



**ASSESSMENT OF THE CURRENT STATUS OF
THE FOREST SECTOR IN
LIBERIA**

**AND IDENTIFICATION OF PRIORITY NEEDS FOR
DEVELOPMENT ASSISTANCE THROUGH
ITTO PROJECT ACTIVITIES**

Report prepared to the attention of ITTO

by Juergen Blaser and Bleddeh V. Dagbe

*on the basis of the initial ITTO Diagnostic Mission (April 2005) by Méthot, Appiah and Sizer and the follow-up
report by Juergen Blaser in November 2006*

*Monrovia, Liberia
1 June 2008*

PREAMBLE

In the framework of Decision 2 (XXIX, "ITTO Objective 2000") ITTO has been mandated by its member countries to *render assistance to a requesting country to identify those factors which most severely limit progress towards achieving ITTO's Objective 2000 and sustainable forest management and to formulate an action plan to overcome these constraints.*

The Government of Liberia requested ITTO for such assistance in June 2004. Consequently, an ITTO diagnostic mission to Liberia was fielded in April 2005 with the task to identify the most crucial factors preventing the attainment of sustainable forest management in Liberia and to recommend a sequence of actions to remove the constraints. This mission was conducted by a group of people including international experts (Pierre Méthot (Canada) - Team Leader; Samuel Appiah (Ghana); Nigel Sizer (UK), Robert Simpson (USA) (Part-time), a local consultant (Francis Sio) and resource persons from the Forest Development Authority. The report of that mission was presented at the 38th session of the Council in June 2005 in Brazzaville, Republic of Congo.

In mid-2006, Liberia requested the ITTO to provide training in ITTO's C&I and the relating reporting format on progress towards SFM. The workshop was conducted in November 2006 under the guidance of Juergen Blaser, from Swiss Intercooperation. In the margin of that workshop, the new development in Liberia was analyzed and the 2005 ITTO diagnostic mission report amended and updated. The Workshop participants of the C&I Workshop, representing the Forest Development Authority, NGOs, private sector, communities, research and education, had provided input to that updated report..

Based on the recommendations of the November 2006 report, Liberia requested the ITTO in November 2007 to support the formulation of a limited number of ITTO projects that would address some of the issues raised in the diagnostic missions and to prepare another updated report on its forestry situation, so that Council could better apprehend the current status of the forestry sector. Thus, two support missions conducted by Juergen Blaser have been conducted to that purpose, in February and in May 2008.

The present report reflects the situation as perceived by the consultant in spring 2008. Many issues raised in the earlier report still remains valid, but progress is obvious and visible. Nevertheless, there is yet not a common culture and language in respect to the apprehension of the constraints, weaknesses, opportunities and threats in the forestry sector in Liberia. It is obvious that besides the need to have more secured data and analysis, there is an urgent need for intensive and forward-looking capacity building for all types of forest-related stakeholders, in order to advance the forest sector in its endeavor to sustainably manage Liberia's forest and to contribute to the sustainable and equitable development of the Liberian society. External analysis alone will not advance the agenda to the benefit of the people of Liberia. Therefore, there is a need to fully empower Liberian professionals and local stakeholders in the analysis of the sector, so that a common learning process can be instituted. Capacity building at national, regional and local level is thus the key to the development of sustainable forestry in Liberia.

The authors of the present report would like to address their gratitude to the various people that have provided their input into the report, in particular Ronnie K. Laurence, Albert S. Dark, Rebecca Tabolo, Mitchell S. Kambelay, Sara Nyanqua, Aimé Nianogo, Antony J. Taplah, Sormonghar Sarday Zwzebm, Hawa Johnson, Flomo Forma, Jessica Donovan, Peter Lowe, Jane Carter, besides others.

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List of Acronyms

ATO	African Timber Organization
AAC	Annual Allowable Cut
CAF	College of Agriculture and Forestry – University of Liberia
CDM A/R	Clean Development Mechanism, Afforestation and Reforestation
CI	Conservation International (an multilateral NGO headquartered in USA)
CoCs	Chain of Custody System
EPA	Environmental Protection Agency
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDA	Forest Development Authority
FFI	Fauna and Flora International (a UK based international environmental NGO)
FLEG	Forest Law Enforcement and Governance (Initiative, coordinated by the WB)
FLEGT	Forest Law Enforcement and Governance and Trade (Initiative of the EU)
FM	Forest Management
FMC	Forest Management Contracts (long term forest resource licenses)
FPF	Forest Products Fee
GDP	Gross Domestic Product
GEF	Global Environmental Fund
GIS	Geographic Information System
ha	Hectare
HO	Head Office
IC	Intercooperation - Swiss Foundation for Development and Cooperation
IT	Information Technology
ITTC	International Tropical Timber Council
ITTO	International Tropical Timber Organization
IUCN	World Conservation Union
LFI	Liberia Forest Initiative, a multi-donor partnership to support forestry in Liberia
LICUS	Low Income Countries Under Stress
LISGIS	Liberia Institute for Statistics and Geographical Information System
m ³	Cubic meter
NFP	Liberia's National Forests Program
NFRL	National Forestry Reform Law of 4 October 2006
NGO	Non Governmental Organization
NTFP	Non-timber forest products
OTC	Oriental Timber Company
REDD	Reduced (CO ₂) Emissions from Deforestation and Forest Degradation
RIFFEAC	Réseau des Institutions de Formation en Foresterie des États d'Afrique Centrale
SAMFU	Save my Future Foundation (a Liberian NGO)
SCLN	Society for the Conservation of Nature
SDI	Sustainable Development Institute
SEA	Forest Sector Strategic Environmental Assessment
SFM	Sustainable Forest Management
TUC	Timber Utilization Contract
UN	United Nations
UNFF	United Nations Forum on Forests
UNMIL	United Mission in Liberia
VPA	Voluntary Partnership Agreement (in the framework of the E.U. FLEGT)
WB	The World Bank Group

“The 3 Cs”

The “3Cs” have been developed as a concept in the current forest policy formulation process. They can be seen as the Liberian concept of sustainable forest management.

Developing the 3 Cs means to apply 3 concepts in managing the forest area:

Commercially-based

Conservation-oriented

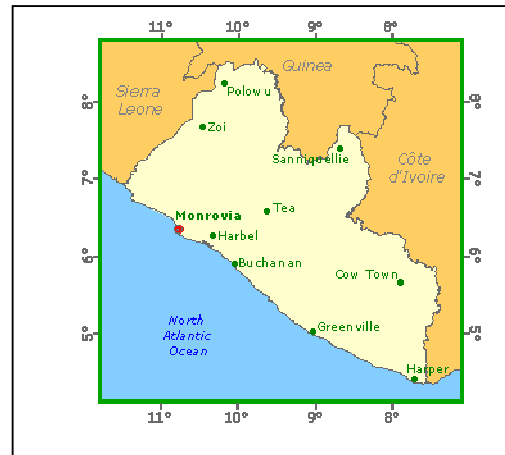
Community-participation.

The 3Cs literally translate the 3 basic concepts of SFM: economic, ecological and social sustainability

1. GEOGRAPHY, SOCIAL DEVELOPMENT AND POLITICAL CONTEXT

Geography and land base

1. Liberia is situated in the corner of West Africa where the general north-south tendency of the coast abruptly changes into a West-east orientation. The Coastline of the country is approximately 560 km or 350 miles long and has roughly an N.W.-S.E. direction. The total area of this country which is enclosed by the meridians of 7°30' West and 11°30' West and the parallels of 4°18' North and 8°30' North, is about 111,500 km² or 43,000 sq. miles. In the Western and central regions, Liberia is about 270 Km or 170 miles wide. Liberia is bordered in the West by Sierra Leone, in the North by Guinea and in the East by Côte d'Ivoire.



2. Two major regions can be clearly distinguished by their physical features and heights above sea level: The belt of the rolling hills and the belt of the dissected tableland. The country is not mountainous but hilly. The belt of the rolling hills extends from the coast inland to varying depths 80 to 130 km or 50 to 80 meters, rising gradually from sea level to a height of about one hundred meters or 330 feet. This is interrupted by rock outcrops and some hilly ranges which break the uniform pattern of the belt, ranging from Cape Mount in the West to Cape Palmas in the east of the country. The belt of the dissected tablelands is separated from the first belt by a steep and hilly escarpment area, a narrow strip in which the land rises from about 100m (330 feet) to roughly 200 meters (650 feet). The highest point in the Western region (Mount Wutivi is 1,340 meters or 4400 feet, while the highest point of the entire country is located within the Nimba complex with the height of 1,700 meters or 5,600 feet.

Climate

3. The climate of Liberia and generally for West Africa is determined by the movements of the Inter Tropical Front (I.T.F.). The monsoon winds, laden with moisture, hit squarely the coast of Liberia and even the slight rise of the country results in heavy rains. Extreme precipitation is measured on the mountainous outcrops along the coast. On an average the coastal belt receives over 4,000 mm or 160 inches of rainfall. The average temperature ranges from 24° to 30° C (75°-86°F). Liberia has two seasons dry and wet as they are commonly called. The dry season is characterized by the harmattan, a dry, hot, often dust laden wind. The wet season is differentiated from the dry season by south-west monsoon winds.

Demographics and social development

4. Liberia has a population of around three million people belonging to 16 major ethnic groups, as well as the small minority of Americo-Liberians who dominate politics. The growth rate is 3% per annum, meaning that children make up half of the population. Literacy is very low at around 15% and probably much lower in many rural areas and amongst women.
5. Infrastructure and social services outside of the urban centers were destroyed during the 14 years of war. Although hostilities ended in 2003, many schools, health centers and other services remain

in a state of neglect, although great efforts are underway of restoring normality. There are still internally displaced and traumatized people living in camps where food and other services are available but many people have started returning to their villages and rebuilding their homes. All communities across the country have been disrupted and dislocated by the war, the hardest hit often being women and children. The UN forces still ensure the main policy and security functions in the country.

6. Current GDP per capita is \$US 169¹, making Liberia one of the poorest countries in Africa. Infant mortality is estimated at almost 130 deaths per 1,000 live births, and average life expectancy is 48 years.

Political context

7. Liberia has undergone profound political and societal changes in four years. A country long known for corruption and exploitation of the population by a minority descended into civil and political strife in the 1980s, in a civil and regional war known for its brutality against civilians. The Accra Comprehensive Peace Agreement (ACPA) of August 2003, UN Security Council Resolutions 1509 and 1521, the collaborative work between a transitional government and donors that followed, lead to democratic legislative and presidential elections in November 2005.
8. Before 2004 timber revenues and profits were controlled and manipulated by former strongman dictator Charles Taylor to tighten his grip on the country. Existing logging concessions were taken from their previous owners and given to Taylor cronies. Taylor's brother ran the FDA. Revenues were diverted to buy arms and to acquire personal assets. Combatants were employed by logging companies and used to quell violently local opposition. Wildlife was hunted intensively to provide bush-meat.
9. In July, 2003, the UN Security Council imposed strict sanctions on Liberia prohibiting it and any other countries from trading in timber (and diamonds) to help cut off revenue (and arms) and weaken the Taylor regime. Since that time, there has been no significant export of wood and the domestic logging industry has suspended most of its operations. Sawmills, plywood mills, and all other forest products industry infrastructure were destroyed by looters. Some companies lost millions of dollars in investment.
10. After eviction of the Taylor government and a transitional government, free elections were held in November 2005. The elected government headed by Ellen Johnson Sirleaf assumed office on January 16, 2006. An ambitious reform program was then launched, which includes moving forward on long delayed economic governance reforms. The new leadership provided a unique opportunity to tackle critical reform areas such as the forestry sector.
11. Since then, rapid development has been observed in forestry. This process has been fueled initially by a national Forest Monitoring Committee created for that purpose and supported by the Liberia Forest Initiative (LFI), multi-donor support mechanism. Based on this collaboration, the Forest Development Authority (FDA) is undertaking profound reforms. A new forest act, the **National Forestry Reform Law**, has been approved by Parliament and been enacted in October 2006. In spite of some ongoing conflicts, e.g. in in Sapou National Park, at Guthrie Plantation in Grand Cape Mount County and in Grand Bassa, development towards normality is rapidly progressing, and it is expected that soon the forest sector will retake its predominant role as one of the engines of Liberia's economy.

¹ IMF Country Report no. 03/275. IMF, Washington Dc, September 2003.

12. Consequently, the UN Security Council took the decision in October 2006 to lift the timber export sanctions allowing the country to redevelop commercial activities in forestry.

2. STATE OF THE FOREST SECTOR

2.1 The Challenges in a Nutshell

13. The information base on past forest management practices is scarce. Most of the detailed documentation and records about forest management practices in the past no longer exist. E.g. in respect to forest management history files, very few documents and information are available at Forestry Development Authority (FDA). Most of the FDA offices in Monrovia as well as in the various counties were looted and destroyed during the war and basically all documents, reports, statistics, files were destroyed.
14. Over the past 4 years, a number of studies and analyses of the forest sector of Liberia have been conducted by the multi-donor driven Liberia Forest Initiative (LFI)², initially as a result of the United Nations Security Council sanctions banning exports of all timber products out of Liberia. The UN Security Council reports (see references) provided important information on the role that the forest sector has played in driving civil war, human rights abuse and illegal financial flows until 2003.
15. To prepare the lifting of the sanctions, which has been effective since October 2006, the LFI has been supporting the Forestry Development Authority in identifying major impediments to a sound, legal and sustainable forest sector in Liberia. Sound recommendations and support to tackle some of those impediments have been provided. ITTO has contributed to these efforts since fielding its first diagnostic mission in early 2005.
16. Major issues that have been addressed through these internationally supported forestry reform processes include the development of a new National Forestry Reform Law (2007), the review of forest concessions, the analysis of financial flows and controls, a timber products chain of custody system reform, the timber utilization contract review, the timber allocation reform, the forest revenue reform, the development of a code of harvesting, all in 2006 and 2007, the development of a community forestry law and, more recently, an assessment on Environmental Threats and Opportunities.
17. Another major process has been conducted through the initiation of a number of significant new initiatives and approaches as regards the reinforcing the forest **conservation** and protected area management, mainly through support of GEF.
18. A particular challenge is constituted through various processes leading to the introduction of **community forestry** on forested land. A Community Forestry Working Group (CFWG) was constituted in April 2007 by the Managing Director of FDA to that purpose. This group is supported by international members of the LFI, in particular IUCN. The group has been working since then on a comprehensive approach to local people's participation in forest management and it is expected that a new community forestry law will be submitted to the legislators before the end of 2008.

² The LFI is a partnership of international donors active in Liberia to help to redress the forest sector; it includes the World Bank, the European Commission, the US Government, through the US Forest Service's International Program, other international organizations, such as IUCN and CIFOR, and international NGOs, such as Flora and Fauna International and Conservation International.

19. The review of **commercial** forestry presents another tremendous challenge for the forestry authorities. It was difficult over the past two years to foresee the outcome and impacts on the forest sector of this process which still has to sort out claims and counterclaims by both the private operators and the Government of Liberia as to the current validity of the outstanding Timber Contracts signed under the two previous, and now discredited, regimes and outstanding forest taxes owed. The Presidential Executive Order #1 issued in 2006 terminated outstanding timber utilization contracts. This has been generally accepted by the private sector; nevertheless the same representatives contest government claims in respect to payment of outstanding taxes from such previous logging operations. By May 2008, it seems that all outstanding issues have been solved. Based on the National Forest Management Strategy and the Code of Forest Harvesting Practices, both approved in June 2007 and the Ten Core regulations approved in September 2007, FDA is currently selecting forest companies for forest concession allocation through a bidding process and it is expected that commercial operations will resume before the end of 2008.
20. All of the above have led to a new conceptual approach as well as an apparent strong political willingness for the development of the forest sector of Liberia and the adoption of the national forestry reform law aimed at harmonizing and optimizing what is referred in the forthcoming Liberian's forest policy as the Principles of the **"3Cs", Commercial, Conservation and Community Forestry.**
21. In the scope of the attainment of ITTO Year 2000 Objective, the case of Liberia is unique. The country has suffered almost 20 years of civil war and mismanagement and has been under UN sanctions for nearly three years. As of May 2008, there are still no legal commercial logging operations taking place, although about 2 million ha have been allocated for that purpose under the so-called Timber Sales Contracts and Forest Management Contracts. Thus logging has not resumed, nor has any major international trade been started (with the exception of a lot of about 3000 m³ of logs that had been felled prior to 2003 and that is being auctioned in spring 2008 for export).
22. Needless to say, most of the forest industrial infrastructure, (processing plants, logging equipment, roads, logging camps, etc.) has either been destroyed or left idle to rust and decay. Skilled workers as well as professional foresters have been unable to exercise their skills during many years. Many of the skilled workers have either passed away or reached retirement age. Thus there is an urgent need to renew the human resource base for all forest management operations.
23. Nevertheless, since the Johnson-Sirleaf government came into place, FDA staff, the private operators and the newly developed civil society organizations and their personnel have overcome their "stage of demoralization". Since the sanctions were lifted on June 19, 2006 (Resolution 1689), a positive dynamic and sense of entrepreneurship is rapidly developing. Forestry is an evolving and dynamic sector, and has the potential to become an engine for sound development in Liberia. Investors from China, India, Middle-East and other countries are increasingly offering development business in Liberia's forestry sector. It will remain a challenging task for the FDA and its partners to apply and enforce the high standard of policy and legislation attained in the various texts and laws prepared over the past two years.
24. A lot of the regain of trust in the forestry administration is linked with the outstanding personality of the current Managing Director of FDA (Honorable John Woods). Under his guidance, Liberia negotiated the extended support from the Liberian Forestry Initiative, the partial debt relief from its obligation to ITTO and the participation of Liberia in the Forest Carbon Partnership Facility as well as the European Union launched REDD initiative, besides others. However, as the managing director is close to retirement age, there is an urgent need to build a broader credibility base in the FDA so that the promising development pathway of FDA will continue even after the departure of the current Managing Director.

2.2 The Forest Resource

Context of forests and forestry in Liberia

25. Liberia lies entirely within the Upper Guinean Forest Ecosystem, and contains two of the last three remaining large blocks of Upper Guinean Rainforest in West Africa, an equivalent of about 43% of this forest type. Today, Liberia is the most forested countries in West Africa and the country with the highest potential for sustainable natural forest management in the sub-region.
26. Two main forest types can be distinguished, evergreen forests and moist semi-deciduous forests. Evergreen forests are found where rainfall is higher than 2,000 mm with no marked dry season. That is in a belt parallel to the coast in the eastern and central parts of the country but practically absent in the north-western part where the dry season is more marked. The limit of moist semi-deciduous forest is neither sharp nor continuous. Characteristic species of mixed evergreen forests are *Lophira alata*, *Heritiera utilis*, *Sacoglottis gabonensis*, *Calpocalyx aubrevillei* and *Dialium* spp. The only Meliaceae present, though in small numbers, are lovoa (*Lovoa trichilioides*) and bosse (*Gnarea cedrata*) whereas species of *Khaya* and *Entandrophragma* are absent. Some patches of evergreen forests with a single dominant species in one or all storeys are found, sometimes in the form of almost pure stands. Most of these species are Caesalpiniaceae such as *Cynometra* spp., *Gilbertiodendron preussii*, *Monopetalanthus compactus* and *Tetraberlinia tubmaniana*. *Parinari excelsa*, a Rosaceae, is also found as a dominant in some forests.
27. The moist semi-deciduous forest that occupies the northern half of the country is a transition phase between the evergreen forest and the semi-deciduous forest found in the Ivory Coast. Species from both types are present. Meliaceae are more abundant than in the evergreen forest and typical trees of the semi-deciduous forest such as danta (*Nesogordonia papaverifera*) and *Aningeria robusta* are present. Semi-deciduous forests similar to those found in Ivory Coast with such species as *Celtis* spp., *Mansonia altissima*, Sterculiaceae (like *Pterygota* spp. or *Sterculia* spp.) and many others are extremely rare in Liberia. As a whole, Liberian forests are closer in composition to those of Gabon and south-west Cameroon than those of Ivory Coast, mainly because of the high rainfall.
28. Mangrove forests are characteristic of silty lagoons and along some rivers in the immediate vicinity of the Atlantic coast. The main species are *Rhizophora racemosa*, *R. harrisonii*, *R. mangle* and *Avicennia africana*. The most common fresh-water swamp forests are the *Mitragyna ciliata* forests in those swamp valleys that are not flooded during the whole year. In permanently inundated areas the forest cover is poor and *Raphia palms* occur.
29. The forest sector in Liberia has the potential to contribute up to 10 percent of GDP and potentially contribute to a large extent to export revenue and fiscal receipts. Due to the war situation until 2004, these forests have not been managed, neither to support a viable timber industry nor to conserve biodiversity nor to support the livelihoods of the local population, most of whom are very poor.
30. Forests are clearly one of the most important natural resources in Liberia, yet have never been managed to deliver their full potential to contribute to the long-term, sustainable economic growth of the nation, the livelihoods of local communities, or the long-term conservation of the country's natural heritage.
31. As the most forest-endowed country in West Africa, Liberia also has great potential in supporting the forest mitigation agenda of the UNFCCC. Committing existing carbon stock, reducing emissions from deforestation and forest degradation and using the high growth potential for

carbon sequestration is a new and important dimension that merits particular attention in the sustainable forest management agenda of the country.

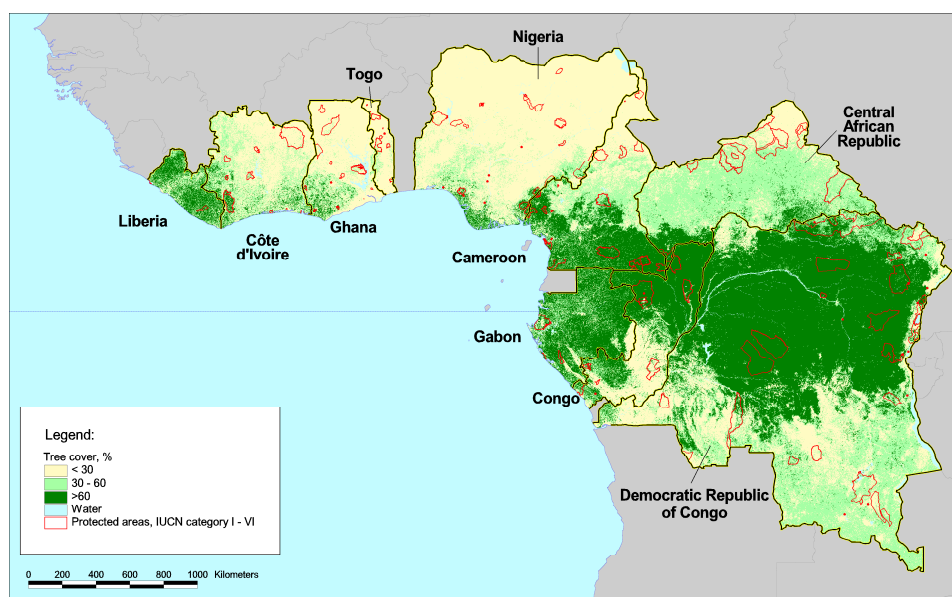


Figure 1: Tree cover in ITTO member countries in Africa. Note that Liberia is the most forested country in West Africa. (Source: ITTO 2006)

Forest Cover

32. Out of Liberia's total land area of about 9.6 million ha, **4.4 million ha are covered with forest**, or 46% of the country's total area³. Table 1 extracted from FRM (2004) provides a summary of the overall estimated land-use cover. About 1 million ha has been subject to logging over the past 10 years. Another 1 million ha of forest that has been subject to agricultural pressure (class 3.1) and another 1.3 million ha of forest land have been seriously affected by agricultural pressure and now only consist of forest patches (class 2.3).

Table 1 – Land and forest cover in Liberia, estimates for 2004 (FRM 2004)

Class		Area in ha	%
1	Urban area	46 047	0.5%
2.1	Predominant rural agricultural domain	436 747	4.6%
2.2	Agricultural area with small forest presence	3 042 091	31.7%
2.3	Mixed agricultural and forest areas	1 317 873	13.7%
3.1	Agricultural degraded forest	949 615	9.9%
3.2	Open dense forest	1 013 993	10.6%
3.3	Closed dense forest	2 424 078	25.3%
5	Free water	7 649	0.1%
6	Savannah or bare soil	13 312	0.1%
7	Littoral ecosystem complex	161 390	1.7%
8	Agro-industrial plantation	178 294	1.9%
Total		9 591 089	100.0%

Extracted from: Current State of the forest cover in Liberia – Forest information critical to decision making. FRM. 2004.

³ These data are based on a 2004 GIS/Satellite image analysis (FDA, 2007a)

33. The total forested area, including land use categories mixed agriculture and forest area; agriculture degraded forests; open dense forests; and closed dense forests cover a total area of 5.7 million ha or 59% of the total land area. This forest area is divided into two forest land categories: Permanent Forests and Non-Permanent Forests.
34. The total area of **Permanent forest** is 3.61 million ha. This includes a total area of 2.6 million ha of production forest in the so-called national forests and a total area of 1.01 million ha of protected and proposed protected areas for conservation and community/communal forestry. Within the production forest area, 1.36 million ha are distributed in 11 national forests and 1.24 million ha of other production forests outside national forests. The latter includes mostly state forests as well as forests that are under the control of traditional authorities (a hierarchy of chiefs and paramount chiefs) and privately owned forestland. All types of forest management units in permanent forests require (in future) a forest management plan.
35. **Non permanent forests**⁴ are found in agroforestry landscapes with patches of closed forest stands. The total area of these non-permanent forests is 2.1 million ha. These forests can be harvested through timber sale contracts. They serve the purpose of a community forest with non permanent features. For their harvesting, there is no need to prepare forest management plans.
36. There are two major blocks of less disturbed forest. The south-eastern block is very wet perhumid and wet evergreen forest up to 90 km inland. Leguminosae such as sikon (*Tetraberlina tubmaniana*) are dominant for relatively low value plywood and other uses. The drier Upper Guinean moist evergreen and semi-deciduous forests of the north-west have more commercial hardwood species that are commercialized internationally. See Map 1 in Appendix.
37. Plantation forestry has not been significant in Liberia. Based on a compilation from filed papers in February 2008, the area of planted forest is about 9,700 ha, comprising mainly *Gmelina arborea*, *Tectonia grandis*, *Eucalyptus* spp., *Pinus* spp. and a number of hardwood species, *inter alia*, *Terminalia superba*, *T. ivorensis*, *Heritiera utilis* and *Khaya anthotheca*. There are also important rubber estates over several thousand hectares on agricultural land, which are generally in poor condition and not managed to international standards. Large areas of oil palm plantations exist in the country; most of them are currently not managed.
38. There is no information available on mangrove forest resources. However, they are under heavy pressure to supply firewood and charcoal markets around Monrovia, Buchanan, Greenville and Robertsport and possibly other coastal cities.

*Land Tenure*⁵

39. All forest resources in Liberia, except those located in communal forests and forests that have been developed on private land or deeded land through artificial regeneration are held in trust by the state (National Forestry Reform Law 2006, Section 2.1, Ownership of Forest Resources).
40. Although the term land ownership is in common use, it is not possible in a strict sense to own land itself. It is the right to use land that can be owned by an individual or group. Land ownership

⁴ A main activity proposed in the FDA-LFI 2008/2009 work plan is to redesign the national forest boundaries to more accurately encompass current standing forests areas and settlements. This activity includes, *inter alia*, demarcating new national forests on the basis of clear criteria. The activity is still in a planning stage.

⁵ A comprehensive overview land tenure and terms and definitions in "The land tenure system in Liberia: Finding space for community forestry" by Julu Johnson, from the Ministry of Lands, Mines and Energy (CIFOR 2005)

rights are held under three different land tenure systems in Liberia. They are: (i) Customary Land Tenure System; (ii) The Anglo-American System of Land Tenure, also known as the Deed System⁶; (iii) The Land Registration System.

41. The right to control exploitation of natural resources like timber and diamonds has been treated in the past as a prize of political office, especially under Doe (1980-90) and Taylor (1997-2003). Armed factions controlled territory to exploit natural resources too, driving the conflicts of 1990-96 and 2000-03. Land and natural resource tenure are areas where abuses of presidential power have been keenly felt in the past.
42. The Liberian Constitution and specific laws, such as the National Environmental Protection Act of 2002 and the National Forestry Reform Law of 2006 note the rights of rural people. Training, education, capacity building, regulation, pilot programs, or other activities that would lead to their implementation have yet not followed enactment of these laws.
43. There is strong support across a range of stakeholders for community-based forest management and greater benefit sharing with rural people. This area has had very little attention from the international community post-war so far.
44. Concessionaires have paid royalty payments to traditional authorities in non-permanent forest areas, but there are no established rules in this regard. Payments are made to a committee of local chiefs. Subsequent use of funds, however, may not be beneficial to the communities, and is often not transparent.
45. There are apparently conflicts over land claimed by communities regarding designations of national forest and to some large and long-term rights on land such as the Liberian Agricultural Company. It is unclear how widespread these conflicts, claims and challenges to ownership are in reality.
46. Of significance in the past was the overlap (up to 12% of the area) between the various forest concessions as well as between forest concessions and protected areas. Those overlapping problems have been reported both by the FRM 2004 study and in 2005 by LFI. This problem strongly shows the need to improve mapping notably using state-of-the art Remote Sensing and GIS as well as ground verification and the use of GPS technologies.

Sustainable Potential of the Resource

47. It is impossible to assess the sustainable potential of the forest of Liberia. There has been no forest inventory in Liberia in the last 40 years. Records for logged over areas and volumes extracted over the last 20 years are incomplete and unreliable. The growth and yield dynamics of the Liberian forest are not well known and there are no permanent sampling plots or research on growth and replenishment rates.
48. Around one million ha of the forest has been under selective logging between 1995 and 2004. Commercial timber stocking densities are relatively low and selective logging, if done well using techniques such as low impact logging, would have much lower impacts in Liberia than in some other parts of the tropics. Mean logging intensity averaged in the past only 3-5 m³/ha. The extraction rate was however much higher (it was probably in the order of 15 m³/ha) in certain concessions towards the end of the Taylor regime, due in part to the large demand for a broader

⁶ A deed system is a system, whereby formal surveys are conducted, lands are apportioned by parcels, layouts of streets and alleys are made and title deeds serving as evidence of ownership are prepared, signed by the grantor of the land, and are probated and registered.

number of species from Asian markets, to supply their plywood plants with peeler species and also because of lack of control. Map 2 in the Annex shows the situation of forest concessions in Liberia as of April 2005. This map is now outdated.

49. The FRM 2004 study reviewed the potential of the existing forest as regard to SFM suitability. The 42 forest concessions classified in 2003 covered a total of 5.95 million ha. Out of that total, FRM recommended that 18 concessions for a total of 1.82 million ha be cancelled, 13 concessions for a total area of 2.43 million ha be further assessed before allowing resumption of logging and 11 concessions for a total of 1.7 million ha where harvesting could resume. The report also highlights the overlapping area between the forest concessions and the proposed protected areas.

Table 2 hereafter, extracted from FRM report, provide some details about that estimate. In May 2008, there is as yet no clear figure on how much area will be leased out to forestry concessions, either under Timber Sales Contracts or the larger Forest Management Contracts. An area of approximately 2 million ha is foreseen for this purpose in a stepwise approach (see also more updates on progress in commercial forestry in chapter 2.53.

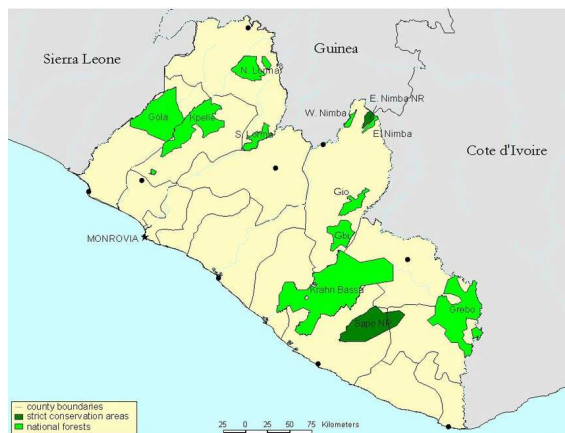
Table 2 - Synthesis of forest concession management recommendations (FRM) - 2004

	Management recommendations				Total for Liberia
	Assessment required	Harvesting possible	To be cancelled	Total concessions	
Number of concessions	13	11	18	42	
Total area (ha)	2 426 879	1 705 934	1 819 991	5 952 804	
Area overlapped by proposed protected areas (ha)	493 767	220 270	7 177	721 214	
(i) Closed forest (% of the total for Liberia)	726 391 (30%)	845 434 (39%)	389 748 (16%)	2 061 873 (85%)	2 424 078
(ii) Open forest % of the total for Liberia)	852 301 (84%)	95 230 (9%)	55 582 (5%)	1 003 113 (99%)	1 013 993
Forest (i + ii)	1 578 692	1 040 664	445 330	3 064 686	3 438 071

Source: Extracted from: *Current State of the forest cover in Liberia – Forest information critical to decision making*. FRM. June 25, 2004.

Forest Conservation

50. Liberia’s forests are among the highest priorities for conservation in West Africa as the country is the most forested one of the sub-region. In 1999, the West African Conservation Priority-Setting Exercise funded by the Global Environment Facility identified the Upper Guinean Ecosystem, for which Liberia is home to the most intact remaining examples, as the top conservation priority in West Africa.
51. The forests of Liberia are home to at least 2,900 known flowering plants out of which 59 are endemic in Liberia, 240 timber species, 125 mammals, 590 birds, 74 reptiles and amphibians, more than 1000 insects species. Some of the well-known species whose conservation depends on Liberia, include the Western Chimpanzee (*Pan troglodytes*), Red Colobus monkey (*Piliocolobus badius*), Diana monkey (*Cercopithecus diana diana*), Pygmy hippopotamus (*Hexaprotodon liberiensis*), and forest elephant (*Loxodonta africana cyclotis*).



52. Despite the importance of the country for forest biological diversity, there are – in May 2008 - only two protected areas classified in Liberia, which cover a total area

Nimba
↙

of approximately 192,000 ha or less than two percent of Liberia's land area. These are Sapo National Park (178,271 hectares, established in 1983, in the southeast) and the Nimba Nature Reserve (13,411 hectares, established in 2003, in the north).

53. Several new protected areas, totaling to approximately 950,000 ha, are proposed with major conservation corridors being planned (see §49), financially supported by GEF and implemented with the assistance from Conservation International and Flora & Fauna International. **Map 5** in the annexes presents an overview of existing and potentially planned protected areas. New protected areas will largely be formed through reclassification of national forests. Consultative meetings with the citizens of Grand Cape Mount and Bomi Counties, in the creation of Lake Piso Multiple Use Protected Area are under way. Initial meetings commenced for the creation of the so-called Peace Park of Liberia's Gola National Forest & Sierra Leone Gola National Forest.
54. Detailed scientific analysis by Flora & Fauna International and Conservation International, have resulted in proposals for three forest and wildlife conservation corridors in Liberia. These are:
 - a) The Sapo-Tai corridor in the southeast of the country, linked with conservation efforts in neighboring Ivory Coast. This corridor could eventually be linked with a transboundary protected area (a topic which is of particular interest for ITTO);
 - b) The Nimba Highlands corridor, including the existing Nimba World Heritage Site, and linked with forests in Guinea and Ivory Coast.
 - c) The Gola-Lofa-Mano corridor in the northeast, linking to forests in Sierra Leone.

No decision has been taken so far on these proposals.

55. A new GEF project titled "Consolidation of Liberia's Protected Area Network" has been launched in May 2008. It will be managed by the FDA over the coming 4 years and deals with the development of a comprehensive approach to an expanded protected areas network.

Community Forestry

56. All natural forests in Liberia are held in trust by the State. Local and traditional forest use and ownership rights have not been recognized since the dawn of the country 150 years ago. This was so to an extreme degree during the regime of Charles Taylor. Under the Johnson Sirleaf Government, community involvement in forestry has become a major thrust in the New Law.
57. Hence, over the past two years, a concept for community forestry and traditional resources use and access is being developed in Liberia. The National Forestry Reform Law of 2006 specifies rights and responsibilities of communities with respect to ownership and uses of forest resources. It requests the FDA to prepare within one year the regulations necessary to grant to local communities user and management rights, transfer to them control of forest use, and build their capacity for sustainable forest management. The forthcoming regulations should also establish mechanisms to promote informed community participation in forest-related decisions.
58. The National Forestry Reform Law of October 2006 (NFRL 2006) distinguishes between Communal Forest and Community Forestry. Communal forest is an area set aside by statute or regulation for the sustainable use of forest products by local communities or tribes on a non-commercial basis. Community forestry is defined as the governance and management of forest resources in designated areas by communities for commercial and non-commercial purposes to further their livelihoods and development. "Community" in the sense of community forestry means a group of local residents who share a common interest in the use and management of forest resources, with traditional or formal rights to the land and the forests on it. (NFRL 2006).

59. A Community Forestry Working Group was created in April 2007 by the Managing Director of FDA with the overall task of gathering resource materials through desk studies and field consultations and to draft the Community Rights Law (CRL), to receive feed back; and to finalize and submit the Law to the legislators. The work of the CFWG is ongoing and scheduled to be finalized by end of 2008.

Threats to forests

60. Major current threats to the integrity of the forest ecosystems include either legal but unsustainable or illegal commercial hunting (bush meat), conversion for small-scale agriculture (especially dry rice cultivation), and illegal alluvial mining for gold and diamonds, which causes great damage to rivers, streams and soils. These threats are increasing as internally displaced people return to the hinterland from the urban centers where they have sought safety and food.
61. Bush meat account for up to 80% of meat consumption in Liberia. The rate of bush meat consumption in the country is a major threat to maintain the country's biodiversity. This is attributed to the high unemployment rate (estimated up to 80% in urban centres) The civil conflict in the past and resulting collapse of the national economy had promoted expansion of wildlife harvest in Liberia. The threat appears to be two-fold: (i) Critical rainforest land not yet included in the national system of protected areas are likely to be irreparably altered before appropriate levels of protection can be established; and (ii) Lands that are currently under official protection (and in particular Sapo National Park) will continue to be depleted of forest cover and their overall biodiversity because current levels of protection and enforcement may not be sufficient to mitigate growing pressure.
62. Other potential threats in the future include economic expansion on the costs of forests, including licensing of expansion of legal mining, expanding road infrastructure, and possibly conversion to industrial tree crop or oil palm plantations once investments reflow into the country. In spite of the well-conducted preparatory work to allow forest concessions to resume, the threat posed by poorly managed commercial logging remains present and need careful monitoring and enforcement.
63. Road construction, much of it associated with logging, has fragmented most of the remaining forests in Liberia, although some large intact areas remain, particularly in mountainous areas. Four fifths of the production forests are now within three kilometers of a road. Roads have provided greater access for farmers to move into more remote forest areas, contributing to forest loss. Roads, however, also greatly improve access to forest resources and are potentially an asset for introducing sustainable timber management.

2.3 The Institutional Framework

64. A number of institutions are involved in the management of Liberia forest sector such as ministries, governmental agencies and NGOs as well as evidently the private sector.

Forest Development Authority

65. The Forest Development Authority (FDA) is charged with the responsibility of managing the forest resources of the country. It is the official arm of the nation entrusted with such assignment. It was created by an Act of the Legislature in 1976, as amended in 2006. This is the source of FDA legal strength and political power. The FDA has overreaching responsibility and authority over all forest sector activities covered under the National Forestry Law of 2000 as amended by

the National Forestry Reform Law of 2006. FDA has substantial operational, management and financial autonomy.

66. The FDA is responsible for the following tasks:
- a) *to take all actions necessary to create and establish national forests, protected areas and Communal Forests;*
 - b) *to administer all such areas to fulfill the national forest policy;*
 - c) *to enforce all law and regulations for the conservation of forests and the development of their resources;*
 - d) *to assist the owners of timber land in applying sustainable forest management;*
 - e) *to carry out a program for the wise use and perpetuation of the forest and wildlife;*
 - f) *to prescribe the form of forest resource licenses;*
 - g) *to control the issuance of such instruments and determinate the conditions under which they may be granted, exercised, produced, revoked or returned;*
 - h) *to control the transportation or export of forest products by land, water or air;*
 - i) *to promulgate rules and regulations required to insure the accomplishment of all the policies and objectives of the Authority;*

67. As in 2008, the FDA is operational through an Administrative Department and four Technical Departments:

- 1) Forest Conservation Department, responsible for protected areas and wildlife management;
- 2) Commercial Forestry Department, responsible for all aspects related to forest management, logging, and forest utilization;
- 3) Community forestry Department, responsible *inter alia* for the preparation of social agreements between communities and forest contract holders (FMCs and TSCs)
- 4) Research and Development Department, responsible *inter alia* for coordinating reforestation.

The Administrative Department comprises different units: Law Enforcement; Strategic planning; Legal service; Internal Audit, Finance; Public Relation; Human Resources and General Services. LFI, IUCN and FFI also have an office in the premises of the FDA. The FDA has four regional offices (“sectors” based on UNMAL security arrangements) in charge of forest management and law enforcement. The four sectors offices are situated in Kakata (Margibi County), Tubmanburg (Bomi County), Zwedru (Grand Gedeh County) and Sanniquelle (Nimba County) and include twelve Districts Offices. Total staff of FDA is not exactly known at present. 62 professional staff country-wide is currently employed and assigned to the respective sectors in May 2008. The total number of employed people of FDA including support staff is probably less than 300 employees.

The FDA is run by a Managing Director (John Woods, since 2006). He is assisted by a, Assistant Managing Director for Finance and Administration (Ekeme Witherspoon, since 2006). The Managing Director serves as Secretary to a Board of Directors of eight members, chaired by the Minister of Agriculture. The Board of Directors finally sets FDA policies and oversees its operations and finance (see Act of the creation of the FDA, 2000 and 2006).

68. Based on the National Forestry Reform Law 2006, the FDA will have the enormous task over the next years or so to prepare an important number of executive regulations, norms and guidelines in order to operationalize the new law. This include, *inter alia*:
- Regulations for the allocation of forest resources licenses
 - Guidelines for the preparation of sustainable forest management plans;
 - Procedures for the evaluation and approval of Sustainable forest management plans;
 - Guidelines for the execution of forest planning, mapping, forest inventories (enumeration, forest management inventory, national forest inventory, multi-resources inventory);
 - National manual on logging practices;
 - Manual of dendrology;

- Land-use and forest stratifications norms and standards;
- Scaling and grading rules and standards
- Regulation on Chain of Custody activities and procedures;
- Regulation on Forest taxation (calculation, establishment of rates, review process, etc.);
- Forests monitoring procedures manual; etc

In addition, it is important to note the following:

- a) The FDA is in beginning stage of using modern remote sensing and geographic information tools
 - b) There is no computerized database on forest sector activities (this as the result of the war);
 - c) There is yet no policy in place on community/communal forestry (how will it work);
 - d) The FDA still lacks on procedures and analytical tools required for sector reviews and planning such as: (i) International timber products market (supply, demand, international prices, competition from the region); (ii) Production costs in Liberia (logging, hauling, processing, shipping, etc.); (iii) Timber evaluation (to assist in establishing forest taxes); (iv) Information and reports on the forestry sector of countries in the region (west and central Africa) to enable them and to benefit from these countries experiences, notably as regards timber allocation, forest taxations, Chain of custody, etc. These are issues that are currently being addressed through the LBI and the collaboration of FDA with ITTO.
69. Since mid-2006, major efforts have been undertaken by Senior Management of the Forest Development Authority to re-install Liberia into the international “forestry map”. Liberia participated in the Committee on Forests (COFO) in 2007. FDA successfully negotiated in November 2007 a partial release from its financial obligation to the International Tropical Timber Organization, allowing for project funding. FDA also applied to the Forest Carbon Partnership Facility (FCPF), in end of 2007. Based on initial informal comments received from the World Bank, a revised draft of the Liberian’s submission to the FCFP has been submitted in end of May 2008. Liberia is also planning to join international community in the implementation of the Non-Legally Binding Instrument on Forests (NLBI) in the framework of the UNFF.
70. The FDA fiscal budget for 2008/2009 total US\$ 2,790,158, which consist of Personnel (1,975,669), Goods and Services (731,457) and Capital Expenditure (83,032)

Other National Government Institutions involved in the Forestry sector

71. Other national government institutions indirectly or directly involved in the forest sector include:
- a) the Ministry of Finance (responsible for gathering taxes and fees, and providing fund for programs relating to reforestation, forest conservation, forest research, and financing Liberia’s participation in international organizations and receiving grants from them);
 - b) the Ministry of Agriculture (responsible for activities concerning efforts to be made against damage caused to the forest by the shifting agriculture practices and to promote agro-forestry practices and alternative livelihoods approaches);
 - c) the Ministry of Land and Mines (to manage land allocation and conflicts between uses for minerals (gold and diamond mining) and forest activities;
 - d) the Ministry of Internal Affaires (in charge of local governance and land-use issues);
 - e) the Ministry of Planning and Economics Affairs (coordinates bilateral, multilateral agreements and seek funding to implement forestry development)
 - f) the Ministry of Commerce (responsible *inter alia* for forest licenses)
 - g) the Ministry of Education (in charge of the training of middle level forestry technicians and higher education).

72. The Ministry of Internal Affairs is responsible for interior administration through the traditional chiefs, paramount chiefs and the superintendents. Its jurisdiction extends over all the rural communities where the national forests and “optional forests”⁷ are located. The 2006 Forest Law made provisions for the participation of local communities in the rural sector within or near the forest areas in the decision making process related to forest management and conservation, as well as benefit sharing from the use of forest resources. Thus the need for strong collaboration between this Ministry and the FDA.

The Environmental Protection Agency

73. The Environmental Protection Agency of Liberia (EPA), a self-standing body reporting directly to the Presidency, was created in 2005 by an Act of Parliament. The EPA is responsible for the implementation of environmental policy in Liberia. In the forest sector, EPA is particularly involved in the environmental impact assessment of environmental damage associated with timber harvesting.
74. As the National Focal Point, the Global Environmental Facility (GEF) is hosted by EPA and the Agency can give a strong support to FDA in order to have access to GEF funds⁸. EPA also deals with the implementation of climate change projects (NAPA, CDM, REDD), though staff of FDA occupy the position of operational focal point in the development of the REDD agenda for Liberia (Forest Carbon Partnership Facility, ITTO REDD Initiative).
75. EPA, together with FDA and supported by the LFI is currently conducting a Forest Sector Strategic Environmental Assessment (SEA) that examines strategic issues associated with a rapidly expanding forestry industry, expanding protected area system and increased community-based forest management. Final results are expected to be available by end of 2008.

Research and Training Institutions

76. Except for the College of Agriculture and Forestry, there is basically no adequate research capacity in the country. The Forest Products Research Laboratory was damaged together with the entire building that housed this laboratory. The Laboratory has not resumed work since then. The FDA also established a scientific research centre in 1985 called Gabonne, for monitoring of wildlife. That centre also had been damaged. The activities however have been continued through collaboration between the Society for Nature Conservation in Liberia (SNCL), FDA and FFI conducting bi-annual wildlife monitoring since 2005.
77. College of Agriculture and Forestry of the University of Liberia trains higher level Bachelor of Sciences in Forestry (and Wood Science) in a four years cycle. Over the past years, in average 10 people graduate each year. Less than 10% will get an employment in the forest sector for the time being.
78. The middle level forestry school (Forestry Training Institute, FTI, which was the remnant of the Mano River Training Institute) is defunct. It forms forests rangers, conservation officers and mechanics. The infrastructure of the College in Tubmanburg is presently serving as a regional headquarter of UNMIL peace groups and cannot be used for training purposes. The school resumed training in 2006 using four classrooms of the CH Devey High School. There is no further training infrastructure on disposal, nor is there any teaching material on disposal. The about 100 students that are actually in the two grades of the two-years teaching cycle, are left completely without any support or incentives.

⁷ “Optional forests” is a term that came from land suitability studies: it comprises forested land that is not intended to be used for forestry activities. Thus there is (yet) no defined purpose of land use.

⁸ FFI

Civil Society

79. The politics and social structures of rural Liberia involve a complex interaction between traditional authorities (with chiefs and paramount chiefs) and local state authorities. War, neglect and civil insurgent have progressively corrupted and diluted the traditional structures. Nonetheless, traditional chiefs and their institutions could be highly valuable partners in forest management activities. Some have also been active organizers of protests against companies that control land and forest resources. Interventions in this complex social milieu must be carefully planned to ensure that they do not exacerbate factors that in the past have contributed to conflict.
80. The environmental and social NGO movement in Liberia has been strongly developed over the past few years, partly promoted through international support and the new provisions made in the Forest Sector Reform Law of 2006. The two main organizations that have a strong voice in forestry are SDI (Sustainable Development Institute) and Green Advocates. They take active part of all forest sector reform initiatives, including the Community Forest Right Law Group, the Community Working Group, the Carbon Core Working Group, the Protected Area Working Group, etc. They, however, do not participate in any of the working groups that deal with commercial forestry besides the important group that deals with monitoring of commercial forestry (Forest Monitoring Committee).
81. Other NGOs include the Society for the Conservation of Nature (SCNL), AFELL (Association of Female Lawyers of Liberia), and SAMFU (Save my Future Foundation). However, the lack of finance and trained staff severely limits their impact and ability to push for changes.

Private Sector (Logging and Wood Processing Companies)

82. The private forest sector is dominated by logging companies and wood processing facilities are virtually absent for now. However, over the past few months a renaissance of wood processing companies has been observed, particularly based on foreign (mainly Chinese) investment.
83. The involvement of national logging companies in sustainable forest management in the past was very low. The extraction of timber followed only low levels of requirements (e.g. harvesting plans through the preparation of “stock mapping”). Staffs of the logging companies do not have any understanding or information regarding the preparation and implementation of forest management plan and reduced impact logging. Nevertheless, more than 10 formerly active timber companies have actively participated in the ITTO C&I workshop in 2006 to get guidance and show great willingness to improve their knowledge base.
84. Through the support of past governments, some large private forestry holdings have been heavily involved in shipping activities. For example, OTC managed the Port of Buchanan, Inland Logging Companies managed the Port of Greenville and MWPI managed the port of Harper. However, the Johnson-Sirrough Government has cancelled these arrangements and have given full authority to the State run port managements.
85. Consistent with the provisions of the new National Forestry Reform Law of 2006, national and international forest companies can apply through a competitive bidding process for large scale Forest Management Contracts (FMC) and Timber Sales Contracts (TSC). By end of May 2008, three national companies have successfully gone through the bidding process of TSCs and the Board of Directors of FDA has accordingly approved their contracts. So far, no large-scale Forest Management Contract has been approved by the Board.

86. The Liberian Timber Association (LTA), created in the late 1980s operates under two frameworks, (i) the Association of Liberian Loggers (ALL) and (ii) the Timber Association of Liberia. These two organizations were very weak in the past, but today, they have received increased attention by all sector stakeholders as a partner in the introduction of sustainable forest management practices in Liberia.

International Donor Community

87. In the post-war period, new institutional actors appeared on the area of sustainable forest management. Most of them are working under the umbrella of the Liberia Forest Initiative (LFI).
88. The LFI is an informal partnership between the US Government (acting through the USDA Forest Service - International Program), the World Bank, the European Commission, Conservation International, Environmental Law Institute, the World Conservation Union (IUCN) and several Liberian NGO's such as Green Advocate, etc. and the Liberian Timber Association (LTA) to working together with the FDA to complete reforms in the forestry sector to increase transparency and sustainable forest management approaches. ITTO's interventions should be closely coordinated with the LFI.
89. The USDA Forest Service - International program, is coordinating the efforts of the LFI since 2005 and for such has mobilized full time staff in Liberia as well as a number of short-term expert missions. In May 2008, the long-term technical advisor for commercial forestry however has left and has not been replaced yet. The US Forest Service nevertheless remains heavily involved in the implementation of the LFI-FDA Work Plan, including, pre-financing of log tracking and verification under the framework of SGS, in the elaboration of regulations on commercial forestry and in community forests, among others.
90. The World Bank has also been involved in the forestry sector of Liberia since 2005, initially through its LICUS (Low Income Countries Under Stress) program, which is supporting a number of activities in the Joint LFA-FDA Work Programme. Since May 2007, the World Bank also finances a resident forestry coordinator who is still in place in May 2008. He is responsible to coordinate and manage all World Bank support through UNDP into the forestry sector. On invitation by World Bank, the GoL has made a submission to the Forest Carbon Partnership Facility in March 2008 and it is expected that Liberia will become an important implementation partner in this newly created facility.
91. The European Commission has financed a study on the management and control of the financial flows in the public sector in general and of the FDA in particular (Financial review). It also contributes to the Forest concession review, notably supporting the communication and transparency aspects of the process. Since 2007, the EC collaborates with Liberia in a FLEGT/VPA process. A FLEGT workshop was held in June 2007 with multi-stakeholder participation including representatives from government, industry, international partners, civil society, forest-dependent communities. IUCN has been mandated by the EC to coordinate the FLEGT/VPA process together with FDA. Another important activity is related to the analysis of forest industry capacities and forest markets (Diagnosis Trade Integrated Studies) that is conducted through a Finnish consultancy firm during 2008.
92. FAO works in Liberia through technical support of activities financed by World Bank and other partners of the LFI. It has yet not started collaboration in respect to the preparation of a National Forest Programme (NFP). FAO made available staff to the World Bank to help to draft its first forest policy, capped by a new forestry law signed in October 2006. FAO is also involved in methodology development to assess and prepare pre-inventories in production forestry for the bidding process.

International NGOs

93. A number of developmental international NGOs are now playing a very active role in the post-war rehabilitation of Liberia. A good number of them have been established in the country in the post war Liberia and during the United Nations Security Council sanction on the country in respect to exportation of logs and diamond dealing.
94. Two major international Environmental NGOs are active in forest conservation in Liberia, UK based Fauna and Flora International (FFI) and US based Conservation International (CI). Since 1997, Fauna & Flora International has made Liberia the central pillar of its West African programme. FFI has played a significant role in supporting the National Transitional Government of Liberia and were responsible for preparing three landmark environmental laws. Today, Fauna & Flora International intervenes at two levels in Liberia. First to create a functional management structure at Sapo National Park and empowering rural Liberians by establishing communal forests. Second, FFI is supporting the national level to review and adapt forestry sector legislation to incorporate and balance community, conservation and commercial interests.
95. Conservation International also collaborates in the Work Programme of LFI in close coordination with FFI. Liberia is part of CI's Biodiversity Hotspot Approach that includes *inter alia* the Upper Guinea region, which stretches from southern Guinea into eastern Sierra Leone and through Liberia, Côte d'Ivoire and Ghana into western Togo. Supported by CI, the FDA created in September 2007 the national forest carbon-working group to document the potential of carbon financing to help protect Liberia's forests consistent with the forest management strategy. According to CI, the group was also charged with laying the groundwork for pilot carbon projects as CI implements in Madagascar, Ecuador and that integrate community development and biodiversity conservation goals. A grant from the Geneva-based McCall MacBain Foundation is being used to accomplish this and to leverage other funding.
96. A number of advocacy NGOs, in particular Global Witness, FERN, Rainforest Action Network, Greenpeace International, the Environmental Investigation Agency and Forest Monitor are regularly informing the international community about the development in the forests sector in Liberia (e.g. Press release on 27 March 2008 titled "Rush to log Liberia's forests will jeopardize the reform process"). However, they are present and active in Liberia.
97. Research and Development orientated organizations, such as CIFOR and the Rights and Resources Initiative (RRI) have had limited involvement through the organization of workshops and research work on community forestry through FFI. CIFOR has carried out in 2005 a research to identify options and opportunities for forest management by local communities in Liberia. Using a series of transect studies across landscapes of intensive utilization to conservation of forests, the team intended to identify a series of 'best bets' and 'starting points' for the development of community based forest resource management in Liberia. This work however was not conducted to the end.

2.4 The Policy, Legal and Regulatory Framework

National Forest Development Planning

98. FDI, with support from the World Bank, FAO, UNDP and the US Forest Service produced a document akin to a national forest development planning in February 2004. This document laid out some of the basic elements for the process of the new forest policy in Liberia that was accomplished in mid-2006:

- a) *Good governance of forest resources and regulatory reform to ensure legitimate management/exploitation, including assistance to the FDA in building institution capacity to manage forests, such as providing adequate equipment, training, and salaries for employees;*
- b) *Revenue reform (taxation and auditing systems) to ensure legitimate flows of revenue from timber;*
- c) *Assist the FDA in a comprehensive audit and review of concession ownership (to assess tenure conflicts and determine legitimate ownership);*
- d) *Comprehensive forest inventory and review of national resource management to determine the potential value of forest resources (timber, non-timber forest products, including medicinals, biodiversity, recreation, etc.) and provide information for monitoring, taxation, and enforcement;*
- e) *Chain of custody over timber;*
- f) *Auditing and transparency (establishment of accounting system and implementation of appropriate fiscal system in relation to forestry);*
- g) *Ensure that, as they are deployed throughout Liberia, UNMIL peacekeepers support enforcement of the rule of law in forested areas and monitor ports to ensure compliance with timber sanctions.*
- h) *Implementation of regulations for accountable and environmentally sustainable forestry.*

Forest Policy Paper

99. With support of FAO, a process of formulation of a new national forest policy was launched in 2004 and published in mid-2006 (National Forest Policy and Implementation Strategy). This document is the basis of the new Liberian Forest Policy in conjunction with the National Forestry Reform Law of October 2006. The draft National Forestry Policy and Implementation Strategy includes as major elements the following chapters:
 - a) **National forest policy statement;** which defines as aim of the forest policy in Liberia as *“to conserve and sustainably manage all forest areas in Liberia, so that they will continue to produce a complete range of goods and services for the benefit of all Liberian citizens”*. Seven objectives have been defined that should be implemented to benefit *“conservation, community and commercial uses of forests”*.
 - b) **Strategies for commercial forestry;** these will focus on improving forest concession management, reforestation and forest plantation development and modernization of the wood processing industry.
 - c) **Strategies for community forestry;** in addition to a greater involvement, including benefit sharing, of local people in all aspects of commercial forestry, special attention should be given to specific uses of forests for local people and communities, such as bush meat management and trade, fuel wood and charcoaling, and the use of other non-timber forest products, as well as community management of forest resources in general.
 - d) **Strategies for forest conservation;** includes setting aside and management of high conservation value forests and the integration of conservation values in commercial forestry. The strategies focus on wildlife and protected area management, management of wetlands and mangroves and the development of ecotourism and nature tourism.
 - e) Finally, so-called **crosscutting policy areas** have been defined, as follows: (i) land tenure, ownership and land use planning; (ii) public administration and (iii) research, information, education and training.
100. The main policy objectives as stated above are sufficiently comprehensive and adequate in their substance. The ongoing Forest Sector Reform Process nevertheless would still need to clarify many of the listed policy issues into concrete implementation activities. Most importantly, the land-use planning concepts, including the definition of the permanent forest estate for sustainable forest production and conservation still need to be completed.

Legal and Regulatory Framework

101. Besides the Forestry Act of April 6, 2000 and the Act adopting the National Forestry Reform Law of 2006, other legal and regulatory instruments impacting the forestry sector include the 1998 Act adopting the New Wildlife and National Parks Law as well as the Environmental Protection Law.
102. The most important legislative paper prepared by the new Johnson-Sirleaf Government is the Act adopting the **National Forestry Reform Law that has been approved by Parliament on October 4, 2006 (NFRL 2006)**.
103. The National Forestry Reform Law of October 2006 contains the new regulative framework to implement the policy principle of commercial, conservation and community-based forestry. The text regulates, *inter alia*:
 - Ownership and use of forest resources
 - Policy and planning
 - Commercial and other use of forest resources
 - Contractual aspects of forest resources licenses
 - Relationship between neighboring forest areas
 - Environmental protection
 - Protected forest areas network and wildlife conservation
 - Community rights and forest management
 - Right of land owners and occupants
 - Trade in forest resources
 - Fiscal provisions
 - Offenses and penalties.
104. The legal and regulatory framework appears to be in general sufficient to ensure proper management of the sector. The main problem will be their full implementation and enforcement.
105. In September 2007, a document on Ten Core Regulations was adopted. It contains the following regulations:
 - Regulation 101-07 on public participation
 - Regulation 102-07 on forest land use planning
 - Regulation 103-07 on pre-qualification
 - Regulation 104-07 on tender, award and administration
 - Regulation 105-07 on pre-felling operations
 - Regulation 106-07 on benefit sharing
 - Regulation 107-07 on forest fees
 - Regulation 108-07 on chain-of-custody
 - Regulation 109-07 on penalties
 - Regulation 110-07 on rights of private land holders

Summarized, Liberia now disposes on one of the most advanced forestry law and regulations in West Africa. It remains a challenge to operationalize the regulations once productive forestry activities will have restarted again.

2.5 The State of Forest Resources Utilization

2.5.1 Contribution of the forest sector to the national economy

106. Forests play a vital role in the cultural identity of rural Liberians. They have also served as a haven during the war, and as a life-supporting source of sustenance, energy and medicines.

107. Many of the poorest people also make a living from the provision of charcoal and fuel wood to the urban centers, virtually the sole energy source and cooking fuel. Tens of thousands of large sacks of charcoal are consumed each year in Monrovia alone. There is no estimate of the value of this commerce.
108. Besides fuel wood, bush-meat is the most valuable forest product being nationally commercialized in Liberia today.
109. Although a number of legal pit sawing permits have been awarded by the FDA in the past years as most of the sawmills in the country have been shut down, many truckloads of illegal pit sawn wood and poles is reaching Monrovia each day. The value is not known. In mid-2008, there is still very limited supply of legal lumber for local consumption.
110. Prior to the collapse of the Taylor regime in 2003, commercial logging was a major component of the economy. In 2002 it accounted for a quarter of GDP and 65 percent of foreign exchange earnings. It generated up to \$20 million in government revenues and around \$100 million in exports. These numbers are probably significant underestimates due to transfer pricing and corruption that were prevalent at that time. The sector directly employed about 7000 people. Since 2004 and until today, there are no commercial logging activities in place and there is practically no income from the forests sector to the national economy.

2.5.2 *Non-Timber Forest Products (NTFP) and Forest Carbon*

111. Non-timber forest products (NTFP) are of great value in Liberia. They include a variety of products for food, fodder and shelter, e.g. spices, snails and bitter kola. As mentioned before, bush-meat is the primary source of animal protein to most people living outside Monrovia (including, *inter alia* ground dog, antelope and deer). Consumption in the capital is also substantial. An unpublished study by Green Advocates estimated that about 100 tones of dried bush-meat enter the capital in 2004 alone.
112. Other important non-wood forest products include traditional medicines, materials for ceremonies and religious rites, fruits, nuts, berries, and materials for house construction. With many of Liberia's people living at subsistence level, these products have probably had a disproportionate importance. NTFP are a significant safety net in times of economic and political crisis.
113. About 98 percent of Liberia's energy needs are met with fuel-wood and charcoal.
114. Liberia is considered as a country with considerable potential in Land-use and forestry carbon sequestration as well as in REDD. A National Carbon Working Group has been created in September 2007 to promote forest-based carbon. Liberia is a participating country in the created Forest Carbon Partnership Facility (FCPF) of the World Bank, created in December 2007 and it has prepared a strategy for REDD readiness and submitted it to the FCPF in May 2008. In May 2008 it also has received an offer by the E.U. to participate in pilot REDD activities.

2.5.3 *Commercial Forestry (logging and wood processing)*

Commercial and other use of forest resources

115. The National Forestry Reform Law of October 2006 regulates in its chapter 5 the commercial and other uses of forest resources. It distinguishes between Forest Management Contracts, Timber Sale Contracts, Forest Permits and Private Use Permits and Other Commercial Use on Private Land.

116. **Forest Management Contracts** include concession areas of at least 50,000 hectares and no more than 400,000 ha in size. Areas between 50,000 and 99,999 ha are open for bids from qualified bidders that demonstrate at least 51% ownership by Liberian citizens. All forest management contracts over 100,000 ha are also open for bidding to international investors. Among other conditions, a forest management contract requires the preparation of a sound, long-term forest management plan, including inventories and annual operational plans. They require a business plan, an environmental impact assessment and a social agreement with local forest-dependant communities. A new Forest Management Contract is only effective once it is signed by the President and ratified by the Legislature during the legislative session in which the contract has been presented. The regulative text to clarify the details for establishing FMC still needs to be prepared.
117. **Timber Sale Contracts** are established on the basis of bidding for areas up to 5000 ha. Bidders must demonstrate at least 51% ownership of Liberian citizens. Contractors must prepare an annual operations plan. Consistent with land planning requirements specified in the law, Timber Sale Contracts can be awarded for the purpose of allowing forest land to be cleared for agriculture or for establishment of plantations.
118. **Forest Use Permits** are given to specific classes of persons, such as subsistence farmers, forest-dependent communities, residents of a particular county or district, academic researchers, artisans, eco-tourism organizers and others to exercise a commercial use, such as production of charcoal, tourism, research and education, wildlife-related activities harvesting small amounts of timber and harvesting of NTFP. The maximum area under a forest use permit is 1000 ha.

Structure and size

119. Before 1965, the production of timber in Liberia was mainly for the domestic market. It is over the last 45 years that exploitation of timber has developed on a commercial scale. Official timber production reached by to 800,000 to 1 million m³ per year in the 1980s (e.g. 1987: 810,000 m³; 1988: 1,008,000 m³, 1989 949,000 m³).
120. The forest industry was the most rapidly growing segment of the Liberian economy in the 1970's. Timber exports mainly in the form of logs increased at about 25% per annum over the period 1970-1979 driven by low stumpage fees and high profit margins. Log production peaked at about 850,000 m³ in 1979 before a sharp decline caused by an overvalued currency, recession in the markets and finally the political instability following the 1980 revolution.
121. From the mid-eighties log production again increased rapidly and progressively hit about 1.2 million m³ in beginning of the 1990s generating \$US 100 Million in export sales per year. This accounted for about 10% of total export earnings. The devaluation of the currency, ban on the exports of logs from Ghana and lastly, the reduced supply from Cote d'Ivoire favored timber exports from Liberia. The recovery of the industry in the late 1980's was again disturbed by hostilities until a relative peace was restored in 1997.
122. 23 years of civil conflict in Liberia (1980-2003) has almost destroyed its wood processing sector. Before the war, there were 30 companies in all, 27 sawmills and 3 plywood mills. The hostilities destroyed 20 processing facilities. There are currently 9 sawmills and one plywood mill which are all dormant. The estimated installed capacity of these mills is about 95.000 m³ of logs per annum.
123. In 2002 out of a total log production of about 1.36 million m³, 1.17million m³ was exported in log form. The industry is still almost entirely log export oriented, with sawn timber and plywood constituting but a very small proportion of total exports.

124. In the past, mills were basically established only because they were a requirement under the concession agreement (TUC - Timber Utilization Contract). Additionally, the short-term perceptions of the concessionaires led to a situation where most of the mills were set-up with obsolete equipment, this resulting in inefficiency and wastage. Recovery rates ranged between 25-35%. To a large extent this short-term vision was driven by long period of instability.
125. In 2002, one of the largest industry companies, OTC, built a very large and modern peeling and plywood (on west and central African standards) plant in Buchanan. The plant was however basically gutted during the war and there is very little that remains of the site.
126. In September 2007 the first pre-qualification symposium was conducted that qualified potential bidders. Beginning of 2008, about 40 pre-qualified timber companies submitted bids for all categories of commercial logging. The situation in end of May 2008 can be summarized as follows:
127. In respect to contract allocation:
 - the FDA management pre-qualified forty-five (45) companies in the following categories: eight (8) companies were pre-qualified for TSC and thirty-seven (37) companies were pre-qualified for FMCs of different categories (small, medium & large)
 - Six (6) TSC areas for bidding have been tendered
 - Conducted Due-Diligence on three(3) successful responsive bidders
 - Three forest management contracts tendered (two small and one large)
 - Due-Diligence and Contract negotiations for these areas are pending.
128. In respect to SFM working tool kits:
 - Ten Core Regulations have been vetted and approved for use
 - Code of Harvesting Practice based on the West African Regional Context developed for use by Concessionaires
 - Forest Management Guide Produced for Use by Concessionaires
 - Developed a Tentative Guidelines for the monitoring of NTFPs harvesting and production pending the vetting and approval of the draft NTFP Regulations
 - Intensified the check points monitoring for the inflow of sawn timber for local consumption through the issuance of bills for payment of each consignment and waybills for counter-checking the various checkpoints.
 - Two separate assessments of chain sawing activities conducted with the assistance of UNMIL in order to keep track of operational areas.
 - Re-opened, staffed, equipped and vehicled four (4) Regional Head offices to monitor all forestry activities within the regions.
129. In respect to third party verification:
 - The Chain of Custody Contract have been signed and COC operators arrived and established office at the FDA office and FDA appoint and assigned a counter-part to represent the interest of FDA on COC activities
 - More efforts been exerted to actualize the application of VPA and FLEGTE in the Sustainable Forest Management at the commercial level.
130. In respect to forest revenue systems:

The Forest Revenue System will be based on stumpage fees at 15%, 10% and 5% of FOB value of species per classes: Land Rental of 1.25 US\$ per hectare for TSCs and 2.50US\$ per hectare for FMCs and a forest product of two (2) categories:

 - Log Export fee – 10%, 5% and 2.5 % of FOB per species
 - Wood product Export fee of 5%, 2.5% and 1.25% of FOB per species.

Species Utilization

131. There are strong indications that there has been over cutting of primary species for the export markets in the past. This, in conjunction with the opening of the Asian markets where there is strong demand for less expensive species, has led to a strong trend towards the utilization of lesser used species. 42 species were exploited in the year 2000; however, niangon (*Heritiera utilis*) is still under great pressure. In 2000, niangon accounted for 14% of total log production and has been as high as 45% in 1987. Other important species include abura (*Hallea ciliata*), bosse (*Guarea cedrata*), lovoa/dibetou (*Lovoa trichilioides*), ceiba (*Ceiba pentandra*), tiama (*Entandrophragma angolense*), sapelle (*E. cylindricum*), sipo (*E. utile*), kosipo (*E. candollei*), framire (*Terminalia ivorensis*), ekkie (*Lophira elata*), tet or sikon (*Tetraberlinia tubmaniana*), anigre (*Anigeria robusta*), aiele (*Canarium schweinfurthii*), bubinga (*Guibourtia ehiè*), makore (*Tieghemella heckelii*), limbali (*Gilbertiodendron preussii*), obeche/wawa/samba (*Triplochiton scleroxylon.*), iroko (*Chlorophora regia*), kusia (*Nauclea diderrichii*) besides others.
132. According to Schedule 1 on page 90 of the 10 Core Regulations ((2007), all timber species are classified into A, B & C classes. 27 species have been classified in category A, 19 in category B and 19 in category C. All species cited in §127 are category A species.

Markets and Marketing

133. In the past Europe was the major market for Liberian timber. In recent years China (and India) has dominated the export trade in logs taking 75% of log exports with Europe about 23%. However, Europe has taken about 80% of sawn timber exports from Liberia before the export ban. Exporters organize their own marketing. However, export permits are required for all shipments. FDA issues permits after vetting information as defined in the new regulations.
134. It is noteworthy that markets are not considered as a constraint by the industry, which illustrates that production had been easy to sell. As the country attempts to shift to the production of value added products, much greater attention will have to be placed on effective and more elaborate marketing activities and strategies. This would imply a much more understanding of the market including its characteristics. Promotional efforts would also be important.
135. It appears there are various ways in which timber companies have in the past illegally undervalued the timber exported: under measurement of timber loaded onto ships, misclassification of species, under grading and transfer pricing. These practices have resulted in huge loss of revenue to the state. Taxes from export, which could have been used to finance SFM, had been lost through such practices, an indication of institutional deficiencies and lack of market transparency. All these issues are recognized now and are considered in third party verification and controlling mechanisms (see also Liberia's collaboration in the E.U Voluntary Partnership Agreement (VPA).

Forest Revenue System

136. The National Forestry Reform Law of 2006 specifies under Section 14 the new Fiscal Provisions in respect to forest management and conservation. Stumpage fees, Land rental fees and Forest Product fees will be established. The Ministry of Finance or the Central Bank of Liberia collects fees. Jointly with the Ministry and in consultation with the relevant institutions, the FDA will propose the structure and amount of fees and regularly revise the fees as necessary to reflect changes in economic conditions.
137. The forest revenue system in Liberia in the past consisted of a number of taxes, royalties and charges, which have evolved over the years. Charges can be classified into two broad groups - area based and volume based charges. The area-based charge is the annual concession rent. There is yet not a fully developed forest revenue system put into place, but the current proposals include:

- a) **A Stumpage fee**, which is set to US\$ 22 per m³, irrespective of the species.
- b) **A Land rental fee**, set for Forest Management Contracts to US\$ 2.50 per ha, and for Timber Sales Contracts to US\$ 1.25 per ha, and
- c) **Forest Products Fees**, which vary depending on level of processing.

According to the NFRL (2006), these annually collected fees should be distributed as follows:

- 10% of the stumpage fees to support operational costs for the Protected Forest Areas network established in Chapter 9 of the NFRL (2006);
 - 30% of land rental fees to communities entitled to benefit sharing under Forest Resources Licenses; 30% of land rental fees to counties; and 0% of land rental fees to the Ministry of Finance.
 - 10% of the Forest Product fees to support operational costs for the Protected Forest Areas network established in Chapter 9 of the NFRL (2006).
138. These charges applied in the past were more numerous and complicated and created the conditions for evasion. Collection rate in the past was low, accounting for only 30% of assessed charges. It is expected that the new simplified forest revenue system will become more efficient.
 139. The forest revenue system also suffered in the past from the following weaknesses:
 - a) Rent capture was low;
 - b) Charges have led to high grading with primary species being over-cut;
 - c) Severance fees did not adequately differentiate species;
 - d) Forest dependant communities have not benefited from these taxes, making the system inequitable and ineffective.
 140. Some of the problems in the industry in the past (inefficiency, wastage and rent seeking behavior and the sectors inability to add value to the resource) can have their roots in deficiencies in the revenue system. Complexity of the billing process can create lack of transparency and significant opportunities for corruption. New regulations in this respect have been elaborated but still need to be proven through effective implementation.

Logging Operational Aspects

141. In the past, logging companies had to conduct pre-harvesting survey (enumeration) and provide the FDA with a detailed map identifying and locating the trees to be felled. Trees to be felled are marked in the bush by the logging companies and, in theory verified by an FDA ranger before the annual logging coupe is allocated. The NFRL of 2006 makes it compulsory for companies' licenses with a Forest Management Contracts to prepare an inventory, a forest management plan and operational harvesting, silviculture (including reforestation and enrichment) and business plans. Its implementation is partially linked to a performance contract that a company has to sign before it starts its logging operations.
142. Such thorough forest management planning will need substantial financial resources, which have to be paid for by the concessionaires. In order to attract serious investors, the GoL would need to grant them a time frame to fulfill their forest management planning obligations. Otherwise, there is a risk that serious firms that submit realistic forest management approaches will not win a submission, but those firms that in the lack of recognition of such important investment will win the bids due to the attractive financial bids they offer. The issue of fully recognizing the long-term benefit of forest management over short-term timber exploitation remains the most important challenge for the commercial department of FDA. The forest management system, though in place in theory on paper, still needs to be proven in practice.

143. A chain of custody system (CoCs) has been reestablished in the National Forestry Reform Law of October 2006. It enables the FDA to monitor and control the logs felled from stump to final loading of on-going vessel or to processing plant, and to calculate forest taxes to be paid by the concessionaires, was fully operational in Liberia before the war. Significant drawbacks to this prior CoC system identified included; (a) the non-linking of stump numbering to log numbering, (b) the imposition of felling and export tax at the landing sites based on the assumed volumes and volume to be processed or exported in log form and finally (c) the too important role of the FDA in the actual scaling activities (instead of verifying scaling being done by the logging companies). The NFRL (2006) reconfirms the establishment and maintenance of a CoCs for all timber consistent with internationally recognized standards. According to the new law, the FDA may delegate management of the CoCs to a qualified contractor. The operationalisation of the CoCs through regulations has been defined in one of the Ten Core Regulations..
144. The NFRL of October 2006 also requests the FDA to identify internationally accepted standards for certification of timber that all holders must satisfy. More precision on this text should be given through the regulative framework of concession management.
145. There are no specifications or guidelines as regards to road construction and maintenance, reforestation and/or protection of re-growth and follow-up on logged-over areas. There is no post-exploitation survey, other than those performed by the logging companies to check that all commercial trees have been felled in the logging coupe. There are yet no guidelines on low impact logging. Until date, the main focus of forest management in Liberia has been limited to the extraction aspects and not to sustainable forest management. The NFRL of 2006 indeed intends to change that paradigm.

Infrastructure

146. The infrastructure, transport, communication and energy are in bad state. In the forestry areas most of the infrastructure, roads, schools, and clinic were developed by concessionaries as part of their contractual obligations. These facilities are usually maintained as long as the area was being logged. Companies have enjoyed tax credits for building roads, which were the responsibility of the Government. However, Buchanan, Greenville and Harper seaports are in fairly good condition; all port facilities are now in a process of rehabilitation.
147. The educational infrastructure is yet to be restored to their pre-civil crisis status affecting capacity building both in the public and private sectors.
148. When natural forest management resumes by end of 2008 as expected, some improvements in transport infrastructure are expected. In the short-run, infrastructure may not pose a constraint, but in the long run it would. Liberia's total infrastructure would have to be rebuilt to create a conducive environment necessary to attract private sector investments and for socio-economic development of the country.

Skilled Labor

149. There is a serious shortage of local skills in all aspects of the forest industry. Few Liberians were skilled. Skilled labor came from South East Asia and else where in the sub region, constituting about half the labor force that was estimated to about 8000 when harvesting was in full speed. A timber working union exists but is low in membership. In a recently filed claim (November 2006) to the Labor Ministry, the Union claims outstanding salaries of nearly 20 million US\$ from logging firms. They also demanded the government to pay the workers before new companies can be allowed to start operation, because "the same old companies will come back under new names and management who cannot be held liable for what previous management owe".

Finance

150. Financing the forest industry is a difficult issue since it involves long-term investment and high risk. The local financial market is underdeveloped and is not able to attract investors due to high cost of capital and loan conditionality. Private foreign investment and concessionary loans are yet not forthcoming. The industry has had its own way of financing its activities, through the use of supplier's credit; however, this comes with the risk of transfer pricing.

3. MAJOR CONSTRAINTS TO SUSTAINABLE FOREST MANAGEMENT

Bio-physical Constraints

151. **Liberia is the most forested country in West-Africa.** There are no major biophysical constraints to the implementation of SFM in Liberia, as accessibility is easy and ports are all nearby (at least in comparison with the situation in the Congo Basin). Liberia is still endowed with significant areas of forests of high commercial and conservation value that can sustain sustainable commercial and non-commercial extractive activities as well as conservation and community based forestry activities. However, populations of some larger species of birds and mammals are almost certainly highly depleted due to over hunting during the war, and may be ecologically extinct over significant areas.
152. The relatively easy topography and hydro-graphic network of Liberia and the relative short distances from the forests to the national ports are all favorable to profitable and sustainable commercial and non-commercial forest activities.
153. However, a major constraint to SFM is the lack of knowledge on the state and potential of the forest resource itself as well as the lack of skilled labor to implement SFM. Information on growth dynamics of the forest is totally lacking and the national Annual Allowable Cut (AAC) is unknown. The conservation status of the main timber species has not been determined for a long time. There hasn't been any comprehensive forest inventory in Liberia in the last 40 years, even that the FAO had made several efforts to do so. Records on logged over areas and volumes extracted over the last 20 years are sketchy, incomplete and not at all reliable. The scarcity of information makes it difficult to draw reliable conclusions on the resource.

Political Constraints

154. The most critical factor to sustainable forest management after reestablishment of peace, order and security in the country will be to adequately adopt sustainable forest management, law enforcement and effective governance. These constraints are being addressed by the implementation of the comprehensive work programme of FDA in collaboration with the LFI (see work plan FDA-LFI 2008). **FDA is on a promising pathway, however the lack of funding and adequately trained and skilled staff remains a major bottleneck for further progress.** When outside (analytical) support ceases, FDA will be hardly capable to continue its efforts on the actual pathway.
155. The potential of the timber sector will again become important to the Liberian economy especially so when other sources of revenues are scarce. In this context it is important to remind that in 2002, the sector contributed about 65% of Liberia's commodity earnings. A major constraint on SFM for the immediate future is still the low trust the international community, and the international markets, have in the management of Liberian forest sector and its forest products.
156. Liberia is currently in a difficult financial situation. The forest sector represents attractive income generating opportunities. There is still a fear that political decisions pertaining to the forest sector

could be biased towards a fast resumption of logging and timber exports, without having put in place the mechanism, processes and tools to ensure the sustainable and fair use of those resources.

157. Educational levels are low, especially in rural areas. The vast majority is illiterate. Healthcare is poor. Many people are in “survival mode”. Efforts to promote awareness and build support for SFM could largely fall on ears deafened by more serious basic needs. Current understanding of concepts such as SFM, certification and community forest management, is extremely limited.
158. High levels of poverty and low salaries create a ready workforce for illegal activities such as poaching, gold and diamond mining, and pit sawing.
159. Job creation is a topmost priority for Liberia. Civil unrest and political instability are at great risk with so much of its mainly young labor force, many of which having experienced war first-hand. Forest-based activities that generate employment, especially for large numbers of unskilled and semi-skilled workers are of great importance in an initial stage of revitalizing an economy.

Institutional Constraints

160. Governance remains weak, in particular at the level of administrations. Traditional governance in the rural areas has also been corrupted and dismembered through the years of war and neglect.
161. The capacity of national governmental agencies, county government, local NGOs, community bodies, and most other institutions is low. Technical skills are poor, level of training is low, and access to information is very limited. Most government employees do not have ready access to computers and internet.
162. Budgets for public agencies are inadequate to cover basic services. Staff is poorly motivated and easily tempted by opportunities of informal income. There are limited, if any, logistical (vehicles, technical field equipment, etc.) and office material (computers, printers, photocopiers, etc.) and supplies available to staff and institutions, greatly hindering their capacity to perform any task. This applies to the administration in general, and to FDA as well.

Policy, Legal and Regulatory Constraints

163. There is now a New National Forest Policy and National Forest Management Strategy and Law in place. Nevertheless, it will remain difficult to further strategize development in the forest sector without disposing on major income sources from forests, including timber and other forest products and valued services (such as carbon, water and biodiversity).

Land-use and Timber cutting rights allocation Constraints

164. Liberia does not have a national land-use plan but efforts are under way in this regard. Without a land-use plan, it is difficult to properly identify, allocate and manage the forest resources on a long-term basis. The lack of land-use plan can for instance lead to allocating forest concession which prevailing conditions does not meet the required characteristics (size, stocking, human pressure, etc.) for sustainable management. Other very important issues to be dealt with the land-use plan are the identification and setting-aside areas for communal forest, community forest and conservation. Land-use planning is necessary so that compromises on different and potentially conflicting land-use options be made in a scientific and collaborative manner.

165. The NFRL redefines commercial timber extraction as forest management. New concessions are given out in a bidding process. The concept of competitive bidding is new in Liberia and as such there are no guidelines available to manage such process. There is still a need define clear rules in this respect, and to accompany the process through outside support (with adequate measures to train the Liberian staff on-the-job). There is also a need to inform investors, at national and international level, accordingly. Bringing serious investors in the country depend on the transparency and feasibility of the allocation process for forest management contracts and on the understanding of the real costs of forest management versus simple timber extraction.

Forest Management Planning

166. There is still a lack of understanding of sustainable forest management in Liberia. Many staff of the FDA and the forest concessionaires consider that the former system of harvesting cycle of 25 years and administratively set minimum felling diameters is sustainable forest management, which it is certainly not. Experiences in other countries of the sub-region as well as in Central Africa where sustainable forest management plan have been elaborated and implemented on scientific basis have provided very strong indications that rotation should be more in the order of 30 years to 40 years. SFM planning goes well beyond rotation and minimum cutting diameters. For instance SFM in the sub-region and in Central Africa also have numerous provisions for the protection of seed trees, which TUC in Liberia does not have.
167. With the completion of the ITTO C&I workshop in 2006, a process has been initiated to develop proper C&I criteria and indicators for Liberia as a common baseline to define, monitor and report on progress towards SFM. In this framework, it is proposed to develop guidelines and procedures on the elaboration, implementation and monitoring of sustainable forest management plans. It is important in this respect that the development of Liberian C&I involve closely all local stakeholders, in particular the local private sector, local NGOs and forest-dependant communities' representatives.
168. A substantial constraint to the implementation of SFM is the relatively high costs associated with the preparation of internationally acceptable sustainable forest management plans. Recent experiences in West Africa and Central Africa show that the cost of preparing an acceptable and coherent SFM plan to be at least \$ US 5 per ha, depending on the size of the concession and the logistical conditions (mainly access). That could amount to around \$US 1 million for a 200,000 ha concession. This substantial investment is normally born by the forest concessionaires, as the preparation of an acceptable SFM plan is part of their contractual obligations under the new forestry law. The costs of preparing the SFM plan could be a significant burden to most concessionaires and probably prohibitive for smaller, mostly national operators.
169. As there is no professional capacity in Liberia for the preparation of SFM plan, forest concessionaires will have to rely on outside-specialized consulting firms. It is important that when contracting such firms, capacity building of local staff is fully embedded in their contracting.

Forest Industry Business Environment Constraints

170. In the past, the forest industry has been oriented towards log exports, a situation driven by low forest fees and short-term perceptions of the industry. Thus, the potential to achieve value added and create employment has not materialized. Political stability and policies, which address fiscal imbalances and other disincentives that dissuade foreign and Liberian private sector investors, could change the direction of the industry in the future.

4. PROPOSED PRIORITIES FOR ITTO INVOLVEMENT IN THE FOREST SECTOR DEVELOPMENT OF LIBERIA (2008-2012)

4.1 Introduction

171. This section identifies and briefly describes a set of possible actions that could be undertaken by ITTO to address some of the constraints to sustainably manage Liberia's forest resources. It is important to note that the actions recommended are restricted to those issues, where ITTO has its strengths and where it can achieve concrete and significant results through project work within a relatively short time frame.
172. It is proposed that all actions and projects supported by ITTO are embedded into the collaborative effort of the FDA with the multi-donor Liberia Forest Initiative that aims at a coordinated approach in supporting the forestry sector in order to guarantee efficiency, effectiveness and avoiding duplication. As the LFI has already been engaged in a number of actions over the past three years, the ITTO support is understood as being complementary and additional, emphasizing in particular the building up of the necessary capacities of Liberian nationals from public sector, civil society and private sector, to manage their forests sustainably.
173. ITTO projects have to follow a specific set of requirements in respect to its eligibility for ITTO funding and in respect to formal procedures. Proposed projects have to be in line with the objectives of the international tropical timber agreement and they have to correspond to the priorities set in the time-bound ITTO Action Plans. Thus, not all activities proposed in a collaborative framework with other donors are eligible in the ITTO context.
174. The Joint FDA-LFI Work Plan for 2008/2009 proposes activities to be conducted by the different Departments of FDA with support of the international partners in the following strategic fields of action:
- 1. FDA Commercial Department**
 - 1. Educate stakeholders and the general public on the new national Forest Reform Law and new FDA reforms (*USFS, WB*)
 - 2. Allocate up to 2 million ha of forests into Timber Sales Contracts and Forest Management Contracts (*USFS, FAO, WB*)
 - 3. Grant and administer Chain of Custody contracts (*USFS*)
 - 4. Develop, together a mechanism to share benefits from forest contracts (*WB*)
 - 5. Implement and set rules and regulations for forest management in contracts (*USFS*)
 - 6. Develop incentives to modernize the wood-processing industry (*WB, FAO*)
 - 2. FDA Community Department Workplan**
 - 1. Develop local understanding of community forestry context (*USAid, WB, IUCN, FFI*)
 - 2. Develop and implement standards on community tenure rights and access (*IUCN, FFI, WB*)
 - 3. Develop models for community empowerment and forest management (*IUCN, USAid, WB*)
 - 4. Update and implement policies and regulations on bushmeat, wood energy and NTFP (*IUCN, WB*)
 - 5. Empower local communities to establish rights and responsibilities in respect to FM (*USAid, WB, IUCN*)
 - 6. Provide extension and technical assistance in community forest management (*USAid, WB, IUCN*)
 - 3. FDA Conservation Department**
 - 1. Manage existing protected areas in accordance with the National Forest Reform Law (*FFI, CI*)
 - 2. Work and conduct social and biological survey of proposed new protected areas (*WB, FFI, CI*)
 - 3. Develop programs to support income generating activities in rural communities around protected areas (*CI, FFI, WB*)
 - 4. Develop a new wildlife management law (*USFS, WB, FAO, FFI, CI*)
 - 5. Conservation at the landscape scale to conserve integrity of biodiversity and maintain ecological services (*FFI, IUCN*)
 - 6. Develop collaborative agreements to establish trans-boundary conservation areas (*none*)
 - 4. FDA Research and Development Workplan**
 - 1. Develop and maintain an accurate spatial database of forest information (*WB, FAO*)
 - 2. Develop and coordinated forest science research programme (*FAO, WB*)
 - 3. Redesign national forest boundaries to more accurately encompass current standing forest areas and settlements (*none*)
 - 4. In collaboration with LISGIS, acquire new data on Liberia's geography (*FFI partly*)
 - 5. Develop research program on NTFP and wood-energy issues (*WB, FAO partly*)
 - 6. Develop and national reforestation policy and afforestation strategy (*proposed to ITTO*)
 - 5. FDA Law Enforcement Workplan**
 - 1. Information sharing with the public (*USFS*)
 - 2. Compliance checks (*USFS, WB, FAO*)
 - 3. Making Laws and FDA regulations practicable and effective (*USFS, WB*)

4. Coordinated law enforcement activities with other agencies and stakeholders (*USFS, WB, FAO, FFI, IUCN*)
5. Compliance of law enforcement by all FDA staff (*USFS, WB, FAO*)

6. FDA Strategic Planning Workplan

1. Develop accurate and reliable information to support strategic decision making (*FAO, IUCN, WB*)
2. Develop a national forest management strategy (*USFS, WB*)
3. Ensure monitoring and evaluation of effectiveness in FDA strategy implementation (*WB, FAO*)
4. Ensure consistency between policy, law, regulations, strategy and implementation (*WB, FAO, USFS, USAid*)
5. Develop collaboration and ensure coordination with relevant government agencies (*USAid, USFS, WB, partly*)
6. Ensure free flow of information with FDA (*WB, FAO*)

According to information received from senior staff of FDA, many of the proposed activities are not conducted with substantial technical and financial support from the existing donor community. More partners, such as ITTO, would be welcomed to boost the reform process.

4.2 Proposed ITTO Priorities within a coordinated development approach in the forest sector

175. It is proposed that ITTO actions should focus on the most urgent areas that are not being currently sufficiently addressed in the framework of the existing LFI activities and that corresponds to the core capacities of ITTO. Thus, a close coordination with the LFI has been proposed to identify those gaps that have not been addressed by other donors and that corresponds to the type of activities ITTO can support through its project work⁹.
176. A proposed time frame to plan, formulate and partly implement the proposed actions is 4 years, including the years 2008 to 2012.
177. Based on that assessment, and fully coordinated with the Managing Director of FDA, that ITTO support should focus on the following (5) main areas or objectives:
 - a) Capacity building for the stakeholders to perform the various tasks associated with the sound and sustainable implementation of the “3Cs” approach
 - b) Support the formulation of a national reforestation policy and afforestation strategy;
 - c) Improving knowledge about the resources and its utilization (land use concepts; PFE; inventory, growth and yield, forest conditions);
 - d) Pilot preparation of a Sustainable forest management plan in a model area under FMC, including consideration of forest management certification as a monitoring tool;
 - e) Assessment of needs of statistical information in respect to forest management, industry development and trade in timber and timber products and assessment of needs to rehabilitate forest industry.
178. Although the private sector has suffered significant losses during the war and will face many and costly challenges upon resumption of their operations, it is generally believed that it will be able to find the necessary resources for such resumption of operations in a socially and politically stable Liberia. Nevertheless, functional partnerships between the public and the private sector, supported by civil society could be established in order to develop suitable models to secure sustainable management in areas assigned to Forest Management Contracts.

4.2.1 Build necessary human capacities to manage Liberia’s forests sustainably

179. **ITTO Activity: Liberia C&I set and basic training.** Based on the Workshop on ITTO Criteria and Indicators (November 2006), develop further the understanding of C&I in the Liberian context and train a wider range of people, including from the forestry training schools in the

⁹ During the three missions to Liberia, the consultant made many efforts to emphasize the fact that future ITTO project support should be closely coordinated with the LFI programmes. Nevertheless, in particular at the level of the local LFI coordination, there is only limited interest by certain donors to “accept” ITTO in the group (the “ownership” factor versus the “intruder”).

implementation of an amended C&I set for Liberia. **Estimated costs: US\$ 20,000; duration: 2 weeks.** This activity could be **conducted in 2008** under the current ITTO work programme.

180. **ITTO Activity – ITTO project formulation workshop.** The Government of Liberia should also formally request the assistance of ITTO for a training workshop to train 8 – 10 persons from FDI, the private sector and NGOs on the formulation and the preparation of project proposals through the ITTO project cycle. **Estimated costs: US\$ 15,000. Duration: 1 week.** This activity could also be **conducted in 2008** under a current ITTO programme.
181. **Project: Reviving Forestry Education in Liberia.** The project is based on an overall assessment of the priority needs of the forestry sector of Liberia in the period of reestablishment of a functional forestry authority after long years of civil war. One of the greatest impediments of the development of the forest sector in Liberia is the lack of trained manpower. As forest management, including logging operations will resume in the near future; there is a need to address this issue with greatest priority. The present project will support the reestablishment of forest education activities for middle level forestry technicians of the Forestry Training Institute (FTI) located in Tubmanburg. The project deals with the establishment of a functional curriculum, the training of trainers and immediate practical training of the currently registered students in the FTI. In addition, the project will support a national working group that conducts a strategic process on forest education in Liberia as a whole. This process includes a needs and gap analysis and proposals for institutional arrangements and long-term functioning and sustainable funding of the existing training institutions (FTI and the College of Agriculture and Forestry in the University of Liberia). **Estimated costs: US\$ 350,000 over 24 months, project submitted to ITTO in June 2008..**
182. **Project: Reinforce the capacity of the College of Agriculture and Forestry (CAF - University of Liberia).** As a major venue for technical and professional training in forestry, the CAF training capability should be reinforced, notably as regards but not only limited to forest management and forest concession management. Findings and results of ITTO Project PD 189/03 Rev.1 (I) implemented by IUCN Regional Office for Central Africa through a collaboration with the RIFFEAC (*Réseau des Institutions de Formation en Foresterie des États d'Afrique Centrale*) should be fully taken into account in order to adapt training programme on forest management and forest concession management developed under that project to the Liberia context. Some of the actions that could be sought through these actions include:
 - a) Review of the Institution and of its overall capability and preparation of an action plan for its rehabilitation and reinforcement;
 - b) Development of training programs in sustainable forest management, the use of ITTO C&I and other subject matters (including training needs assessment);
 - c) Updating of curricula in forest management;
 - d) Acquiring and implementing appropriate pedagogic methods and tools for training in forest management
 - e) Institute practical training modules for operational FDA staff working in the control of inventory, management and harvesting**Estimated costs: US\$ 350,000 for an initial 2 years, as a possible follow-up project of the education project submitted to ITTO in June 2008.**

4.2.2 Support activities to implement the new forest reform law and the new forestry policy

183. **Formulation of the national reforestation policy and afforestation strategy.** The project aims to address two aspects of the reform process, including (i) the formulation of a comprehensive reforestation policy to be applied in forested areas and afforestation strategy in non-forested areas and (ii) building of human capacities in the field of forest restoration and plantation forestry. The project will assess the status of existing plantations; develop silvicultural and business approaches in forest restoration, enrichment planting, timber plantations, agroforestry, biofuel/firewood and watershed protection. The two main outputs of the project relate to the development and

adaptation of the national reforestation policy and afforestation strategy and to develop the necessary human capacities in the country to implement policy and management of plantation forestry. Thus it contributes to the overall aim of Liberia's 2006 National Forest Policy and Implementation Strategy. The Forest Development Authority (FDA) in close consultation with interested stakeholders, including civil society, private sector and the two forest educational institutes (University of Liberia and Forestry Training Institute), implements the project. **Estimated total costs: US\$ 480,000 (ITTO: US\$ 380,000); duration: 2 ½ years.** This project proposal has already been developed in the ITTO format and submitted to the project cycle in June 2008.

184. **Project: Prepare National guidelines for the preparation, implementation and monitoring of sustainable forest management.** This work should be done through a partnership between the FDA, EPA, forest concessionaires, the Environmental Protection Agency and local and international conservation NGOs. The guidelines will have to be approved at the national level (legislative branch or president level) and be inserted in the regulatory framework of the forest sector, notably as an obligation under the Timber Forest Management Contracts.
Estimated costs: US\$ 150,000; duration: 1 year

4.2.3 *Improving Knowledge of the Forest Resource and of its Utilization*

185. **Project: Prepare forest assessment guidelines.** A project could be conducted to enable the FDA to estimate the commercial timber stock and calculate the AAC. As already indicated there are no guidelines available in Liberia for forest-related activities. The first priority would be to provide those guidelines. Guidelines from nearby countries such as Ghana or Cameroon could perhaps be easily and cheaply adapted to the Liberian context by local consultants. The following guidelines, which would be integrated in the overall legal and regulatory framework of the forest sector of Liberia, are only but a few of the guidelines that Liberia should develop but should be given the highest priorities by ITTO:

- a) Guidelines and national norms and standards for the planning and execution of forest inventory, including national assessment inventory, forest management inventory, pre-harvesting inventory, post-harvest inventory...(design, conduct, results compilation, mapping and analysis);
- b) Guidelines for establishing volume equation and estimation of carbon stocks;
- c) Guidelines for establishing the AAC.

Estimated costs: US\$ 180,000; duration: 1 year

186. **Project: Design and implement a comprehensive statistical database on the forest sector, including a basis for monitoring of trade.** Sound decision-making pertaining to the overall management of the forest sector in Liberia and on sustainable forest management in particular requires access to up-to-date, comprehensive, and international reliable and recognized and finally easily accessible data (to all stakeholder) on all aspects of the sector. No such database exists in Liberia, data and information is lacking, incomplete, not collated and in general very difficult to access or to find. Such a database would be an essential contribution to improving the knowledge of the forest resources and would be instrumental in facilitating service delivery in the entire chain of the management of the resource, improve management of the financial flows (related to forest revenue system – establishment of invoices and collection) and control of the chain of custody and make FDA more adaptable to changing local and international forestry landscape. Some of the activities or output of this possible project could include:

- a) Review of the role of FDA and alignment of Information Technology (IT) strategy with overall mission and strategy;
- b) Identification of management system modules and carrying out information assessment needs on: (i) resource database, (ii) timber flow management system (Chain of Custody), (iii) financial management system, (iv) industry and trade information system, and (v) IT infrastructure and hardware;

- c) Assess institutional and technical arrangements governing the operation of IT in the FDA at the central and regional levels (with internet linkages between the various offices of the FDA at central and regional levels);
- d) Development of human skills to fill critical areas;
- e) Development of a mechanism to regularly review the information system;
- f) Device means of collecting data in co-operation with other data collecting agencies or stakeholders to avoid duplication.
- g) Conceive a communication strategy so that relevant information and data be made available to all forest stakeholders.

Estimated costs: US\$ 450,000; duration: 2 years

4.2.4 Monitor and guide sustainable forest management in Forest Management Contracts

187. ***Project: Model of a sustainably managed FMC.*** There is no capacity in Liberia to prepare, implement and monitor SFM plans. The very significant costs associated with the preparation of a sustainable forest management plan might hinder the process of implementing SFM in the country. In order to alleviate some of the aforementioned constraints, to foster interest in the SFM process and to complement capacity building activities, a pilot project for the preparation of a sustainable forest management plan for a new forest concession under a large scale Forest Management Contract should be implemented in collaboration with a progressive forest concessionaire who is ready to certify its concession from the very beginning. The major components of such a project could include:

- a) Identifying and signing an MOU with a progressive forest concessionaire willing to prepare, and to invest in his forest management plan that reach the internationally agreed standards of certification (model CIB, Congo-Brazzaville);
- b) Identifying and mobilizing stakeholders and partners for SFM;
- c) Preparing and supporting a specific outreach program;
- d) Providing specific field activity training to concessionaire staff and to other intervening parties in order to fulfill harvesting and silvicultural prescription of SFM;
- e) Assisting the concessionaire in the planning and execution of fieldwork required for the preparation of his forest management plan (forest inventory, socio-economic study, environmental impact study, volume and decay study, etc.);
- f) Participating with concessionaire and other stakeholders in the writing of the forest management plan; willingness of the concessionaire to share his experience with other private sector actors;
- g) Monitoring and evaluating the implementation of forest management plan and assisting the forest concessionaire where needed.

Estimated costs: US\$ 750,000; duration: 3 years

188. ***Project: Implementation of community-based forest management.*** Examples of objectives and activities include:

- a) Multi-stakeholder dialogue in selected rural areas to gain input from communities on their priorities for forest management institutional arrangements within the communities.
- b) Legal reform and detailed legal regulation to facilitate community-based forest management, with multi-stakeholder input into the process from rural communities. This would include clarification of factors relating to tenure.
- c) Support for establishment of pilot community-based forest management programs in different parts of Liberia.
- d) Mapping of forestland ownership across Liberia and documentation of claims to forestland.

Estimated costs: US\$ 400,000; duration: 3 years

5. RECOMMENDATIONS - NEXT STEPS OF FDA/ITTO COLLABORATION

Reinforcing Coordination

189. The case of Liberia is almost unique. Implementation of all of the actions required to lift the very numerous constraints to the implementation of sustainable forest management throughout the country presents great challenges. The prospects that Liberia reaches highest standards of forest management are good as long as a strong and meaningful international cooperation is in place.
190. ITTO should reflect on the possibility to make available some resources to become an official member of the Liberian Forestry Initiative, or, at least, participate in the yearly multidonor LFI-missions. ITTO would bring great benefit to the LFI due to its outstanding experience in sustainable tropical forest management, forest industry development and timber trade. The coordinated efforts would also allow Liberia to submit well-justified forest and industry development project proposals to the ITTO. The cost of ITTO's involvement in the LFI will most probably not exceed US\$ 20,000 per year.
191. Government institutions in general and the FDA in particular, are still weak and have extremely limited resources and capabilities. They will depend on foreign aid to accomplish their mission and assume their wide and complex responsibilities over the next 4 to 7 years. It can be expected, however, that when international trade is fully reestablished, FDA can soon become self-financed and independent of outside support.

Raising SFM Awareness and Acceptance

192. An important action is raising awareness of forest concessionaires as well as government entities and civil society of the long-term benefits of SFM. It is hence essential to engage in a series of actions to insure awareness, understanding and acceptance of SFM in Liberia. This includes in the short-term, as indicated in the previous chapter the follow-up of the national workshop on ITTO criteria and indicators, the preparation of SFM guidelines including an outreach program and in the medium term in the pilot development of a SFM plan for a selected forest management unit.

Building Capacity

193. By far the most important challenge is to rebuild and upgrade the basic skills and capacity in many areas of forestry of all stakeholders, not only to introduce new concepts and methodologies more in line with SFM, but also to compensate for the loss of skills resulting from many years of idleness.

Costing

194. Taking into consideration the actual state of the forest sector in Liberia and the very numerous constraints attached to SFM, it is obvious that the total cost of implementing SFM in Liberia will be considerable and extended over many years.
195. Rebuilding the physical, production, institutional and human infrastructures of the forestry sector to a level coherent and supportive of SFM and of a profitable and efficient value-added wood processing sector will require extensive investments from both the private sector and the Government of Liberia that will be difficult to achieve without support of the international community. It is impossible to provide any assessment of the investments required here without a comprehensive audit of the entire sector, but external support will go in the ten of millions of \$US in order to achieve sustainable forest management.

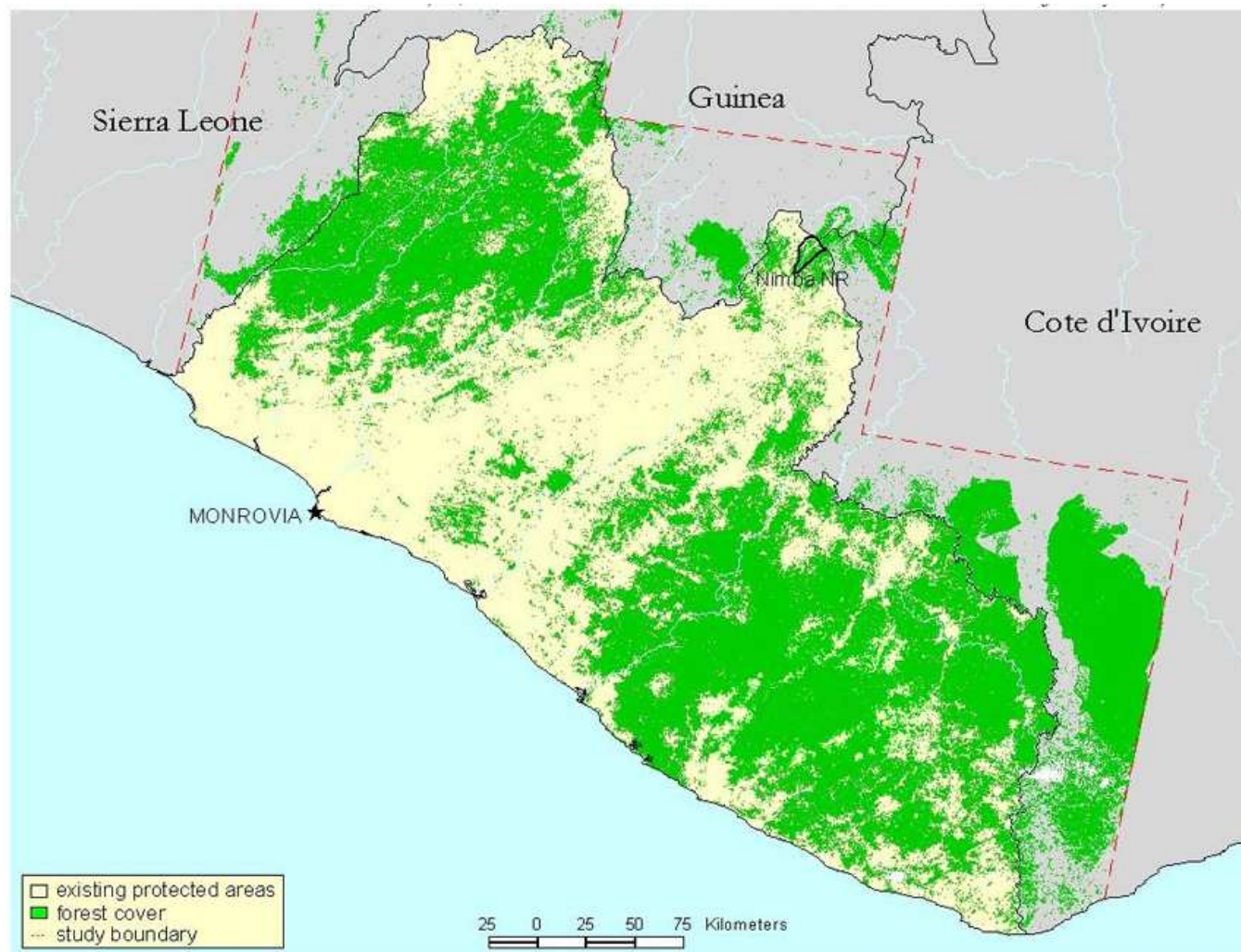
ANNEX 1
PARTIAL LIST OF DOCUMENTS CONSULTED

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ANNEX 2
MAPS OF LIBERIA

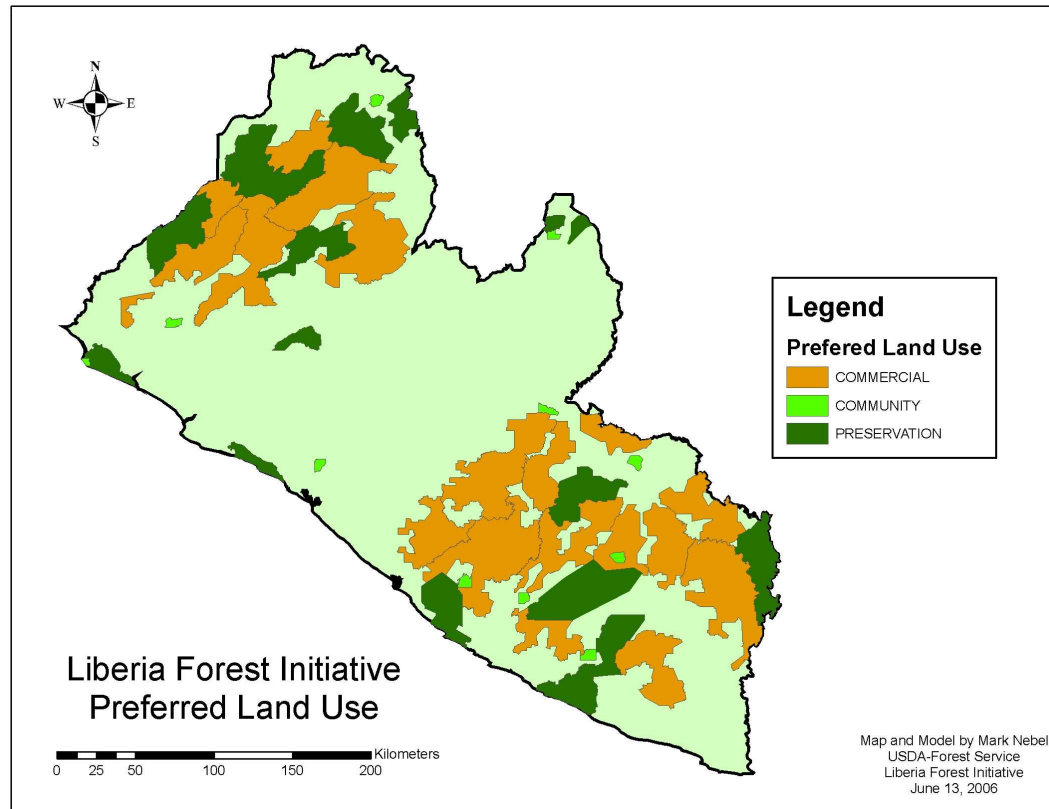
Map 1: Forest Cover of Liberia
Liberia Forest Re-Assessment Project, Conservation International and Flora and Fauna International (January 2003)



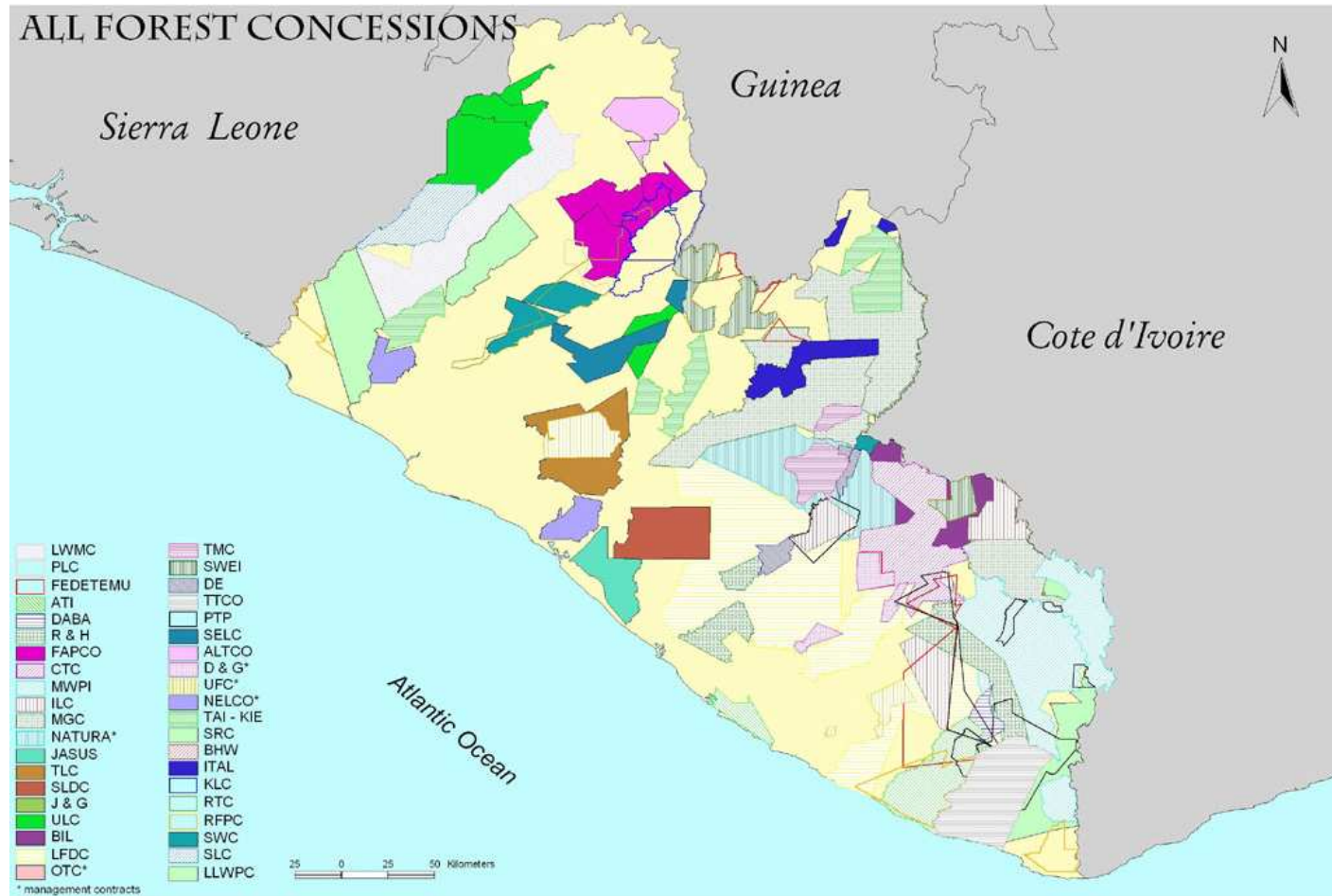
Map 2: Existing and Proposed permanent forest area in Liberia
Map in preparation, courtesy of FDA, November 2006



Map 3: Preferred land use options
Map in preparation, courtesy of USDA Forest Service, October 2006



Map 4: Former Forest Concession Areas of Liberia
 Technical Secretariat of the Forest Concession Review – Liberia Forest Initiative (April 2005)



Map 5: Protected Areas of Liberia
Liberia Forest Re-Assessment Project – Conservation International and Flora and Fauna International (April 2004)

