

INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PROJECT DOCUMENT

TITLE	DEVELOPMENT OF THE NATIONAL REFORESTATION POLICY AND AFFORESTATION STRATEGY CONSISTENT WITH THE LIBERIAN 3C-APPROACH
SERIAL NUMBER	PD 507/08 Rev.1 (F)
COMMITTEE	REFORESTATION AND FOREST MANAGEMENT
SUBMITTED BY	GOVERNMENT OF LIBERIA
ORIGINAL LANGUAGE	ENGLISH

SUMMARY

The project results from an overall assessment of the priority needs of the forestry sector of Liberia in the period of reestablishment of a functional forestry authority after many years of civil war. It 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 of an 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. Thus, it contributes to the overall aim of Liberia's 2006 National Forest Policy and Implementation Strategy based on the 3C-Approach (Commercially-based, Conservation-oriented and Community-involvement) which translates the three basic concepts of sustainable forest management (ecological, economic and social sustainability).

EXECUTING AGENCY FORESTRY DEVELOPMENT AUTHORITY (FDA)

COOPERATING GOVERNMENTS ---

DURATION 30 MONTHS

APPROXIMATE STARTING DATE TO BE DETERMINED

BUDGET AND PROPOSED SOURCES OF FINANCE	Source	Contribution in US\$	Local Currency Equivalent
	ITTO	396,310	
	Government of Liberia	109,010	(In-kind)
	TOTAL	505,320	

ABBREVIATIONS AND ACRONYMS

AAC	Annual Allowable Cut
A/R CDM	Afforestation and Reforestation in the Clean Development Mechanism
CAF	College of Agriculture and Forestry – University of Liberia
CI	Conservation International (A US based international environmental NGO)
DCF	Department of Community Forestry of FDA
DCOF	Department of Commercial Forestry
DFC	Department of Forest Conservation of FDA
DRD	Department of Research and Development of FDA
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organization of the United Nations
FDA	Forest Development Authority
FFI	Fauna and Flora International (a UK-based environmental NGO)
FMC	Forest Management Contracts (long term forest resource licenses established under the National Forestry Reform Law, October 2006)
FPF	Forest Products Fee
FTI	Forestry Training Institute (for forest rangers) in Tubmansburg
GDP	Gross Domestic Product
GIS	Geographic Information System
GoL	Government of Liberia
ha	Hectare
HO	Head Office
IT	Information Technology
ITTO	International Tropical Timber Organization
IUCN	World Conservation Union
LFI	Liberia Forest Initiative, a multi-donor partnership to support forestry in Liberia, under the leadership of the United States Forest Service, International Program
MIA	Ministry of Internal Affairs
m ³	Cubic meter
NFPIS	Liberia's National Forestry Policy and Implementation Strategy of 2006
NFRL	National Forestry Reform Law of 4 October 2006
NGO	Non Governmental Organization
NTFP	Non-timber forest products
REDD	Reduced Emissions from Deforestation and Forest Degradation
RIFFEAC	Réseau des Institutions de Formation en Foresterie des États d'Afrique Centrale
SFM	Sustainable Forest Management
TUC	Timber Utilization Contract
UN	United Nations
UNMIL	United Nations Mission in Liberia
USFS	United States Forest Service (International office)
WB	The World Bank Group

BOX 1: “The 3 Cs” of Liberia’s Approach to forestry

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-involvement.

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

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PART I: CONTEXT

1. Origin

After more than 14 years of prolonged civil conflict that led to great loss of life, economic collapse, mass migration and internal displacement as well as destruction of much of the country's infrastructure, Liberia, since the year 2004, is reconstructing its social, political, economic and ecological environment. Forests, which have suffered extremely from these problems, play a crucial role in this period of rebuilding a functional Nation. In this post-conflict period, social, economic and political changes have created expectations that will present new challenges to a still weak forestry administration and other stakeholders in the sector. To meet these challenges and avoid problems of the past, it will require policy and strategy reforms across the forests sector. International support thus is crucial to rebuild a viable forest sector that meets the expectation as a driving force for sustainable development in the country.

The present project proposal is based on an overall assessment of the priority needs of the forestry sector of Liberia in this period of reestablishment of a functional forestry authority. The topic of the proposed project has been defined together between ITTO and senior staff of the Forest Development Authority (FDA) and coordinated with the Liberia Forest Initiative (LFI). The LFI is a comprehensive multi-donor approach that coordinates international support activities to the forests sector in Liberia. The project idea arises from the Joint Work Program of FDA and LFI to redress Liberia's forestry sector, to enhance sustainable forest management, and thereby to enhance the contribution of forestry to sustainable development in Liberia. The proposed project that aims at preparing a comprehensive national reforestation policy and afforestation strategy covers one of the priority areas in this program. Thus, ITTO support helps to prepare for the resumption of forestry operations in Liberia by contributing to the design and implementation of a basic forest policy strategy and to build human capacity, which is so lacking in the country.

2. Sectoral Policies Relevant to this Project

Historically, the main focus of the forestry sector in Liberia has been the commercial harvesting of timber. Through an intensive dialog between government, national and local stakeholders, as well as international partners, conducted between 2004 and 2006, a consensus has been reached on the optimal use of forest resources. The new **National Forest Policy and Implementation Strategy** of 2006 (NFPIS) has a guiding principle a more balanced and integrated development of Liberia's forests for commercial, community and conservation uses (see also Box 1 that explains the "3-C" approach of Liberia's forest policy). The policy chapters of the NFPIS that have been elaborated in a multi-stakeholder process emphasize the following key policy issues as priority for the country:

- The need to resume control over the forest estate and rehabilitate the economy;
- The problems of receding natural forest cover, increased poaching and illegal harvesting;
- The increasing pressure on forests to produce more forest products and the potential offered by plantation development and agroforestry;
- The very weak management of the forest estate in the past and, therefore, the need for change driver by strong political will coupled with appropriate forest governance;
- The need for commitment to international initiatives in the forestry sector, including concerted action at the regional and sub-regional levels; and
- The need to manage forests sustainably, to reduce poverty, improving living conditions, reducing conflict and improving welfare of marginalized groups.

Chapter 5.2 of the NFPIS of 2006 contains a specific chapter on reforestation and forest plantation development. Three major activities have been formulated in NFPIS to be implemented over the next two years, as follows:

1. (5.2.1) Develop and implement a national reforestation program, based on sound scientific and technical principles (best practices) and including realistic annual targets for new planting, enrichment planting and agroforestry;
2. (5.2.2) Develop appropriate mechanisms and incentives to encourage involvement of the private sector and local communities in reforestation
3. (5.2.3) Encourage tree planting for environmental improvement and income generation in green belts within and around urban areas.

An important reference to the preparation of a comprehensive reforestation policy and afforestation strategy is made in the new **National Forestry Reform Law** of 2006. Under Chapter 8 (Environmental Protection) of the forestry Act, in Section 8.3, it is stipulated:

- “(a) The Authority, within two years of enactment of this Law, shall:
- (i) identify suitable sites for reforestation and afforestation
 - (ii) develop a national strategy to address deforestation and promote silvicultural practices that will expand and enrich the national forest endowment
- (b) The Authority shall identify and protect Wetlands and areas with fragile soils on Forest Lands, and require every Holder to identify and protect Wetlands and areas with fragile soils where that Holder is conducting its Operations.
- (c) The Authority shall promote the planting of Indigenous Species of trees.
- (d) As appropriate, the Authority in its contracts shall obligate industry to promote forest enrichment planting and improved forest quality through best practices silvicultural treatment
- (e) The Authority shall establish a central seed bank and other aids to forest culture, as necessary.”

The project fully addresses the requirements made in the new National Forest Policy and Implementation Strategy of 2006 and, with exception of notion (e), the requirements made in the new National Forestry Reform Law. The project thus addresses one of priority areas for forest development of the Liberian Government.

3. Programmes and Operational Activities Relevant to the Project

The proposed project has been selected in close consultation with the FDA and the multi-donor Liberia Forestry Initiative (LFI). The LFI, a joint approach between the US-Forest Service (USFS), the World Bank (WB), FAO, Conservation International (CI), Fauna and Flora International (FFI) and IUCN supports FDA in an overall reform process of the forestry sector. A joint work programme of FDA-LFI is guiding that collaboration. The FDA-LFI work programme strategize a number of objectives and outputs that are considered as essential in order to establish sustainable forest management and a viable and functional forestry administration in Liberia. The work plan comprises the following main working domains (the main supporting agencies for a particular activity are added in brackets):

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 and test 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 and implement 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. Ensure conservation at the landscape scale to conserve integrity of biodiversity and maintain ecological services as consistent with the 3C philosophy (*WB, 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*)

Work Program Area 4.6 was chosen by FDA to be submitted to ITTO because of the urgency of the preparation of a comprehensive reforestation policy in national forests as commercial logging operations will re-start before the end of 2008 and after-logging policies need to be in place. Program area 4.3 which deals with the determination of the Permanent Forest Estate would have been another area in which ITTO has a key competency, but considering the insecure land-use situation, it is considered that starting with this work area now would be premature. The development of trans-boundary protected areas, another key competency of ITTO is not relevant as the only neighboring country that is member of the ITTO is Côte d'Ivoire, and the most interested transboundary area is with Guinea and Sierra Leone, both not members of the ITTO.

PART II: THE PROJECT

1. Project Objectives

1.1 Development Objective

The Project's Development Objective is "Develop forest plantations and forest restoration as an effective tool for the conservation and sustainable management of the Liberia's forest and wildlife resources, to maintain environmental quality and improve the flow of benefits to all segments of society".

1.2 Specific Objective

The Project's Specific Objectives are twofold:

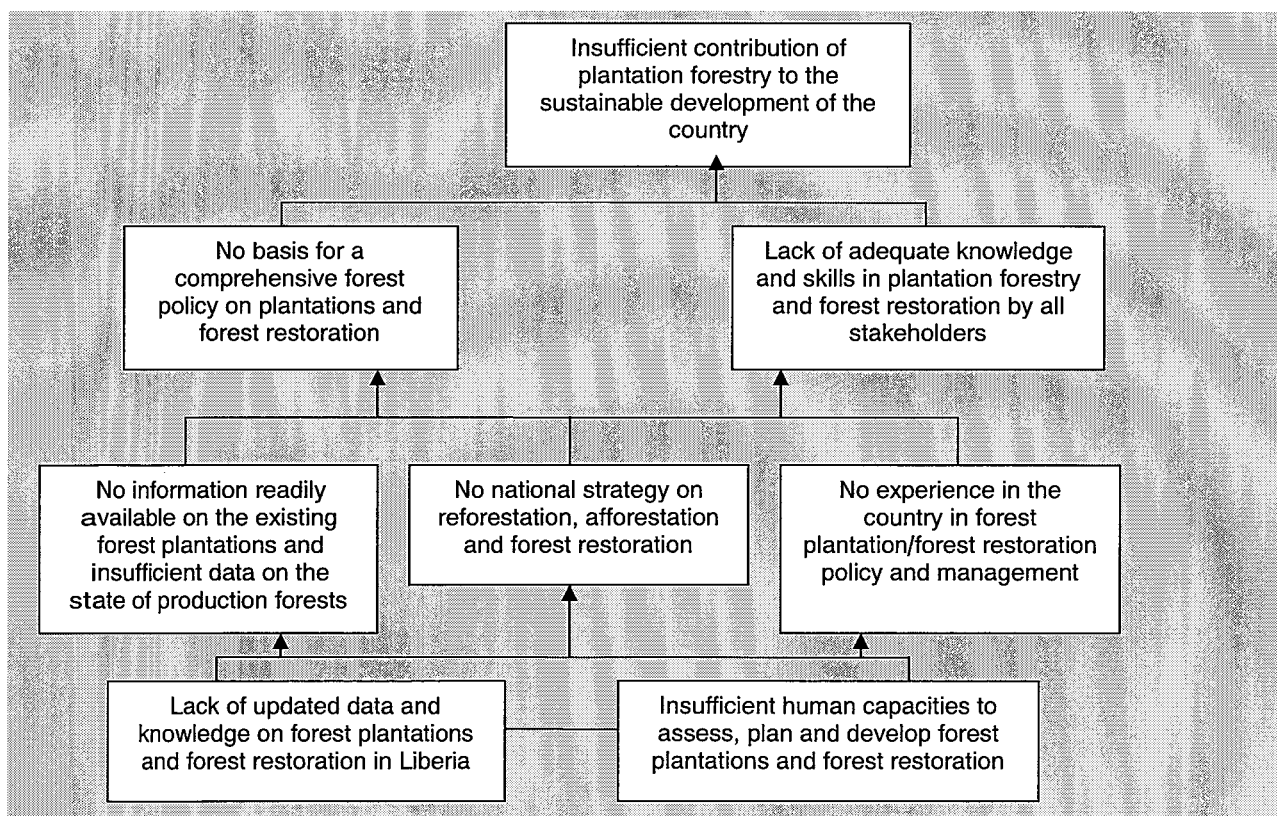
- Develop a national reforestation policy and afforestation strategy consistent with the National Forestry Reform Law; and
- Develop knowledge, expertise and capability of the Forest Development Authority and other stakeholders to assess, monitor and plan forest plantation and forest restoration activities in the country.

2. Justification

2.1 Problems to be addressed

The proposed project is inscribed into the wider reform process of reestablishing a functioning forest sector that is so vital for Liberia's development. As described in Part 1/Chapter 3, the project addresses a specific working area within a wider reform process that has been undertaken by FDA together with its development partners in a cooperative manner. Although the importance of natural forest management as the most important resource for timber in the country, reforestation (defined in the wider sense by including forest restoration) and afforestation on bare land and in critical ecological zones are important additional tools to achieve sustainable forest management in the country and a continuous flow of forests goods and services. However, due to the long years of war and civil unrest in the country, the situation of past investments in reforestation and afforestation remain today widely unknown. There a general lack of updated data and knowledge on forest plantations and forest restoration in Liberia. In addition, due to the same reason, there is today insufficient human capacities available in FDA and in the country in general to assess, plan and develop forest plantations and forest restoration. Thus, the two core problems formulated in the problem tree is the lack of knowledge about existing forest plantation assets and the lack of human capacity.

Figure 1: Problem Tree



2.2 Intended situation after project completion

At the conclusion of the project, it is expected that the following will be achieved:

- a national reforestation policy is developed and adopted to be applied in commercial forest operations for timber stand improvement, timber plantations and enrichment planting;

- a national afforestation strategy exists, for community and conservation purpose and private sector development;
- a database on existing forest plantations is established and operational;
- a technical-scientific document of plantation development, including plantations purposes, species selection and silvicultural aspects of reforestation and afforestation has been published
- The afforestation potential, considering broader land-use aspects and the potential for A/R CDM eligible projects is known
- Roles and responsibilities in afforestation, reforestation and forest restoration is defined for the FDA
- An incentive structure is proposed to promote afforestation and reforestation in the country; and
- People from various stakeholders trained in plantation forestry and forest restoration

The project development process was based on extensive in-country consultation of the key stakeholders i.e. government, the industry, the traditional forest owners, concessionaires and the local environmental NGOs. These consultations comprised several multi-stakeholder workshops. The project results have therefore the approval and support of the various stakeholders.

2.3 Project Strategy

The project will first address the lack of information on the existing plantations, enrichment planting and timber stand improvement areas. This will be done by searching for old data files, GIS photo interpretation and field assessment and measurements. In this way, the project will gather the necessary information on success and failure from the past and bring these to the attention of all interested stakeholders. In parallel, an assessment of potential reforestation and afforestation areas will be conducted. A particular issue to be addressed here are land-use and land tenure aspects. Thus, the project will concentrate on a number of selected areas where the particular land use problems can be assessed and therefore inform the policy making process.

The project introduces as an additional new element, the assessment of the potential of forest restoration as a forest mitigation option in climate change in a post-2012 approach and the assessment of the CDM Afforestation and Reforestation land potential in the country relevant in the Kyoto Protocol. These assessments will be made public to potential foreign carbon investors.

In-depth studies on silvicultural issues, relating to species selection, economically feasible enrichment planting options, indigenous timber plantations and timber stand improvement methods will be elaborated and prepared for consideration in the reforestation policy. At the level of afforestation, community-based woodlots, biofuel/fuelwood plantations and agroforestry options will be considered in particular, besides possible investment opportunities for wide-scale fiber production.

An economic study will be conducted to assess the economic potential of afforestation and reforestation in the country and to propose possible incentive mechanisms to promote such investments by private sector, individuals and communities. The project will also assess the situation of the rubber estate (which is managed outside the forest sector as an agricultural crop). In developing a afforestation strategy, it will also focus on the particular use of rubber trees for lumber.

The core issue of building capacities will be tackled in a cross-cutting approach in all activities proposed and particular activity streams will be dedicated to in-service training of FDA staff, communities, forestry training institutes and interested stakeholders.

2.4 Target beneficiaries

The National Forest Policy of 2006 indicates clearly in chapter 5.2 under "**Responsibilities**" the target group for future forest and tree plantation development, as follows:

"The private sector, individuals, local communities and community-based organizations will be responsible for reforestation in the future. The role of government will be to create an enabling environment for forest plantation development and to facilitate tree planting for social and environmental benefits, by providing technical advice and other incentives for tree planting. The government will also be responsible for monitoring tree planting activities to ensure that they follow best practices."

Thus, target beneficiaries of a national reforestation policy and afforestation strategy are:

- Private sector investors: in respect to the reforestation policy, they will get clear guidance on how to conduct enrichment planting (as part of the concession requirements) and they will get technical advice and other incentives for timber plantation investments on a voluntary basis. They also will get advice on possible carbon forestry investment through CDM Afforestation and Reforestation, and forest restoration through REDD. In respect to the afforestation strategy, private sector will have clear indications on afforestation sites for different purposes.
- Forest-dependent communities benefit from the consultative approach in the preparation of the policy and strategy. Pilot training activities in fruit tree planting, forest restoration and small-wood lot planting will be conducted and a simple Manuel on these techniques will be produced. It is expected that these activities will help to initiate a wider program in respect to community-based plantation forestry and agroforestry.
- The Forest Development Authority will benefit through the building of the necessary capacities to assess, plan and monitor forest plantation activities and through the establishment of a comprehensive data bank to that purpose. It is expected that through the project, FDA will be able to fulfill its role to provide technical advice and other incentives for tree planting.
- Other sector (in particular Agriculture, Mines and Environment): will benefit from clear indications from forestry on where investments are planned to be undertaken in forest restoration, timber plantations on forest land and in afforestation on non-forest land. This will help to inform the overall process of land-use planning. In respect to the rubber plantation estate, the Ministry of Agriculture will benefit from the inclusive process of assessment of existing planted stocks by the project, which will include the extent and situation of rubber plantations that fall under the jurisdiction of the Ministry of Agriculture.

2.5 Technical and scientific aspects

The main output of the project - the national reforestation policy and afforestation strategy - will be based on a thorough assessment of the existing afforestation and reforestation potential in the country and new and proven knowledge from other countries in the field of planted forests and forest restoration. It will include the newly created potential that is offered through the climate change mitigation agenda (A/R CDM and REDD) and it will carefully consider the pros and cons of forest-based biofuel as a development option for Liberia's forest sector. Emphasis will be given to create the enabling conditions so that concession holders can develop sustainable, long-term options in logged-over forests, through forest restoration, in particular enrichment planting and group reforestation with valuable hardwood species. Clear technical options also have to be offered to community forests that are new in Liberia and need careful attention in the immediate future.

Until date, Liberia did not have a strategic approach in respect to reforestation, afforestation and forest restoration. First forest plantations had been undertaken in 1971, promoted by some bilateral cooperation with Germany and FAO with the view to develop a pulp and paper industry. Plantation development ceased in 1983, with the exception of some privately based initiatives. Due to the lack of strategic approach and the long years of civil unrest and civil war, planted forests and forest restoration activities were completely absent in the country. Today, even the fate of most of the existing plantations is not known. Table 1 summarizes existing information compiled from files and based on knowledge of senior technical staff of FDA.

Table 1: Overview of the main existing forest plantation sites (compiled from paper files; February 2008)

<i>Plantation Area*</i>	<i>Area (ha)</i>	<i>Years of planting</i>	<i>No. species planted</i>	<i>Main 5 species planted</i>
Cavalla, Grand Gedeh	988	1971-83	>17	<i>Gmelina arborea</i> , <i>Tectona grandis</i> , <i>Khaya anthotheca</i> , <i>Terminalia superba</i> , <i>Eucalyptus</i> spp.
Glaro	908	1971-84	5	<i>Tectona grandis</i> , <i>Gmelina arborea</i> , (minor: <i>Heritiera utilis</i> , <i>Cordia alliodora</i> , <i>Terminalia superba</i>)
Grand Cape trial pulpwood**	578	1979-83	>7	<i>Pinus</i> spp., <i>Gmelina arborea</i> , (minor: <i>Cedrela odorata</i> , <i>Acrocarpus</i> sp., <i>Terminalia ivorensis</i>)
Yekepa	272	1974-77	1	<i>Tectona grandis</i>
Lecto, Grand Bassa	71	1971-73	1	<i>Gmelina arborea</i>
LFC, Bong	334	1975-79	3	<i>Pinus caribaea</i> , <i>Pinus oocarpa</i> , <i>Gmelina arborea</i>

FDA/OTC, Bassa-Rivercess	279	2001-02	5	<i>Ochroma bicolor</i> , <i>Ceiba pentandra</i> , <i>Heritiera utilis</i> , <i>Terminalia ivorerensis</i> , <i>Piptadeniastrum africanum</i>
Tappitta, Nimba	140	1971-73	2	<i>Gmelina arborea</i> , <i>Tectona grandis</i>
Watrace, Grand Gedeh	59	1971-73	2	<i>Gmelina arborea</i> , <i>Tectona grandis</i>
EAC, Zwedru	60	1971-73	2	<i>Gmelina arborea</i> , <i>Tectona grandis</i>
Siga, Dojee Town	250	1971-74	2	<i>Gmelina arborea</i> , <i>Tectona grandis</i>
LTPC, Sinoe	156	1971-73	2	<i>Gmelina arborea</i> , <i>Tectona grandis</i>
Talk Lumb, Nimba	53	1971-73	2	<i>Gmelina arborea</i> , <i>Tectona grandis</i>
Bomi	3278	1971-83	>12	<i>Eucalyptus</i> spp., <i>Gmelina arborea</i> , <i>Pinus</i> spp., <i>Heritiera utilis</i> , <i>Cordia alliodora</i>
Foya Afforestation, Lofa	1075	1986-2000	?	<i>Pinus</i> spp., <i>Acacia</i> spp., <i>Tectona grandis</i>
Brewerville fuelwood	40	?	?	unknown
Others	1200	after 1971	?	unknown
TOTAL	9741			

* with exception of Foya area, all plantations are on reforestation sites

In addition to these planted forests, several thousand of hectares of rubber plantations exist in the country, which are under the jurisdiction of the Ministry of Agriculture. They have been created and maintained by 7 private firms, including Firestone, LAC (Liberian Agricultural Company), Weala. Liberia's rubber business is booming and world market prices of rubber are attractive to encourage other stakeholders to get into the sector including smallholders. The potential of rubberwood is recognized, but yet not explored. Hevea plantations harvested for rubberwood would fall under the jurisdiction of the FDA.

Enrichment planting and timber stand improvement (TSI) after logging in natural forests will become an important requirement to be undertaken by commercial operators in national forests. Reforestation with high-valued timber species in heavily degraded areas is another option to increase value of the timber resource base. Clear guidance need to be given in this respect in the reforestation policy. Recently made experiences in this field, partly through ITTO sponsored activities, will be taken into account, and it is planned to learn from experiences made in neighboring Côte d'Ivoire and Ghana. Species that could be potentially included in forest restoration, particular enrichment planting and reforestation are, *inter alia* Niangon (*Heritiera utilis*) Kusia (*Nauclea diderichii*), *Khaya anthotheca*, Aiélé (*Canarium schweinfurthii*), Samba (*Triplochiton scleroxylon*), Tet (*Tetraberlinia tubmaniana*), Faro (*Daniellia ogea*), Frake, Framiré (*Terminalia ivorensis*, *T. superba*), Abura (*Mitragyna ciliata*), Ako (*Antiaris welwitschii*), *Ceiba pentandra*, besides others.

Technical and scientific knowledge on how to implement Community based planted forests, small woodlots for local timber use and energy use, and agroforestry schemes yet do not exist in the country. However, communal and community forests are an essential element in the new forest policy in the country, and a new community forest law is being finalized in 2008. The proposed project thus will have the important task to encourage communities involvement in forest plantation establishment and development.

The project will have to consider the above described different conditions for reforestation and afforestation and propose economically, ecologically and socially applicable strategies for afforestation, reforestation and forest restoration. Besides these more forestry based issues, the project also need to tackle the broader development policy agenda in the country; thus it is important to situate the reforestation policy and afforestation strategy into the wider land-use aspects, which include agricultural expansion, mining and infrastructural development. It is therefore important to integrate the country's reforestation policy and afforestation strategy into the overall land allocation and land-use policies.

2.6 Economic aspects

Since the 1970s and until the UN-imposed ban on timber export from Liberia, the forest industry sector was the most rapidly growing segment in Liberia's economy, generating in the beginning of the 1990s more than 100 million US\$ in export sales per year. Traditionally, Liberia's forest industry is based on log extraction from natural forests and only few efforts have been made in the past to achieve sustainable yield production in natural forests. Investments in planted forests were virtually absent. After the lifting of the UN sanctions, natural forest management will remain the backbone of Liberia's forest economy in the near future. Preparative work is being undertaken to allocate new forest concessions and it is expected that by end of 2008, a number of forest concessions have resumed their activities and guarantee a new revenue flow to the national economy. Up to 2.6 million ha of forests have timber production potential and a considerable part of that area will be leased out to the different forms of forest concessions in the near future. This will create a secured and the much needed revenue stream to Liberia's economy. The reforestation policy is an important

element to help to guarantee that such revenue stream will last in the long term. Concessionaires will have to apply sustainable forest management planning, and reforestation, through enrichment planting, gap planting and forest restoration.

In the longer term, it is important that Liberia has a valid strategy not only for natural forest management, but also for restoring heavily degraded areas, restoring protective functions of forests, e.g. at the coastline against the negative effects of climate variability, in helping to achieve food security through community-based forestry and agroforestry activities and to fuel the possible development of a forest-based industry, including possibly pulp and energy generation. The new instruments available through the Climate Change Convention, in particular the valuation of forest-based carbon is another strong incentive to consider afforestation and reforestation as an additional economic pathway in forestry, besides natural forest management. An afforestation strategy thus is important to be considered in a mid-term economic planning of the country.

2.7 Environmental aspects

The project will achieve positive environmental outcomes for Liberia's forestry sector and contribute to improved sustainable forest management outcomes. Over the past two years, Liberia has experienced the longest period of peace, social stability and a gradual improvement of the economic and social conditions since decennials. If this development pathway continues, the country has great potential to achieve higher level of economic and social prosperity. This will also increase pressure on forest land and lands that have been developed over the past 10 to 20 years into secondary forests due to the absence of agricultural activities. It can be expected that with increased investment, deforestation will increase and the protection measures for watersheds, soils, water and biodiversity will have to be intensified in order to guarantee sustainable outcomes. The proposed project particularly considers the role of planted forests and trees in agricultural landscapes in the framework of sustainable landscape development. Reforestation, afforestation and forest restoration have great potential to support sustainable development through particular consideration of environmental aspects besides economic and social development. The project will develop criteria for Liberia to promote the protective functions of forests in particular in view of the increasing threat that is posed by climate change. Particular consideration will be given to the promotion of indigenous tree species in reforestation activities in degraded natural forests and to support natural regeneration through forest restoration and rehabilitation of degraded lands. Planting trees and forests in buffer zones of protected areas is another important aspect that will be considered in the proposed afforestation strategy and reforestation policy for erosion control purposes and to alleviate negative effects from e.g. climate change.

2.8 Social aspects

Creating new forests, restoring existing degraded forests and creating new options to introduce trees in non-forested areas through agroforestry and other land-use systems are all linked with the creation of new assets that have the potential to be immediately beneficial to local communities and the society in Liberia as a whole. Reforestation and forest restoration activities in forest concessions and planting new forests create jobs and the maintenance of such new investment guarantees sustainability of such jobs. Community-based woodlots and other plantations can immediately contribute to improved livelihoods of involved communities. Even large scale, privately funded afforestation for economic purposes such as biofuel, pulp and paper can have long-term social benefits if the right safeguards are applied and employment conditions are carefully monitored.

2.9 Risks

Besides the importance of keeping political stability in the still fragile post-war era, an important risk is linked with broader land-use and land tenure situation in Liberia. An afforestation strategy and reforestation policy need to be recognized and implemented not only at the level of the forests sector, but also with other line ministries that deal with land-use issues in rural Liberia, including the Ministry of Agriculture, the Ministry of Lands and Mines and the Ministry of Internal Affairs that is responsible for interior administration through the traditional chiefs, paramount chiefs and superintendents. The reforestation policy and afforestation strategy thus need to be made compatible with all other land-use aspects and be broadly communicated to stakeholders outside the forestry sector.

The implementation of the reforestation policy and afforestation strategy is closely linked with the availability of forest-based investments in the country. An insufficient development of the investment environment in

Liberia, including investments in plantations development and transformation industry, will jeopardize the implementation of the strategy and policy.

Another considerable risk at the moment is the lack of implementation capacity and skilled manpower in the country. Without broad knowledge and capacities, the implementation of the proposed strategy and policy will be hardly possible.

All these risks are partly addressed in the proposed project. They are also considered in the wider multi-donor approach through the Liberian Forestry Initiative.

3. Outputs

3.1 Specific Objective 1: Develop a national reforestation policy and afforestation strategy consistent with the National Forestry Reform Law

- Output 1.1: All existing forestry plantations are assessed and timber volume and qualitative data per area interpreted
- Output 1.2: Suitable sites for reforestation and afforestation, as well as forest restoration identified
- Output 1.3: The potential of CDM A/R and forest restoration in REDD assessed
- Output 1.4: A draft policy for enrichment planting and reforestation activities to be applied in areas of Timber Sales Contracts and Forest Management Contracts developed
- Output 1.5: Preliminary results of assessments, policies and strategies, widely consulted with forest stakeholders
- Output 1.6: Draft reforestation policy and an afforestation strategy based on the results of Outputs 1.1. – 1.5 elaborated

3.2 Specific Objective 2: Develop knowledge, expertise and capability of the Forest Development Authority and other stakeholders to assess, monitor and plan forest plantation and forest restoration activities in the country

- Output 2.1: A core team of technicians has been trained in the assessment and implementation of reforestation and afforestation
- Output 2.2: A series of technical workshops has been conducted to train FDA staff and stakeholders from NGOs and private sector in forest restoration, reforestation and afforestation
- Output 2.3: Community dwellers and local NGOs involved in the development of community forestry have been trained in practical aspects in forest restoration, afforestation and agroforestry.

4. Activities

Specific Objective 1, develop a national reforestation policy and afforestation strategy consistent with the National Forestry Reform Law

Output 1.1: All existing forestry plantations are assessed and timber volume and qualitative data per area interpreted

- Activity 1.1.1: Elaborate a method of assessment and check list
- Activity 1.1.2: GIS/Satellite mapping of existing plantations and degraded areas
- Activity 1.1.3: Collect and assess information on existing plantations
- Activity 1.1.4: Assess existing plantations in the field according to proposed check list
- Activity 1.1.5.: Validate the information, establish a data base and prepare a report on existing plantations

Output 1.2: Suitable sites for reforestation and afforestation, as well as forest restoration identified.

Activity 1.2.1: Identify up to X ha of suitable sites through GIS/satellite interpretation and field assessments

Activity 1.2.2: Clarify land-use and tenure aspects on chosen sites

Activity 1.2.3: Develop silvicultural approaches for enrichment, reforestation, forest restoration, afforestation and agroforestry being proposed for chosen sites

Activity 1.2.4: Consult stakeholders from civil society, private sector and local communities on site approaches

Activity 1.2.5: Summarize results and prepare report on site selection and silvicultural approaches

Output 1.3: The potential of CDM A/R and forest restoration in REDD assessed.

Activity 1.3.1: Within the potential afforestation sites, select CDM A/R eligible land

Activity 1.3.2: Prepare report for potential investors for CDM A/R

Activity 1.3.3: Assess in selected degraded forest sites, carbon sink potential and model forest restoration as an approach in REDD

Activity 1.3.4: Conduct a technical workshop with specialists to validate proposed forest carbon approaches and prepare report

Output 1.4: A draft policy for enrichment planting and reforestation activities to be applied in areas of Timber Sales Contracts and Forest Management Contracts developed.

Activity 1.4.1: Summarize existing experience in enrichment planting and timber plantations in Liberia and the sub-region

Activity 1.4.2: Develop, in collaboration with selected concessionaires, silvicultural guidelines for enrichment plantings and timber plantations

Activity 1.4.3: Prepare draft policy document and technical document on silvicultural aspects of timber stand improvement through enrichment planting and timber plantations

Output 1.5: Preliminary results of assessments, policies and strategies, widely consulted with forest stakeholders.

Activity 1.5.1: Conduct a study on the economics and possible incentive schemes for forest plantations

Activity 1.5.2: Summarize and prepare overview papers on achieved results from output 1.1. – 1.4.

Activity 1.5.3: Consult stakeholders at national level

Activity 1.5.4: Validate outputs of the consultations process

Output 1.6: Draft reforestation policy and an afforestation strategy based on the results of Outputs 1.1. – 1.5 elaborated.

Activity 1.6.1: Draft a reforestation policy, including enrichment planting and forest restoration

Activity 1.6.2: Draft an afforestation strategy, including community forestry and conservation needs

Activity 1.6.3: Consult the outputs with relevant stakeholders

Activity 1.6.4: Present the reforestation draft policy and afforestation strategy to the Authority

Specific Objective 2: develop knowledge, expertise and capability of the Forest Development Authority and other stakeholders to assess, monitor and plan forest plantation and forest restoration activities

Output 2.1: A core team of technicians has been trained in the assessment and implementation of reforestation and afforestation.

Activity 2.1.1: Recruit two bachelors and one forest ranger as young professionals in the project

Activity 2.1.2: Basic training of core team of FDA and recruited young professionals in plantation forestry

Activity 2.1.3: Prepare detailed work plans of project activities on a 6-months basis

Output 2.2: A series of technical workshops has been conducted to train FDA staff and stakeholders from NGOs and private sector in forest restoration, reforestation and afforestation.

Activity 2.2.1: Technical workshop on forest restoration and reforestation

Activity 2.2.2: Workshop on the economics of reforestation and afforestation

Activity 2.2.3: Workshop on CDM Afforestation and Reforestation, Biofuel and REDD

Activity 2.2.4: Preparation of Guidelines on forest plantation development in Liberia

Output 2.3: Community dwellers and local NGOs involved in the development of community forestry have been trained in practical aspects in forest restoration, afforestation and agroforestry.

Activity 2.3.1: Conduct 5 field based workshops on silviculture of restoring forests, small-scale plantations and agroforestry

Activity 2.3.2: Establish 5 community run nurseries and train people accordingly

Activity 2.3.3: Summarize the experience in form of a simple illustrated Manual

5.

Logical Framework Worksheets

PROJECT ELEMENTS	INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
DEVELOPMENT OBJECTIVE			
Develop forest plantations and forest restoration as an effective tool for the conservation and sustainable management of the Liberia's forest and wildlife resources, to maintain environmental quality and improve the flow of benefits to all segments of society	Investments in plantation forestry are considered as substantial contribution in the country's economy	At least 500 ha of forest plantations per year (including enrichment, reforestation and afforestation) are undertaken in the country from 2011 onwards	Political stability; still strong focus on forest development by the government; land tenure situation for planted areas clarified
SPECIFIC OBJECTIVES			
1. Develop a national reforestation policy and afforestation strategy consistent with the National Forestry Reform Law	Policy and Strategy adopted by the relevant Authority and through national consensus	Documents published by Ministry of Foreign Affairs	National Forest Policy and Implementation Strategy remains in vigor
2. Develop knowledge, expertise and capability of the Forest Development Authority and other stakeholders to assess, monitor and plan forest plantation and forest restoration activities in the country	Five trained staff in plantation forestry, a mix of junior and senior, operational in FDA and in training institutes	Credentials of staff, results from workshop discussions, involvement of staff in technical discussions	FDA is ready to invest in staff planning and to keep motivated staff in the service
OUTPUTS			
1.1 All existing forestry plantations are assessed and timber volume and qualitative data per area interpreted	Assessed existing plantation and data available	Filed data sets, reports, maps and other documents	Documentation available and planting areas still recognizable
1.2 Suitable sites for reforestation and afforestation, as well as forest restoration identified	Documentation of identified sites according to different plantation strategies	Filed maps, measured sites, and site descriptions	Land tenure and land-use situation of selected sites clarified
1.3 The potential of CDM A/R and forest restoration in REDD assessed	Identified eligible sites for CDM A/R; carbon model in a selected forest restoration area	Filed maps, measured sites, REDD project descriptions	For CDM: 1990 baseline data available

PROJECT ELEMENTS	INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
1.4 A draft policy for enrichment planting and reforestation activities to be applied in areas of Timber Sales Contracts and Forest Management Contracts developed	Timber Stand Improvement measures undertaken in a national forest on a model basis	Draft enrichment planting and reforestation policy document	Continous policy interest in enrichment planting as a requirement stipulated in the law
1.5 Preliminary results of assessments, policies and strategies, widely consulted with forest stakeholders	Stakeholder involvement and agreement on further process	Workshop consultation reports	Maintenance of the good culture of consultation
1.6 Draft reforestation policy and an afforestation strategy based on the results of Outputs 1.1. – 1.5 elaborated	Concerted documents prepared	Published draft reforestation policy and afforestation strategy	Output 1.1. – 1.5 have produced conducive results
2.1 A core team of technicians has been trained in the assessment and implementation of reforestation and afforestation	Functional and highly professional team in place	List of staff and functions	Specific training conducted and engagement of FDA to second dedicated staff to the project
2.2 A series of technical workshops has been conducted to train FDA staff and stakeholders from NGOs and private sector in forest restoration, reforestation and afforestation	Broader stakeholder understanding of the main issues of reforestation and afforestation, including carbon forestry, in the country	Evaluation reports of workshops; feedback from trained participants	Good communication climate; full involvement of the two training institute in the preparation and implementations of trainings
2.3 Community dwellers and local NGOs involved in the development of community forestry have been trained in practical aspects in forest restoration, afforestation and agroforestry	Pilot sites in community forestry in place	Feedback from local communities and number of plants produced in promotion nurseries	Engagement of community forestry development staff; respect of equity concerns

6. **Work Plan**

OUTPUTS/ACTIVITIES	RESPONSIBLE PARTY	Q2 Y1	Q3 Y1	Q4 Y1	Q1 Y2	Q2 Y2	Q3 Y2	Q4 Y2	Q1 Y3	Q2 Y3	Q3 Y3
	Month/Year in Quarters	4/09 – 6/09	7/09 – 9/09	10/09 – 12/09	1/10 – 3/10	4/10 – 6/10	7/10 – 9/10	10/10 – 12/10	1/11 – 3/11	4/11 – 6/11	7/11 – 9/11
Output 1.1: All existing forestry plantations are assessed and timber volume and qualitative data per area interpreted											
Activities											
Activity 1.1.1: Elaborate a method of assessment and check list	DRD										
Activity 1.1.2: GIS/Satellite mapping of existing plantations and degraded areas	GIS-Lab										
Activity 1.1.3: Collect and assess information on existing plantations	DRD with FDA-regional										
Activity 1.1.4: Assess existing plantations in the field according to proposed check list	DRD with FDA-regional										
Activity 1.1.5: Validate the information, establish a data base and prepare a report	DRD										
Output 1.2: Suitable sites for reforestation and afforestation, as well as forest restoration identified											
Activities											
Activity 1.2.1: Identify up to X ha of suitable sites through GIS and field assessments	DRD and GIS-Lab, FDA-reg.										
Activity 1.2.2: Clarify land-use and tenure aspects on chosen sites	DRD and FDA-regional, MIA										
Activity 1.2.3: Develop silvicultural approaches for proposed for chosen sites	DRD, DCOF, DCF										
Activity 1.2.4: Consult stakeholders on site approaches	DRD and FDA-regional										
Activity 1.2.5: Summarize results on site selection and silvicultural approaches	DRD										
Output 1.3: The potential of CDM A/R and forest restoration in REDD assessed											
Activities											
Activity 1.3.1: Within the afforestation sites,	DRC, carbon group										

select CDM A/R eligible land											
Activity 1.3.2: Prepare report for potential investors for CDM A/R	DRC, carbon group										
Activity 1.3.3: In selected sites, carbon sink potential and model restoration as in REDD	DRC, carbon group										
Activity 1.3.4: Conduct workshop with specialists to validate forest carbon approaches	DRC, carbon group										
Output 1.4: A draft policy for enrichment planting and reforestation activities to be applied in areas of Timber Sales Contracts and Forest Management Contracts developed											
Activities											
Activity 1.4.1: Summarize existing experience in enrichment planting and timber plantations	DRD, DCoF										
Activity 1.4.2: Develop silvicultural guidelines for enrichment/reforestation	DRD, DCoF										
Activity 1.4.3: Prepare draft policy document and technical document	DRD, DCoF										
Output 1.5: Preliminary results of assessments, policies and strategies, widely consulted with forest stakeholders											
Activities											
Activity 1.5.1: Conduct a study on the economics and incentive schemes	DRD										
Activity 1.5.2: Summarize and prepare overview papers on output 1.1. – 1.4.	DRD										
Activity 1.5.3: Consult stakeholders at national level	DRD										
Activity 1.5.4: Validate outputs of the consultations process	DRD										
Output 1.6: Draft reforestation policy and an afforestation strategy based on the results of Outputs 1.1. – 1.5 elaborated											
Activities											
Activity 1.6.1: Draft a reforestation policy, enrichment planting and forest restoration	DRD										
Activity 1.6.2: Draft an afforestation strategy, community forestry and conservation needs	DRD										
Activity 1.6.3: Consult the outputs with	DRD										

relevant stakeholders											
Activity 1.6.4: Present the reforestation draft policy and afforestation strategy	DRD										
Output 2.1: A core team of technicians has been trained in the assessment and implementation of reforestation and afforestation											
Activities											
Activity 2.1.1: Recruit two bachelors and one forest ranger as young professionals	FDA										
Activity 2.1.2: Basic training of core team of FDA and project in plantation forestry	DRD, FTI, Uni										
Activity 2.1.3: Prepare detailed work plans of project activities on a 6-months basis	DRD										
Output 2.2: A series of technical workshops has been conducted to train FDA staff and stakeholders from NGOs and private sector in forest restoration, reforestation and afforestation											
Activities											
Activity 2.2.1: Technical workshop on forest restoration and reforestation	DRD, Uni										
Activity 2.2.2: Workshop on the economics of reforestation and afforestation	DRD, Uni										
Activity 2.2.3: Workshop on CDM A/R, Biofuel and REDD	DRD										
Activity 2.2.4: Preparation of Guidelines on forest plantation development in Liberia	DRD, Uni										
Output 2.3: Community dwellers and local NGOs involved in the development of community forestry have been trained in practical aspects in forest restoration, afforestation and agroforestry											
Activities											
Activity 2.3.1: Conduct 5 field based training on plantation management to communities	DRD, DCF										
Activity 2.3.2: Establish 5 community run nurseries and train people accordingly	DCF										
Activity 2.3.3: Summarize the experience in form of a simple illustrated Manual	DRD, DCF										

7. Budget

7.1 Detailed Activity Budget (in blue: executing agency; in black: ITTO)

DETAILED ACTIVITY BUDGET						
Outputs and Activities	Inputs		Unit	Quarter	Budget Component	Total
	Units and Quality	Units	Costs	Year		Amount
Output 1.1:				Y1		
Activity 1.1.1: Elaborate a method of assessment and check list	FDA: 2 Officers @ \$850 per month a person	2 months	850	Q2/Y1	11	1,700 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q2/Y1	11	1,500 (I)
	Project: 2 weeks Internet. Consultant 2@\$2500	0.5 months	2,500	Q2/Y1	16	5,000 (I)
	DSA 5 days@\$150		150	Q2/Y1	31	750 (I)
	International Travel		2,000	Q2/Y1	32	2,000 (I)
	3 Computers, 1 printer, 1 scanner, Software			Q2/Y1	44	8,000 (I)
Activity 1.1.2: GIS/Satellite mapping of existing plantations and degraded areas	FDA: 1 GIS @ \$850 per month a person	2 months	850	Q2/Y1	11	1,700 (F)
	Project: 1 YP @ \$500 per month and person	2 months	500	Q2/Y1	11	500 (I)
	Duty travel (domestic), 2 persons	20 days	25	Q2/Y1	31	500 (I)
	GIS map material and GPS				44	2,500 (I)
Activity 1.1.3:Collect and assess information on existing plantations	FDA: 1 Officers @ \$850 per month a person	0.5months	425	Q2-Q3/Y1	11	425 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q2-Q3/Y1	11	1,500 (I)
Activity 1.1.4: Assess existing plantations in the field according to proposed check list	FDA: 2 Officers @ \$850 per month a person	4 months	850	Q3-Q4/Y1	11	3,400 (F)
	Project: 3 YP @ \$500 per month and person	6 months	500	Q3-Q4/Y1	11	3,000 (I)
	Workers cleaning plots and borders of planted sites: (units of 6 workers) on a estimated 20 sites, 5\$ per forest worker, 10 days/site	1200 days	5	Q3-Q4/Y1	13	6,000 (I)
	Duty travel (domestic), 2 YP, 1 FDA, 1 FDA Reg, 30 sites, 2 days per site, \$25 each	60 days	100	Q3-Q4/Y1	31	6000 (I)
	4X4 double cabin pickup	2	24,000	Q3-Q4/Y1	43	48,000 (I)
	Field equipment				44	3,500 (I)

Activity 1.1.5: Validate the information, establish a data base and prepare a report	FDA: 2 Officers @ \$850 per month a person	2 months	850	Q4/Y1 – Q1/Y2	11	1,700 (F)
	Project: 3 YP @ \$500 per month and person	6 months	500	Q4/Y1 – Q1/Y2	11	3,000 (I)
	Project: 1 week Internat. Consultant 2@\$2500	1 week			16	2,500 (I)
	DSA 5 days@\$150	5 days	150	Q4/Y1 – Q1/Y2	31	750 (I)
	International Travel				32	2,000 (I)
	1-day validation meeting with 15 people@\$10	1 day			31	150 (I)
SUBTOTAL OUTPUT 1.1						106,075
Output 1.2:				Y1-Y2		
Activity 1.2.1: Identify up to X ha of suitable sites through GIS and field assessments	FDA: 2 Officers, incl. GIS @ \$850 per month a person	3 months	850	Q4/Y1 – Q1/Y2	11	2,550 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q4/Y1 – Q1/Y2	11	1,500 (I)
	Forests workers to prepare: (units of 2 workers) on a estimated 50 sites, 5\$ each	100 days	10	Q4/Y1 – Q1/Y2	13	1,000 (I)
	Duty travel (domestic), 2 YP, 1 FDA, 1 FDA Reg, 30 sites, 1 day per site, \$25 each	50 days	100	Q4/Y1 – Q1/Y2	31	5000 (I)
	Mapping material				54	1,000 (I)
Activity 1.2.2: Clarify land-use and tenure aspects on chosen sites	FDA: 2 Officers @ \$850 per month a person	4 months	850	Q3/Y1-Q1/Y3	11	3,400 (F)
	Project: 3 YP @ \$500 per month and person	6 months	500	Q3/Y1-Q1/Y3	11	3,000 (I)
	Duty travel (domestic), 20 days, 2 days	1 day	25	Q3/Y1-Q1/Y3	31	500 (I)
	Coordination meeting to validate areas, 25 days, 10 people	1 day	10	Q3/Y1-Q1/Y3	31	250 (I)
Activity 1.2.3: Develop silvicultural approaches for enrichment, reforestation, forest restoration, afforestation and agroforestry being proposed for chosen sites	FDA: 2 Officers @ \$850 per month a person	2 months	850	Q2-Q3/Y2	11	1,700 (F)
	Project: 3 YP @ \$500 per month and person	6 months	500	Q2-Q3/Y2	11	3,000 (I)
	Project: 2 weeks Internat. Consultant 2@\$2500	2 weeks	2500	Q2-Q3/Y2	16	5,000 (I)
	DSA 5 days@\$150	10 days	150	Q2-Q3/Y2	31	1,500 (I)
	International Travel				32	2,000 (I)
	1-day validation meeting with 15 people@\$10	1 day		Q2-Q3/Y2	31	150 (I)

Activity 1.2.4: Consult stakeholders from civil society, private sector and local communities on site approaches	FDA: 2 @ \$850 per month a person	1 month	850	Q4/Y2	11	850 (F)
	Project: 3 YP @ \$500 per month and person	1 month	500	Q4/Y2	11	500 (I)
	1 national expert as facilitator	5 days	100	Q4/Y2	12	500 (I)
	Consultation meeting 2 days @ 25 people, \$40/day	2 days	80	Q4/Y2	31	4,000 (I)
SUBTOTAL OUTPUT 1.2						37,400
Output 1.3				Y1-Y2		
Activity 1.3.1: Within the afforestation sites, select CDM A/R eligible land	FDA: 1 GIS officer @ \$850 per month a person	1 month	850	Q1-Q2/Y2	11	850 (F)
	Project: 1 YP @ \$500 per month and person	2 months	500	Q1-Q2/Y2	11	1,000 (I)
	Duty travel (domestic), 2 persons	10 days	25	Q1-Q2/Y2	31	250 (I)
	CDM A/R mapping material			Q1-Q2/Y2	54	1,000 (I)
Activity 1.3.2: Prepare report for potential investors for CDM A/R	FDA: Carbon Group Coordinator @ \$850	1 month	850	Q3/Y2	11	850 (F)
	CDM Consultant for CDM A/R offer preparation @ \$350/day (backstopping)	10 days	350	Q3/Y2	15	3,500 (I)
Activity 1.3.3: In selected sites, carbon sink potential and model restoration as forest mitigation option/REDD	FDA: Carbon Group Coordinator @ \$850	1 month	850	Q4/Y1	11	850 (F)
	Project: 2 YP @ \$500 per month and person	3 months	500	Q4/Y1	11	1,500 (I)
	Duty travel (domestic), 2 persons	20 days	25	Q4/Y1	31	500 (I)
	FDA hired Carbon Forestry Expert (international)	1 month	8,000	Q4/Y1	15	8,000 (F)
Activity 1.3.4: Conduct workshop with specialists to validate forest carbon approaches	FDA: Carbon Cor. @ \$850	1 month	850	Q2/Y2	11	850 (F)
	Project: 2 YP @ \$500 per month and person	3 months	500	Q2/Y2	11	1,500 (I)
	2-days workshop retreat with outside specialists, 15 people @ \$100 for 2 days	15	100	Q2/Y2	14	1,500 (I)
	International travel of 2 specialists	2	1800	Q2/Y2	32	3,600 (I)
	DSA, 4 days of international specialists @ 150	8	150	Q2/Y2	31	1,200 (I)
	Honrarium for 2 carbon specialists, 5 days	10	500	Q2/Y2	15	5,000 (I)
SUBTOTAL OUTPUT 1.3						31,950

Output 1.4				Y1-Y2		
Activity 1.4.1: Summarize existing experience in enrichment planting and timber plantations	FDA: 2 staff 0,5 months @ \$425	1 month	850	Q3-Q4/Y1	11	850 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q3-Q4/Y1	11	1,500 (I)
	Duty travel (domestic), total 15 days	20 days	25	Q3-Q4/Y1	31	500 (I)
	Duty travel to Ghana and Côte d'Ivoire @ 5 people, 10 days by car	50	50	Q3-Q4/Y1	32	2,500 (I)
	TC/DC Silvicultural Expert, 15 days honorarium	15 days	300	Q3-Q4/Y1	15	4,500 (I)
	1 Trip Ghana-Liberia 15 days DSA	1 15	500 150		32 31	500 (I) 2,250 (I)
Activity 1.4.2: Develop silvicultural guidelines for enrichment/ reforestation	FDA: 1 staff @ \$850 per month a person	1 month	850	Q1/Y2	11	850 (F)
	Project: 3 YP @ \$500 per month and person	1 month	500 25	Q1/Y2 Q1/Y2	11	1,500 (I)
	Duty travel (domestic), 3 persons	10 days		Q1/Y2	31	250 (I)
	Project: 2 weeks Internat. Consultant 2 @ \$2500	0.5 month	2,500	Q1/Y2	16	5000 (I)
	DSA 10 days @ \$150 International Travel		150 2,000	Q1/Y2 Q1/Y2	31 32	1,500 (I) 2,000 (I)
Activity 1.4.3: Prepare draft policy document and technical document	FDA: 2 staff @ \$850 per month a person	2 months	850	Q2/Y2	11	1,700 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q2/Y2	11	1,500 (I)
SUBTOTAL OUTPUT 1.4						26,900
Output 1.5				Y2-Y3		
Activity 1.5.1: Conduct a study on the economics and incentive schemes for plantation forestry	FDA: 1 Officer @ \$850 per month a person	1 month	850	Q3-Q4/Y2	11	850 (F)
	Project: 1 YP @ \$500 per month and person	2 months	500	Q3-Q4/Y2	11	1,000 (I)
	Project: 3 weeks Internat. Consultant 3 @ \$2500	3 weeks	2500	Q3/Y2	16	7,500 (I)
	DSA 15 days @ \$150 International Travel	15 days	150	Q3/Y2	31 32	2,250 (I) 2,000 (I)
	1-day validation meeting with 15 people @ \$10	1 day		Q3 /Y2	31	150 (I)

Activity 1.5.2: Summarize and prepare overview papers on output 1.1. – 1.4.	FDA: 1 Officer @ \$850 per month a person	1 month	850	Q3/Y2	11	850 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q3/Y2	11	1,500 (I)
	National editor, 15 days @\$100	15 days	100	Q3/Y2	12	1,500 (I)
	Secretarial support for 1.5.2, 1.5.3 and 1.5.4	6 months	400	Q3-Q4/Y2	12	2,400 (I)
Activity 1.5.3: Consult stakeholders at national level	3 two-day Workshops for up to 50 people per workshop @ \$2,500 per workshop	3	2,500	Q1/Y3	14	7,500 (I)
	National Facilitator for the workshops, Honarium	12	100	Q1/Y3	12	1,200 (I)
Activity 1.5.4: Validate outputs of the consultations process	FDA: 1 Officer @ \$850 per month a person	1 month	850	Q2/Y3	11	850 (I)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q2/Y3	11	1,500 (I)
SUBTOTAL OUTPUT 1.5						31,050
Output 1.6:				Y3		
Activity 1.6.1: Draft a reforestation policy, enrichment planting and forest restoration	FDA: 1 Officer @ \$850 per month a person	1 month	850	Q2-Q3/Y3	11	850 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q2-Q3/Y3	11	1,500 (I)
	National editor, 5 days @\$100	5 days	100	Q2-Q3/Y3	12	500 (I)
	Secretarial support for 1.6.1 1.6.2 and 1.6.3	6 months	400	Q2-Q3/Y3	12	2,400 (I)
Activity 1.6.2: Draft an afforestation strategy, community forestry and conservation needs	FDA: 1 Officer @ \$850 per month a person	1 month	850	Q2/Y3	11	850 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q2/Y3	11	1,500 (I)
	National editor, 10 days @\$100	10 days	100	Q2/Y3	12	1,000 (I)
Activity 1.6.3: Consult the outputs with relevant stakeholders	1-day Workshop with stakeholders for up to 100 people in Monrovia	day	20	Q3/Y3	14	2,000 (I)
	National Facilitator for the workshops, Honarium	3	100	Q1/Y3	12	300 (I)

Activity 1.6.4: Present the reforestation draft policy and afforestation strategy	1-day Launching event with invited speakers, for up to 100 representatives of Government and relevant stakeholders	1 day	30	Q3/Y3	61	3,000 (I)
	Publication of the results, flyers, booklets	200	25		61	5,000 (I)
	Press Conference				61	200 (I)
	Reception				61	3,000 (I)
SUBTOTAL OUTPUT 1.6						22,100
Output 2.1:				Y1		
Activity 2.1.1: Recruit two bachelors and one forest ranger as young professionals	FDA: 1 Officer @ \$850 per month for process and selection of recruitment	1 month	850	Q2/Y1	11	850 (F)
	Preparation of office space			Q2/Y1	41	2,000 (F)
	Installation of offices, desks, communication			Q2/Y1	41	2,000 (I)
Activity 2.1.2: Basic training of core team of FDA and project in plantation forestry	FDA: 1 Officer @ \$850 per month a person	1 month	850	Q2/Y1	11	850 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q2/Y1	11	1,500 (I)
	International consultant contracted under Act. 1.1.1 to conduct training	5 days	500	Q2/Y1	12	2,500 (I)
Activity 2.1.3: Prepare detailed work plans of project activities on a 6-months basis	FDA: 2 Officers @ \$850 per month a person	2 months	850	Q2/Y1	11	1,700 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q2/Y1	11	1,500 (I)
	Training equipment: 2 beamer, 2 computers for training (to leave to the Forestry school), 2 printer, Pinboards				44	8,500 (I)
SUBTOTAL OUTPUT 2.1						21,400
Output 2.2:				Y1-Y3		
Activity 2.2.1: Technical workshop on forest restoration and reforestation	FDA: 2 Officers @ \$850 per month a person	2 months	850	Q3/Y1	11	1,700 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q3/Y1	11	1,500 (I)
	3-day Workshop with for FDA staff and other stakeholders for up to 60 people in Monrovia	60	50	Q3/Y1	14	3,000 (I)
	Contracted University staff and FTI@\$40 per day, 5 d.	5	200		12	1,000 (I)

Activity 2.2.2: Workshop on the economics of reforestation and afforestation	FDA: 1 Officer @ \$850 per month a person	1 month	850	Q3/Y2	11	850 (F)
	Project: 1 YP @ \$500 per month and person	2 months	500	Q3/Y2	11	1,000 (I)
	Internat. Consultant coming for activity 1.5.1 being also the consultants for the workshop 3days@500	3days	500	Q3/Y2	16	1,500 (I)
	2-day Workshop with for FDA staff and other stakeholders for up to 60 people in Monrovia	60	50	Q3/Y2		3,000 (I)
					14	
Activity 2.2.3: Workshop on CDM A/R, Biofuel and REDD	FDA: 1 Officer @ \$850 per month a person	1 month	850	Q4/Y1	11	850 (F)
	Project: 1 YP @ \$500 per month and person	2 months	500	Q4/Y1	11	1,000 (I)
	Internat. Consultant for conducting the training, 10 days@500	10 days	500	Q4/Y1	16	5,000 (I)
	International travel	1	2000	Q4/Y1	32	2000 (I)
	6 days of DSA	6 days	150	Q4/Y1	31	900 (I)
Activity 2.2.4: Preparation of Guidelines on forest plantation development in Liberia	3-day Workshop with for FDA staff and other stakeholders for up to 60 people in Monrovia	60	80	Q4/Y1	14	4,800 (I)
	FDA: 1 Officer @ \$850 per month a person	1 month	850	Q2-Q2/Y3	11	850 (F)
	Project: 1 YP @ \$500 per month and person	3 months	500	Q2-Q2/Y3	11	1,500 (I)
	Internat. Consultant for conducting the training, 5 days@\$500, desk review	5 days	500	Q2-Q2/Y3	16	2,500 (I)
SUBTOTAL OUTPUT 2.2						32,950
Output 2.3:				Y1-Y3		
Activity 2.3.1: Conduct 5 field based training on plantation management to communities	FDA: 2 community foresters @ \$850 per month a person	2 months	850	Q3/Y1-Q2/Y2	11	1,700 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q3/Y1-Q2/Y2	11	1,500 (I)
	Duty travel (domestic), 5 persons	50 days	25	Q3/Y1-Q2/Y2	31	2,500 (I)
	Basic training material			Q3/Y1-Q2/Y2	44	1,000 (I)

Activity 2.3.2: Establish 5 community run nurseries and train people accordingly	FDA: 2 community foresters @ \$850 per month a person	2 months	850	Q4/Y1-Q1/Y3	11	1,700 (F)
	Project: 3 YP @ \$500 per month and person	3 months	500	Q3/Y1-Q2/Y2	11	1,500 (I)
	Duty travel (domestic), 4 persons	20 days	25	Q3/Y1-Q2/Y2	31	500 (I)
	Basic material for nursery installation	5	1500	Q3/Y1-Q2/Y2	44	7,500 (I)
Activity 2.3.3: Summarize the experience in form of a simple illustrated Manual	FDA: 1 Community forester @ \$850 per month a person	2 months	850	Q3/Y2	11	1700 (F)
	Project: 3 YP @ \$500 per month and person	2 months	500	Q3/Y2	11	1,000 (I)
	National editor, 15 days@\$100	10 days	100	Q3/Y2	12	1,500 (I)
	Secretarial support	2 months	400	Q3-Q4/Y2	12	800 (I)
	Publication of manual	500	15		61	7,500 (I)
SUBTOTAL OUTPUT 2.3						29,900

Non-Activity Based Expenses

53	Fuel and Utilities, based on the use of two cars over 30 months	1 gallon per 15 miles (US\$5*/gallon), 15,000 miles per car and year, over 30 months, total 75,000 miles + costs for maintenance of two cars (1500 US\$ per car over the 30 months)	28,000 (I)
62	Auditing costs		5,000 (I)
32	Presentation of the project at ITTC in Yokohama	1 travel of a technical staff to Yokohama	4,000 (I)
63	Contingencies	2% of the activities budget	6804 (I)
TOTAL non-activity related expenditures			43,804 (I)

*in this calculation, a prospective increase of fuel costs has been considered (US\$ 5 per gallon instead of US\$4 per gallon)

7.2 Consolidated Total Project Budget

		TOTAL	ITTO	FDA
10	Project Personnel			
	11. National Experts	86225	45500	40725
	12. National Consultants	15600	15600	
	13. Other Labour, forest workers	7000	7000	
	14. Workshops and Training	21800	21800	
	15. International Experts	21000	13000	8000
	16. International Consultants	34000	34000	
	19. Component Total	185625	136900	48725
30	Duty Travel			
	31. Daily Subsistence Allowance	32300	32300	
	32. International Travel	18600	18600	
	39. Component Total	50900	50900	
40	Capital Items			
	41. Premises: Installation of an office	4000		4000
	43. Vehicles	48000	48000	
	44. Capital Equipment (computers and software)	31000	31000	
	49. Component Total	83000	79000	4000
50	Consumable Items			
	53. Fuel and Utilities	28000	28000	
	54. Office Supplies	2000	2000	
	59. Component Total	30000	30000	
60	Miscellaneous			
	61. Sundry	9,350	9,350	
	62. Auditing	5000	5000	
	63. Contingencies @ 2%	6,804	6,804	
	64. Presentation of the outcome at ITTC	4000	4000	
	69. Component Total	25,154	25,154	
70	Executing Agency Management cost @ 15%	56,285		56,285
	79. Component Total			
	SUBTOTAL	430,964	321,954	109,010
80	ITTO Monitoring, Evaluation and Administration			
	81. Monitoring and Review Costs	30,000		
	82. Evaluation Costs	15,000		
	83. Programme Support Costs (@ 8%)	29,356		
	89. Component Total	74,356		
100	GRAND TOTAL	505,320		

7.3 Consolidated Total and Yearly Project Budget

		TOTAL	2009	2010	2011
10	Project Personnel				
	11. National Experts	86225	24500	31425	30300
	12. National Consultants	15600	3500	6700	5400
	13. Other Labour, forest workers	7000	7500		
	14. Workshops and Training	21800	9300	3000	9500
	15. International Experts	21000	12000	8500	
	16. International Consultants	34000	11250	20250	2500
	19. Component Total	185625	68050	69875	47700
30	Duty Travel				
	31. <u>Daily Subsistence Allowance</u>	32300	16675	15125	500
	32. International Travel	18600	9000	9600	
	39. Component Total	50900	25675	24725	500
40	Capital Items				
	41. Premises: Installation of an office	4000	4000		
	43. Vehicles	48000	48000		
	44. Capital Equipment (computers and software)	31000	31000		
	49. Component Total	83000	83000		
50	Consumable Items				
	53. Fuel and Utilities	28000	12000	12000	4000
	54. Office Supplies	2000	2000		
	59. Component Total	30000	14000	12000	4000
60	Miscellaneous				
	61. Sundry	<u>9,350</u>		<u>3,350</u>	<u>6000</u>
	62. Auditing	5000			5000
	63. Contingencies @ 2%	<u>6,804</u>	2722	2721	1361
	64. Presentation of the outcome at ITTC	4000	4000		
	69. Component Total	<u>25,154</u>	6722	6,071	12,361
70	Executing Agency Management Cost @ 15%	<u>56,285</u>	<u>28,705</u>	<u>16,886</u>	<u>10,694</u>
	79. Component Total	<u>56,285</u>	<u>28,705</u>	<u>16,886</u>	<u>10,694</u>
	SUBTOTAL	<u>430,964</u>	<u>226,152</u>	<u>129,556</u>	<u>75,255</u>
80	ITTO Monitoring, Evaluation and Administration				
	81. Monitoring and Review Costs	<u>30,000</u>			
	82. Evaluation Costs	<u>15,000</u>			
	83. Programme Support Costs (@ 8%)	<u>29,356</u>			
	89. Component Total	<u>74,356</u>			
100	GRAND TOTAL	<u>505,320</u>			

7.4 Overall Project Budget by Activity

OUTPUTS / ACTIVITIES + Non-Activity Based Expenses	BUDGET COMPONENTS							GRAND TOTAL
	10. Project Personnel	20. Sub- Contracts	30. Duty Travel	40. Capital Items	50. Consum- able Items	60. Miscella- neous	Quarter Year	
Output 1.1: All existing forestry plantations are assessed data per area interpreted								
Activity 1.1.1: Elaborate a method of assessment and check list	(E+ I)8,200		(I) 2,750	(I) 8,000			Q1-Y1	18,950
Activity 1.1.2: GIS/Satellite mapping of existing plantations and degraded areas	(E+I)2,200		(E)500	(I)2,500			Q1-Y1	5,200
Activity 1.1.3: Collect and assess information on existing plantations	(E+I)1,925							1,925
Activity 1.1.4: Assess existing plantations in the field according to proposed check list	(E+I)12,400		(E+I) 6,000	(I)51,500			Q1-Q3-Y1	69,900
Activity 1.1.5.: Validate the information, establish a data base and prepare a report on existing plantations	(E+I)7,200		(I)2,900				Q4-Y1 to Q1-Y2	10,100
subtotal 1.1	31,925		12,150	62,000			Y1-Y2	106,075
Output 1.2: Suitable sites for reforestation and afforestation, as well as forest restoration identified.								
Activity 1.2.1: Identify up to X ha of suitable sites through GIS/satellite interpretation and field assessments	(E+I)5,050		(I)5,000		(I)1,000		Q1-Y1	11,050
Activity 1.2.2: Clarify land-use and tenure aspects on chosen sites	(E+I)6,400		(E)750				Q1-Y1	7,150
Activity 1.2.3: Develop silvicultural approaches for enrichment, reforestation, restoration, afforestation and agroforestry	(E+I)9,700		(E+I)3,650				Q1-Q3-Y1	13,350
Activity 1.2.4: Consult stakeholders from civil society, private sector and local communities on site approaches	(E+I)1,850		(I)4,000				Q4-Y1 to Q1-Y2	5,850

OUTPUTS / ACTIVITIES + Non-Activity Based Expenses	BUDGET COMPONENTS							GRAND TOTAL
	10. Project Personnel	20. Sub- Contracts	30. Duty Travel	40. Capital Items	50. Consum- able Items	60. Miscella- neous	Quarter Year	
subtotal 1.2 (F+I)	23000		13400		1000		Y1-Y2	37400
Output 1.3: The potential of CDM A/R and forest restoration in REDD assessed.								
Activity 1.3.1: Within the afforestation sites, select CDM A/R eligible land	(E)1,850		(I)250		(I)1,000		Q1-Y1	3,100
Activity 1.3.2: Prepare report for potential investors for CDM A/R	(E+I)4,350						Q1-Y1	4,350
Activity 1.3.3: Assess in selected degraded forest sites, carbon sink potential and model forest restoration as an approach in REDD	(E+I)10,350		(E+I)500				Q1-Q3-Y1	10,850
Activity 1.3.4: Conduct a technical workshop with specialists to validate proposed forest carbon approaches	(E+I)8,850		(I)4,800				Q4-Y1 to Q1-Y2	13,650
subtotal 1.3 (F+I)	25,400		5,550		1,000		Y1-Y2	31,950
Output 1.4: A draft policy for enrichment planting and reforestation activities to be applied in areas of TSC and Forest Management Contracts developed.								
Activity 1.4.1: Summarize existing experience in enrichment and timber plantations in Liberia and the sub-region	(E+I)6,850		(E)5,750				Q1-Y1	12,600
Activity 1.4.2: Develop, silvicultural guidelines for enrichment plantings and timber plantations	(E+I)7,350		(E+I)3,750				Q1-Y1	11,100

OUTPUTS / ACTIVITIES + Non-Activity Based Expenses	BUDGET COMPONENTS							
	10. Project Personnel	20. Sub- Contracts	30. Duty Travel	40. Capital Items	50. Consum- able Items	60. Miscella- neous	Quarter Year	GRAND TOTAL
Activity 1.4.3: Prepare draft policy document and technical document on silvicultural aspects of TSI	(E+I)3,200						Q1-Q3-Y1	3,200
subtotal 1.6 (F+I)	17,400		9,500				Y1-Y2	26,900
Output 1.5: Preliminary results of assessments, policies and strategies, widely consulted with forest stakeholders.								
Activity 1.5.1: Conduct a study on the economics and incentive schemes	(E)9,350		(I)4,400				Q1-Y1	13,750
Activity 1.5.2: Summarize and prepare overview papers on achieved results from output 1.1. – 1.4. and 1.5.1	(E+I)6,250						Q1-Y1	6,250
Activity 1.5.3: Consult stakeholders at national level	(E+I)8,700						Q2-Y1	8,700
Activity 1.5.4: Validate outputs of the consultations process	(E+I)2,350						Q1-Q3-Y1	2,350
subtotal 1.6 (F+I)	26,650		4,400				Y1-Y2	31,050
Output 1.6: Draft reforestation policy and an afforestation strategy based on the results of Outputs 1.1. – 1.5 elaborated.								
Activity 1.6.1: Draft a reforestation policy, including enrichment planting and forest restoration	(E)5,250							
Activity 1.6.2: Draft an afforestation strategy, including community forestry and conservation needs	(E+I)3,350							
Activity 1.6.3: Consult the outputs with relevant stakeholders	(E+I)2,300							
Activity 1.6.4: Present the reforestation draft policy and afforestation strategy to						(I) 11,200		

OUTPUTS / ACTIVITIES + Non-Activity Based Expenses	BUDGET COMPONENTS							
	10. Project Personnel	20. Sub- Contracts	30. Duty Travel	40. Capital Items	50. Consum- able Items	60. Miscella- neous	Quarter Year	GRAND TOTAL
the Authority								
subtotal 1.6 (F+I)	10,900					11,200		22,100
Output 2.1: A core team of technicians has been trained in the assessment and implementation of reforestation and afforestation.								
Activity 2.1.1: Recruit two bachelors and one forest ranger as young professionals in the project	(E)850			(I)4,000			Q1-Y1	4,850
Activity 2.1.2: Basic training of core team of FDA and recruited young professionals in plantation forestry	(E+I)4,850						Q1-Y1	4,850
Activity 2.1.3: Prepare detailed work plans of project activities on a 6-months basis	(E+I)3200			(I) 8500			Q1-Q3-Y1	11,700
subtotal 2.1 (F+I)	8,900			12,500			Y1-Y2	21,400
Output 2.2: A series of technical workshops has been conducted to train FDA staff and stakeholders from NGOs and private sector in forest restoration, reforestation and afforestation.								
Activity 2.2.1: Technical workshop on forest restoration and reforestation	(I)7200						Q1-Y1	7200
Activity 2.2.2: Workshop on the economics of reforestation and afforestation	(E+I)6350						Q1-Q3-Y1	6350
Activity 2.2.3: Workshop on CDM Afforestation and Reforestation, Biofuel and REDD	(E+I)11650		(I)2900				Q4-Y1 to Q1-Y2	14450
Activity 2.2.4: Preparation of Guidelines on forest plantation development in Liberia							Q4-Y1	

OUTPUTS / ACTIVITIES + Non-Activity Based Expenses	BUDGET COMPONENTS							GRAND TOTAL
	10. Project Personnel	20. Sub- Contracts	30. Duty Travel	40. Capital Items	50. Consum- able Items	60. Miscella- neous	Quarter Year	
	(E+I)4850							4850
subtotal 2.2 (F+I)	30,050		2900				Y1-Y2	32950
Output 2.3: Community dwellers and local NGOs involved in the development of community forestry have been trained in practical aspects in forest restoration, afforestation and agroforestry.								
Activity 2.3.1: Conduct 5 field based workshops on silviculture of restoring forests, small-scale plantations and agroforestry	(E+I)3,200		(E)2,500	1000			Q1-Y1	6,700
Activity 2.3.2: Establish 5 community run nurseries and train people accordingly	(E+I)3,200		(E+I)500	7500			Q1-Q3-Y1	11,200
Activity 2.3.3: Summarize the experience in form of a simple illustrated Manual	(E+I)5,000					7500	Q4-Y1 to Q1-Y2	12,500
subtotal 2.3 (E+I)	11,400		3000	8500		7500	Y1-Y2	30,400

NON-ACTIVITY BASED EXPENSES								
(1) Fuel and Utilities								28,000
(2) Auditing								5,000
(3) Contingencies @2%								6,804
(4) Presentation of the project in ITCC								4,000
subtotal								43,804
Subtotal (ITTO)								333,307
ITTO's Monitoring, Evaluation and Administration								43,944
Subtotal (Executing Agency FDA)								50,725
E Agency's Management Costs @ 15%								57,604
TOTAL								485,577

(I) – contribution of the ITTO, (E) – contribution of the Executing Agency / Host Government

7.5 Yearly Project Budgets by Source

YEARLY PROJECT BUDGET BY SOURCE – ITTO

Budget Components	Annual Disbursements	Total	2009	2010	2011
10. Project personnel		136900	57800	54900	24200
30. Duty travel		50900	25675	24725	500
40. Capital items		79000	79000		
50. Consumable items		30000	14000	12000	4000
60. Miscellaneous		25,154	6,722	6,071	12,361
Subtotal 1		321,954	183,197	97,696	41,061
80. ITTO Monitor., Evaluat. and Administ. Costs					
81. Monitoring and Review Costs		30,000			
82. Evaluation Costs		15,000			
Subtotal 2		45,000			
83. Programme Support Costs (8%)		29,356			
ITTO TOTAL		396,310			

YEARLY PROJECT BUDGET BY SOURCE – E. AGENCY/HOST GOVERNMENT

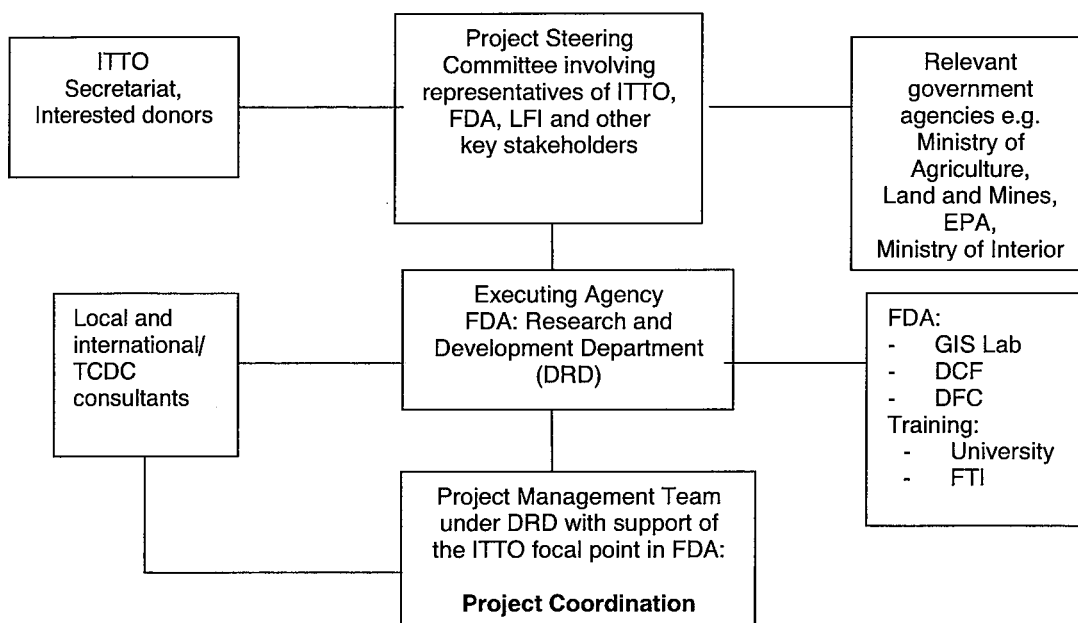
Budget Components	Annual Disbursements	Total	2009	2010	2011
10. Project personnel		48725	28400	14875	5450
30. Duty travel					
40. Capital items		4000	4000		
50. Consumable items					
60. Miscellaneous					
70. Executing Agency Management Costs (15% of Total of Overall Project Budget by Activity)		56,285	28,705	16,886	10,694
EXECUTING AGENCY/FDA TOTAL		109,010	61,105	31,761	16,694

PART III. OPERATIONAL ARRANGEMENTS

1. Management Structure

The implementing agency is FDA, in particular the Department of Research and Development that will be supported and supervised by the ITTO focal point in Liberia. The project unit will be fully integrated into the DRD. DRD will manage the project and provide progress reports to the ITTO. The FDA will also select the national and international experts and consultants for the project in consultation with the ITTO, as well as be the liaison between the consultants and key stakeholders. Figure 2 illustrates the management structure for the Project.

Figure 2 : Management Structure for the Project



2. Project Monitoring, Reporting and Evaluation

2.1. Arrangements for Reporting

- (a) The National Project Coordinator will prepare and submit six monthly progress reports to the ITTO and the Steering Committee, based on the work plan and the input given by consultants. The first Report shall be submitted not later than 6 months after Project start-up.
- (b) A Project Completion Report will be submitted to the ITTO three months after the Project.

2.2. Monitoring, Reporting and Evaluation

The project will be subject to periodic monitoring by representatives of the ITTO at least every six months during the life of the project. Monitoring and evaluation by the ITTO could coincide with the submission of progress reports. Allowance has been made in the project budget to enable this to occur. The dates of evaluation visits will be agreed between the ITTO and the Project

management team, and its Terms of Reference will be formulated jointly by the monitoring mission and the Project staff, for approval by the ITTC.

Suggested Monitoring, Reporting and Evaluation Schedule

<u>Description</u>	<u>Dates</u>
Signing of agreement	January 2009
First disbursement request	March 2009
First progress report	September 2009
First S.C. session and ITTO monitoring mission	October 2009
First technical report	January 2010
Second progress report	March 2010
Second ITTO monitoring mission	April 2010
Third progress report	September 2010
Second S.C. session	October 2010
Second technical report	January 2011
Fourth progress report	March 2011
Third S.C. session and ITTO monitoring mission	April 2011
Project Completion Report	June 2011

3. Future Operation and Maintenance

To ensure that the Project delivers maximum benefit to Liberia, it is intended that periodic reviews will be conducted of the adequacy and effectiveness of the assessment and the related capacity building. Such reviews will involve the Steering Committee coupled with two one-day workshops with all key stakeholders, held at the beginning of the project in March 2009 and 6-months prior to project completion in October 2010. Corrective action will be taken if the reviews indicate any inadequacies.

3.1 On-going sustainability of the project

The project is expected to develop inputs for the further enhancement of the National Forest Policy and Implementation Strategy in its overall objectives on forest restoration, reforestation and afforestation. No follow-up activity is planned in the framework of the ITTO project cycle.

PART IV. THE TROPICAL TIMBER FRAMEWORK

1. Compliance with ITTA 1994 Objectives

The project is fully compliant with the objectives of the International Tropical Timber Agreement 1994, in particular with the following specific objectives:

- (j) "Encouraging members to support and develop tropical timber reforestation, as well as rehabilitation and restoration of degraded forest land, with due regard for the interests of local communities dependent on forest resources".

This objective is indeed the core concern of the project and the ultimate aim of the Liberian reforestation policy and afforestation strategy that will be prepared through the project.

- (l) "To encourage members to develop national policies aimed at sustainable utilization and conservation of timber producing forests and their genetic resources and at maintaining the ecological balance in the regions concerned, in the context of tropical timber trade"

The project relates to this objective in particular through the preparation of the reforestation policy that contributes to the sustainable management of production forests in Liberia (post-logging silviculture, timber stand improvement, enrichment, restoration).

- (c) "Contributing to sustainable development and to poverty alleviation".

The project relates to this important objective of the ITTA 1994 in particular through the promotion of community based afforestation strategies and the rehabilitation of community-managed forests.

In respect to the forthcoming ITTA 2006, the project is compliant with the following specific objectives: (c), (j), (l), (m), (r) and (s).

2. Compliance with ITTO Yokohama Action Plan

The project is particularly in line with the goals cited under Actions of the Reforestation and Forest Management Division, which comprise in Goal 1 to securing the resource base and in Goal 2 to promoting its sustainable management, including *inter alia* Action 5 which is "Monitor and assess environmental, social and economic costs of forest plantation development ...). The Action Plan particularly recognizes the potentially beneficial role of afforestation and reforestation for sustainable forest management and sustainable development.

Particular reference should be given to Goal 2 Actions 10(4) and 10(5) of the Reforestation and Forest Management Committee that relate to natural forest management, timber stand improvement, enrichment and reforestation as well as the important role of forest restoration and rehabilitation of degraded forest lands.

The project also corresponds to actions stated under Forest Industry, Goal 1, including Action 1 (Promote private investment ...) and Action 3 (Commission and publish analytical studies in the field of tropical timber) under Action 2 (Study and promote policies and other measures ...).

Particular attention in the project is given to one of ITTO's core competencies that had been highlighted in the Yokohama Action Plan and which relate to Forest Restoration. Emphasis is also given to two of ITTO policy guidelines, the Guidelines on Planted Forests and the Guidelines on Forest Restoration, Management of Secondary Forests and Rehabilitation of Degraded Forest Lands.

ANNEXES

ANNEX A – PROFILE OF THE EXECUTING AGENCY

The Expertise of the Executing Agency

The Forestry Development Authority (FDA) is an Autonomous Agency created by an Act of Legislature in 1976 with the mandate to serve as custodian of Forest Resources to include regulating, monitoring and conserving of the Republic of Liberia. The FDA has been operating for the past twenty-two years (22) in this capacity.

The FDA has a Nine Member Board constituted by the President of Liberia in compliance with the Act creating the FDA in 1976. The Agency at present has a total staff of 293 comprising the Managing Director, who is the principal driver of both administrative and technical operations. The second in command is the Assistant Managing Director for administration and Finance and the Four Technical Managers for Commercial, Conservation and Community Forestry operations. The Technical Managers are assisted by 33 Line managers in various aspects of operations and administration of running the FDA. The four sectors (Regional) Offices are supervised by four Regional Foresters assisted by District Officers with a host of rangers.

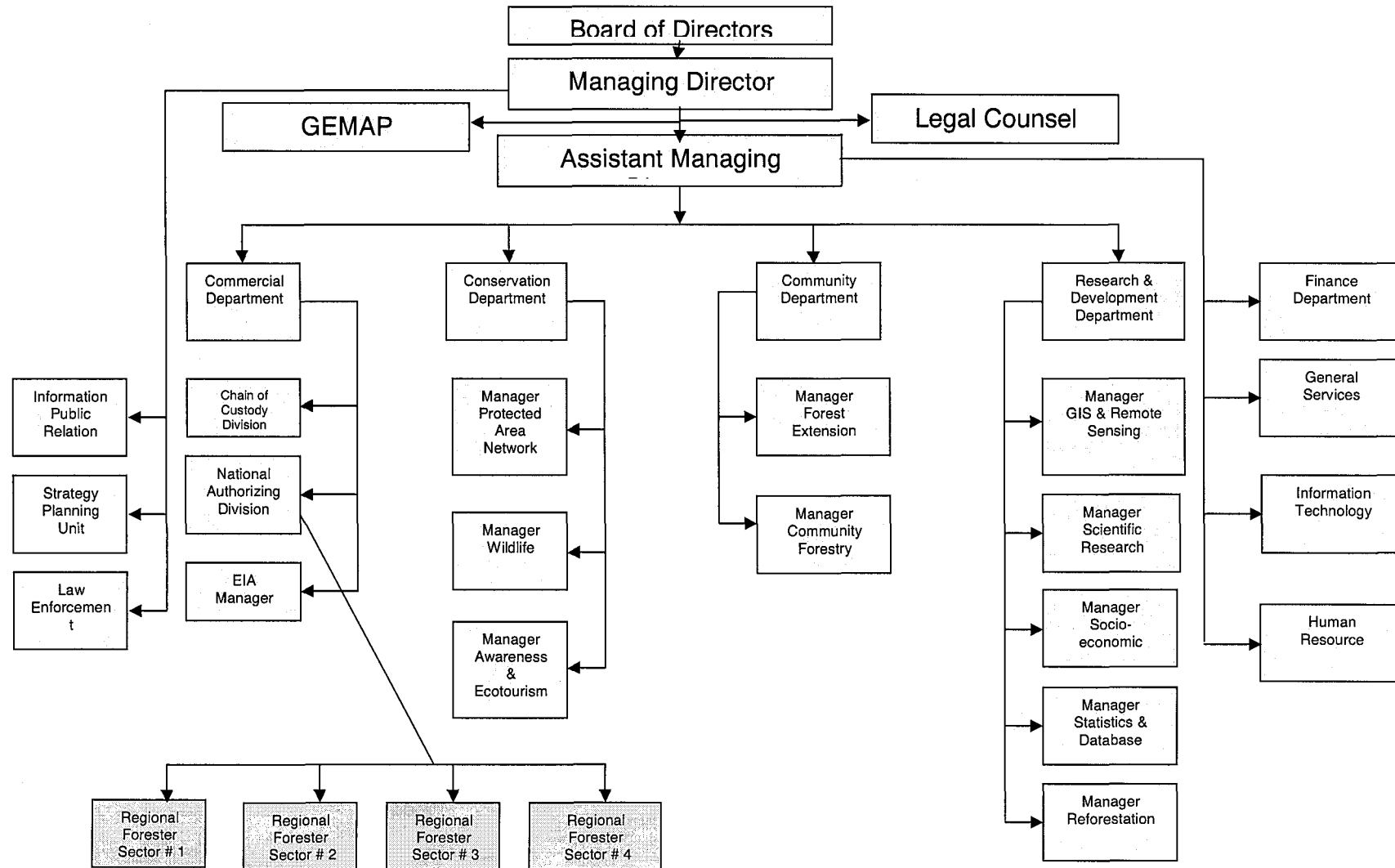
The Infrastructure of the Executing Agency

The FDA has a central office located in Monrovia with Four sectors offices situated in Kakata (Margibi County), Tubmanburg (Bomi County), Zwedru (Grand Gedeh County) and Sanniquelle (Nimba County) and includes twelve Districts Offices.

Budget:

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)

Organizational Chart of the Forestry Development Authority



ANNEX B - CURRICULA VITAE OF THE KEY STAFF¹

1. National project coordinator, national project staff

- Name: **Victor Y. Dolo**, Sr., Liberian citizen, E-mail victor_dolo@yahoo.com
Professional education: B. Sc. General Forestry, W. R. Tolbert College of Agriculture and Forestry, University of Liberia
- Professional assignment: Manager of the Reforestation Unit in the Research and Development Department of FDA
- Speciality: Project Coordinator, supported by **Bledee V. Dabge**, ITTO liason officer in FDA
- Name: **Francis K. Kpadeh**, Liberian citizen, E-mail franciskkpadeh@yahoo.com
Professional education: B. Sc. In General Education, University of Liberia
- Professional assignment: Assistant Manager of the Reforestation Unit in the Research and Development Department of FDA
- Speciality: Assistant Project Coordinator of the ITTO project

2 National Technical Advisor

- Name: **Zwuen, Sormongar Sarday**, Liberian citizen.
Professional education: Graduate Certificate Oxford Forestry Institute; M.Sc University of the Philippine, Los Baños, B. Sc. General Forestry, W. R. Tolbert College of Agriculture and Forestry, University of Liberia
- Professional assignment *inter alia*: University Lecturer; Manager Environmental Protection; National Consultant Biodiversity Strategy Action Plan; Research Consultant Forest Plantations in Ivory Coast; Head Forest Research Institute of Liberia
- Role: National technical consultant and backstopper, in close collaboration with the international technical advisor; Mentor of the young professionals that will be employed and trained through the project

3 Lead international technical advisor/backstopper

- To be determined, according to the terms of references attached in Annex C
- Professional education: International forestry expert in forest policy and plantation/forest restoration development; Ph.D. or MSc. Level
- Professional assignments: Backstopping of the national team, capacity building
- Fields of particular experience for the proposed function in the project: Knowledgeable about the context of forestry in Liberia. A team of experts or a well known backstopping agency would be preferred over an individual consultant. Ready to closely collaborate with the senior national advisor and ready to undertake major knowledge transfer activities and capacity building to Liberian forest officers.

¹ The present project proposal has been prepared in a collaborative work between a team of foresters of the FDA, coordinated by **Bledee V. Dagbe**, the ITTO focal point in Liberia and supported and backstopped by **Dr. Jürgen Blaser**, from Swiss Intercooperation, mandated by ITTO.

ANNEX C – INDICATIVE Terms of References for International consultant and TCDC (technical consultant from developing country)

TERMS OF REFERENCE FOR THE INTERNATIONAL BACKSTOPPER

BACKGROUND

The Project is an outcome of the An Act Adopting the National Forestry Reform Law of 2006, Article 8, Section 8.3 (a) which state that " The Authority within two years of enactment of this Law, shall: (i) **identify suitable sites for reforestation and afforestation; (ii) develop a national strategy to address deforestation and promote silvicultural practices that will expand and enrich the national forest endowment.** The main output is to develop a National reforestation Policy and Afforestation Strategy to be applied in forested and non-forested areas at the same time building human capacities in forest restoration and plantation management.

POSITION: International Consultant, Technical Backstopper of the project

DURATION: 15 weeks, distributed according to the work programme over the project duration of 30 months. The consultant will do most of his/her backstopping duties in Liberia (at least 10 weeks), but he/she should also be available through e-mail and skype contact in between his/her missions.

QUALIFICATION AND EXPERIENCE:

A) Qualification

The Consultant must hold Ph.D or M.Sc degree or above in Forestry with emphasis in on tropical forestry, including policy development, silviculture of planted forests and forest restoration.

B) Experience

Besides his particular technical and scientific knowledge as a senior level academics with at least 15 years of practical experience in tropical forests, he/she must be well acquainted with the particular context of forests and land-use context in Africa. Experience in Liberia would be of great advantage..

MAIN TASKS

To assist the Government of Liberia formulate a National Reforestation Policy and Afforestation Strategy that will address forest restoration and Plantation Management/ establishment including Enrichment Planting under the framework of the implementation strategy of the New National Forestry Law, 2006 and the Forest Policy of Liberia, 2005.

The specific functions and duties are but not limited to the followings:

1. Assessment of existing plantation and recommend post harvesting regime;
2. Develop a National Reforestation Policy and Afforestation strategy;
3. Formulate a method of assessment and checklist for plantation Management;
4. Develop silviculture guidelines for enrichment planting, reforestation and afforestation;
5. Train the core Team of Forestry Development Authority and the project staff (Junior Professionals (JP)) in plantation Management;
6. Identify suitable areas for plantation Establishment;
7. Prepare bi-annually report on the status of the project activities;
8. Prepare project completion report for submission to the steering committee; and
9. Identify and recommend sources of technical and financial support to Reforestation Program of Liberia.

TERMS OF REFERENCE FOR THE TCDC

POSITION: Technical Consultant from Developing Countries (TCDC), preferable from the subregion,

DURATION: 6 weeks over a time span of 2 years

QUALIFICATION AND EXPERIENCE:

A) Qualification

The Consultant must hold an M.Sc degree or above in Forestry with emphasis in Forest Economics with knowledge of plantation forestry and reforestation of degraded forests.

B) Experience

The Consultant must have worked extensively in the field of Forestry, in the Tropics for more than five years with a reputable firm in the capacity as a Consultant or Team Leader.

MAIN TASK (S)

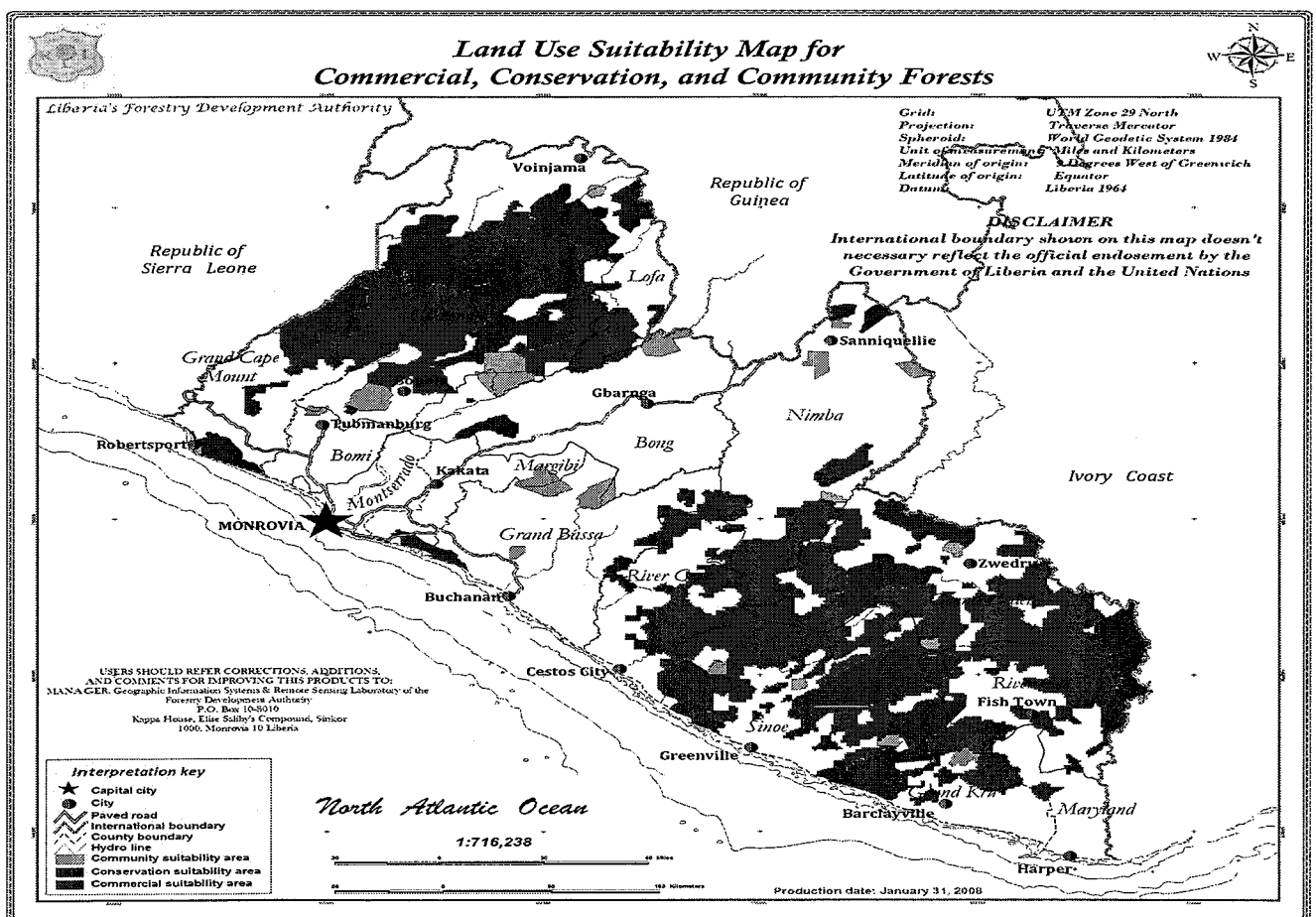
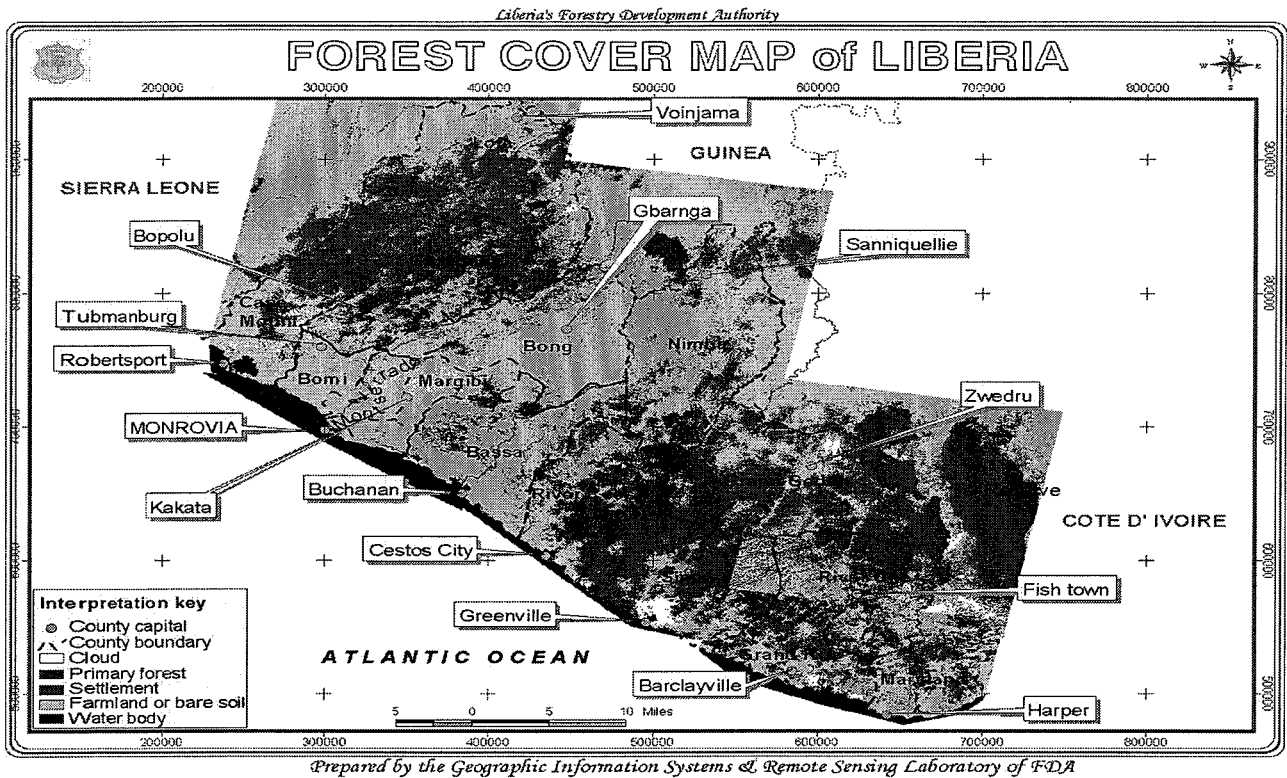
To assist the Government of Liberia formulate a Concept Paper on the Economics and Incentive Scheme for Plantation Management/ Establishment and Establishment consistent with the National Reform Forestry Law, 2006.

The specific functions and duties are but not limited to the followings:

- To conduct the training in the form of workshop on the economics and social implications of reforestation and afforestation in Liberia;
- To identify market potential for the selected species in forestry plantation establishment;
- To study the social dynamics of forestry plantation establishment in Liberia.
- To develop incentive scheme for plantation management and establishment.

It is expected that the international consultant/backstopper and the TCDC work in tandem and maintain a close working relationship. Arrangements can be made that the entire backstopping and consultancy work is outsourced to a reputable international organisation that can generate more knowledge and expertise to the project and increase leverage at the level of capacity building.

ANNEX D – Map of Liberia – Landcover in 2004 and land suitability map



ANNEX: COMMENTS AND RECOMMENDATIONS FROM THE 36th EXPERT PANEL

No		Pg No
1	Improve the problem tree with the inclusion of commitment of sustainable forest management as well as the commercial logging which is supported to lead to large deforestation, as they have not been specified in the problem analysis.	
	<p>The Forestry Development Authority has in place documents to guide logging concessions in an effort to ensure sustainable forest management in Liberia. The regulatory instruments include: a) National Forest Policy and implementation Strategy; b) Code of Forestry Harvesting Practices; c) National Forest Management Strategy; d) Ten core regulations; e) Guidelines for forest Management Planning; and f) chain of custody System. Also environmental Impact Assessment regulation is being developed for validation and approval to minimize environmental degradation by concessions. Besides, FDA has deployed field technicians in the four forest sectors to monitor and ensure compliance with these regulatory instruments by forest contract holders.</p>	
2	The Map is attached as an annex	
3	Revise the project strategy to a realistic level, as it appears too ambitious for the size of the project.	
	<p>The project will examine all existing plantations in Liberia and develop a status report to serve as a benchmark for the formulation Of the policy and strategy. The project shall also identify suitable sites for Reforestation and Afforestation in the short run for pilot project, particularly in threatened and degraded areas prior to the land suitability study (Map).</p> <p>The project shall integrate its program with the approved World Bank Forest Carbon Partnership Facility (FCPF) to ensure that the issue of CDM projects is linked with the Reforestation Policy and Afforestation strategy for the short and long-run scenarios.</p>	
4	The Carbon Working Group is backstopped by a team of specialists from Conservation International And fauna and Flora International on CDM and Carbon issues relative to Carbon Concessions. The expertise of these specialists will be integrated into the development of CDM projects in Liberia. Also an International Consultant shall be hired through a grant that was provided by McBain Foundation to prepare Liberia for Carbon Trading and Management.	
5	Add a clear benefit sharing mechanism of revenue from the harvesting of 2.6 million ha of forests for timber through concessions.	
	A Clear benefit sharing mechanism of revenue from the harvesting of 2.6 million ha of forests for timber is in chapter 14, section 14.2 (e). The government shall allocate and distribute fees collected annually pursuant to this section as follows:	

	<ul style="list-style-type: none"> (i) Ten percent (10%) of stumpage fees to support operational costs for protected forest Areas Network established by chapter 9 of the National Forestry Reform Law. (ii) Thirty percent (30%) of land rental fees to communities entitled to benefit sharing under Forest Revenue Licenses; thirty (30%) percent of land rental fees to counties and forty (40%) percent of land rental fees to the Ministry of Finance to hold as part of the general revenues of the Republic in accordance with section of the Reform Tax Code. (iii) The (10) percent of forest product fees to support operational costs for protected forest Areas Network established by chapter 9 of the National Forest Reform Law. (iv) One dollar (US\$1.00) per cubic meter per tree harvested in and around the affected communities based on the Social Agreement. 	
6	<p>Improve the risk analysis in relation to the assumptions of Output 1.2 and Output 2.3, as mentioned in the logical framework matrix, and add appropriate mitigation measures for both assumptions. The mitigation measures should also provided for the other risks described in the risk section;</p> <p>The project shall train young professionals in the operational aspects of plantation and afforestation establishment and management throughout the duration of the project. In addition, plan is underway to build the capacity of FDA staff through support from Yale School of Forestry in specialized forestry profession including Silviculture. Besides, the FTI project shall also train middle-level technicians in all aspect of forestry including Silviculture and agroforestry.</p> <p>The issue of Land-use is being considered in the new legislation that shall establish the Land Commission which is presently before parliament for passage. According to the proposed Act the Commission shall settle Land disputes including a Land-use plan or Land-use Suitability study to determine appropriate areas for Forestry, Agriculture and Mining in Liberia. This shall take into consideration suitable areas for reforestation and afforestation throughout the Country. The Commission shall also look into Land-tenure systems recommend appropriate measures particularly for public lands.</p>	

7	Provide clear information related to project sustainability, as the formulation of policy is not enough if the forest concessions are not controlled through and not in accordance with the SFM requirements				
	<p>The project shall be sustained after the completion of the policy for the fact that the Government intends to privatize Reforestation and afforestation activities by providing attractive investment climate for those interested under the policy framework. Notwithstanding, the Country Investment Code provides incentives scheme for those investing in the Forestry and Agricultural sector of Liberia.</p> <p>On the issue of SFM several technical instruments has been formulated to ensure sustainable forest management in Liberia under the framework of the New Forest Policy and Implementation Strategy, 2005 and the New Reform Forestry Law, 2006. Based on the Legislation and Policy a ten core regulations were developed to ensure compliance with SFM requirements including technical instruments such as: a) National Forest Policy and implementation Strategy; b) Code of Forestry Harvesting Practices; c) National Forest Management Strategy; d) Ten core regulations; e) Guidelines for forest Management Planning; and f) chain of custody System. Also environmental Impact Assessment regulation is being developed for validation and approval to minimize environmental degradation by concessions. Besides, FDA has deployed field technicians in the four forest sectors to monitor and ensure compliance with these regulatory instruments by forest contract holders.</p>				
8	Revised the ITTO budget in accordance with the above overall assessment and specific recommendations and also in the following way.	29			
70	Executing Agency Management Cost @ 15%	56,284.875	28,705.286	16,885.463	10,694.126
	79. Component Total	56,284.875	28,705.286	16,885.463	10,694.126
	SUBTOTAL	430,963.875	226,152.286	129,556.463	75,255.126
80	ITTO Monitoring, Evaluation and Administration				
	81. Monitoring and Review Costs	30,000			
	82. Evaluation Costs	15,000			
	83. Programme Support Costs (@ 8%)	34,521.39			
	89. Component Total	79,521.39			
100	GRAND TOTAL	510,485.265			