in order to address similar issues across borders. A brief summary of strategic objectives and programs under the USAID/WA, USAID/Guinea, USAID/Sierra Leone, USAID/Liberia, and USAID/Ghana missions are provided in Annex 4. Meanwhile, a few more recent and successful USAID programs that could be scaled up or replicated throughout the STEWARD region are highlighted here.

USAID/Guinea’s Landscape Management for Improved Livelihoods (LAMIL) was a two year project (2005-2007) working in four co-managed classified forests to expand livelihoods and conserve biodiversity. Specific activities included: teaching nursery techniques and providing trees for reforestation, supporting co-management of classified forests and community forests, conducting agroforestry extension activities, supporting biotechnology research for improved planting materials, and producing marketing

information and support for agricultural products. The most recent 118/119 Assessment undertaken for USAID/Guinea determined that LAMIL was the one USAID program that directly responded to the most environmental threats identified for Guinea, with the exception of mining, coastal area management, and regional coordination (USAID/Guinea 2007). Extending the current LAMIL project or launching a new and similar activity would help to institutionalize the co-management approach and scale up the success of this project to other areas of the country and possibly the region.

The Liberia Forest Initiative (LFI) originated in 2004 to promote and assist with reforms in the Liberian forestry sector that would allow for transparent management of forest resources and to ensure these resources are used for the benefit of the Liberian people.⁸ Over time, the LFI evolved into a strong multilateral and multinational partnership between the US State Department, US Forest Service, USAID, Conservation International, Environmental Law Institute, World Bank, European Commission, Center for International Forestry Research (CIFOR), World Agroforestry Centre (ICRAF), FAO, IMF, and IUCN. LFI support to forestry sector reform is organized around three main themes: commercial forestry; community forestry and conservation. In addition, the LFI works on cross-cutting issues, such as: governance and the rule of law; transparency and information management; policy development; legislation; capacity building; and security. The LFI has since been successful in facilitating law enforcement training for Forest Development Authority (FDA) employees, lifting of UN Security Council timber sanctions against Liberia, and reforming Liberia's National Forestry Law.

In February 2007, Conservation International (CI) with assistance from USAID initiated the Civilian Conservation Corps (CCC) project in six communities around Sapo National Park, Liberia. Despite a successful evacuation of illegal occupants from the area in 2005, incursions by gold miners and hunters into the park continue today. This 2-year project will help create alternative livelihood options for dwellers in the park and complements other conservation and community forestry activities that FDA and Flora & Fauna International (FFI) are currently carrying on around the area. The CCC project hopes to serve as a model that could be replicated in other key biodiversity areas throughout Liberia and possibly the entire Guinea forest hotspot.

The Land Rights and Community Forestry (LRCF) program

The Sustainable Tree Crops Program (STCP) is a unique public-private partnership with the goal of improving the economic and social wellbeing of smallholders and the environmental sustainability of tree crop farms in West Africa.⁹ The initial focus has been on cocoa, which accounts for 57% of West Africa's agricultural export commodities and over 70% of worldwide cocoa production. A 3-year pilot phase was launched in Cameroon, Côte d'Ivoire, Ghana, Nigeria, and Guinea in 2002 with the objectives of: promoting the production and marketing of quality cocoa, improving market access and income for small-scale producers, and creating systems that are environmentally friendly, socially responsible, and economically sustainable. The World Cocoa Foundation and

⁸ www.fao.org/forestry/site/lfi/en/

⁹ www.treecrops.org

USAID have been primary supporters of the effort, while the program is managed by the International Institute of Tropical Agriculture (IITA). Three regional projects also support these national projects: technology delivery, research, and impact; child labor and; trade and information systems. Following a positive external review in 2005, STCP members agreed to support a 5-year regional plan starting in 2006. Today, STCP continues to be a successful partnership and model platform for regional collaboration and improved agricultural and export policies.

Multilateral and Bilateral Investment

Overall, foreign donor assistance accounts for approximately 9% of the aggregate GDP of West African countries. Of this amount, approximately half is derived from multilateral sources and half from bilateral sources. France, Germany, Japan, the United States, the Netherlands, the United Kingdom and Canada are the largest bilateral donors. The principal multilateral sources include the International Monetary Fund, the European Union, and the following donors:

1. The World Bank (WB) is a source of financial and technical assistance to developing countries around the world. Since the African Union launched the New Partnership for Africa's Development (NEPAD) over five years ago, Africa leaders have been seeking to bring regional integration into the mainstream of the continent's development efforts. In support of this regional approach, the World Bank developed its 2006-2008 Africa Action Plan (AAP). The plan brings the Bank's partnership with national and regional clients strongly to the agenda of trade facilitation, infrastructure and regional capacity development. Regional program examples include transport corridors, power systems, telecommunications systems, agricultural research, financial sector integration, and river basin development.

Individual World Bank-funded projects occurring within the study area are too numerous to list here, but can be searched on the World Bank [projects database website](#).¹⁰ Current WB regional programs that pertain to the assessment area are provided here for reference:

- *West Africa Agricultural Productivity Program* (WAAPP) is designed to generate and disseminate improved technologies in the participating countries' top priority areas that are aligned with the region's top priorities. These include roots and tubers in Ghana; rice in Mali; and cereals in Senegal.
- *West Africa Power Pool* (WAPP) - Phase II will develop a regional power market that delivers supply more cheaply and more reliably than countries are able to achieve working alone. Partners to date include ADB, EIB and the West Africa Development Bank.

There are also several proposed (“pipeline”) Bank projects. Those listed below are included here for further consideration as STEWARD is implemented because they will affect countries within the study area. Specific objectives and details regarding these projects are not yet available.

- National Protected Area Management Program (Côte d'Ivoire)

¹⁰ <http://go.worldbank.org/QUFW9TVHK0>

- Economic Governance and Recovery Grant (Côte d'Ivoire)
- Bumbuna Hydroelectric Project Completion (Sierra Leone)
- Public Financial Management (Sierra Leone)
- Futa Djallon Regional Natural Resource Management Program (Guinea, Mali, Sierra Leone,
- Electricity Sector Efficiency Improvement Project (Guinea)
- West Africa Regional Fisheries Project
- West Africa Regional Transport and Transit Facilitation Project

2. The Global Environmental Facility (GEF) is a partnership that includes three implementing agencies (World Bank, UNDP and UNEP). The GEF finances projects to address critical threats to the global environment and serves as the financial mechanism for the Convention on Biological Diversity, the UN Framework Convention on Climate Change, and the Stockholm Convention on Persistent Organic Pollutants. Several World Bank-GEF projects ongoing in the study area are highlighted here¹¹:

- *Coastal Marine and Biodiversity Management* project in Guinea (2006-2011) is designed to promote rational management of Guinea's coastal biodiversity for both conservation and sustainable development purposes in selected priority areas (coastal Ramsar sites), with an emphasis on assisting communities in and around priority areas to plan, implement and maintain environmentally sustainable and socially inclusive alternative livelihoods options.
- *Futa Djallon Regional Project on Strategic Actions in Natural Resources Management in the Fouta Djallon Highlands* (FDH): will 1) implement a legal and institutional framework for regional cooperation and local organization, as well as create a regional observatory for FDH which will monitor seasonal changes of the ecosystems and natural resources; 2) evaluate and adopt participatory models of integrated watershed management and sustainable ecosystem management and; 3) increase institutional capacity-building and enhance stakeholders' technical skills in implementation of the activities in using the shared resources of the FDH, in particular shared watersheds and protected areas (Ramsar Sites, Biosphere Reserves, etc.).
- *Capacity Building Land Management* project in Guinea (2006-2008) is designed to reduce land degradation through the integration of sustainable land management practices into the overall development planning process of communities and local governments in select pilot sub-watersheds.
- The *Northern Savanna* project in Ghana (2002-2008) has been working to improve the livelihood of communities and the environment in three elephant corridor areas through the conservation and sustainable use of natural resources. A recent review found this project to be successful as communities are developing small NRM based-enterprises; forest reserve and parks are improving management significantly; alternative livelihoods schemes are in place; and policies for the sustainable use of the Northern Savanna biodiversity are being developed together with many stakeholders.

¹¹ www1.worldbank.org/operations/disclosure/SOPE/FY07/sopeAFR.html

- *Wildlife Management and Biodiversity Conservation Project* in Sierra Leone (2006-2012) is designed to support improved protected area management in a country with low levels of institutional capacity.¹² The National Commission on Environment and Forestry (NaCEF) is the lead implementing agency.

Additionally, the World Bank-GEF is involved in four ongoing transboundary environmental planning projects within the Senegal, Lake Chad, Niger, and Nile river basins. STEWARD can draw on experiences and lessons learned from these projects (*see* “Additional Recommended Resources” in Annex 2) in the Upper Guinean region.

3. The United Nations Development Program (UNDP) GEF launched a biodiversity conservation project in the *Mount Nimba Biosphere Reserve* of Guinea in June 2005. The project’s objectives include: protection of three core reserve areas in the Nimba Mountains; improving agricultural intensification and promoting culturally appropriate animal husbandry and sustainable use of wild fauna and traditional medicinal plants in the buffer zone and transition area; and strengthening the management authority for the Biosphere Reserve. The UNDP-GEF has also been conducting feasibility studies for a new project to *Enhance Local Capacities for Sustainable Biodiversity Action* in select West African countries, including Liberia. This project is intended to help build local constituencies and competencies for Important Bird Area (IBA) conservation action at local site and national levels, including monitoring and reducing threats.¹³

Another UNDP-GEF funded project launched in 2004 is the *Combating Living Resources Depletion and Coastal Area Degradation in the GCLME through Ecosystem-based Regional Actions*, focusing on priority problems and issues identified by the 16 GCLME countries that have led to the degradation of marine and coastal ecosystems of this LME.¹⁴ The project includes nine demonstration projects, designed to be replicable throughout the LME - one of these demonstration projects includes erosion control measures in Assini, Côte d’Ivoire.

4. The African Development Bank (ADB), based in Abidjan, Côte d’Ivoire, unites 53 African member countries and 24 non-regional members. Recognizing the importance of a strong resource base, the ADB has added environmental protection to its strategic areas of focus, and in its vision statement identifies environment and gender as two cross-cutting issues that will pervade all of its operations and sectoral activities. There is one multi-national ADB project ongoing in the region: *Campaign against HIV/AIDS in the Mano River Basin*. The project is a result of dialogue and consultations between ADB, government representatives from Côte d’Ivoire, Guinea, Liberia and Sierra Leone as well as representatives of refugees, internally displaced people, the Mano River Union (MRU) and other international partners. Although Côte d’Ivoire is not a member of the MRU, it has been caught up in the conflict and hosts a considerable number of refugees. More than 60% of the project has been implemented since 2004 and it requires continuous

¹² www.gefweb.org/documents/Council_Documents/GEF_C28/documents/294805-16-06ExecutiveSummary.pdf

¹³ <http://cfapp2.undp.org/gef/site>

¹⁴ <http://igcc.gclme.org>

project supervision and concerted support to deal with the challenges of managing and coordinating activities in a post-conflict environment of multiple actors at multiple locations, across national boundaries.¹⁵

5. The Critical Ecosystem Partnership Fund (CEPF) provides financing to projects located in biodiversity hotspots. CEPF is joint initiative of Conservation International (CI), GEF, the Government of Japan, the MacArthur Foundation and the World Bank. CEPF is unique among other funding mechanisms in that it focuses specifically on biological areas rather than political boundaries and looks at conservation threats on a corridor-wide basis for maximum return on investment. In the case of West Africa, CEPF was one of the early transboundary mechanisms used in the region. The strategic direction of the CEPF program has been based on the 1999 CPW process (CI 2001) and targets funding gaps in the larger regional strategy. CEPF has created the building blocks for a West African conservation movement.

6. There is recent discussion that the UK Government's Department for International Development (DFID) is working toward beginning a large program in West Africa that would include an NRM component. No other information is available at this time, but it is recommended this be investigated further during the next stage of the STEWARD assessment.

International NGOs

1. In 2004, the World Wildlife Fund (WWF) appointed a forest officer in Accra, Ghana to begin building the *West Africa Forest Program*. One of the objectives of this initiative is to develop and coordinate a sustainable forest conservation and management program for the Guinean Moist Forest Ecoregion in collaboration with local, national and international partners, and the WWF network.¹⁶ The WWF recently submitted a proposal to the US Embassy in Ghana to organize a *West Africa Forest Forum* in 2008. The first meeting would take place in February 2008 in Accra, Ghana. The forum would bring together governments and key organizations working in the region to develop an agreed upon framework and obtain political commitment from all heads of states for sustainable forest management in the Guinean Moist forest. There is not enough information at this time to determine how this effort could or would complement the *West Africa Forest Initiative*. Nonetheless, there is an opportunity to participate in the first scheduled session during the field portion of the STEWARD biodiversity and tropical forest assessment to obtain more information.

WWF's *West African Marine Ecoregion (WAMER)* program started in 2000 and is run from Dakar, Senegal. It is designed to address critical marine biodiversity and fisheries issues in the ecoregion, which includes the countries of Cape Verde, Mauritania, Senegal, Gambia, Guinea Bissau and Guinea. The project consists of four modules and a strong communications element: Supporting and Creating Marine Protected Areas; Sustainable

¹⁵ www.afdb.org/portal/page?_pageid=293,962607&_dad=portal&_schema=PORTAL&thing_id=12048234

¹⁶ www.panda.org/about_wwf/where_we_work/africa/where/ivory_coast/index.cfm?uProjectID=GH0005

Artisanal Fisheries; Fisheries Access Agreements; Threatened Species. Also, in Côte d'Ivoire, WWF is working with partners to establish the *Autonomous Project for the Conservation of Tai National Park*.

2. BirdLife International (BI) and its partner in the United Kingdom, the Royal Society for the Protection of Birds, secured full commitment of the Government of Sierra Leone to dedicate the entire Gola Forest to biodiversity conservation and improved natural resource management for local communities. BI is involved in a parallel role in Mt. Peko National Park and has been active designing initiatives on the Côte d'Ivoire side of Mt. Nimba and participating in the *Projet Cadre de Gestion des Aires Protégées* (PCGAP) consortium. There is a large number of Endemic Bird Areas (EBA) in the Upper Guinean forest and BI has done extensive work since the 1999 CPW to identify critical bird sites and designate additional IBAs in the region.
3. Conservation International (CI) works around the globe, focusing much of its work on the 34 biodiversity hotspots in the world, and was the key organizer of the CPW in 1999. A top priority for CI now is to add to the number of protected areas in western Africa and focus on actions such as creating and linking nature reserves, enforcing land-use and hunting restrictions, and monitoring threatened species in the Upper Guinean forest.¹⁷ To help protect the area around Kakum National Park in Ghana, CI worked with the Ghana Wildlife Service to build a canopy walkway and visitor's center to support ecotourism in the park while also promoting environmental education, enterprise development and agroforestry interventions in communities outside the park.
4. Fauna & Flora International (FFI) is working in Liberia. It was the first international environmental group to establish an office in the country in 2001. National ownership and capacity building are critically important issues for FFI. Currently, FFI is helping establish a sound management structure at the recently expanded Sapo National Park and communal forests that will empower rural Liberians. FFI is also working at the national level to review and adapt forestry sector legislation that will incorporate and balance community, conservation and commercial interests.¹⁸
5. The Jane Goodall Institute (JGI) has been involved in the *Chimpanzee Conservation and Sensitization Program* (CCSP) since September 2005. The project was aimed at disseminating messages about chimpanzee protection and habitat conservation, strengthening conservation education, and building capacity for chimpanzee protection and habitat conservation in Guinea and Sierra Leone.¹⁹ The JGI has also been laying the groundwork to initiate a tri-national transboundary conservation program in Guinea/Sierra Leone/Liberia that would target the Outamba Kilimi border region and Lofa/Mano/Gola border region (JGI 2007). The program is still a proposal at this point, however JGI's recent experience in the area coupled with a strong commitment by member countries to increase cooperation and share resources across borders present a strong case for moving forward towards implementation.

¹⁷ <http://web.conservation.org/xp/CIWEB/regions/africa/wafrica.xml>

¹⁸ www.fauna-flora.org/liberia.php

¹⁹ www.janegoodall.org/africa-programs/programs/CCSP.asp

6. Wetlands International (WI) has a regional office in Dakar, Senegal and to date has had more intensive involvement west of Guinea outside the Guinean Forest Hotspot, but is potentially a strong ally in an under-served sector. One of their recent West African projects studied and provided recommendations for managing mangroves and rice cultivation in the coastal zone between Gambia and Sierra Leone. Another project inventoried wetlands and examined developments along the Gulf of Guinea coastal strip, from Liberia to Angola, which will be used as input for the development of a large-scale program for the wise use of these ecologically-rich areas.²⁰

The *West African Manatee Conservation* project is part of the Regional Program for the Protection of Coastal and Marine Resources (PRCM). The PRCM is a joint effort between Wetlands International, WWF, IUCN, and International Foundation for Banc D'Arguin (FIBA) in association with UNESCO's Sub-Regional Fisheries Commission (SRFC) to develop a regional strategy and common policies for protected marine areas in six coastal West Africa countries: Mauritania, Senegal, The Gambia, Guinea, Guinea Bissau and Cape Verde. Phase I of the project ended in December 2007 and focused on educational outreach and collecting information on the status of the manatees' distribution, populations, socioeconomic value, legal status and recommendations for its conservation. Phase II will work on developing a regional strategy for the West African Manatee and focus on implementing improving legislation, developing research, communication and education, and conducting practical actions in the PRCM countries. Furthermore, in recognizing that resources are transboundary, and key habitats and species face similar challenges, PRCM will be launching the *West African Marine and Coastal Biodiversity Network* (BIOMAC) to ensure consistency of interventions and promote experience exchanges.²¹

7. Wildlife Conservation Society (WCS) is a large global conservation NGO based in New York. For many years WCS has been supporting a project that initially focused on manatee conservation in the coastal lagoons extending from Grand-Lahou to Fresco in Côte d'Ivoire. The program was expanded to include protection of native land cover within the Azagny National Park and the Port Gauthier classified forest and conducting surveys of elephants, pygmy hippo, buffaloes, chimpanzees and other rare monkeys in these areas. WCS has also been involved in developing a draft management plan for Azagny NP and draft regional action for the West African manatee (a component of the *West African Manatee Conservation* project described above). WCS is currently exploring ways to secure and expand the program already in Côte d'Ivoire and to brainstorm how they can expand their role in the region. Later in 2008, they will also be sending a mission to Liberia to explore options there (Graeme Patterson email).

8. African Wildlife Foundation (AWF) has been working since 1961 to help conserve African wildlife by protecting its habitat. Although AWF has focused its efforts on South and East Africa thus far, they will soon begin a large West Africa regional program that will include several large landscapes throughout the region

²⁰ www.wetlands.org/articlemenu.aspx?id=ffa4a473-d9fd-4e81-a46d-9f807aebf592

²¹ www.marinemammalogy.org/sirenews/snews48.pdf

Local and National NGOs

The 1999 CPW found that there is a low level of institutional capacity for local and national NGOs operating in the countries within the Upper Guinea forest complex (CEPF 2000). Local NGOs vary significantly with regard to their institutional capacity and the degree to which their activities focus on biodiversity conservation. Many are young institutions that lack experience. Others function largely as consultants to development agencies, working on contracts. Many have a limited geographic scope. Below is a list of leading NGOs in the region, in terms of their past and potential contribution to biodiversity conservation and who maintain an active presence with government agencies, and have track records that indicate leadership potential for the civil sector. They should be considered as potential local partners in implementing future STEWARD activities.

1. *Guinée-Ecologie*: Founded in 1989, GE promotes capacity building for rural community participation in natural resource management; conducts public awareness and educational campaigns on environmental problems; and have helped complete biodiversity assessments and surveys.
2. *Conservation Society of Sierra Leone*: Founded in 1986, CSSL is the foremost national wildlife conservation NGO in Sierra Leone with offices in Freetown and Kenema. Their mission is providing and advocating for a broad national framework for biodiversity conservation, research, education and awareness raising and site action.
3. *Society for the Conservation of Nature in Liberia*: The Society for the Conservation of Nature of Liberia is Liberia's oldest conservation organization, founded in 1986, and is an implementing partner of Forest Partners International.
4. *Côte d'Ivoire-Nature*: [No specific information regarding history or past projects undertaken by this organization was available during the time of the desk study. It is recommended this organization be contacted during the field visit.]
5. *Ghana Wildlife Society*: Originally founded in the 1970s and revived in 1991, GWS seeks to conserve wildlife in all its forms to ensure a better environment and improved quality of life for all people.
6. *Environmental Foundation for Africa*: Based in Monrovia, Liberia, has worked successfully in the U.K. to raise awareness and build support there for the region. The foundation has emphasized the impact of conflict on conservation. Although small and young, its focus and leadership occupy a unique niche among regional organizations.
7. *Fouta Trekking Adventures*: A small, local youth-founded and run NGO that deals with ecotourism/adventure tourism based in Labe, Guinea.
8. *SOS Forêt*: Based in Côte d'Ivoire and affiliated with University of Abidjan, SOS Forêt is a currently a partner with CARE under the USAID TBA project.

Private Sector

The private sector, in this context, includes businesses and companies whose profits are derived from the exploitation of natural resources through logging, mining, oil and gas, and fisheries, but which could contribute to biodiversity conservation by adopting environmentally and socially responsible practices - and by giving financial and logistical support to specific projects. Historically, private-sector support for conservation has not been strong in this region; however, the potential is considerable. In 2004, a Memorandum of Understanding was signed, establishing a Global Development Alliance (GDA) between USAID, CI, and Rio Tinto to promote economic development while ensuring protection of the biologically rich Simandou Range in Guinea. Newmont Mining in Ghana is working with CI and Forest-Trends on a biodiversity offset for their Akyem site in Ghana. USAID does not fund this site but does fund the overall program (Business and Biodiversity Offsets Program). Airlines, particularly British Airways, have also supported the conservation community with in-kind services and through the design of industry-selected "conservation travel" awards (CEPF 2000).

Multiparty Networks and Initiatives

Ongoing or newly established activities that have or could contribute to regional strategies include:

1. The Mano River Union (MRU) is an international association is named for the Mano River, which begins in the Guinea highlands and forms the border between Liberia and Sierra Leone. It was originally established in 1973 between Liberia and Sierra Leone; Guinea joined the union in 1980. The goal of the Union is to foster economic cooperation among the countries. Due to conflicts involving these countries, the objectives of the Union could not be achieved for quite awhile. However, on May 20, 2004, the Union was reactivated at a summit of the three leaders of the Mano River Union states. Most recently in May 2007, the MRU heads of state met in Conakry to reaffirm the Union and approve the admission of Côte d'Ivoire as a member.

The MRU represents an ideal forum for the exploration of transboundary conservation issues because of its focus on cooperation among the member countries and because it already supports a process of collaboration on economic and political development. As an example, with the help of USAID and political support of MRU, the Koindu International Market in Sierra Leone was rebuilt and reopened in 2005 after being destroyed during the civil war. The reopening of the market has revitalized commercial activity in this former trading hub and is considered an important first step in cross-border peace building and cooperation within the sub-region.²² In June 2007, MRU representatives met with bilateral and multilateral donors, local and international NGOs and other stakeholders to reaffirm the dedication of all member countries to explore cross-border initiatives to protect the natural environment in this region (JGI 2007).

2. *West and Central Africa Tropical Forest Investment Forum: Issues and Opportunities for Investment in Natural Tropical Forests*, was held August 28-30, 2007 in Accra Ghana.

²² www.usaid.gov/sl/news/2005/050420_kissisinkoindu/index.htm

This forum, one of a series of four organized throughout the tropics by the International Tropical Timber Organization (ITTO), was convened in collaboration with the Ghana Forestry Commission, World Bank, ADB, and United Nations FAO. The forum explored ways to improve the relative attractiveness of private and/or institutional investments in natural tropical forests in West and Central Africa, with regard to the inclusion of African small and medium enterprises in the promotion of sustainable forestry. Copies of papers and presentations made at the forum are available on the [Internet](#).²³

3. The US Forest Service recently organized the *Sub-Regional Workshop on Sustainable Forest Management in West Africa* for Forestry Ministers and other high level forestry staff in November 2007 in Labe, Guinea. This adds to their work on building capacity of regional forestry departments and in training and networking technical forestry staff. The Labe workshop reinforced the need for cooperation and action in improving communication, synergy, and political commitment among the forest authorities of the sub-region, especially in transboundary areas. A coalition is being organized for the *West Africa Forest Initiative*, in which actors are invited to work together to influence policies and heads of states.

4. The Economic Community of West African States (ECOWAS) is a regional organization of 15 West African nations formed in 1975. The main objective of forming ECOWAS was to achieve economic integration and shared development so as to form a unified economic zone in West Africa. The scope was increased to include sociopolitical interactions and mutual development in related spheres. The ECOWAS is involved in issues of governance, peace, and security; this regional entity now includes environmental degradation and monitoring among its goals. Unfortunately, specific information regarding the environment and civil society platforms under ECOWAS were not yet published during the time research was conducted for the desk study portion of this assessment. The members of ECOWAS share a commitment to reduction of economic barriers across national lines, and consider environmental and resource management to be essential strategic components of a strengthened regional economy.²⁴ At the recent *Sub-Regional Workshop on Sustainable Forest Management in West Africa*, participants perceived ECOWAS as the strongest, best functioning regional organization that had the most potential in helping develop regional NRM goals and activities.

5. The Green Actors of West Africa (GAWA) Network, was recently created by organizations involved in the environmental and conservation movements, and is supported by IUCN Netherlands and CEPF. The goal of GAWA Network is to develop ways of enhancing cooperation and coordination between and among the various donors and environmental actors in the sub-region. The geographic coverage of initial GAWA network includes: Ghana, Guinea, Togo, Benin, Ivory Coast, Senegal, Mali, Burkina Faso, Sierra Leone, The Gambia and Liberia.²⁵ GAWA members met in 2006 and identified key environmental issues in West Africa and the gaps that GAWA could potentially fill. These include: insufficient contact between different national networks

²³ www.itto.or.jp/live/PageDisplayHandler?pageId=223&id=3280

²⁴ www.ecowas.int/

²⁵ www.gawa.nu

and no working regional forest projects in the forestry sector; lobbying for the enforcement of laws, monitoring social compensation, rehabilitating sites, distributing benefits and recognizing human rights in the mining sector; and developing an International Rivers Network and improving partnerships with international water bodies for river basins (IUCN-NL 2006).

6. The IUCN-Global Marine Program (World Conservation Union) recently identified an opportunity for inter-regional collaboration between East and West Africa to exchange information and best practices that address similar coastal/marine issues, recognizing that integration of management tools may be more fruitful if it includes experiences from both regions (IUCN 2007). West Africa has comparably well-developed activities for MPAs and fisheries, while East Africa has a longer history of research capacity building and integrated coastal management projects. The long-term capacity building efforts in East Africa could serve as model for replication in West Africa. Institutes and networks in East Africa (e.g. IMS, WIOMSA) could be used as resources for starting up education/training programs in West Africa.

7. The International Maritime Organization (IMO) and the International Petroleum Industry Environmental Conservation Association (IPIECA)--the oil industry's focal point for communication--are working with African governments to encourage the ratification and implementation of relevant conventions (Gilpin 2007). Their objectives in the Gulf of Guinea are articulated in the Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (WACAF or Abidjan Convention).

8. West and Central African Council for Agricultural Research and Development (CORAF) is an institution that supports and networks national agricultural research systems.²⁶

National Government Agencies

A large portion of international support for environmental projects in West Africa is channeled through government ministries and institutions whose objectives include the management and regulation of natural resources. A listing of government agencies dealing with NRM in each country in the STEWARD area are provided here for reference. Information regarding the scope of each agency's authority should be expanded on in the final assessment.

Côte d'Ivoire

Ministry of Construction and Environment
Direction de la Protection de la Nature
Protected Area Management Program
Société de Développement des Forêts

²⁶ www.coraf.org

L'Office Ivoirien des Parcs et Réserves (OIPR): is charged with creating, managing and protecting the National parks and reserves. A foundation for the national parks has since been established.

Ghana

Ministry of Lands and Forestry
Forestry Commission
Wildlife Division
Forestry Division
Ministry of Environment, Science and Technology
Environmental Protection Agency
Water Resources Commission

Guinea

Administration et Coordination des Grands Projets
Departement de l'Environnement
Direction Nationale des Eaux et Forêts (DNEF): legally responsible for managing all forests - national or otherwise - in Guinea
Direction Nationale des Mines

Liberia

Ministry of Planning and Economic Affairs
Forestry Development Authority
National Environmental Commission of Liberia

Sierra Leone

Ministry of Agriculture and Food Security (MAFS)
Ministry of Lands and Country Planning (MLCP)
Ministry of Mineral Resources (MMR)
Ministry of Development and Economic Planning (MODEP)

IV. Future Regional Conservation Actions

Poverty is inextricably linked to political instability, migration, and limited capacity. In turn, poverty – and limited environmental awareness – leads to unsustainable agricultural, mining, logging, and hunting and fishing practices. Therefore, actions that reduce poverty will help address key threats and policy issues in the region. The actions necessary to reduce poverty are numerous, but they all have one thing in common - they all relate to economic growth. Actions taken to support democracy, good governance, and transparency at both the local and national levels will also promote political stability. The challenge for STEWARD will be to work strategically with decision makers in participating countries to bring about policy changes and overcome vested interests.

First of all, it is important to recognize some emerging trends in natural resource management and rural development occurring in the region and Sub-Saharan Africa in general.

- Increased focus on regional agendas, as evidenced by NEPAD, ECOWAS, and the MRU, create a favorable climate for regional and transboundary initiatives.
- Initiatives to decentralize power and government will increase. Decentralization empowers citizens and allows national ministries to extend services in more remote areas and provide better oversight and monitoring of activities.
- Initiatives to improve governance and transparency will continue, which increases trust and confidence among constituencies.
- Ecotourism has emerged as one of the world's largest industries and will continue to increase. Between 1993 and 2003, tourism to 23 countries containing biodiversity hotspots grew by 100 percent.²⁷ Unless carefully planned and implemented, tourism itself can become a threat to biodiversity in some areas. Ecotourism - in high-biodiversity areas - is both a sustainable economic alternative and a successful conservation strategy. Ecotourism creates jobs in food service, accommodation, transportation, and other industries. Ecotourism relies on healthy ecosystems and therefore, provides a powerful incentive to protect the environment. People who earn their living from ecotourism are more likely to protect local natural resources and support conservation efforts.
- Corporate social responsibility will continue to be an important and growing concern and world consumers will demand more “green” products. Third-party certification and verification processes can help address the challenge of monitoring and enforcing regulatory controls over extractive industries.
- Emphasis on local participatory conservation planning is increasing. This strategy taps into national and local pride in and knowledge of forests and natural resources through methods such as participatory mapping, participatory forest resource inventories, stories and legends that highlight people’s relations to nature, and training of para-taxonomists to assist researchers.
- Non-timber forest products will continue to play a significant role in terms of providing alternative employment and income generation.

²⁷ www.conservation.org/discover/wellbeing/Pages/ecotourism.aspx

Opportunities

Given the transnational character of most forest and aquatic threats, current trends in NRM, and sites of existing conservation activities in the region, there is a tremendous opportunity for USAID and the US Forest Service to bridge the gap in regional coordination and connectivity – not only ecological but also political, social, and administrative coordination.

Gilpin (2007) suggests a four tier framework for effective regional planning: demonstrable political commitment, increased operational efficiency, transparent regulatory systems, and heightened public awareness. The sustainability and lasting success of regional planning and collaboration is best driven by applying this framework at three levels: local, national, and regional. Constituency-building for conservation and improved NRM is necessary at all levels. Multi-national unions, such as the MRU, and regional agendas can encourage sharing of best practices and promote professional networking across country borders. Commitment backed by national leaders builds trust among all stakeholders. National government institutions can improve law enforcement, democratic processes, decentralization, and transparency. Local communities can work with cross-border counterparts to coordinate their activities and collaborate on solutions to common problems.

There are numerous potential benefits to regional collaboration and transboundary conservation including: larger contiguous habitat; increased economic opportunities due to increased international recognition to the area; joint research programs would eliminate duplication and reduce costs of conservation; better enforcement of cross-border poaching; expanded pool of expertise; and increased access to donor funds (JGI 2007).

Harmonizing forest, wildlife and conservation policies between countries can mitigate the movement of illegal or unsustainable activity across borders. Capacity strengthening at local levels allows communities living near important biodiversity resources to implement sustainable use activities that generate income, to take over management responsibilities, when appropriate, and to build a broad support base for conservation.

Land-use planning is also an important, yet underutilized, tool for conservation. Land-use planning helps coordinate various land uses in a watershed, thereby minimizing conflicts and sustaining resources for future generations. Furthermore, land use planning in adjacent parks and reserves can help ensure their biological integrity and persistence, and thus enhance their biodiversity conservation status. Land-use planning must be used with care where land tenure is insecure and land grabbing is a risk.

Marine protected areas (MPA) are essential tools for biodiversity and habitat conservation, fisheries management, and for broadening and sustaining local economic options (IUCN 2007). A representative network of MPAs requires a concerted approach at regional scale. In order to reduce pressure on coastal environments and making the coastal communities less dependent on fluctuating or dwindling marine resources, to reduce poverty, as well as to motivate local people for protective management measures,

sustainable alternative and supplementary livelihoods need to be provided. More closely integrated approaches to fisheries, agriculture, water and other sectors need to be adopted in development policy and planning (Payne 2000).

With their experience in forming, leading, and participating in multi-partner collaborations, USAID and the US Forest Service are positioned to effectively collaborate with and support the work of a number of NGOs and organizations working in humanitarian relief, health care, education, rural development, and natural resource management in the study area. Organizations like CI, WWF, and IUCN are capable of bringing significant amounts of public and private sector funding as well as networks of skilled professionals, scientists, and dedicated field researchers in support of environmental programs and biodiversity conservation.

A first step in supporting a regional conservation planning agenda is to promote the flow of knowledge and experiences about best practices. It is recommended that STEWARD create a regional best practices network database. Include lessons from individual USAID mission programs as well as other African countries through knowledge resources (FRAME and Nature Wealth and Power (NWP), as an example). “Additional Recommended Resources” in Annex 2 of this report provides an initial listing of case studies and project reviews to be considered. The database could include information on under what conditions the introduction of livelihood opportunities work, what difficulties there are, and where further information is available. With this information, pilot transboundary conservation projects can build upon models that work in the region. Some examples of working models that could be expanded in region include:

- Forest co-management in Guinea: Under co-management schemes, communities develop forest management plans that delineate specific property rights for classified forests. Although classified forests are not protected from all extractive activities under co-management schemes, many people believe that classified forests are in better shape under these schemes than they were when they were the sole responsibility of the state.
- Country level programs such as Guinea’s Landscape Management for Improved Livelihoods (LAMIL) in the Fouta Djallon highlands, and the Liberia Forest Initiative (LFI), a multi-donor effort focused on reforming and rationalizing the forest sector in Liberia. LFI works provides an integrated model of commercial forestry, community forestry and conservation.
- Applied mechanisms that devolve authority and decision-making over natural resources to local levels in Ghana: CREMAs, Collaborative Forestry Management, and Community-Based Fisheries Management.
- Perhaps the scope of WWF’s WAMER can be expanded to include neighboring coasts of Sierra Leone, Liberia, Côte d’Ivoire, and Ghana or serve as another model for the GCLME.

More private sector/conservation partnerships should be encouraged. Changes in operating practices of the private sector can provide significant conservation benefits but usually do not require major changes in production systems and significant incentives exist for the company to improve practices (i.e., higher market prices and/or higher

consumer demand for environmentally friendly products; potential consumer boycotts against company products).²⁸ Pilot private sector/conservation partnerships are necessary to build trust between traditional adversaries but should lead toward formal, third-party "green" certification of both private sector and conservation project practices and performance.

Constraints

This section includes a compendium of possible constraints or difficulties that may be encountered when proceeding with regional planning initiatives and transboundary conservation activities.

First of all, changes in the larger geo-political arena could slow or halt progress. For example, there will eventually be a change in administration in Guinea. It is also unknown if the conflict in Côte d'Ivoire will continue. Enduring disagreements over maritime boundaries in the Gulf of Guinea zone could precipitate armed conflict within the region, particularly when the disputed areas have significant economic potential or are strategic transportation hubs (Gilpin 2007). These disputes also make it much more difficult for countries in the sub-region to address shared security challenges in a collaborative manner.

The future role and interest of other donors is unknown. And, the future role and interest of US Foreign Assistance in biodiversity beyond 2008 is also unknown, given the pending change in administration.

Differences in interests, issues, priorities, and importantly also language, are obstacles to cross-border collaboration between different countries.

Without a "bottom-up" collaboration and consensus building approach, there will be lack of ownership by the involved parties.

There is a potential for conservation NGO partnerships with the private sector to alienate traditional constituencies, jeopardize fundraising capacity, and erode political capital. Anticipated conservation benefits need to be clearly quantified and explained, and partnerships should operate transparently and allow public scrutiny of its agreements and performance. Third-party certification processes can also help objectively assess and critique such commitments.

Protected areas are poorly defined in terms of how they are managed. First of all, designated protected forests have different names in each of the study area countries (classified forests vs. forest reserves vs. national forests). The assumption is that protected areas include all designated forests, national parks, and other areas identified by international conventions, but not everyone agrees with this definition and some believe that only national parks deserve protected area status (USAID/Guinea 2007). The ambiguity of the definition for protected areas creates misunderstandings and even

²⁸ www.worldwildlife.org/bsp/publications/africa/127/congo_19.html

misuses. Local communities often perceive protected areas as places where all extractive activities are strictly forbidden. In practice, this is not the case for nearly all designated forests, which explains why calling a classified forest/forest reserve/national forest a “protected area” causes confusion. In some cases, multiple authorities are involved in managing protected areas which creates additional ambiguity, contradictory actions, or no action at all because each authority assumes the other is “in charge” (e.g., DNEF and Prefet authorities for managing classified forests in Guinea).

In addition to having poorly defined terms, many protected areas also have poorly defined boundaries on the ground and on maps. The lack of certainty of their locations complicates the planning and execution of activities, inventory and assessment of current conditions, and management and protection of protected areas.

V. Potential STEWARD Pilot Sites

To increase synergy between USAID and US Forest Service interventions and biodiversity conservation, STEWARD should consider locating activities in or around transboundary portions of the high priority regions identified in the 1999 CPW. These regions were introduced in section I of this report; maps are located in Annex 1. This next section details specific transboundary pilot sites and possible activities at sites for STEWARD, as well as potential partners.

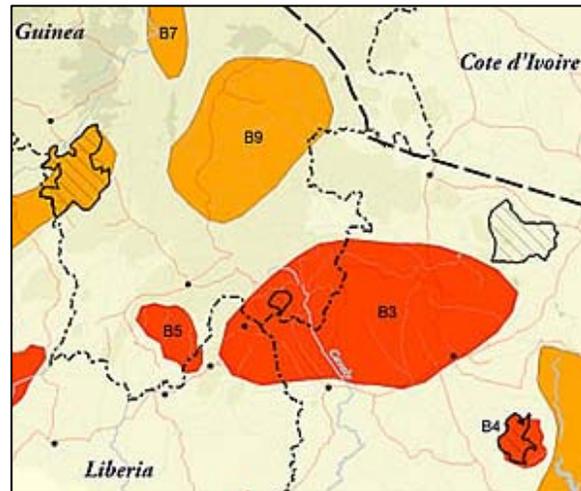
The transboundary areas in the sub-region (Annex 1, Map 8) that offer the greatest potential for integrating conservation, livelihoods and natural resource management, based on biodiversity patterns, political, economic and social significance include: the Nimba Highlands (Côte d'Ivoire, Guinea and Liberia), Grebo-Taï Forests (Côte d'Ivoire and Liberia), Abi Lagoon-Cape Three Points Complex (Côte d'Ivoire and Ghana), and the Gola and Lofa-Mano Forests (Liberia and Sierra Leone). These four sites were selected based on their transboundary location and designation as a "high" priority area, as per the 1999 CPW. Although not considered a high priority area by CPW, one additional site is recommended as a possible STEWARD pilot based on its transboundary location and support from the Mano River Union: Outamba-Kilimi (Guinea/Sierra Leone). Each of these pilot sites represents strategic cross-border opportunities for leveraging additional investments to foster improved livelihood and integrated natural resource management.

In general, STEWARD should emphasize placing economic growth activities in these areas because providing communities with alternative livelihoods could reduce the threat that poverty poses on the environment. Similarly, democracy and civil society objectives should also be considered as they help to organize communities, raise awareness of rights, and build capacity to manage communal resources. These activities can contribute to biodiversity conservation by improving a community's capacity to organize themselves around natural resources, including the ability to create institutions for managing natural resources.

The first recommended action for any of the suggested pilot project areas is to develop 1) a transboundary conservation agreement that describes the mission, goals, and objectives for the area and participants and stakeholders, and 2) develop action plans.

1. Nimba Highlands (Guinea/Liberia/Côte d'Ivoire)

The Nimba Highlands is a transboundary mountain range on the border between Guinea, Côte d'Ivoire and Liberia. Slopes rise abruptly above the surrounding lowland forest and savanna and are covered by dense cloud forest beneath grassy mountain tops. The interlacing forest and grassland provide a variety of habitats and the mountains serves as “islands” of unusually rich flora and fauna.²⁹ Mount Nimba's unique qualities have gained status as a World Biosphere Reserve and World Heritage site.



(Source: Conservation International)

The Liberian side of the range was heavily mined from the 1950s to 1989 and was then inundated by refugee bushmeat poaching in the 1990s. Also early that decade, a new iron-ore mining concession began on the Guinean side. These threats prompted the World Heritage Committee to list the area as a World Heritage site in Danger. In response, the Guinean Ministry for Energy and Environment established a Management Centre at the site in 1995 to monitor water quality of the region and conduct socio-economic studies and integrated rural development.

The primary ethnic groups in this area are the Mande and Dan speaking people. The Mande (also known as Maninka, Mandinka, or Mandingo in this area) reside primarily in Guinea and a small part of Liberia, while the Dan (Gio) mostly inhabit Côte d'Ivoire and Liberia. The Mande are predominantly Muslim whereas the Dan religious view can be described as “other” with a clear dichotomy between the village and the bush; in other words clear distinctions between that which is controlled by man and that which is left to nature.³⁰

There are no villages on the mountains themselves, but there are ten existing villages nearby with several thousand inhabitants, mainly cultivators. Since 1991, population pressure has increased following the influx of refugees from Liberia (UNEP-WCMC). Slash and burn farming is also a continuing threat. Tourism is prohibited within the strict nature reserves, but is permitted within the biosphere reserve in organized groups.

To address the current threats in this transboundary area, the following general activities are suggested:

- Improve mining sector practices and oversight. Rehabilitate past mining sites. Employ local citizens in rehabilitation and monitoring activities. Encourage

²⁹ www.unep-wcmc.org

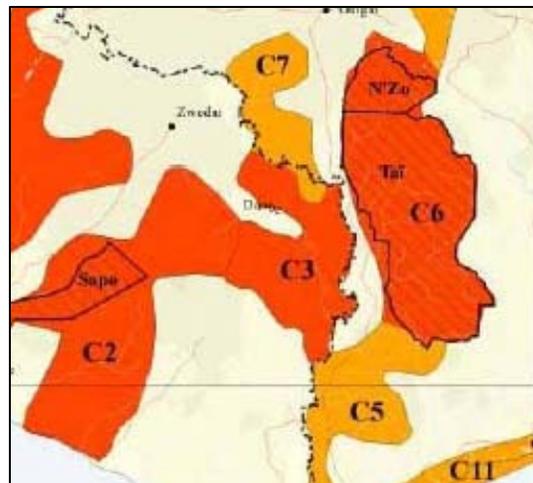
³⁰ www.uiowa.edu/~africart/toc/people/Dan.html

- development of regional mining standards. Explore opportunities for third-party certification processes.
- Encourage participatory land-use planning. Designate and demarcate lands for agriculture and community forest use.
- Promote improved subsistence agricultural practices, agro-forestry, and animal husbandry.
- Encourage ecotourism in the biosphere reserve. Promote “volunteer vacations” to help with area data collection and monitoring activities.
- Improve border/trade patrol; employ local community members in law enforcement.

Potential partners in this area include: UNDP-GEF, BirdLife International, CEPF, MRU, Rio Tinto Mining Company, Society for the Conservation of Nature in Liberia, Environmental Foundation for Africa, Fouta Trekking Adventures, Guinée-Ecologie, SOS Forêt, and Côte d’Ivoire-Nature.

2. Grebo-Tai Forests (Liberia/Côte d’Ivoire)

The Grebo-Tai Forests are part of the larger Krahn-Bassa/Sapo/Grebo/Tai complex which contains the largest tract of contiguous forest left in the entire Upper Guinea ecosystem and represents the greatest opportunity to establish and maintain protected areas containing large intact stands of forest. Tai National Park in Côte d’Ivoire is the single largest existing forest protected by a national park in the region and offers a potentially good opportunity for transboundary conservation along the Liberian border.



(Source: Conservation International)

Since 1998, human settlement, farming, and hunting have steadily advanced into the Grebo Forest (C3) and other forests on the Liberian side of the complex. Primary threats to the forest ecosystem are logging, road construction, and increased human settlement, which lead to a higher intensity of farming and hunting. Such activities have generally followed a pathway opened up by a new Malaysian timber operation (Oriental Timber Company) that built a major highway into the remaining forest clusters. Limited capacity of the Liberian Forest Development Authority (FDA) and inadequate environmental governance has led to a lack of enforcement of existing forestry legislation.

The Ivorian side of the complex includes Tai National Park and the N’Zo Faunal Reserve (C6) and classified forests: Haute Dodo, Mt. Kopi, part of Cavally (C5), and Gouin, Deve, Cavally (C7). Industrial plantations of cocoa, rubber and palm have increased pressure on the surrounding landscape by drawing in workers who supplement their

wages by farming in adjacent forests. Thousands of Liberian refugees fled to the border during the 1990s; the growing population has increased demand for bushmeat and small-farmer agricultural production. Low level gold mining also occurs in this area, which threatens to increase erosion and siltation of aquatic systems.

The two primary ethnic groups in this area are the Grebo and the Krahn; both are part of the larger Kru language group. The Krahn reside further inland, primarily within Liberia; there are multiple Grebo sub-groups within each country which traditionally occupy the area south of the Krahn and along the coast line. Both of these groups are considered Christian, though also observe traditional animist practices.

To address the current threats in this transboundary area, the following general activities are suggested:

- Improve timber sector oversight and management; continue building capacity within the FDA. Explore opportunities for third-party certification processes.
- Improve mining sector practices and oversight. Employ local citizens in water quality monitoring activities. Encourage development of regional mining standards.
- Encourage participatory land-use planning. Designate and demarcate lands for agriculture and community forest use.
- Employ local citizens in collecting scientific information and conducting surveys to support reassessing the protected area network in this area
- Promote improved industrial agricultural practices and involve local citizens in monitoring activities. Promote subsistence agroforestry and animal husbandry.
- Encourage ecotourism in the Tai and N’Zo protected areas. Promote “volunteer vacations” to help with area collecting biological data and monitoring activities.
- Improve border/trade patrol; employ local community members in law enforcement of both the border and PA.
- Encourage non-timber forest product industries such as rattan and bamboo furniture, honey, household utensils production. Encourage use of logging and sawmill waste in carving industry and promote along with ecotourism.
- Encourage community seedling production and tree planting efforts in forests outside government-controlled forest estates. Communities can participate in fire prevention and fire fighting (fire management), wildlife conservation, management of wetlands etc.

Potential partners and stakeholders in this area include: WWF, Flora & Fauna International, Oriental Timber Company, CEPF, SOS Forêt, Society for the Conservation of Nature in Liberia, Environmental Foundation for Africa, and *Côte d’Ivoire-Nature*.

3. Abi Lagoon-Cape Three Points Complex (Côte d'Ivoire/Ghana)

The Abi Lagoon-Cape Three Points complex (D1) is comprised of beaches with rock outcrops and promontories, islets, coastal lagoons, swamps, and river estuaries. Vegetation is mainly composed of mangroves, palms, grass, and evergreen forest, including a primary forest reserve (Cape Three Points). Historic forts and castles are scattered through the area. To the east of this complex



(Source: Conservation International)

along the Côte d'Ivoire coast line and are series of designated Ramsar sites, which include the Fresco and the Grand-Lahou lagoons and considered one of the most important mangrove forests remaining in the country.

Possibly the largest single population of West African Manatees in its range, estimated at 600-700 individuals, exists along the coast of Côte d'Ivoire. Lagoons away from human population, and rivers and streams connected to lagoons, are all vitally important manatee habitat. This coastal area appears to lack the attention and significant investment that Guinea is receiving as part of WAMER and PRCM. Inland to the north, there are a large number of contiguous forest reserves and several national parks - Bia, Ankasa and Kakum – which contain remnant wildlife populations of species typical of the eastern Upper Guinea forest block.

The primary ethnic group in this area is the Aowin, a segment of the Akan people. Although largely Christian, the Akan also worship numerous other spirits and deities associated with the natural world and ancestors.

Opportunities exist to build on the recent USAID transboundary area project in the Tano River basin (Ghana/Côte d'Ivoire Community Water Management Project). There is also a great opportunity to first begin with transboundary coastal management in the Abi-Cape Three Points complex and later expand cross-border conservation action northward into the forested Ankassa Jema high-priority area (D3).

To address the current threats along this coastal transboundary area, the following general activities are suggested:

- Encourage participatory land-use planning. Designate and demarcate lands for community agriculture and marine use and mangrove preservation. Combine research on the movement and behavior of manatees to inform a zoning plan that would regulate human activity at times when manatees are vulnerable.

- Assess and promote MPA designation in this area. Employ local citizens in collecting scientific information and conducting surveys to support these designations.
- Improve sanitation and waste water disposal. Adopt water quality standards and employ local citizens in monitoring.
- Developing a public awareness and education campaign focusing on manatee behavior and water quality issues.
- Promote improved fisheries practices and involve local citizens in monitoring activities. Adopt the FAO's Code of Conduct for Responsible Fishing. Explore opportunities for third-party certification processes.
- Improve marketing of fish inland to forest communities to help reduce bushmeat pressure on inland forests.
- Encourage ecotourism in the nearby Ankasa and Nini-Suhien protected areas, coastal heritage sites, and mangrove forests.
- Work with other Gulf of Guinea states to reduce fisheries poaching in international waters.

Potential partners in this area include: UNDP-GEF, Wetlands International, IUCN-Global Marine Program, CEPF, WWF (WAMER program), Wildlife Conservation Society, *Côte d'Ivoire*-Nature, and Ghana Wildlife Society.

4. Gola-Lofa-Mano Forests (Sierra Leone/Liberia)

The Gola/Lofa/Mano complex represents a mix of lowland forests along the Sierra Leone and Liberia border, drained by the Mano, Lofa, and the Mahoi rivers. This high priority area (CI 2001) represents the largest westernmost tropical rainforest of the Upper Guinea block. These include the Gola Forest Reserves in Sierra Leone and the Lofa-Mano National Forests in Liberia. The Gola National Park was recently created in this area; the other forests are worthy of being upgraded to National Parks or Strict Nature Reserves. The contiguous nature of these cross-border forests present opportunities for transboundary conservation initiatives between the two countries. Economic activities include: logging, hunting, mining, and farming. The Gola Trust Fund and management program has been established and has achieved successes to date, but it would benefit from additional funds or from programs supporting the current project (USAID/Sierra Leone 2007).



(Source: JGI 2007)

The primary ethnic group in this area is the Mende, originating in Sierra Leone and expanding westward into Liberia, and linguistically related to the Mande group. Mende

religion is an eclectic blend of native elements interspersed with adherence to Christian or Islamic beliefs.

The entire area is still recovering from a high degree of civil conflict over the past ten years. The porous border between Sierra Leone, Liberia, and Guinea to the north has allowed several groups of competing factions to move freely between countries. Since the end of the civil war in Liberia, there are indications of increased settlement, shifting agriculture, hunting and general human disturbance along with the resumption of full-scale logging activities (CEPF 2000).

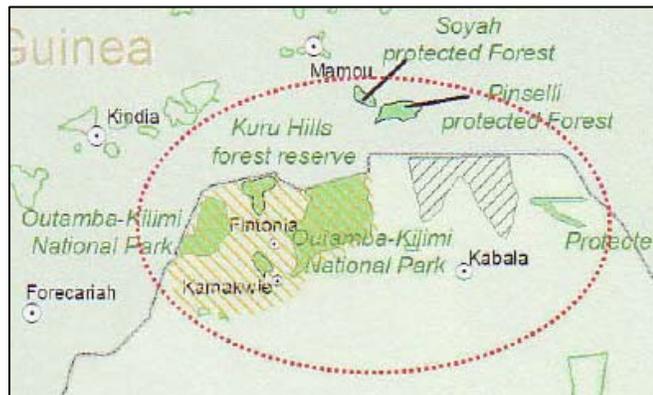
To address the current threats in this area, activities similar to those identified for the Grebo-Tai forests are recommended, as well as repatriation and resettlement assistance to refugees and ex-combatants. Potential partners in this area include: CEPF, MRU, BirdLife International, Conservation Society of Sierra Leone, Society for the Conservation of Nature in Liberia, and Environmental Foundation for Africa.

5. Other Potential Sites

Outamba-Kilimi (Guinea/Sierra Leone)

Although not considered a high-priority area by the 1999 CPW, USAID missions in Guinea and Sierra Leone have identified the Outamba-Kilimi region as another conservation priority for the Mano River region (USAID/Guinea 2007). This area represents critical habitat for several species, including chimpanzees and associated wildlife. The Outamba-Kilimi National Park is currently understaffed and unable to sufficiently protect its boundaries.

Additional support or training programs that deal with surrounding communities could greatly help this project. The area contains six communities and more than 100,000 ha of protected areas. The successful co-management approach with forest communities in Guinea could serve as a model across the border in Sierra Leone.



(Source: JGI 2007)

The JGI developed a concept paper that outlines transboundary activities for this particular area (JGI 2007) and USAID/Guinea plans to invest biodiversity-earmarked funding to a study of this area. It appears that USAID/Guinea has a large commitment to this potential project and it was recently recommended that the LAMIL project be replicated in this area. However, it is possible that STEWARD could assume management for these suggested transboundary activities and allow the USAID/Guinea mission to focus efforts on other strategic objectives. Alternatively, USAID/Guinea

country-specific activities at this site could partner with STEWARD activities that have a clear transboundary focus. Nonetheless, a transboundary conservation initiative in this particular area will be able to capitalize on the current support and enthusiasm from the MRU leaders, multilateral and bilateral donors, international stakeholders, and organizational capacity of JGI. In addition to working with the MRU and JGI, other potential partners include the African Development Bank, Guinée-Ecologie, and Conservation Society of Sierra Leone, and Fouta Trekking Adventures.

VI. Recommendations for the Field Assessment

The following tasks are recommended during the field component of completing the final assessment:

1. Visit recommended pilot project sites and interview community members living near these areas to help assess perceptions of landscapes or protected area designations, relationships with potential partners working in the region, NRM activities and understand how livelihood activities are connected to environment.
2. Contact and/or visit the following individuals and organizations (Table 4) to gather more information and determine additional implementing partner opportunities and interest in STEWARD.
3. Attend the first WWF-organized *West Africa Forest Forum* meeting in Accra, Ghana (tentatively scheduled for February 2008).
4. Follow-up on recommendations from the West Africa Maritime Security Initiative/Global Fleet Station meeting on "policy coherence" in West Africa, scheduled for early spring 2008 (ECOWAS-directed; CSRP-planned; participants from USAID, DOS, DFID).

Table 4. Key Contacts for Field Assessment

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	Society for Conservation of Nature in Liberia (SCNL)	scnlib2001@yahoo.com	T: F:	Monrovia Zoo/Lakpazee PO Box 2628 Monrovia, Liberia
Dr. Erasmus Owusu, Executive Director	Ghana Wildlife Society (GWS)	www.ghanawildlifesociety.org	T: F:	Efua Sutherland Children's Park PO Box 13252 Accra, Ghana
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	Côte-d'Ivoire Nature (CIN)		T: 225 37 13 65	

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	Jane Goodall Institute, Chimpanzee Conservation and Sensitization Program	ccsp@janegoodall.org	T: 224 60216888	BP 6040 Conakry, Guinea

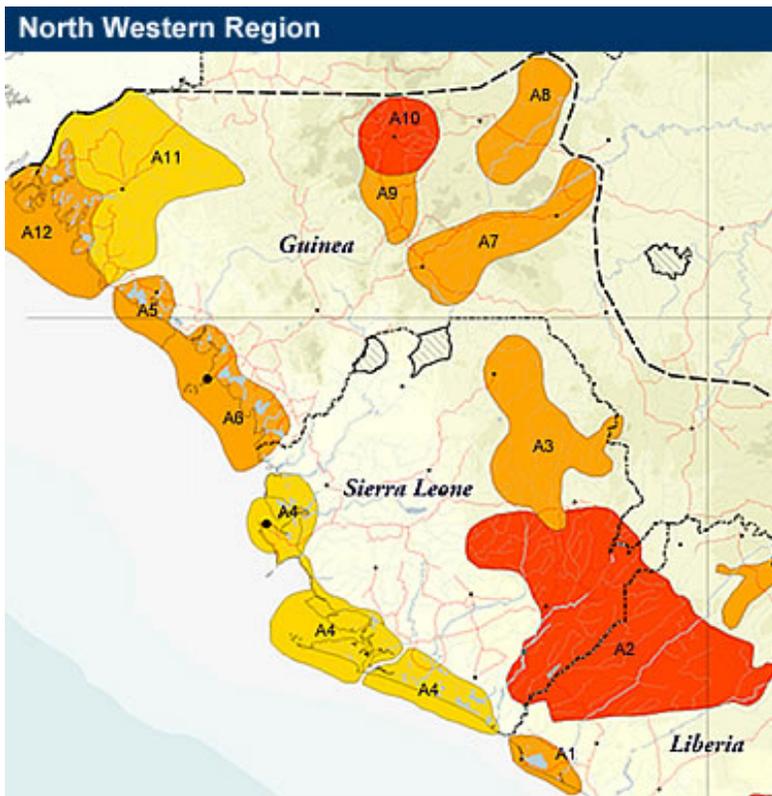
Annex 1: Maps

Map 1. The Guinean Forest “Hotspot”



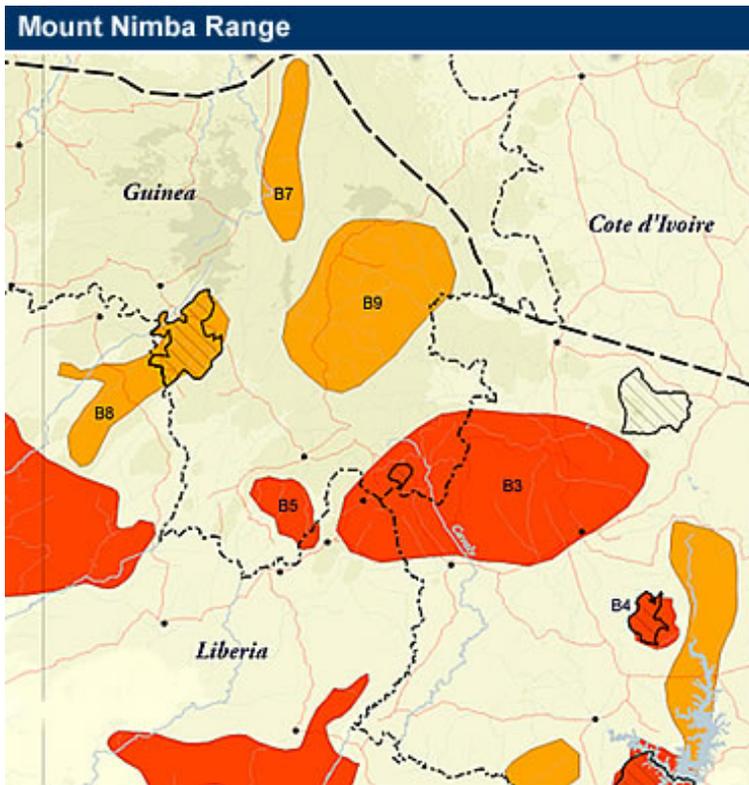
(Source: Conservation International)

Map 2. Northwestern Region (Sierra Leone, Guinea, Liberia)



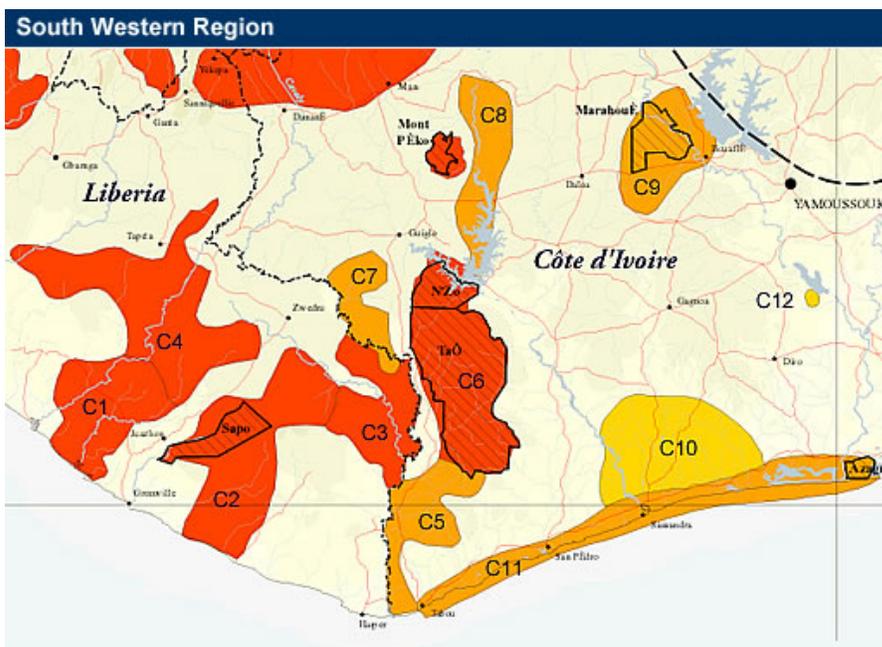
(Source: Conservation International)

Map 3. Mount Nimba Range (Guinea, Liberia, Côte d'Ivoire)



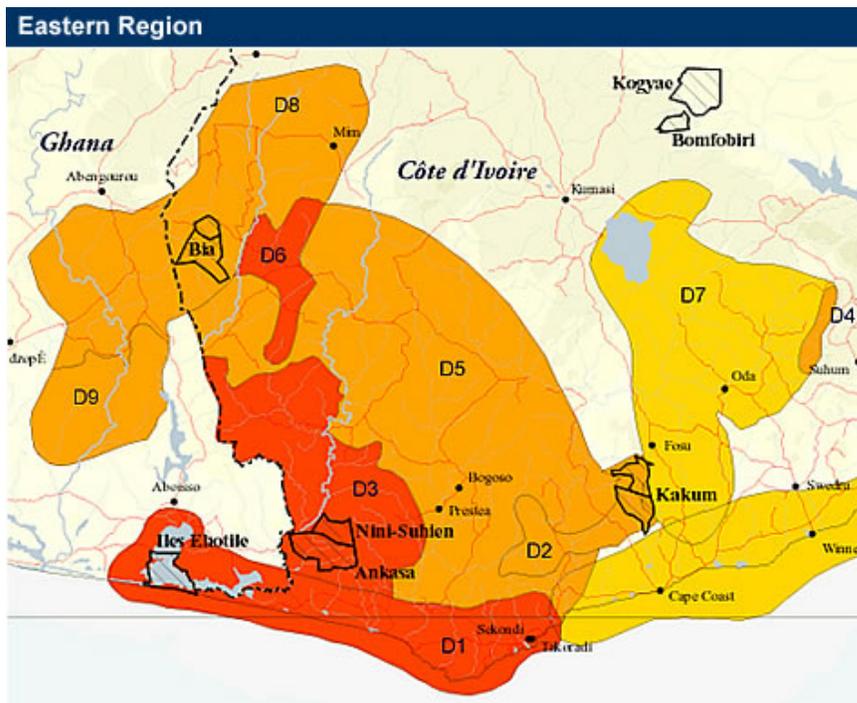
(Source: Conservation International)

Map 4. Southwestern Region (Liberia and Côte d'Ivoire)



(Source: Conservation International)

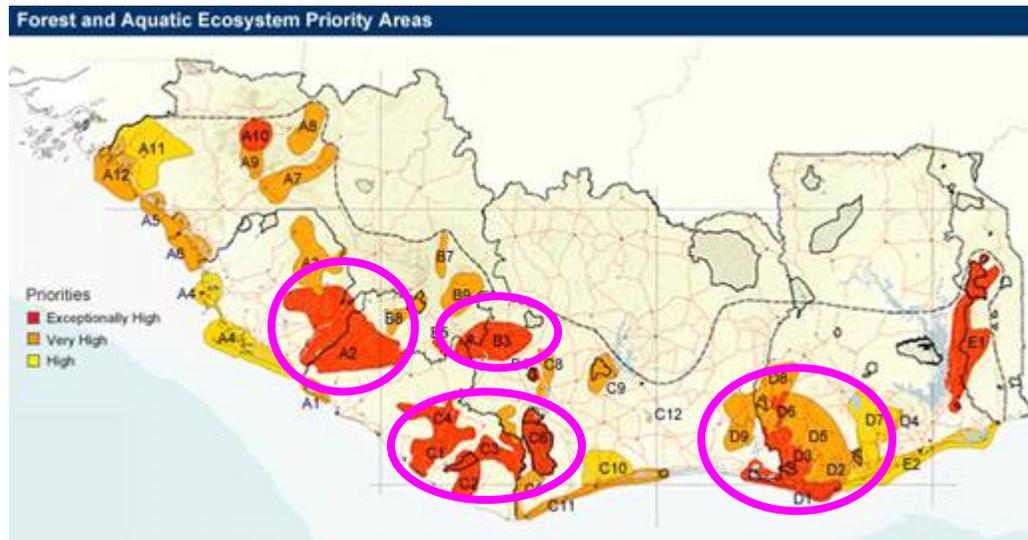
Map 5. Eastern Region (Côte d'Ivoire and Ghana)³¹



(Source: Conservation International)

³¹ Note: Ghana and Cote d'Ivoire are incorrectly labeled on this map; they should be reversed.

Map 8. Potential Pilot STEWARD Sites



Annex 2: Bibliography

Literature Cited

- Bakarr Mohamed et al. 2004. "Guinean Forests of West Africa" in *Hotspots Revisited: Earth's Biologically Richest and Most Endangered Terrestrial Ecoregions*. Russell A. Mittermeier et al. Conservation International and Agrupación Sierra Madre. Available online at: <http://www.biodiversityscience.org/publications/hotspots/cover.html>
- Bishop, Timothy and Tommy Garnett. 2000. *Civil Conflict and the Environment in the Upper Guinea Forests of West Africa*. Produced by the Biodiversity Support Program. Available online at: <http://www.worldwildlife.org/bsp/publications/africa/postwork/postwork.html>
- Brashares, Justin S., et al. 2004. Bushmeat Hunting, Wildlife Declines, and Fish Supply in West Africa. *Science* Vol. 306, pp. 1180-1183. Available online at: www.sciencemag.org
- Conservation International (CI). 2001. *From the Forest to the Sea: Biodiversity Connections from Guinea to Togo*. Conservation Priority-Setting Workshop, December 1999. Washington DC. Available online at: http://www.biodiversityscience.org/priority_outcomes/west_africa/
- Conservation International Biodiversity Hotspots: "Guinean Forests of West Africa" http://www.biodiversityhotspots.org/xp/Hotspots/west_africa/Pages/default.aspx. Accessed January 2008.
- Convention on Biological Diversity: "Country Profiles" <http://www.cbd.int/countries/>. Accessed January 2008.
- Critical Ecosystem Partnership Fund (CEPF). 2000. *Ecosystem Profile: Upper Guinean Forest, Guinean Forests of West Africa*. Available online at: http://www.cepf.net/xp/cepf/where_we_work/guinean_forest/full_strategy.xml
- CEPF. 2006. *Assessing Five Years of CEPF Investment: Guinean Forests of West Africa Biodiversity Hotspot Upper Guinean Forest Ecosystem; A Special Report*, 71 pp. Available online at: http://www.cepf.net/xp/cepf/resources/publications/final_reports_regional.xml?region=Guinean+Forests
- Dampha, Almami. 2001. *Management of Forest Fires through the Involvement of Local Communities: The Gambia*.
- Encyclopedia of Earth: "Western Guinean lowland forests" http://www.eoearth.org/article/Western_Guinean_lowland_forests and "Eastern Guinean forests" http://www.eoearth.org/article/Eastern_Guinean_forests/. Accessed January 2008.
- Food and Agriculture Organization of the United Nations (FAO). 2007. *State of the World's Forests 2007*, Rome. Available online at: <http://www.fao.org/docrep/009/a0773e/a0773e00.htm>
- Gilpin, Raymond. 2007. "Enhancing Maritime Security in the Gulf of Guinea," *Strategic Insights*, Vol. VI, Issue 1 (January 2007), US Naval Postgraduate School Center for Contemporary Conflict. Available online at: <http://www.ccc.nps.navy.mil/si/2007/Jan/gilpinJan07.asp#author>
- Marine Resources Assessment Group. 2005. *Review of Impacts of Illegal, Unreported and Unregulated Fishing on Developing Countries*. Prepared for the UK's Department for

- International Development (DFID), 178 pp. Available online at:
<http://www.dfid.gov.uk/pubs/files/illegal-fishing-mrag-report.pdf>
- Milius, Susan. 2005. "Bushmeat on the Menu: Untangling the influences of hunger, wealth, and international commerce." *Science News*, Vol. 167, No. 9, p. 138.
- Netherlands Committee of the IUCN (IUCN-NL). 2006. Report and Analysis from the Meeting of the Green Actors of West Africa Network, December 18-20, 2006, Dakar, Senegal, 18 pp.
- IUCN (The World Conservation Union). 2007. Development co-operation for Marine Research in East and West Africa Lessons Learned and Future Directions, Report from the Scientific Exchange and Technical Review Meeting, Stockholm, May 21-22, 2007, IUCN Global Marine Program. Available online at:
http://www.iucn.org/themes/marine/pdf/sida_workshop_report-261107.pdf
- Jane Goodall Institute. 2007. "Development of a Border Region Conservation Strategy for Targeted Areas in Guinea, Sierra Leone, and Liberia Concept Paper," Chimpanzee Conservation and Sensitization Program, 29 pp.
- Payne, Ian. 2000. The Changing Role of Fisheries in Development Policy. Produced by the Overseas Development Institute (ODI), Natural Resource Perspectives, No. 59, 4 pp. Available online at: www.odi.org.uk/nrp/
- Republic of Guinea. 2007. "Final Report: Sub Regional Workshop on the Sustainable Management of the West African Forests Resources" Ministry Of Agriculture, Husbandry, Environment, Water And Forest, November 12-20, 2007, 12 pp.
- USAID/Ghana. 2006. USAID/Ghana Environmental Threats and Opportunities Assessment (FAA 118/9 Assessment), September 2006.
- USAID/Guinea. 2007. 118/119 Biodiversity and Tropical Forest Assessment for Guinea (DRAFT), November 2007.
- USAID/Liberia. 2005. Preliminary Biodiversity and Tropical Forest Conservation Assessment for USAID/Liberia, November 2005.
- USAID/Sierra Leone. 2007. 118/119 Biodiversity and Tropical Forest Assessment for Sierra Leone, July 2007.
- UNEP. 2004. Desk Study on the Environment in Liberia. 118 pp. Available online at:
http://postconflict.unep.ch/publications/Liberia_DS.pdf
- UNEP-WCMC World Database on Protected Areas: <http://sea.unep-wcmc.org/wdbpa/index.htm>. Accessed January 2008.
- Wilkie, David et al. 2005. Roles of Prices and Wealth in Consumer Demand for Bushmeat in Gabon, Central Africa. *Conservation Biology* Vol. 19, No. 1, pp. 268-274.
- World Wildlife Fund Global Ecoregions: "Guinean Moist Forests"
http://www.panda.org/about_wwf/where_we_work/ecoregions/guinean_moist_forests.cfm
 and "Upper Guinean Rivers and Streams"
http://www.panda.org/about_wwf/where_we_work/ecoregions/upper_guinea_rivers_streams.cfm. Accessed January 2008.

Additional Recommended References

- Author Unknown. ND. information re: ENRMA, pp. 4-61.
- Author Unknown. ND. Plan d'Aménagement Souti-Yanfou, 66 pp.

- Author Unknown. 2003. Guinea Agriculture Assessment field trip observations and notes, 19 pp.
- Beck, Tony and Cathy Nesmith. 2001. Building on Poor People's Capacities: The Case of Common Property Resources in India and West Africa. *World Development* Vol. 29, No. 1, pp. 119-133.
- Diakite, Dantily. 2006. "Third series of questions: questions of legality and policy." Comments on co-administration of classified forests in Guinea, 6 pp.
- Diakite, Dantily. 2004. Elargi de Gestion des Ressources Naturelles: Contribution a la Reunion du Groupe de Contact FRAME/CILSS, sur les Politiques et Programmes de GRN et Tendances Environnementales. Nature-Richesse-Pouvoir, Republique de Guinée, 24 pp.
- Fischer, Julie. 2000. Projet Elargi de Gestion des Ressources Naturelles: Stratégie de Communication Pour Etablir un Environnement Politique Favorable Sur la Gestion des Ressources Naturelles, Republique de Guinée, 22 pp.
- Gauthier, Mario. 2001. Projet Elargi de Gestion des Ressources Naturelles: Assistance Technique Agroforesterie Forêt Classée de Nialama, Guinée. Draft Report, June 2001, 29 pp.
- Grant, J. Andrew and Fredrik Söderbaum (eds). 2003. The New Regionalism in Africa, Ashgate Publishing, London, England.
- Hagen, Roy. 2006. Description des Approches de Gestion des Forêts Naturelles dans les Pays Sahéliens, 20 Avril 2006, 4 pp.
- Harouna, Kindo. 2007. "L'initiative Muraille verte pour le Sahara de l'Union Africaine," concept presented at the COP8 in Madrid, June 2007, 3 pp.
- Kimball, Richard. 2000. Elargi de Gestion des Ressources Naturelles: Les Principes et Pratiques de la Gouvernance, Republique de Guinée, 21 pp.
- Lycklama à Nijeholt, Rixta, Steven de Bie, and Chris Geerling. 2001. Beyond Boundaries: Regional Overview of Transboundary Natural Resource Management in West Africa. Available online at: <http://www.worldwildlife.org/bsp/publications/africa/108/overview.htm>
- McGahuey, Mike. 2003. "Co-Management of Classified Forests and Forest Planning." Draft report, February 21, 2003, 27 pp.
- Ngece, Kunga and Mildred Nafuna. ND. The role of women in conservation of forest reserves in Mpigi, Uganda. Friends of Mpigi Forests Conservation and Development Organization (FOMAF), 4 pp.
- Ntiamoa-Baidu, Yaa. 1995. Indigenous vs. Introduced Biodiversity Conservation Strategies: The Case of Protected Area Systems in Ghana. Produced by the Biodiversity Support Program. Available online at: http://www.worldwildlife.org/bsp/publications/africa/indigenous_vs_eng/yaaeng.htm
- Republique de Guinée. 2006. Document de Strategie de Gestion Participative des Forêts (DSGPF), Ministère de l'Agriculture, de l'Elevage et des Forêts, 62 pp.
- Samaké, Kô. 2006. Etude sur la gestion communautaire transfrontalière des ressources naturelles: Cas des Villages de Bih (Mali) et de Douari (Burkina Faso), 28 pp.
- Thiam, Bobacar. ND. Watershed Management: Co-Management of Nialama Classified Forest in Guinea, 3 pp.

World Bank, The. 2005. Implementation Completion Report: On a Grant to Burkina Faso and the Republic of Côte d'Ivoire for a West Africa Pilot Community-Based Natural Resources and Wildlife Management Project. Report No: 32218, 74 pp.

Yamba, Boubacar. 2006. Etudes Sahéliennes: Rapport d'étude sur le foncier, les institutions locales et l'évolution de la pauvreté, 46 pp.

USAID Resources

Best Practices for Biodiversity and Tropical Forest Assessments, April 2005

Decentralized Natural Resource Management in the Republic of Niger (pages 13-16), USAID/PADLOS, April 1998

Democracy and Governance and Cross-Sectoral Linkages, Guinea. Working Paper, April 1999

Evaluation of USAID/Agriculture and Natural Resources Management Program "Wula Nafaa," December 2006

Investing in Tomorrow's Forest: Toward an Action Agenda for Revitalizing Forestry in West Africa, USAID Africa Bureau, August 2002.

Natural Resources Information Clearinghouse (NRIC), USAID NRM Projects in Africa:
http://www.nric.net/pub_project/proj_pubsearch.cfm?SearchPage=AFR&Searchtopic=NRM

Nature, Wealth, and Power: Emerging Best Practice for Revitalizing Rural Africa, USAID Africa Bureau, 2002 (reprinted in 2004)

OP-Extractive Industries, Ghana, ND

OP-Extractive Industries, Guinea, ND

OP-Extractive Industries, Liberia, ND

OP-Extractive Industries, Sierra Leone, ND

OP-Extractive Industries, USAID West Africa, ND

Programmatic Environmental Assessment of Co-Management of Reserved Forests in Guinea, USAID/Guinea, April 2001

Transformational Development in Niger, Powerpoint presented by Mike McGahuey and Bob Winterbottom, January 2007

Tropical Forestry and Biodiversity (FAA 118 and 119) Analyses: Lessons Learned and Best Practices from Recent USAID Experience, September 2005

USAID/Guinea, Annex *: Protecting Guinea's Classified Forests through Co-Management, March 2001

USAID/Guinea Triennial Review, SO 1: Increased Use of Sustainable Natural Resources Management Practices, Issues Meeting Notes, August 2004

USAID/West African Region Program (WARP) Profile, FY 2006-2010, June 2005.

Websites

afrol News: <http://www.afrol.com/>

Critical Ecosystem Partnership Fund: “Project Completion Documents for the Guinean Forests (Upper Guinean Forest)”
http://www.cepf.net/xp/cepf/resources/publications/final_reports_regional.xml?region=Guinean+Forests

EarthTrends Poverty Resource: “Country Profiles”
<http://earthtrends.wri.org/povlinks/country.php>

IUCN (The World Conservation Union): “Bureau régional de l’UICN pour l’Afrique de l’Ouest”
<http://www.iucn.org/places/brao/>

United Nations Environment Programme (UNEP): “Africa Environment Outlook”
<http://www.unep.org/dewa/Africa/publications/AEO-1/>

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Annex 4: Current USAID Programming

The strategic objectives (SO) and programs for each mission operating within the study area are outlined below and reflect information provided in the most recently available FY 2007 USAID Congressional Budget Justification reports.³² Four of the 20 countries globally classified by USAID as “fragile states,” are located the STEWARD area (Côte d’Ivoire, Sierra Leone, Guinea, and Liberia). On the other hand, Ghana has made significant progress on key economic and social fronts, despite political turmoil in the region and it is now eligible for the Millennium Challenge Account (MCA) assistance. However, not surprisingly, the objectives of WA and the other country missions are designed to address pervasive development challenges and reduce fragility in the region.

USAID/WA

According to the USAID/WA profile, “political instability, poor governance, corruption, lack of institutional management and technical capacity, natural disasters, high prevalence of infectious diseases including HIV/AIDS, and lack of private sector investment opportunities are some of the major constraints to development work in West Africa.”

SO#8: Economic Growth, Agriculture and Trade

- Improve Emergency Preparedness and Disaster Mitigation
- Increase Agricultural Sector Productivity

SO#9: Regional Health Program

- Improve Child Survival, Health and Nutrition
- Improve Maternal Health and Nutrition
- Reduce Transmission and Impact of HIV/AIDS
- Support Family Planning

SO#10: Natural Resources Management

The Natural Resources Management strategy is a new program in the WA profile designed to promote the sound management and viable utilization of West Africa’s natural resources to reduce poverty and promote stability. Specifically, goals under this

- Improve Sustainable Management of Natural Resources and Biodiversity Conservation: In 2007, USAID continued the West Africa Transboundary Biodiversity Program (TBP), which aims to improve the management and productivity of transboundary forest and water resources while promoting a more equitable distribution of benefits and regional stability. The first project site is a transboundary location between Sierra Leone and Guinea. The second project is located in southwest Ghana and southeast Ivory Coast: The *Ghana/Côte d’Ivoire Community Water Management Project* is a current transboundary area project is part of Community Watershed Partnership Program (CWPP) implemented by

³² www.usaid.gov/policy/budget/cbj2007/

CARE and is jointly funded by USAID, GETF and the Coca Cola Foundation and aimed at promoting sustainable use, management and protection of the water resources in the Tano River basin. The key goal of the project is to provide potable water and sanitation in select communities within the basin and to improve the conservation of the basin headwaters.

- Reduce, Mitigate and Prevent Pollution

SO#11: Greater Trade Competitiveness

- Expand and Improve Access to Economic and Social Infrastructure
- Increase Trade and Investment

SO#12: Regional Conflict Mitigation

- Mitigate Conflict and Support Peace
- Promote and Support Anti-Corruption Reforms
- Support Populations at Risk

SO#13: WARP Program Support

Support provided in four key areas:

- Environment: apply best practices in the environment and natural resource management in the region; organize environmental training courses for USAID personnel and partners.
- MCA support: Manage and monitor current and future MCA threshold country programs in countries without a USAID presence;
- Global Development Alliances: Support both bilateral and regional alliance building;
- African institutional capacity: Work with and develop African institutions, reporting key achievements in capacity-building areas of management, policy, and financial management.

USAID/Guinea

According to the USAID/Guinea strategy statement, the overarching foreign policy objective in Guinea is to “to reduce fragility in the region and assist the country in maintaining its stability and its transition to a democratic state.” As such, the principle strategic objective for USAID/Guinea has become SO#6 “Democracy and Good Governance.” Nevertheless, USAID still has projects operating in other program areas, and the 2008 congressional budget justification has requested funding for the following program areas: Peace and Security, Governing Justly and Democratically, Investing in People, and Economic Growth (USAID/Guinea 2007).

Regarding conservation and natural resource management, funds for economic growth are directed towards the support of agriculture and related activities. In addition, funds for governing justly and democratically specifically mention natural resource management as an area of support and integration for program activities. In terms of ongoing activities, there are three that are of preeminent importance for biodiversity and

forests in Guinea: LAMIL, *Programme de Renforcement Institutionnel à la Direction Nationale des Eaux et Forêts*, and *Faisons Ensemble*.

USAID/Sierra Leone

USAID/Sierra Leone is heavily tied to USAID/Guinea and does not operate as full mission. USAID/Guinea plays a role in the programming and management of the Sierra Leone office. Their office is currently housed within the US Embassy and thus collaboration between USAID and State Department programs has been encouraged through their close proximity. However, in light of USAID/Sierra Leone's limited resources, the program will focus on SO#3 "Strengthening Good Governance" for FY 2006-2008, building on the previous Strengthening Democracy SO. This SO seeks to broaden community-based political participation in national dialogue through multiple mutually reinforcing activities. The program is working to enhance the effectiveness and responsiveness of nascent local government councils and civil society organizations through capacity building, training in advocacy skills, and civil rights and responsibilities education for citizens. Training programs are not only directed to the general public but also to specific municipal office holders and paramount chiefs. To address conflict diamonds, the mission will continue its work in the corruption-plagued alluvial diamond sector. Civil society will be empowered to monitor the diamond sector, and to help direct the equitable and transparent management and use of the diamond resources.

USAID/Liberia

SO#7: Conflict Mitigation and Community Reintegration

- Mitigate Conflict and Support Peace: Peace-building programs will expand the number of mediators and peace advocates and encourage communities to interact and plan together through the implementation of joint projects.
- Support Populations at Risk

SO#8: Health and Education

- Achieve Equitable Access to Quality Basic Education
- Improve Child Survival, Health and Nutrition
- Reduce Transmission and Impact of HIV/AIDS
- Support Family Planning

SO#9: Democracy and Governance

- Strengthen Civil Society
- Strengthen Public Sector Executive Function
- Strengthen the Justice Sector
- Strengthen the Legislative Function/Legal Framework

SO#10: Agriculture and Natural Resources Management

- Expand and Improve Access to Economic and Social Infrastructure (focus on electricity generation and distribution in rural and urban areas)
- Improve Sustainable Management of Natural Resources and Biodiversity: targets the forestry and mining sectors; promote preservation of Sapo National Park

- utilizing community forestry and conservation tactics; strengthen institutional capacity of local organizations involved in NR and biodiversity activities
- Protect and Increase the Assets and Livelihoods of the Poor: rehabilitate smallholder rubber and cocoa farms and community fish ponds; organize and strengthen farmers' groups and CBOs to engage in micro-credit and micro-enterprise activities.

USAID/Ghana

USAID/Ghana's program, "Empowering Ghanaians through Partnerships to Build a Prosperous Nation," directly supports the two transformational development goals articulated in the USAID Strategic Framework for Africa: (a) Foster a healthier, better educated, and more productive population (Goal 1); and (b) Increase the effectiveness of African institutions in promoting a vibrant private sector and democratic governance (Goal 2). From 2006-2010, USAID/Ghana will achieve these goals through four strategic objectives:

SO#5: Strengthen Democratic Governance

- Strengthen Civil Society
- Strengthen the Legislative Function/Legal Framework
- Support Democratic Local Government and Decentralization

SO#6: Increased Private Sector Competitiveness

- Expand and Improve Access to Economic and Social Infrastructure
- Improve Economic Policy and the Business Environment
- Increase Agricultural Sector Productivity
- Increase Trade and Investment
- Strengthen the Financial Services Sector and Increase Access to Capital
- Improve Sustainable Management of Natural Resources and Biodiversity: Support to a community-owned ecotourism activity and an agroforestry program linked to cocoa production; sustainable land use practices among small cropholders; organic product exports to the European market.

SO#7: Improve Health Status

- Improve Child Survival, Health, and Nutrition
- Improve Maternal Health and Nutrition
- Prevent and Control Infectious Diseases of Major Importance
- Reduce Transmission and Impact of HIV/AIDS (expand treatment)
- Support Family Planning

SO#8: Improve Quality of and Access to Basic Education

- Achieve Equitable Access to Quality Basic Education
- Reduce Transmission and Impact of HIV/AIDS (school-based peer education)