

LIBERIA NATIONAL WORKING GROUP ON SUSTAINABLE FOREST MANAGEMENT

LIBERIA ATO/ITTO PRINCIPLES, CRITERIA, INDICATORS AND CHECKLIST FOR  
SUSTAINABLE MANAGEMENT OF LIBERIAN NATURAL FOREST

2<sup>nd</sup> Draft after field testing

## TABLE OF CONTENT

<b>Contents</b>	<b>Pages</b>
TABLE OF CONTENT .....	i
LIST OF ABBREVIATIONS .....	ii
1.0 INTRODUCTION .....	1
2.0 DEFINITIONS .....	2
3.0 HOW TO USE THIS LIBERIA PCIs .....	5
4.0 PCIs and CHECKLIST .....	7
Principle 1 .....	7
Criteria 1.2 .....	18
Criteria 1.3 .....	20
Criteria 1.4 .....	24
Criterion 1.5 .....	25
Principle 2 .....	34
Criterion 2.1 .....	34
Criterion 2.2 .....	35
Criterion 2.3 .....	42
Criterion 2.4 .....	49
Criterion 2.5 .....	51
Criterion 2.6 .....	54
Principle 3 .....	57
Criterion 3.1 .....	57
Criterion 3.2 .....	59
Criterion 3.3 .....	62
Criterion 3.4 .....	67
Criterion 3.5 .....	69
Principle 4 .....	75
Criterion 4.1 .....	75
Criterion 4.2 .....	80
Criterion 4.3 .....	82
Criterion 4.4 .....	85
Annex I RELEVANT REFERENCE DOCUMENTS FOR THE IMPLEMENTATION AND ASSESSMENT OF CONFORMITY TO the Liberia ATO/ITTO PCI .....	90

## LIST OF ABBREVIATIONS

ATO	African Timber Organisation
C&I	Criteria and Indicators
CBA	Collective Bargaining Agreements
CBD	Convention on Biological Diversity
CFDCs	Community Forest Development Committees
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CoC	Chain of Custody
EIA	Environmental Impact Assessment
FDA	Forestry Development Authority
FMC	Forest Management Contract
FMP	Forest Management Plan
FMU	Forest Management Unit
FUP	Forest Use Permit
GMOs	Genetically Modified Organisms
ILO	International Labour Organisation
ITTA	International Tropical Timber Agreement
ITTO	International Tropical Timber Organisation
IUCN	World Conservation Union
LEITI	Liberia Extractive Industry Transparency Initiative
LFI	Liberia Forest Initiative
LISGIS	Liberia Institute for Statistical and Geographic Information Systems
MLME	Ministry of Land, Mines and Energy (
NFRL	National Forestry Reform Law
NGOs	Non Governmental Organisations
NIC	National Investment Commission
NTFPs	Non-Timber forest products
NWG	National Working Group
PCIs	Principles, Criteria and Indicators
PPCC	Public Procurement Coordination Committee
PSPs	Permanent Sample Plots
PUP	Private Use Permit
PWYP	Publish-What-you-pay
R&D	Research and Development
RIL	Reduced Impact Logging
SEMP	Social and Environmental Management Plan
SIA	Social Impact Assessment
SOP	Standard Operations Procedures
TC	Technical Committee
TSC	Timber Sales Contract
WHO	World Health Organisation

## 1.0 INTRODUCTION

The Liberia ATO/ITTO Principles, Criteria and Indicators or Standard for the Sustainable Management of Liberia Natural Forests was developed with the support of the phase II of the ATO/ITTO project PD 124/01 Rev.2 (M) on sustainable management of African Forests for the Technical Committee (TC) of the Liberia National Working Group (NWG) on Sustainable Forest Management (SFM).

This standard aims at helping

- (i) the State to put in place the necessary legal and institutional frameworks that creates the enabling environment for the practice of sustainable forest management in Liberia
- (ii) forest managers to implement the Liberia ATO/ITTO PCI in practice by providing verifiers and sources of information for each indicator and sub-indicator of forest management
- (iii) auditors to plan well focused audits and identify means of verification and information sources for each indicator and sub-indicator
- (iv) other stakeholders in monitoring and evaluation of Liberia forest management.

The standard is drafted under four Principles. Principle 1 covers the national level objectives, legislative and institutional framework and administrative resources; This is not applicable at the FMU level. Principles 2 to 4 and the related Criteria, Indicators and sub-indicators are for FMU level I.

Chapter 2 presents the core definitions of related sustainable forest management and forest certification. Chapter 3 gives an introduction to how the manual is structured and how it can be used in practice and chapter 4 the core PCIs with checklist.

## **2.0 DEFINITIONS**

### ***Auditing***

Systematic and independent examination to determine whether activities and related results comply with set requirements.

### ***Biological Diversity***

The variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems<sup>1</sup>.

### ***Criterion***

An aspect of forest management that is considered important and by which sustainable forest management may be assessed<sup>2</sup>.

### ***Concession***

Forest concession is a forest area granted by government of regional administration for a specified purpose, e.g., timber procurement and for a specified time period.

### ***Concession Contract***

Concession contract defines the concession area and the terms for the extraction and use of the resources.

### ***Chain of Custody***

Chain-of-custody is the path taken by raw materials from the forest to the consumer, including all successive stages of processing, transformation, manufacturing and distribution.

### ***Forest Management Document***

Forest management document is a detailed long-term plan (5 to 20 year) for the management and use of forest resources. It defines the management objectives and restrictions for the management and use of forest resources and presents the planned activities on different forest compartments.

### ***Forest Management Unit (FMU)***

A forest management unit (FMU) is a clearly defined forest area, managed to a set of explicit objectives and according to a long-term management plan.

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<sup>1</sup> The Convention of Biological Diversity

<sup>2</sup> Revised ITTO Criteria and Indicators for the sustainable management of tropical forests including reporting format. ITTO Policy Development Series No 15.

### ***Forest Type***

A naturally occurring community of trees and associated plant species of definite botanical composition with uniform physiognomy (structure) and growing in uniform ecological conditions whose species composition remains relatively stable over time. These are most often scientifically described at the 'association' level<sup>2</sup>.

### ***Indicator***

A quantitative, qualitative or descriptive attribute that, when measured or monitored periodically, indicates the direction of change in a criterion<sup>2</sup>.

### ***Local Population***

Local population includes all the groups of populations, which reside in the zone of influence of the FMU (indigenous, allogenes and other).

### ***Natural Forest***

Forest land composed of indigenous trees, not planted by man, and further classified using the criteria of forest formation (or type), degree of human disturbance or modification, and human interference<sup>2</sup>.

### ***Permanent Forest Estate***

Land, whether public or private, secured by law and kept under permanent forest cover. This includes land for the production of timber and other forest products, for the protection of soil and water, and for the conservation of biological diversity, as well as land intended to fulfil a combination of these functions<sup>2</sup>.

### ***Principle***

A fundamental law or rule, serving as a basis for reasoning and action. Principles have the character of an objective or attitude concerning the function of the forest ecosystem or concerning a relevant aspect of the social system that interacts with the ecosystem. Principles are explicit elements of a goal, e.g. sustainable forest management<sup>3</sup>.

### ***Stakeholders***

Any individuals or groups who are directly or indirectly affected by, or interested in, a given resource and that have a stake in it<sup>2</sup>.

### ***Sustainable Forest Management (SFM)***

SFM is the process of managing forest to achieve one or more clearly specified objectives of management with regard to the production of a continuous flow of desired forest products

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<sup>3</sup> Lammerts van Bueren & Blom 1997. Hierarchical Framework for the Formulation of Sustainable Forest Management Standards. Tropenbos.

and services without undue reduction of its inherent values and future productivity and without undue undesirable effects on the physical and social environment<sup>2</sup>.

### ***Productive Functions of Forest Resources***

Forests and trees outside forests provide a wide range of wood and non-wood forest products. The theme expresses the ambition to maintain a high and valuable supply of primary forest products, while at the same time ensuring that production and harvesting are sustainable and do not compromise management options of future generations<sup>2</sup>.

### ***Protective Functions of Forest Resources***

The theme addresses the role of forests and trees outside forests to help moderate soil, hydrological and aquatic systems. Forests may reduce risks or impacts of floods, avalanches, erosion and droughts and contribute to the maintenance of clean and healthy water ecosystems. Protective functions of forest resources have strong cross-sectoral aspects, as the benefits to agriculture and rural livelihoods are high<sup>4</sup>.

### ***Socio-economic Functions***

The theme addresses the contributions of forest resources to the overall economy, for example through employment, values generated through processing and marketing of forest products and energy, trade, and investments in the forest sector. The theme also addresses the important functions of forest to host and protect sites and landscapes that have high cultural, spiritual or recreational values, and thus include aspects of land tenure, indigenous and community management systems, and traditional knowledge<sup>2</sup>

### **Verifier:**

Data or information that enhances the specificity or the ease of assessment of an indicator. At the fourth level of specificity, verifiers provide specific details that would indicate or reflect a desired condition of an indicator. They add meaning, precision and usually also site-specificity to an indicator. They may define the limits of a hypothetical zone from which recovery can still safely take place (performance threshold/target).

On the other hand, they may also be defined as procedures needed to determine satisfaction of the conditions postulated in the indicator concerned (*means of verification*).  
CIFOR, 2003

Eg. The FMU manager possesses an adequate information base on relevant legislation and rules in force

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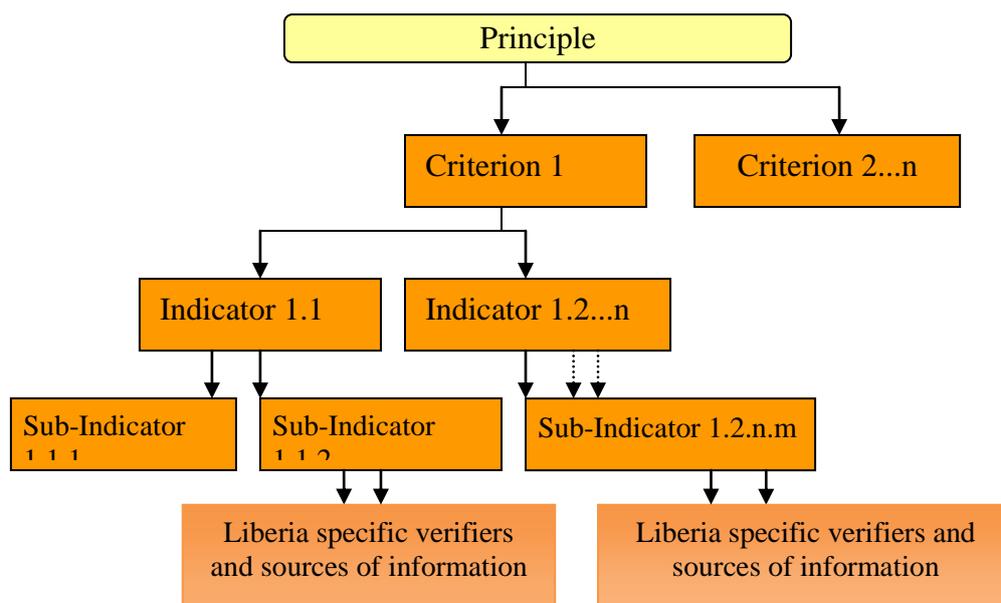
<sup>4</sup> <http://www.fao.org/>

### 3.0 HOW TO USE THIS LIBERIA PCIs

The objective of the Liberia ATO/ITTO Principles, Criteria and Indicators (PCI) or the Liberia Forest Management Standard is to facilitate understanding of the requirements, guide the implementation in practice and provide tools to verify how forest management conforms to the PCI.

As mentioned earlier, this Liberia ATO/ITTO PCIs or Liberia Forest Management Standard was developed based on the framework of the ATO/ITTO PCIs. This standard focuses on both the national level and the forest management unit level requirements. They are framed on principle 1, 2, 3 and 4 of the ATO/ITTO PCIs. The ATO/ITTO Principles set the general outline for the different elements of sustainable forest management. The Criteria and indicators define the requirements and level of performance standards that forest management should conform to (Figure 0.1). This Liberia ATO/ITTO PCI or National forest management standard has incorporated qualitative performance requirements and quantitative specifications requirements of Liberia forest management based on Liberian conditions

**Figure 0.1 Structure of the Liberia ATO/ITTO PCIs**



This Liberia Forest Management Standard provides verifiers for the various criteria and indicators and sub-indicators in forest management planning, implementation, and monitoring at the national level and in all types and sizes of forests in Liberia. It gives examples of relevant information sources on each indicator and sub-indicator. As regards verification, examples of required evidence (verifiers) based on documentation or field observations are provided. This standard can also be a guide for training of forest managers for the implementation of forest management in Liberia. For auditors' training it provides a practical reference document for audit exercises. The principle 1 is to guide national evaluation and reporting on the country's conformance to the requirements of creating the enabling environment to support national level sustainable forest management objectives.

The Principles and Criteria are printed in bold letter and are placed on top of the tables. The Indicators and Sub-indicators are printed in normal *italic* font and are placed in column one and two respectively of each table. The intent and spirit of each principle and criterion, as stated in the ATO/ITTO audit manual are printed under the original ATO/ITTO text in italics and put in brackets. The principles, criteria and indicators are normative and constitute the original text of the ATO/ITTO PCIs. In column three and four of each table are the verifiers and sources of information respectively. This Liberia specific information are printed in normal text. The same verifiers and sources of information can provide information and evidence for several indicators.

The last column on the table is for users' such as auditors' to remarks on conformity to each element verified. In practice the space is adequate only for summary notes. Contract holder's staff may use the standard as a checklist in internal revisions and note the remarks on each verified element.

The table 1 of annex II of the standard lists a number of documents that should be available for a forest management and define extensive information that should be included in these documents. Annex II presents a table listing

- (i) the national level documents, regulations, etc. that the contract holder should take into consideration,
- (ii) FMU level administrative documents and plans that set the framework for forest management,
- (iii) guidelines and instructions that the contract holder should develop for systematic implementation of this standard,
- (iv) records,
- (v) monitoring reports, and
- (vi) development initiatives.

Compilation of these documents is desirable for effective standard implementation and auditing.

Table 1 in annex II helps the contract holder check that she/he has taken all the elements of the PCIs into consideration in forest management system (planning, implementation and monitoring). The information is useful also for an auditing process because it helps to plan a well-focused auditing.

## 4.0 PCIs AND CHECKLIST

### Principle 1

Sustainable forest utilization and maintenance of the multiple functions of forests are a high political priority

Criterion 1.1 The State has clear objectives for the sustainable utilization of the forest heritage and a realistic action program for their achievement

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<i>Indicator 1.1.1</i>	<i>At the international level, Liberia has ratified or accepted the treaties, conventions or recommendations related to the sustainable development of forests</i>	Legal instruments related to ratified conventions or accepted treaties Lists of conventions or treaties that have been ratified or accepted by the State of Liberia	FDA, Ministry of Agriculture, Ministry of Environment Ministry of Foreign Affairs Conservation organizations Forest Contract holders	
<i>Indicator 1.1.2</i>	<i>In Liberia the clauses of all international agreement relating to the sustainable development of forest, such as the African Timber Organization (ATO, the International Tropical Timber Agreement (ITTA), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the International Labour Organization (ILO), the Convention on Biological Diversity, the Framework Convention on the Climate Change, etc, are respected</i>	National Forestry Reform Law 2006 Wildlife laws Labour laws Trade laws  Responsible national authorities have focal persons for all such agreement  Copies and further sources of information relating to agreements are available at national focal points Discussion with stakeholders  Field observations	CITES, ILO Convention ATO/ITTO Agreement CCBD Framework Convention on Climate Change Etc  National Forestry Reform Law 2006  Liberia National Forest Management Strategy	
<i>Indicator 1.1.3</i>		National Forestry Reform Law 2006	National Forest Policy of	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		<p>Ten Core Regulations 2007 Code of harvesting practices Guidelines for forest management planning in Liberia 2009</p> <p>Policy and laws formulation consultation workshop participants and report</p> <p>Stakeholder inputs in the policy and laws</p> <p>Discussion with stakeholders</p>	<p>Liberia National Forestry Reform Law 2006 FDA guidelines for forest management planning FDA Code of Harvesting Practices Draft Community Rights law</p>	
	<p><b>Indicator 1.1.4</b> <i>The forest laws and directives and all other national guidelines and norms of forest management are known by the stakeholders</i></p>	<p>FDA public awareness programmes and actual activities such as (workshops, sources for hard and soft copies of policy and laws, news paper publications, brochures etc)</p> <p>Legal instruments are available to the public (contract holders, local authorities, local communities, national and international partners, ...)</p> <p>Discussion with relevant stakeholders</p>	<p>FDA Head Office, Regional offices Community Forest Development Committees (CFDC) Forest contractors National NGOs, Community Based Organizations (CBO) Civil society organizations (CSO)</p>	
	<p><b>Indicator 1.1.5</b> <i>A permanent forest estate exists as a result of negotiation between different stakeholders within the framework of a procedure of coordinated planning for land-use allocation. This land-use allocation is consistent with the objectives of the forestry laws.</i></p>	<p>Permanent Forest estate gazette Land use suitability map for commercial, conservation and community forests</p> <p>Tribal Land certificates</p> <p>Liberia National Forest Management Strategy</p> <p>Reports of stakeholders consultation</p>	<p>Discussion with FDA and other stakeholders National Forestry Reform Law 2006 Liberia National Forest Management Strategy</p> <p>FDA Forest Management Suitability Study of 2006 report</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		workshops or meetings  Liberia community rights law 2009  Forests have clearly defined boundaries on the ground and on map  Forests reservation followed existing land-use allocation framework, eg appropriate compensation paid,  Discussion with stakeholders	FDA Justification Documents  Community Forest Development Committees (CFDC) Forest contractors National NGOs, Community Based Organizations (CBO) Civil society organizations (CSO)	
<b>Indicator 1.1.6</b> <i>The procedures for access to forest resources are clearly defined and respected.</i>		Liberia forest / concession laws have resource allocation procedure  Resource allocation procedure is public information  Resources allocation procedures followed in the allocation of forest resources (Minutes of resource allocation meetings)  No conflict related to access to forest resources Tribal Land certificates	National Forestry Reform Law 2006  Public Procurement and Concessions Act (PPCA)  Community Forest Development Committees (CFDC)	
<b>Indicators 1.1.7</b> <i>The legal and customary rights of local populations related to the ownership, utilization and management of the land resources near the permanent forest estate are clearly defined, recognized and respected.</i>		Liberia forest laws clearly defines local customary and legal rights for lands adjoining forest reserves Liberia community rights law 2009 Tribal Land certificates Rules exist for dealing with violations of local customary and legal rights for lands	FDA guidelines for forest management planning FDA Code of Harvesting Practices Liberia Community Rights law 2009 Liberia National Forest	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		adjoining forest reserves	Management Strategy	
<b>Indicator 1.1.8</b> <i>At the national level, the definition of the underlying legislative framework for the sustainable management of the forest heritage is based on current information and knowledge of its ecology</i>		There is national Multi-resource inventory of the resources Guidelines for forest management planning in Liberia  FDA/IUCN topology report 2008  Management Suitability Study of 2006 Report  Liberian forest reassessment report 2007  Management Suitability Study of 2006 Report	FDA Head quarter  Fauna and Flora International (FFI)  Conservation International (CI)  Green Advocates  Discussion with FDA (Research and Development Dept) and other stakeholders Liberian Institute for Statistical and Geographic Information System (LISGIS)	
<i>Sub-indicator 1.1.8.1</i> <i>The results of research are published and placed at the disposal of both administrators and economic operators</i>		Central Database for all forestry activities  Copies of published research/studies results available within a unit in FDA  Relevant official and contract holders have access to information	Discussion with FDA and other stakeholders Forest contractors	
<i>Sub-indicator 1.1.8.2</i> <i>The results of research and new scientific findings as well as technical data are taken into consideration for the updating of forest laws and other legal texts on the practices related to forest use.</i>		Copies of research publication  Revised Liberian legal instruments Promotion of lesser known species  Current research finding known by relevant officials	Discussion with FDA and other stakeholders  FDA GIS Lab. Reports LISGIS	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Current research findings used in updating laws and FMU level rules		
<b>Indicator 1.1.9</b>		Liberia industrial policy rewards practice of SFM and sanctions anti-SFM practices	Liberia's Industrial Policy	
	There is a functional industrial policy favorable to the sustainable management of the forestry sector			
	<i>Sub-indicator 1.1.9.1</i> <i>The associated laws offer a secure and favorable framework for sustainable industrial investment</i>	Liberia Industrial policy  New regulation on processing and marketing (112)  NTFP Regulations (111)  Industrial policy and related laws have provision for rewarding investment in SFM  Industrial laws have provisions for investment incentives based on sustainability of the forest resources	FDA Ministry planning and economical affairs	
	<i>Sub-indicator 1.1.9.2</i> <i>There is a master plan for industrial development.</i>	Master plan / strategy exist  Copy of plan or strategy	FDA  Ministry of planning and economic affairs  Ministry of Finances  Ministry of Commerce  Discussion with FDA and other stakeholders  Liberia National Forest	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
			Management Strategy	
	<i>Sub-indicator 1.1.9.3 The processing capacities at the national level recognize the need to respect the regenerative capacity of the forest so as to avoid over-exploitation</i>	National processing capacity is based on the national Annual Allowable Cut (AAC)  Annual processing and other sources of exploitation monitored	Discussion with FDA and other stakeholders	
	<i>Sub-indicator 1.1.9.4 On the basis of the available information, the FDA fixes the maximum annual allowable cut authorized in natural forests</i>	The State has AAC based on available information Guidelines for forest management planning in Liberia 2009	FDA Forest contractors Forest related NGOs	
	<b>Indicator 1.1.10</b> <i>The legislative texts relating to the use of non-timber forest products, especially the hunting of wildlife and the harvesting of wild produce, respect as well as ensure the sustainable management of these resources</i>	National CITES Convention instrument  NTFP Regulations (111)  Wildlife law  Existing laws have provision for regulating NTFP harvesting and hunting  Existing laws have enforcement (incentive and /or sanctions) provisions	The National Forestry Reform Law 2006 FDA offices  Forest Contractors  Forest related NGOs National forest management strategy  Guidelines for forest management planning in Liberia 2009	
	<b>Indicator 1.1.11</b> <i>The Liberia policy for sustainable forest management promotes the development of the local economy and entrepreneurship in the forest zone</i>	Liberia forest policy has clear statements to promote local processing/trade of forest resources  The National Forestry Reform Law 2006  National forest management strategy  New regulation on processing and	National Forest Policy  The National Forestry Reform Law 2006  National forest management strategy  New regulation on	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		marketing (112)	processing and marketing (112)	
	<i>Sub-indicator 1.1.11.1 The State encourages the full use of local expertise, knowledge and technologies</i>	Ten Core regulations  In the National forestry reform law there is provision for incentives for the use/training of local expertise and knowledge and technology  Social agreements	Discussion with local communities and forestry workers	
	<i>Sub-indicator 1.1.11.2 Local populations receive a portion of the revenue generated by commercial forest use</i>	Regulations on benefices sharing (106) In National forestry reform law There is provision for % of forest revenue to the local population	Liberia Extractive Industries Transparency Initiative (LEITI) The National Forestry Reform Law 2006	
	<i>Sub-indicator 1.1.11.3 A percentage of forest taxes is paid to local communities</i>	Ten Core regulations (106) Procedures and mechanisms for accessing benefits by affected communities	The National Forestry Reform Law 2006  Liberia Extractive Industries Transparency Initiative (LEITI)	
	<i>Sub-indicator 1.1.11.4 The populations are involved in the management of tax revenue paid to local communities</i>	Community Forest development committees (CFDC)  Ten Core regulations (106)  National forestry reform law 2006  Social Agreements  Framework for involving the local communities in tax revenue exist	Discussion with FDA and other stakeholders Community Forest development committees (CFDC)  Ten Core regulations (106)  National forestry reform law 2006	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
			Social Agreements	
<b>Indicator 1.1.12</b> <i>There is a policy for the protection and conservation of forest ecosystems and of sites of archeological interest and cultural value</i>		Liberian forest Reform Law 2006  Protected area management strategy	FDA  Forest related NGOs  FDA/Department of Conservation and Wildlife management  Division of Environmental Impact Assessment (EIA)/FDA National Forest management strategy	
<b>Sub-indicator 1.1.12.1</b> <i>Adequate procedures and guideline are in place and are implemented in a manner that identifies, protects and preserve the diversity of habitats and species at appropriate scales and levels:</i>		Wildlife law Guidelines for forest management planning in Liberia Forest Contractors management plans  Procedures and guidelines exist for identification of High Conservation Value forests	Guidelines for forest management planning  FDA  Forest related NGOs  FDA/Department of Conservation and Wildlife management  Division of Environmental Impact Assessment (EIA)/FDA  National Forest management strategy  Forest contracts holders	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>Sub-indicator 1.1.12.2 Adequate procedures and guidelines are in place to identify and protect sites of archeological interest and cultural value</i>	<p>Guidelines for forest management planning in Liberia</p> <p>Officers ToR book</p> <p>Procedures and guidelines exist for identification of High Conservation Value forests</p> <p>Interviews with stakeholders</p> <p>National forestry reform law 2006</p> <p>National forest management strategy</p>	<p>Discussion with FDA</p> <p>Forest related NGOs</p> <p>FDA/Department of Conservation and Wildlife management</p> <p>Division of Environmental Impact Assessment (EIA)/FDA</p> <p>National Forest management strategy</p> <p>Forest contracts holders</p>	
	<i>Sub-indicator 1.1.12.3 At the national level, decisions relating to forests of high conservation value are taken within the context of the precautionary principle</i>	<p>National Policies, laws, guidelines and decisions are based on available knowledge</p> <p>Land use suitability map for commercial, conservation and community forests</p> <p>National forestry reform Law 2006</p> <p>National forest management strategy</p> <p>Guidelines for forest management planning in Liberia</p> <p>Forests are left in their original state untouched by decision when there is doubt or lack of information</p>	<p>Discussion with FDA and other stakeholders</p> <p>Discussion with FDA</p> <p>Forest related NGOs</p> <p>FDA/Department of Conservation and Wildlife management</p> <p>Division of Environmental Impact Assessment (EIA)/FDA</p> <p>National Forest management strategy</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Field visit	Forest contracts holders	
	<i>Sub-indicator 1.1.12.4 The areas for the protection and conservation of biodiversity are defined and their limits are marked in the field</i>	<p>Maps for Protected Areas</p> <p>Protected Areas have clearly marked boundaries on the ground</p> <p>Field visit</p> <p>Land use suitability map for commercial, conservation and community forests</p>	<p>Discussion with FDA and stakeholders</p> <p>Field visit</p> <p>Forest related NGOs</p> <p>FDA/Department of Conservation and Wildlife management</p> <p>Division of Environmental Impact Assessment (EIA)/FDA</p> <p>National Forest management strategy</p> <p>Forest contracts holders</p> <p>Local communities</p>	
	<i>Sub-indicator 1.1.12.5 The management rules for protected areas are defined and known by all stakeholders</i>	<p>Protected areas management strategy</p> <p>National forestry reform Law 2006</p> <p>Ten Core regulations</p> <p>Guidelines for the management planning in Liberia</p> <p>Rules are communicated to Stakeholder</p>	<p>FDA</p> <p>Forest related NGOs</p> <p>FDA/Department of Conservation and Wildlife management</p> <p>Division of Environmental Impact</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		National forest management strategy	Assessment (EIA)/FDA National Forest management strategy Forest contracts holders Local communities	
	<i>Sub-indicator 1.1.12.6 Environment and conservation problems related to biodiversity are taken into account in national forestry plans</i>	Guidelines for forest management planning in Liberia 2009 Protected areas management strategy National forest management strategy National Biodiversity Action Plan (NBAP)	FDA/Department of Conservation and Wildlife management Division of Environmental Impact Assessment (EIA)/FDA National Forest management strategy Environmental Protection Agency (EPA) Convention for International Trade of Endangered Species (CITES)	
	<i>Sub-indicator 1.1.12.7 Phyto-sanitation and quarantine procedures are in place and enforced to prevent the introduction of pests and pathogens</i>	Liberia has procedures for Phyto-sanitary and quarantine National body for enforcing procedures exist	Ministry of Agriculture	
	<i>Sub-indicator 1.1.12.8 Adequate procedures are in place and implemented to</i>	Liberia has procedures for regulating introduction of exotic species	FDA Discussion with FDA and	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>prevent the introduction of exotic plants and animals that could be ecologically damaging</i>	National body for enforcing procedures exist	other stakeholders	
<i>Indicator 1.1.13</i>	<i>National forest policies take into account the potential value of the carbon storage functions of forests</i>	National policy has statement on the value of forest carbon	Discussion with FDA and other stakeholders  Liberia National Forest Management Strategy	

## Criteria 1.2

### An institutional framework exist to achieve the objectives of sustainable forest management

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<i>Indicator 1.2.1</i>	<i>There is an established and functional forestry service/administration to ensure the direct or delegated management of all forests</i>	The Forestry Development Authority (FDA) Act of National legislatures 1976 creating FDA The FDA has direct or delegated management responsibility of Liberia forests	FDA Act of National legislatures 1976 creating FDA  Discussion with relevant stakeholders	
<i>Indicator 1.2.2</i>	<i>There is a research institution to develop the necessary scientific and technical knowledge for sustainable forest management</i>	College of Agriculture and Forestry (CAF)/University of Liberia  Forestry Training Institute (FTI)  FAO national Representation  FDA/Research Department	Discussions with forestry authorities Acts creating the CAF, FTI, FDA/RD  University of Liberia  Mission of the FAO in Liberia	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 1.2.3</b>				
	<i>Coordination and negotiation mechanisms exist at different stakeholder levels for discussing the objectives of the sustainable forest management policy, the implementation of modalities for conflict resolution, and the formulation of common rules between them.</i>	<p>FDA Stakeholders consultations reports</p> <p>FDA Community awareness reports</p> <p>MoU or partnership conventions/agreements with civil society, NGOs, partners</p> <p>Community Forest Development Committees</p>	<p>Discussions with stakeholders: FDA, Forest contractors, NGOs, Local communities, ...</p>	
<b>Indicator 1.2.4</b>				
	<i>Mechanisms exist to promote the participation of different stakeholders, particularly rural communities, in the management of forests</i>	<p>Liberia has mechanism for promoting different stakeholders in forest management, Eg Adhoc committee, consultative groups, forest forums etc</p> <p>Liberia community rights law 2009</p> <p>Tribal Land certificates</p> <p>Community Forest Development Committees</p> <p>Social Agreements</p>	<p>Discussions with stakeholders: FDA, Forest contractors, NGOs, Local communities, ...</p> <p>Liberia community rights law 2009</p>	

### Criteria 1.3

#### The State provides the necessary means for the sustainable management of forests

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 1.3.1</b> <i>There is a forestry organizational structure responsible for the direct or delegated management of all forests that has adequate, well-trained, competent and efficient human resources for carrying out its mission</i>		Organisational structure of the National Forest Authority (FDA) Number of vacant positions Academic and professional qualification of staff Resources available to staff	FDA Discussions with staff and other stakeholders: Forest contractors, NGOs, Local communities, ...	
<b>Sub-indicator 1.3.1.1</b> <i>The training of executives is adapted to the needs of the forestry administration and various economic operators</i>		Training records of executives of FDA  Training programs of FDA Training programs and records of Contracts Holders Training records of civil society and forest related organizations	FDA Contract holders Civil society organizations Forest related organizations	
<b>Sub-indicator 1.3.1.2</b> <i>The number of operational staff at all levels is compatible with the mission of the forestry service/administration and the extent of forest zones to monitored</i>		The number of Forest Authority's (FDA) staff at the head office, regional and the county	FDA organizational structures at the head-office, and regional offices	
<b>Indicator 1.3.2</b> <i>The research institution in charge of the development of the necessary scientific and technical knowledge for the sustainable management of forests has sufficient, well-trained and competent human resources to achieve in mission</i>		Organisational structure College of Agriculture and Forestry (CAF)/University of Liberia, Forestry Training Institute (FTI), FAO national Representation, FDA/Research Department  The number and Curriculum Vitae (CV)	Discussion with staff Human Resources departments of: College of Agriculture and Forestry (CAF)/University of Liberia, Forestry Training Institute (FTI), FAO	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		<p>of technical and administrative staff of the above listed institutions</p> <p>Vacant positions</p> <p>Academic and professional qualification of staff of the above listed institutions</p>	<p>national Representation, FDA/Research Department</p>	
	<p><i>Sub-indicator 1.3.2.1</i> <i>Research institutes are well financed to function and have the necessary qualified personnel</i></p>	<p>Annual Budget of the above listed research institutions</p> <p>Actual annual revenue and expenditure of the above listed research institutions</p> <p>Organizational chart and vacant positions of the above listed forest research institutions</p>	<p>Discussion with management of the above listed forest research institutions</p> <p>University of Liberia</p>	
	<p><b>Indicator 1.3.3</b> <i>The State ensures that its partners in the forestry sector have sufficient technical knowledge and capacities to sustainably manage the forest or participate in all activities relating to the management of the forest.</i></p>	<p>National forestry technical training capacity building for national forestry partners (communities, NGO's, Industrial operators etc) exist.</p> <p>There is a responsible national unit or coordinated arrangement to ensure training and capacity strengthening of national forestry partner</p>	<p>Discussions with FDA and operators</p>	
	<p><i>Sub-indicator 1.3.3.1</i> <i>The FDA ensures that the personnel of operators are trained in the implementation of forest management activities</i></p>	<p>A national forestry training requirements for forest operators exist.</p> <p>FDA records on trainees from economical operators, civil society, forest related organizations, Community based organizations (CBO)</p>	<p>Discussions with FDA and Operators, civil society, forest related organizations, Community based organizations (CBO)</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		The FDA enforces (sanction or incentives) for training of operators staff		
	<i>Sub-indicator 1.3.3.2 The State implements an adequate program of environmental education</i>	Environmental Protection Agency (EPA) program for environmental education  FDA/Division of EIA program for environmental education  Means of implementation Implementation monitoring results	Environmental Protection Agency (EPA)  Discussion with FDA, EPA and relevant stakeholders  FDA/Division of EIA	
	<b>Indicator 1.3.4</b> <i>There is an adequate and sustained financing forest management including investment and reinvestment</i>	Information on financing requirements of the forestry sector exist  Mechanism for sustained financing of the forestry sector exist  Mechanism includes investment and reinvestment	Discussion with FDA authorities  Ministry of finances  National Investment Commission  Ministry of planning and economic affairs	
	<i>Sub-indicator 1.3.4.1 The State has a special fund to finance the sustainable management of forests</i>	Special Liberia SFM fund exists	Discussion with :  FDA authorities  Ministry of finances  National Investment Commission  Ministry of planning and	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
			economic affairs	
	<i>Sub-indicator 1.3.4.2</i> <i>The special fund is partially provided from forestry taxes, with rates determined by law</i>	Liberia forestry laws make provision for payment of part of forestry taxes into the Special Liberia SFM fund	Discussion with FDA authorities National Reform Law 2006	
	<i>Sub-indicator 1.3.4.3</i> <i>The modalities for the distribution of the funds between different uses (training, research, reforestation, management, sensitization, information, and so on) are determined by statutory regulations</i>	Liberia has regulations to determine the distribution of funds between different uses of a Special Liberia SFM fund	Discussion with FDA authorities Discussion with :  FDA authorities  Ministry of finances  National Investment Commission  Ministry of planning and economic affairs	
	<b><i>Sub-indicator 1.3.4.4</i></b> <i>The funds assigned to the management of the forest are made available promptly and on time.</i>	FDA's forest management budget  Disbursement dates and procedures for forest management funds from the special SFM fund	FDA  Ministry of finances  National Investment Commission  Ministry of planning and economic affairs	
	<b><i>Indicator 1.3.5</i></b> The FDA ensures that requisite information for the sensitization of stakeholders on their rights and obligations relating to the management of the forest are in conformity with forestry laws.	Ten Core regulations Social Agreements  There is responsible unit with authority for reviewing all information for sensitization of stakeholders' right and	FDA Discussions with FDA and Operators, civil society, forest related organizations, Community based	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		responsibilities in forest management  Reviewing modalities of all such information must aimed at bringing information in conformity with the forestry laws must be agreed with all stakeholders	organizations (CBO)	

#### Criteria 1.4

#### The economic and fiscal policies of the State ensure the viability of forestry enterprises

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 1.4.1</b> <i>There are financial incentives for the sustainable management of forests and the industrialization of forest products</i>		Ten Core regulations  Existence of financial incentives for clearly defined forestry activities/investments  Information on financial incentives for defined forestry activities/investments made available to stakeholders  Financial incentives are operational	Discussion with stakeholders: FDA and Operators, civil society, forest related organizations  Liberia National Forest Management Strategy	
<i>Sub-indicator 1.4.1.1 Enterprises shown to be engaging in or pioneering sustainable forest management benefit from financial incentives and advantages</i>		Ten Core regulations Clearly defined SFM activities/investments  Evidence of receipt of financial incentives	Discussions with stakeholders  Liberia National Forest Management Strategy	
<i>Sub-indicator 1.4.1.2 The fiscal rules for those</i>		Fiscal Rules negotiation reports	Discussion with	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>operations that are in conformity with the law are established on a negotiated basis and do not penalize enterprises pioneering sustainable management</i>	Liberia Forestry reform law  Forest contractors records on received financial incentives	stakeholders: FDA, Forest contractors, civil society, forest related organizations, Community based organizations (CBO)	
<b>Indicator 1.4.2</b>	<i>The functions of the forestry service /administration do not unnecessarily hamper the economic activities of enterprises</i>	FDA service charter or documented strategy on administrative procedures  Service charter / strategy implemented and monitored (monitoring reports)  Discussions with economic operators	Liberia National Forest Management Strategy  Discussions with forest contractors, civil society, forest related organizations, Community based organizations (CBO)	
<b>Indicator 1.4.3</b>	<i>The State provides incentives and implement effective measures to encourage the trade of forest products and facilitates the participation of economic operators in the promotion of such products</i>	National incentive programme for trade in forest products  Information on forest products trade incentives made available to economic operators and implemented	Discussions with FDA and contract holders  Liberia National Forest Management Strategy  Ministry of Finances  Ministry of Commerce  National Investment commission (NIC)	

### Criterion 1.5

The forestry service / administration implements effective measures to ensure the monitoring and evaluation of the implementation of its forestry policy in relation to production, the conservation of ecosystems, and social benefits

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b><i>Indicator 1.5.1</i></b> <i>The State has reliable and adequate system for updating forestry information and action plans and for adjusting the available resources as required to implement the action plans</i>		National units for collecting on forestry information and action plans exist (eg information on forest resources from inventory, growth and yield from PSPs, processing and trade information etc)  Forestry and action plan information collection procedures, periodicity etc are clearly defined  Responsible and authorized staff clearly defined  National forestry information are stored in appropriate paper and electronic formats with necessary back-ups (Central Forestry database) National forestry information and action plans up-to-date	Discussion with FDA  Ministry of Commerce and Industry	
<i>Sub-indicator 1.5.1.1 There is a national forest inventory that provides the necessary database for the follow-up and evaluation of the State's sustainable forest management policy, which is regularly and promptly updated</i>		Results of national inventory (eg Multi-resource inventory)  Review of state forest takes into consideration current inventorying results	Discussion with FDA/Department of Research and Development  FAO national Representative	
<i>Sub-indicator 1.5.1.2 There is an updated database on the area of forest under exploitation</i>		Updated database for area under exploitation Land use suitability map for commercial,	Discussion with FDA Discussions with forest contractors, civil society,	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		conservation and community forests	forest related organizations, Community based organizations (CBO)	
	<i>Sub-indicator 1.5.1.3 There is an updated statistical database enabling the adequate follow-up and evaluation of all the stages of production, processing and commercialization of forest products.</i>	Updated statistical information on processing and trade in forest products  Societe General de surveillance (SGS) data base on timber exploitation	Discussions with FDA/Commercial Department	
	<i>Sub-indicator 1.5.1.4 Non-timber forest products (NTFPs) and their use are identified and inventoried</i>	National inventory includes NTFPs (eg multi-resources inventory) National inventory report	Discussions with FDA//Commercial Department  FAO national Representative	
	<i>Sub-indicator 1.5.1.5 The necessary knowledge for the sustainable use of NTFPs is available</i>	Knowledge for the use of NTFPs includes indigenous and scientific knowledge National inventory report Ten Core regulations	Discussions with FDA//Commercial Department  Ten Core regulations  FAO national Representative	
	<b>Indicator1 5.2</b> <i>The FDA ensures that stakeholders are operating on a basis of a legal title deed, with a duration compatible with the objectives of sustainably managing the forest resources</i>	National forest laws require operators to hold titles to their concessions  Duration of contract agreements each category of contract clearly stated by law  FDA has authority to enforce compliance with administration of forest laws Forest Management Contracts Timber Sale Contracts	Discussion with FDA  National Forestry Reform Law 2006 FDA/Commercial Department Forest Contractors FMU forest management plans	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		<p>FMU forest management plans</p> <p>The national forest authority has mechanism for checking the title of each operator</p>		
<b>Indicator 1.5.3</b>	<i>The FDA ensures that each forest concession has a complete forest management plan and a concession contract which sets out the obligations of all parties. Both documents are formally approved by the relevant authorities.</i>	<p>The FDA has mechanism to ensure that relevant contract holders operate by management plan</p> <p>Forest Management Contracts FMU forest management plans FDA approbation of relevant documents and agreements All contract holder has contract agreement</p> <p>Management plans and contract agreements clearly spell out the obligations of FDA and the holder</p> <p>Contract holders operate under approved forest management plan and contract agreement</p>	<p>Discussion with FDA and contract holders FDA/Commercial Department Forest Contractors FMU forest management plans</p> <p>Note: TSCs do not produce forest management plans</p>	
<b>Indicator 1.5.4</b>	<i>The FDA ensures that the forestry operations describe in the forest management plan are implemented as soon as the plan is approved, and all the clauses in the concession contract are respected</i>	<p>FDA has mechanism for monitoring contract holders obligation under the contract agreement implementation of management plan</p> <p>FDA monitoring Reports</p>	<p>Discussions with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, SGS, ...</p>	
<b>Sub-indicator 1.5.4.1</b>	<i>The FDA makes regular and frequent field-monitoring visits</i>	<p>FDA monitoring plan</p> <p>FDA Monitoring reports Third parties monitoring reports Field visits</p>	<p>Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO,</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		FDA/Independent Monitoring Unit or FDA/CoC reports	FDA/IMU, ...	
	<i>Sub-indicator 1.5.4.2 The necessary sanctions for non-compliance with forest management prescriptions are enforced</i>	FDA offence register  Receipts for payment of fines, notice of suspension etc Third parties monitoring reports FDA/Independent Monitoring Unit FDA Monitoring reports  Field visits	Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, FDA/IMU, ...	
	<b>Indicator 1.5.5</b> <i>The FDA implements mechanisms recognized by law to limit and control all non-forestry activities in the permanent forest estate</i>	FDA has mechanism for controlling non-forestry activities in forest reserves backed by law Contracts holders monitoring reports Third parties monitoring reports FDA/Independent Monitoring Unit FDA Monitoring reports Communities (CFDC) monitoring reports  FDA has program/plan for controlling implementing mechanism  Programme / plan implementation reports	Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, FDA/IMU, ...  National Forestry Reform Law 2006  FDA tipster procedures	
	<i>Sub-indicator 1.5.5.1 The clearing of forest for farming and related agricultural activities in and around logging yards are controlled and kept within acceptable limits</i>	FDA's mechanism for controlling non-forest activities sets limits to clearing and agricultural activities in and around logging yards  Contracts holders monitoring reports Third parties monitoring reports FDA/Independent Monitoring Unit reports	Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, FDA/IMU, ...	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		<p>FDA Monitoring reports Communities (CFDC) monitoring reports</p> <p>FDA monitoring reports / FDA annual reports</p> <p>Field visit</p>		
<b>Indicator 1.5.6</b> <i>The FDA implements mechanisms recognized by law to protect forest under management from illegal occupation and other encroachment activities</i>		<p>FDA has mechanism backed by law for protecting forest under management from illegal occupation and encroachment</p> <p>Contracts holders monitoring reports Third parties monitoring reports FDA/Independent Monitoring Unit reports FDA Monitoring reports Communities (CFDC) monitoring reports</p> <p>FDA has programme/plan for implementing mechanism</p> <p>Programme/plan implementation reports</p>	<p>Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, FDA/IMU, ...</p> <p>FDA tipster procedures</p>	
<b>Sub-indicator 1.5.6.1</b> <i>Actions are implemented by the FDA to reduce any type of pressure exerted on the forest, including that of hunting</i>		<p>State action for reducing pressure on the permanent forest estate</p> <p>Awareness education of stakeholders Wildlife law Ten Core regulations Guidelines for the forest management planning in Liberia 2009</p> <p>Action implementation report / FDA annual reports</p>	<p>Discussion with FDA and other stakeholders</p> <p>National Forestry Reform Law</p> <p>Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO,</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Field visits	FDA/IMU, FDA/Conservation and Community Departments...	
	<i>Sub-indicator 1.5.6.2</i> <i>The procedure for the control of any such pressures exerted on the forest exist and are applied</i>	Action implementation report / FDA annual reports	Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, FDA/IMU, ...	
	<b>Indicator 1.5.7</b> <i>The State ensures that all economic operators are treated equally</i>	State policy on forest resource right allocation is fair to all economic operators  State policy forest investment incentives is fair to all economic operators  Forestry taxes are fair to all economic operators	Discussion with FDA and other stakeholders  National Forestry Reform Law  Draft Community Rights Law	
	<i>Sub-indicator 1.5.7.1</i> <i>The FDA implements incentives measures to channel informal activities to the formal sector</i>	Programme/Plan for channeling incentives to informal sector NTFP Processing regulations	Discussion with FDA other stakeholders	
	<i>Sub-indicator 1.5.7.2</i> <i>All illegal activities are punished in accordance with the law</i>	FDA annual reports  Contract termination letters, receipts of fines, suspension letters, court orders etc  National Reform Law Ten Core regulations	Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, FDA/IMU, local communities, ...	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Wildlife law	LEITI National News papers	
	<i>Sub-indicator 1.5.7.3 All forms of restrictive or restraining measures are applied without discrimination to stakeholders accused of illegal activities</i>	FDA annual reports  National Reform Law Ten Core regulations Wildlife law Processing law Community law..... Contract termination letters, Suspension letters etc	Discussion with FDA and other stakeholders Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, FDA/IMU, local communities, ... National Reform Law LEITI National News papers National Forestry Reform Law 2006	
	<i>Indicator 1.5.8 All forms of damage caused to the property of the local populations by forestry activities are compensated according to the norms in force or after negotiation</i>	National / regional / local norms for assessing damage caused to local population as a results of forestry activities and payment procedures exist	National Forestry Reform Law 2006	
	<i>Sub-indicator 1.5.8.1 Specialized administrative services are consulted for resolving such issues and their decisions are respected</i>	Damage dispute settlement report / minutes	Discussion with FDA and affected parties Ministry of Agriculture Discussion with FDA and other stakeholders Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, FDA/IMU, local communities, ...	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
			National Reform Law LEITI National News papers National Forestry Reform Law 2006	
	<i>Sub-indicator 1.5.8.2 The compensation procedure for all forms of damage caused to lands under cultivation is respected</i>	Damage compensation procedure is made available to stakeholders  Procedure is used in all damage compensation negotiations or settlements	Discussion with FDA and other stakeholders Discussion with FDA/Commercial Department , contract holders, Related forest NGOs, CFDC, CBO, FDA/IMU, local communities, ... National Reform Law LEITI National News papers National Forestry Reform Law 2006	

## Principle 2

**The forest management unit (FMU) designated for whatever form of land-use, is sustainably managed with a view to supplying goods and services.**

*{The Principle 2 implies that forest managers apply management methods that ensure long-term stable and continuous production of desired goods and services. Forest management methods should not damage biological values of forest ecosystem or social and economic services that the forest provides to people. Forest management should also provide long-term economic benefits without sacrificing the ecological and social services of forests }*

### **Criterion 2.1**

**Forest management complies with the national policies and legislation in force in the country where it is implemented, and also with all the international treaties the country has ratified.**

*{Forest management respects national forest policy and all the national and local laws and administrative requirements. The international treaties most relevant in forest management include CITES, ILO Conventions, ITTA, and the Convention on Biological Diversity, the Ramsar Convention, the Framework Convention on Climate Change, the Kyoto Protocol, etc., depending on the country ratification. Ratification usually implies that the provisions are included in the national legislation but if this is not the case forest manager should incorporate the key requirements of these Conventions to the Forest Management Plan that defines how forest is managed in the FMU. Compliance to legislation also implies that all applicable and legally prescribed fees, royalties, taxes and other charges are paid }*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 2.1.1</b> <i>The Forest contract holder respects all local and national laws and meets all administrative requirements</i>		<p>List of laws and regulations in force in Liberia</p> <p>The Forest contract holder possesses an adequate information base on relevant legislation and rules in force in Liberia</p> <p>Records on training courses for staff and workers on rules in relevant management operations.</p> <p>Sensitisation training schedule of technical staff and workers on rules</p> <p>Contract holders monitoring of</p>	<p>The National Forestry Reform Law of 2006,</p> <p>The Ten Core Regulations</p> <p>Guidelines to Forestry Management Planning,</p> <p>The Code of Harvesting Practices</p> <p>Liberian Labour Law</p> <p>Social agreement with communities</p> <p>Field Observation</p> <p>Discussion with other stakeholders</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		compliance report.  Contract holders other control methods.		
<b>Indicator 2.1.2</b> <i>The taxes, royalties and other fiscal payments established by law are paid by the forest contract holder</i>		Invoices and payment receipts on contract administration fee, stumpage, land rental and forest products fees: area fee, Annual coup inspection fee, Waybill fee, timber export license fee, sawmill permit fee, and other applicable taxes and fees  Stumpage fee is paid within 30 days of cutting tree	Revenue and Finance Law, The National Forest Reform Law 2006 FDA and Contract holders accounting data, Contract holders financial statement LEITI	

## Criterion 2.2

**The FMU is managed with well-defined and clearly established objectives compatible with sustainable forest management.**

*(The criterion demands that forest management defines long-term objectives for the development of forest resources and forest production. These objectives contribute to environmentally appropriate, socially beneficial and economically viable forest management)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 2.2.1</b> <i>The management of the FMU is implemented on the basis of a legally assigned title deed, for duration compatible with the defined objectives of the FMU with a view to achieving</i>		Valid Forest Resource License and permits 1. Timber sales contract 2. Forest management contract 3- Forest resource permits	The National Forest Reform Law (2006)	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<i>sustainable forest management</i>				
<b>Indicator 2.2.2</b>		Contract holders Staff and workers academic and training, Contract holders recruitment policy, Contract holders registry of employees, Discussion with staff and workers	Employees files in the contract holders office, Interview with workers, Training Records	
<i>The forest contract holder demonstrates that its employees have certified competence in forest management.</i>				
<b>Indicator 2.2.3</b>		Contract holders strategic forest management plan, 5-year forest management plan, annual operation and harvesting plans contain clear management objectives, forest resources, SEMP, wildlife management, and relevant maps(see sub-indicators)	FDA guidelines for forest management planning  FDA/Commercial forestry Department FDA regional offices  Forest management contractor's offices	
<i>The forest management contract holder has a complete and approved Forest Management Document, which includes a forest management plan, a harvesting plan, a wildlife management plan, and other relevant documents, stating the FMU's objectives, which are compatible with sustainable forest management</i>				
<b>Sub-Indicator 2.2.3.1</b>		FDA's preliminary studies methodology on 3% inventory, Social and economic surveys and land suitability studies.  Contract holders strategic management plan, ESIA, and 100% compartment inventory of commercial tree species	FDA Research and Development Department,  FDA regional offices  Forest management Contract holders offices  Environmental Management Law of Liberia LISGIS and LFI	
<i>The preliminary studies (multi-resource inventory, ecological study, socio-economic study etc.) have been carried out in conformity with national and international guidelines, and are available and correctly documented</i>				
<b>Sub-indicator 2.2.3.2</b>		FDA NTFPs survey reports,	<del>Note: Draft</del> Regulation on NTFPs	
<i>All the uses of the forest and forest products are identified</i>				

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Contract holders strategic forest management plan and inventory reports	Ten Core regulations	
	<i>Sub-indicator 2.2.3.3 The FMU is subdivided in accordance with different management constraints identified during the preliminary studies and in accordance with the adopted objectives.</i>	FDA land suitability reports Contract holders strategic forest management plan FMU topographic map FMU Stock map	Discussions with FDA and contract holders. FDA/Commercial forestry Department FDA regional offices Forest management contractor's offices	
	<i>Sub-indicator 2.2.3.4 The maps showing the FMU and its subdivisions, the distribution of resources, village settlements etc, have been prepared and are available</i>	Contract holder's strategic management plan FMU topographic map FMU Social economic survey map	FDA Guidelines for forest management planning. Field observations FDA/Commercial forestry Department FDA regional offices Forest management contractor's offices	
	<i>Sub-indicator 2.2.3.5 The area to be covered and the volume of products that can be harvested during the management exercise are known and indicated on maps</i>	Contract holders 5-year plan and, Annual operational plan, The stock and the yield maps	FDA Guidelines for forest management planning FDA and Contract holders offices Field observations	
	<i>Sub-indicator 2.2.3.6 The annual allowable cut, minimum diameter for</i>	Contract holders strategic forest management plan	Contract holder's office	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>exploitation and maximum number of trees harvestable per hectare are clearly stated and described in the management documents.</i>	States annual allowable cut, Number of stems harvestable per hectare and Minimum diameter cut limit for each species	Code of harvesting practices  FDA regional and Head Offices	
<b>Indicator 2.2.4</b>	<i>A Forest management contract is annexed to the Forest Management Document, which sets the operating modalities and the rights and obligations of the forest management contract holder and sub-contractors operating in the FMU.</i>	Contract holder's management plan has a <i>Forest management</i> contract as annex  Forest management contract (FMC)	Contract holder's office  FDA head office and regional offices	
	<i>Sub-indicator 2.2.4.1 Specific clauses relating to financial, technical and social management as well as measures for the protection of the forest are clearly defined in the Forest management contract.</i>	Contract holder's management plan  Forest management contract	Contract holder's office  FDA Head Office and regional offices	
<b>Indicator 2.2.5</b>	<i>The Forest Management plan and the forest management contract or the Timber Sale Contract are formally approved by the FDA</i>	Management plan and FMC approval notification document from the FDA  A copy of the approved management plan and FMC  Approved copy of TSC  Validity time period of approval notification Harvesting certificate	Contract holder's office  FDA Head Office and regional offices  NIC & Public Procurement Concession Commission Act (PPCCA)  National Legislature	
<b>Indicator 2.2.6</b>	<i>The Forest Management Plan is effectively implemented as</i>	Copy of the FDA approved management plan and ratified contract holder's FMC	Contract Holder's Office, FDA head Office and Regional Offices	

<b>INDICATOR</b>	<b>SUB-INDICATOR</b>	<b>VERIFIERS</b>	<b>SOURCES OF INFORMATION</b>	<b>FINDINGS</b>
	<i>soon as it is approved.</i>	Field inspection		
	<i>Sub-indicator 2.2.6.1 The prescriptions of the Forest Management Plan are known by all stakeholders.</i>	Copy of the FDA approved management plan and contract holder's ratified FMC  Contract holder's evidence of education/awareness for relevant stake holders	Discussions with Contract holder, FDA, communities, NGOs, researchers and relevant FDA list of stakeholders	
	<i>Sub-indicator 2.2.6.2 The activities of different stakeholders are in conformity with the prescriptions of the Forest Management Plan and the FMC</i>	Contract holder's mechanism for ensuring prescription/ FMC compliance with stakeholders  Field observations  Discussions with FDA, fringe communities and other stakeholders	Contract Holder's Office, FDA Head Office/Regional Offices  Discussions with Contract holder, FDA, communities, NGOs, researchers and relevant FDA list of stakeholders	
	<i>Sub-indicator 2.2.6.3 All the stakeholders are trained and/or sensitised on the implementation of forest activities.</i>	Contract holder's list of relevant stakeholders (from FDA's stakeholders list) and their different uses of the forest  Contract holder's education, awareness and training records on management plan prescriptions and FMC for stakeholders	Contract holder's office  FDA office (Section 3 of FDA Regulations 101)  Discussions with relevant stakeholders (staff and workers, contractors, fringe communities etc)	
	<i>Sub-indicator 2.2.6.4 The limits and boundaries of the FMU and different subdivisions are marked in the field</i>	Gazette notice of reservation and any changes to boundary  Map of contract area showing external and internal boundaries (including all admitted farms and	Contract holder's office  FDA regional offices  Field inspection	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		settlements).  Field inspection reports  Fixed external boundary markers clearly identified on the ground and internal boundaries clearly demarcated.	Discussion with relevant stakeholders: NGOs, local communities, CBO, ...	
	<i>Sub-indicator 2.2.6.5</i> <i>The clearing of forest for farming and related agricultural activities in and around logging yards is controlled and kept within acceptable limits</i>	Contract holder's mechanism for controlling clearing and farming activities in and around logging yards	Field inspection	
	<i>Sub-indicator 2.2.6.6</i> <i>All management activities are well documented in a manner that enables their monitoring</i>	Contract holder's documented management activities  Contract holder's monitoring mechanism covers management activities Contract holder's field monitoring records  Discussion with contract holder	Contract holder's office  Field inspection  FDA regional offices  Discussion with relevant stakeholders: NGOs, local communities, CBO, ...	
	<i>Sub-indicator 2.2.6.7</i> <i>Regular and frequent field visits for evaluation are undertaken by FDA and Contract's holder</i>	Contract holder's field monitoring plan  Contract holder's field monitoring reports FDA Field monitoring reports	FDA Regional Offices  Contract holder's office Discussion with relevant stakeholders: NGOs, local communities, CBO, ...	
	<i>Sub-indicator 2.2.6.8</i> <i>Any non-compliance with management prescriptions is sanctioned according to regulations in force</i>	Contract holder's field monitoring records  Management meetings and production meeting minutes	Contract holder's office  FDA regional offices  LEITI	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		FDA offence registry	Discussion with relevant stakeholders: NGOs, local communities, CBO, ...	
<b>Indicator 2.2.7</b>	<i>A minimum infrastructure needed for forest use is maintained</i>			
	<i>Sub-indicator 2.2.7.1</i> <i>The main buildings in the forest camps are constructed from durable materials.</i>	Contract holder's forest camp specifications as contained in the Standard Operation Procedures (SOP)	Field Inspection Standard Operation Procedures (SOP)  Code of harvesting practices	
	<i>Sub-indicator 2.2.7.2</i> <i>The network of main access of contract's area roads is planned and constructed to last for the duration of the harvesting rotation.</i>	Contract holder's SOP  Primary and secondary road constructed in the dry season  Primary and secondary road construction to start 12 months before logging  Primary and secondary road not located on slopes greater than 10% and 15% respectively  All FDA drainage, bridges, culvert and road maintenance requirements complied with	Field visits  FDA Forest Management Guidelines.  FDA Code of Harvesting Practices.	
<b>Indicator 2.2.8</b>	<i>While appreciating the need to respect the confidentiality of information, the forest management contract holder provides stakeholders with a summary of the basic components of the</i>	Contract holder's management plan summary contains at least: .....  Management plan summary	Contract holders office  FDA office  Discussions with relevant	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>Forest Management Plan</i>	<p>contains basic components of the management documents</p> <p>Contract holder's summary document available to relevant stakeholders</p> <p>No complaint of denial of access by any stakeholder to management documents summary</p>	stakeholders	

### Criterion 2.3

**The sustainable production of timber is ensured both in quantity and quality.**

*(The criterion requires that forest management ensure the maintenance and improvement of long-term production capacity of forests and aims at high quality production. The quality of forest production depends on the value of the species produced, density of desired species in the forest and on the quality and size of individual trees)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 2.3.1</b>	<i>The pre-harvest inventory is carried out efficiently, in conformity with the standards in force, before harvesting</i>	<p>FDA pre-harvest enumeration approval notification document</p> <p>Contract holders Pre-harvest inventory including date, maps etc</p> <p>All blocks are surveyed for 100% stocking of trees 40cm (TSC) and 50 cm (FMC) dbh using regular grid (N-S, E-W) in each km-square block to develop a tree location map</p>	<p>Liberia Code of Harvesting Practices, FDA 2007</p> <p>Contract holder's office</p> <p>FDA's regional offices</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		<p>On FMCs, a permanent grid for the entire 5-yr section of the contract area is opened</p> <p>Temporary gridlines at 25m intervals from the permanent gridlines is established for each km-square block.</p>		
	<p><i>Sub-indicator 2.3.1.1</i>  <i>Trees to be harvested are plotted preliminarily on a map and marked in the field</i></p>	<p>Contract holder's pre-harvest maps</p> <p>Contract holder's stock maps</p>	<p>Field observation</p> <p>Contract holder's office</p> <p>FDA's regional office</p> <p>Discussion with contract holder's field workers\</p> <p>Liberia Code of Harvesting Practices, FDA 2007</p>	
	<p><i>Sub-indicator 2.2.3.2</i>  <i>Trees to be protected, such as seed-bearing or young trees, are mapped out and visibly marked in the field before harvesting</i></p>	<p>Contract holder's pre-harvest maps show trees to be protected including mother trees</p>	<p>Contract holder's office</p> <p>Liberia Code of Harvesting Practices, FDA 2007</p> <p>Discussion with contract holder's field workers</p> <p>FDA's regional offices</p> <p>Field observation and discussions with field staff</p>	
	<p><b>Indicator 2.3.2</b>  <i>The felling rotation and yield are clearly determined and</i></p>			

<b>INDICATOR</b>	<b>SUB-INDICATOR</b>	<b>VERIFIERS</b>	<b>SOURCES OF INFORMATION</b>	<b>FINDINGS</b>
	<i>respected in accordance with the principles of sustainable production</i>			
	<i>Sub-indicator 2.3.2.1 The calculation of yield and the determination of the rotation are verifiable from the Forest Management Plan (cf. sub-indicator 2.2.3.6).</i>	Management plan document  Current forest inventory information  FDA's preliminary studies methodology on 3% inventory	Contract holder's office  FDA's regional office  Discussion with local biometricians, NGOs and other stakeholders	
	<i>Sub-indicator 2.3.2.2 The rotation is based on the growth rates and minimum diameter of trees to be harvested, and on data obtained from the forest management inventory</i>	Forest inventory and Permanent Sample Plots (PSP) information  FDA's preliminary studies methodology on 3% inventory	Contract holder's office FDA regional office	
	<i>Sub-indicator 2.3.2.3 The Forest Management Plan provides management options beyond the first rotation</i>	Contract holder's strategic management plan  Management plan provides options for long-term production and management of prioritized species	Contract holder's office FDA regional office	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 2.3.3</b> <i>All harvesting is in conformity with the Forest Management Plan and the clauses of the FMC</i>		Contract holder's FDA approved management plan  FMC document Field observation	Contract holder's office FDA regional office  FMC document Field observation	
<i>Sub-indicator 2.3.3.1</i> <i>The annual harvesting plan and work program developed by the contract's holder are clear and realistic</i>		Contract holder's FDA approved annual harvesting plan  <ul style="list-style-type: none"> <li>• All trees to be felled are marked</li> <li>• Recommended felling direction indicated for all trees to be felled</li> <li>• Seed trees and trees belonging to protected species marked, and a 20 m radius protection zone established. No tree within 10 m of a seed tree indicated be felled</li> <li>• Rare and endangered species (IUCN Red List and FDA regulations) marked and preserved</li> </ul>	Guidelines for forest management planning in Liberia 2009  Contract Holder's Harvesting Plan and maps  Liberia Code of Harvesting Practices, FDA 2007	
<i>Sub-indicator 2.3.3.2</i> <i>Each annual harvesting plan is subject to approval before being carried out.</i>		Contract holder's FDA approved annual harvesting plan (date of approval important)	Contract Holder's Harvesting Map  Contract holder's office FDA regional offices	
<i>Sub-indicator 2.3.3.3</i> <i>The order of harvesting is respected and harvesting practices is designed to prevent re-entry into harvested areas before the harvesting cycle is completed</i>		Contract holder's FDA approved strategic management plan, 5year operational plan and annual plan  Field visit	Field visit  Discussions with contract holder, FDA regional offices and NGOs, communities. FDA monitoring reports	
<i>Sub-indicator 2.3.3.4</i>		Contract holder's SOP	Field visit	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>The standards of harvesting are explicit and known by all</i>	Discussions with Contract holder's field staff indicate they are aware of Liberia Code of Harvesting Practices, FDA 2007	Discussion with contract holder's field staff  Liberia Code of Harvesting Practices	
<b>Indicator 2.3.4</b>	<i>Wastage is minimized at all stages of production and processing</i>	Contract holder observes directional felling  Felling crew has techniques for and checks for unsound trees  Log preparation	Field visit Discussion with contract holder's field staff  Liberia Code of Harvesting Practices	
<i>Sub-indicator 2.3.4.1</i>	<i>Felling methods are applied to optimize the volume of usable timber.</i>	Contract holder observes directional felling  Contract holder's felling crews technique for checking trees suspected to be unsound before felling  Felling crew checks trees suspected to be unsound before felling  Once cutting has started, that tree should be felled even if it is discovered to be unsound  Stump height not more than 30cm	Field visit  Discussions with contract holder's field staff  Liberia Code of Harvesting Practices	
<i>Sub-indicator 2.3.4.2</i>	<i>The greatest possible utilizable volume of the felled tree is recovered.</i>	Stumps not more than 30cm without buttress	Field visit  Liberia Code of Harvesting	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Tree and log measurement records  Utilisable log ends not left to waste	Practices  Discussions with contract holder's field staff and communities	
	<i>Sub-indicator 2.3.4.3 No marketable component of the felled tree is left behind in the forest</i>	No evidence of utilisable log left in the bush Field visit	Field visit Liberia Code of Harvesting Practices Discussions with contract holder's field staff and communities	
	<i>Sub-indicator 2.3.4.4 There is no evidence of decaying logs in timber stockyards (in the forest and processing mill, and in other stockpiles such as at railway sidings, etc.).</i>	No evidence of decaying logs at forest, processing mill, and other sidings and the port  Field visit	Visit to the field, processing mill, the port and other sidings  Discussions with FDA and communities	
	<i>Sub-indicator 2.3.4.5 The product recovery of processing plants is comparable to national and international standards</i>	Contract holder's wood species input-output records  Contract holder's wood processing records	Visit to contract holder's processing mill  Discussion with FDA	
	<i>Sub-indicator 2.3.4.6 Residue from sawmills or other processing units is utilized or recovered</i>	Contract holder's wood residue utilisation practices	Visit to mill and discussions with contract holder Discussion with relevant stakeholders	
	<b>Indicator 2.3.5</b>  <i>The forest contract holder is able to provide all necessary documentation to monitoring and certification bodies to enable them to follow the chain of custody of each forest product from its origin.</i>	Felled tree data forms/records  Contract holder's complete and valid waybill (with the unique bar coded stickers) to include: • Place of harvest • CoCIS identification numbers	Field visit Discussions with contract holder and FDA officials  Liberia Code of Harvesting Practices	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		<ul style="list-style-type: none"> <li>• The total volume of all logs, timber or wood products (specifying individual standard dimensions)</li> <li>• Day, month and year that wood was loaded and scheduled to arrive</li> <li>• Place where wood was loaded</li> <li>• Planned route of transport from loading to destination</li> <li>• Destination of the shipment</li> <li>• Printed name and signature of               <ul style="list-style-type: none"> <li>– Person who harvested the wood</li> <li>– Upon acceptance of load, person accepting the wood (truck driver)</li> <li>– Upon delivery of the load, person delivering wood (truck driver)</li> <li>– A declaration (see regulation 8 for details)</li> </ul> </li> <li>• Printed names of business or individuals authorized to transport or accompany the wood, and the license plate number of the transporting vehicle</li> </ul>	Liberia Forest Draft-Standard Operating Procedures for the Chain of Custody System,	
<p><b>Indicator 2.3.6</b>  <i>The forest management contract holder develops effective mechanisms for the optimal commercialisation and promotion of its forest products</i></p>		<p>Contract holder's sales records</p> <p>Contract holder's commercialisation and market promotions mechanism and efforts</p>	<p>Discussion with contract holder marketing staff</p> <p>Field visit</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS

#### Criterion 2.4

**The silvicultural techniques implemented in the FMU are compatible with the objectives of sustainable forest management and are well adapted to the needs of management in the FMU and to the expected production**

*(The silvicultural techniques (e.g. felling and regeneration methods, intermediate fellings, measures for water and soil protection and prevention of forest damages) enhance the value and volume of timber and/or non-timber production and take into consideration environmental protection and social benefits of the forests produce)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 2.4.1</b> <i>Adequate efforts are taken to define, verify and adjust, where necessary, silvicultural techniques</i>		Contract holder's RIL and Regeneration monitoring strategy	Article 8 Section 8:3 of the National Forestry Reform Law of 2006 Note The provision of the Reforestation Policy and Afforestation Strategy pending implementation by FDA Liberia Code of Harvesting Practices	OK
<i>Sub-indicator 2.4.1.1</i> <i>There exists a compilation of explicit silvicultural rules, which are easy to implement and monitor</i>		Contract holder's SOP Contract holder's Silvicultural objectives and methods on felling, regeneration, directional felling, multiple use of trees etc  Management plan	Field visit Discussions with Contract holder and FDA  Liberia Code of Harvesting Practices	
<b>Indicator 2.4.2</b> <i>All appropriate silvicultural treatments are applied at the level of the individual tree rather than at the forest stand level</i>		Pre-harvest inventory  Annual harvest plan and yield records  Contract holder's SOP and	Field visit  Liberia Code of Harvesting Practices	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		overall quality of contract holders silvicultural treatments		
<b>Indicator 2.4.3</b>				
<i>The harvesting of multi-purpose tree species for timber does not negatively impact on their other forms of utilization</i>				
<i>Sub-indicator 2.4.3.1</i>				
<i>The tree species that produce both timber and non-timber forest products are identified.</i>		Pre-harvest inventory and harvest records  Contract holder's pre-harvest maps  Contract holder's stock maps  Field visit	Discussion with forest fringe communities and other relevant stakeholders  Discussions with contract holder's field staff and communities  Field Visit	
<i>Sub-indicator 2.4.3.2</i>				
<i>The application of any form of silvicultural treatment does not threaten the sustainable production and harvesting of other forest products.</i>		Contract holder's silvicultural objectives and methods  Annual operation plan	Field visit  Discussion with forest fringe communities, Community Forest Development Committees, contract holder's field staff and other relevant stakeholders  Liberia Code of Harvesting Practices	
<i>Sub-indicator 2.4.3.3</i>				
<i>The harvesting modalities of multi-purpose tree species in village settlements are documented in the Social Agreement</i>		Contract holder's SOP  Contract holder's FDA reviewed Social agreement contains modalities for harvesting multi-purpose trees if any	Contract holder's office  FDA regional offices  Discussion with CFDCs Social agreement	
<b>Indicator 2.4.4</b>				
<i>The Forest management contract holder</i>		Contract holder's training policy	Contract holder's office	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>concessionaire develops a staff training policy</i>			
	<i>Sub-indicator 2.4.4.1 Refresher and proficiency training programs for the staff at different working levels and positions are carried out</i>	Contract holder's training policy and records  Training records include: <ul style="list-style-type: none"> <li>• Training objectives</li> <li>• course content</li> <li>• dates</li> <li>• participants list</li> <li>• participants positions</li> </ul>	Contract holder's office  Personnel file  Discussions with relevant staff and local trade union executives	
	<i>Sub-indicator 2.4.4.2 Employees have background knowledge in other relevant areas of forestry activities</i>	Contract holder's recruitment records  Staff records Personnel file  Contract holder's training policy and records	Discussion with Contract holder's staff and workers  Contract holder's office	

### Criterion 2.5

#### Within the FMU, NTFPs are harvested on a sustainable basis, in consultation with relevant stakeholders

*(The use of non-timber forest products (NTFPs) is at the level that does not risk their continuous long-term production or safeguarding other economic, environmental or social values of forests. The principles for the use of NTFPs are developed through consultation with relevant local stakeholders (villagers, concession holder, contractors, organizations commercialising NTFPs, and other interest groups).*

*See also Indicator 2.4.3 that set provisions for maintenance of multiple-use trees}*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
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INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 2.5.1</b>				
<i>NTFPs are in use, and the basis for their use are identified.</i>		Contract holder's use of NTFPs and justification	Contract holder's FDA approved management plan documents	
<b>Sub-indicator 2.5.1.1</b>				
<i>The NTFPs harvested for all types of commercial purpose and the associated type of production are identified</i>		Contract holder's list of commercial NTFPs  EIA report	<del>Note: The draft NTFPs Regulation</del>  Contract holder's FDA approved management plan	
<b>Sub-indicator 2.5.1.2</b>				
<i>The list of NTFPs harvested solely to meet the subsistence needs of populations is available</i>		Contract holder's list of subsistence NTFPs  EIA report Community rights law Evidence of Contract holder's consultation with fringe communities to identify subsistence NTFPs	Discussions with fringe communities and CFDCs  Note: the draft NTFPs Regulation  Social agreement	
<b>Indicator 2.5.2</b>				
<i>The necessary knowledge for the sustainable utilization of NTFP is available</i>		Pre-harvest NTFPs inventory  NTFPs inventory records  EIA report  NTFPs research records	Discussions with the contract holder  Note: The draft NTFPs Regulation  FDA approved management plan documents	
<b>Sub-indicator 2.5.2.1</b>				
<i>The distribution and density of species harvested for NTFPs are known.</i>		Pre-harvest inventory records on NTFPs  Contract holder's monitoring records on NTFPs	Discussions with the contract holder  Contract holder office	
<b>Sub-indicator 2.5.2.2</b>				
		Harvesting records on NTFPs	FDA approved management	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>The phenology and productivity of such harvested species are known.</i>	Contract holder's monitoring records on NTFPs	plan documents	
<b>Indicator 2.5.3</b>	<i>The use of NTFPs is rational</i>			
	<i>Sub-indicator 2.5.3.1 No individual tree is needlessly destroyed or damaged during harvesting for NTFPs</i>	Contract holder has principles/provision for harvesting of NTFPs  Contract holder's monitoring records	Note: The draft NTFPs Regulation  Contract holder's FDA approved management plan documents  Field visit Discussions with contract holder staff and forest workers, FDA officials, and local communities	
	<i>Sub-indicator 2.5.3.2 Procedures are in place for monitoring and evaluating the impact of harvesting</i>	Contract holder's NTFP monitoring and evaluation procedures and records	Discussions with Contract holder's staff and forest workers, FDA officials	
	<i>Sub-indicator 2.5.3.3 The harvesting is managed according to available monitoring results</i>	Annual harvesting plan NTFP regulations NTFPs monitoring records	Discussions with Contract holder's staff and forest workers, FDA officials	
	<i>Sub-indicator 2.5.3.4 The quantities harvested are effectively marketed or consumed</i>	<del>NTFPs harvest records</del>  NTFPs marketing sales and consumption records	<del>Discussions with forest fringe communities and CFDCs</del>	
	<i>Sub-indicator 2.5.3.5 The NTFPs in high demand are the subject of conservation management and their potential for domestication has been explored</i>	Contract holder's NTFPs protection strategy  NTFPs domestication exploration records	Field visits  Discussions with contract holder, fringe communities, CFDCs and FDA officials	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Presence of NTFP seedlings in nurseries  Community NTFP management strategies		

**Criterion 2.6**

**Forest management revised periodically, or when necessary, due to unforeseen circumstances.**

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<i>Indicator 2.6.1</i>		Contract holder's monitoring plan for management plan implementation  FDA monitoring reports	Contract holder's management plan documents  FDA guidelines for forest management planning	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<p><i>Sub-indicator 2.6.1.1</i></p> <p><i>While respecting the confidentiality of information, the concessionaire provides, upon request, a summary of the monitoring results relating to:</i></p> <ul style="list-style-type: none"> <li>- <i>the yield of all products extracted from the forest;</i></li> <li>- <i>growth and regeneration rates, and condition of the forest resources;</i></li> <li>- <i>the composition of and changes observed in the flora and fauna;</i></li> <li>- <i>the social and environmental impacts of extraction and other operations;</i></li> <li>- <i>impacts in the areas of costs, productivity and efficiency of actions in relation to the implementation of forest management</i></li> </ul>	<p>Contract holder's summary of monitoring results</p> <p>Copies of EIA, Social Impact Assessment (SIA)</p> <p>No evidence of denial of monitoring summary report upon request by any stakeholder</p>	<p>Contract holder's forest management plan</p> <p>Contract holder's office</p> <p>Discussion with relevant stakeholders</p>	
	<p><i>Sub-indicator 2.6.1.2</i></p> <p><i>There is a network of permanent sample plots, which is regularly measured and analysed</i></p>	<p>PSP network information</p> <p>PSP measurement records</p> <p>PSP data analysis records</p> <p>Field observation</p>	<p>Discussions with contract holder staff and forest workers, FDA officials and other relevant stakeholders</p> <p>FMC</p>	
	<p><i>Sub-indicator 2.6.1.3</i></p> <p><i>The actual harvest is regularly compared to what was initially projected in the Forest Management Plan</i></p>	<p>Contract holder operational plan</p> <p>Contract holders annual harvest plan</p> <p>Contract holders harvest records</p> <p>Contract holder comparison records on actual harvest with projection records</p>	<p>Contract holder's management plan</p> <p>Discussions with contract holder and FDA officials</p>	

<b>INDICATOR</b>	<b>SUB-INDICATOR</b>	<b>VERIFIERS</b>	<b>SOURCES OF INFORMATION</b>	<b>FINDINGS</b>
<b>Indicator 2.6.2</b> <i>The Forest Management Plan is revised according to a pre-determined periodicity defined at the national level</i>		Contract holder revised strategic plan in or less  Contract holder revises Operational plan every five years	Guidelines of forest management planning in Liberia 2009  Management plan and FMC	
<b>Sub-indicator 2.6.2.1</b> <i>The procedures of regular or exceptional revision are specified in the Forest Management Plan or are provided for in the FMC</i>		Contract holder's strategic and operational plan documents  Or  The FMC	Contract holder's office  FDA regional office  Management plan and FMC	
<b>Sub-indicator 2.6.2.2</b> <i>All the relevant monitoring and research results, as well as new scientific findings and technical data, are taken into account during the process of review and revision of the Forest Management Plan</i>		Contract holder's earlier and revised strategic and operational management plan  Revised forest management plan Contract holder's monitoring reports  Available research and scientific findings	Discussions with the contract holder and FDA's Research and Development Dept.  Discussions with communities, CFDCs, experts and NGOs	
<b>Sub-indicator 2.6.2.3</b> <i>The revisions are approved by the FDA</i>		Contract holder possess FDA approved revised -Management plan  FDA management plan revision approval notification	Discussion with the FDA  Contract holder's office	

### **Principle 3**

#### **The main ecological functions of the forest are maintained.**

*(Ecological functions of forests include all biotic and abiotic interactions in a forest ecosystem. Species in flora and fauna and their habitat requirements are the basic elements of ecological functions. Species adapt to soil conditions, water resources and climatic factors but these abiotic elements are also influenced by species composition and abundance (e.g. forest structure, animal populations). Forest ecosystem responds continuously to changes in biotic and abiotic factors. A diverse, natural ecosystem can often adapt to these changes whereas a strongly altered ecosystem (e.g. heavily harvested) is vulnerable to degradation processes that may permanently decrease the production capacity of the ecosystem)*

#### **Criterion 3.1**

#### **The sustainable management of the forest resources is based on a dynamic acquisition of knowledge on ecology**

*(The criterion requires that all decisions made on forest management are based on up-to-date and profound understanding of ecological functions in managed forests. Concessionaire should demonstrate that their competence on understanding the ecological functions and impacts of forest management is continuously updated)*

<b>INDICATOR</b>	<b>SUB-INDICATOR</b>	<b>VERIFIERS</b>	<b>SOURCES OF INFORMATION</b>	<b>FINDINGS</b>
<b><i>Indicator 3.1.1</i></b>		Forest contract holder's management documents include maps on <ul style="list-style-type: none"> <li>• Vegetation types</li> <li>• Infrastructure</li> <li>• Felling map</li> <li>• Monitoring report</li> </ul>	FDA regional office Contract holders office	
	<b><i>Sub-indicator 3.1.1.1</i></b>	Contract holders felling map FMU Topographic map  Contract holder's pre-harvest maps  Contract holder's stock maps	FDA regional offices  Contract holder's office	
	<b><i>Sub-indicator 3.1.1.2</i></b>	Contract holder's annual operational plan	FDA regional offices Contract holder's office	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>There are topographical, soil, hydrological network and infrastructure maps.</i>	FMU Topographic map	Ministry of Mines	
	<i>Sub-indicator 3.1.1.3 Databases on forest fauna and flora and other uses are available.</i>	FDA survey records (Liberia Forest Re-assessment Project report)  Contract holder's strategic forest management plan	FDA regional offices  Contract holders office Pre-harvest inventories reports National Forest Inventory	
	<i>Sub-indicator 3.1.1.4 Maps are available on the distribution of fauna showing zones of high density and any migration routes</i>	FDA fauna and flora survey reports  EIA report  Contract holder's strategic forest management plan	FDA's regional office  Contract holder's office  Relevant stakeholders: FFI, NGOs,	
	<i>Sub-indicator 3.1.1.5 There are updated maps or data on the distribution of species to be harvested and those that are endangered, rare or endemic</i>	Contract holder's annual operation plan Contract holder's pre-harvest maps  Contract holder's stock maps	FDA Research and Development office  Contract holder's office	
<b>Indicator 3.1.2</b>	<i>Impact studies are carried out, in relation to the scale of harvesting, in accordance with the level and extent of scarcity of any resources of concern. These studies are incorporated into the Forest Management Document</i>	FMC contract holder's EIA report, strategic FMP,	FDA Central office,	
	<i>Sub-indicator 3.1.2.1 Permanent sampling plots of intact and harvested forests are regularly monitored and documented (growth, phenology, regeneration, etc.).</i>	Number and coverage of FDA's PSPs, frequency of measurement, data analysis etc. Contract holder's PSP data records	FDA Central Office and Other scientific reports  Contract holder's office	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Contract holder's PSP data records		
	<i>Sub-indicator 3.1.2.2</i> <i>The impacts of the harvesting methods and their intensities on the forest stand are monitored.</i>	Coverage of PSPs (logging site and unlogged site) Stock map (with felled tree information), Field observation	Liberia Code of harvesting practice	
	<i>Sub-indicator 3.1.2.3</i> <i>The impacts of the harvesting activity on key or sensitive species are monitored and documented</i>	FMC Forest management plan, EIA and periodic monitoring report Field observations	Contract holder's office and FDA Central and regional offices EPA reports	
	<b>Indicator 3.1.3</b> <i>New scientific and technical data are synthesized periodically</i>	Contract holder's updated management plan  Field observations	Scientific publications FDA Department of Research and Development FDA website FDA central data base	
	<b>Indicator 3.1.4</b> <i>The results of monitoring and new scientific findings or technical data are taken into account to improve forest management and harvesting practices</i>	Contract holder's periodic monitoring reports  Contract holder's annual operational plan  Field observations	Scientific publications FDA Department of Research and Development FDA website FDA central data base	

### Criterion 3.2

#### The impact of harvesting activities on the structure of the forest is minimized

*(The structure of forest is defined by the vertical structure of various canopy layers and by the abundance and distribution of different plant species. Forest harvesting shall not change this structure significantly which means that harvesting planning should be based on individual trees rather than forest stands (see indicator 2.4.2). Forest management regimes may vary between stand types)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 3.2.1</b>		FDA's code of harvesting practice	FDA office Contract holder's office	
<i>Reduced impact logging techniques are defined at the national level and implemented</i>		Contract holder's training records on RIL Contract holder's Standard Operational Practice Field observations		
<b>Sub-indicator 3.2.1.1</b>		Contract holder's training records on directional felling	Contract holder office	
<i>Directional felling is employed in order to spare young and emergent trees as far as possible</i>		Contract holder's Standard Operational Practice Field observations	Discussions with felling crew Liberia code of harvesting practices	
<b>Sub-indicator 3.2.1.2</b>		Contract holder's training records on RIL	Contract holders office	
<i>The topping and lopping of treetops and branches, and the skidding of logs, do not contribute to the needless destruction of trees</i>		Contract holder's Standard Operational Practice Field observations	Discussions with felling and extraction crew Field observations	
<b>Sub-indicator 3.2.1.3</b>		FDA SOP, Field observations	Discussion with skidding operators	
<i>Haulage/skidding machines keep their blades above the soil and do not create significant ruts on the roads and trails as they move around the forest</i>			Field observations	
<b>Sub-indicator 3.2.1.4</b>		FDA SOP Field observations	FDA Code of harvesting practice Contract holders Management Plan Field measurements	
<i>The dimensions of all infrastructure (primary and secondary roads, quarries, timber yards, skid trails) are reduced to a minimum</i>				
<b>Sub-indicator 3.2.1.5</b>		Contract holder's annual operational plan, FDA Guidelines on for forest management plan,	FDA regional offices Contract Holder's Office Social agreement	
<i>Timber harvesting to provide services and construction material in villages and logging camps is regulated by FDA</i>				

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 3.2.2</b>		Contract holder's harvesting plan PSP data analysis (eg regeneration) FDA 's monitoring reports Field observation	Code of harvesting practice FDA Central Office Contract holders office	
	<i>The harvesting methods do not impair the original structure and diversity of the forest</i>			
	<b>Sub-indicator 3.2.2.1</b> <i>The conversion of forest to plantations or to non-forest forms of land-use is not encouraged, except in circumstances where the conversion:</i> - <i>is related to a seriously degraded area/zone or a tiny part of the FMU,</i> - <i>does not take place in areas of the forest with high conservation value; and will ensure a clearly defined, substantial and additional conservation benefit to the FMU in the long term.</i>	Contract holder's strategic forest management plan,  FDA's approval notification document for plantation programme  Field observation	FDA guidelines for forest management planning in Liberia 2009	
	<b>Sub-indicator 3.2.2.2</b> <i>The area of artificial openings does not exceed those of natural openings</i>	Log landing sites not exceed 0.4 % of ha 1° and 2° roads width to the minimum depending on the type of soil Field observation	FDA Code of harvesting practices  Field measurements	
	<b>Sub-indicator 3.2.2.3</b> <i>The forest structure is similar before and after harvesting</i>	Monitoring reports and Harvesting Plan and field observations indicate that the vertical or species structure in forest stands is not significantly altered by forest management operations FDA field audit reports	DFA regional offices Contract holder office Field observations Discussions with contract holder	
	<b>Sub-indicator 3.2.2.4</b> <i>Post-harvest species composition and density of undergrowth do not show increased abundance of populations of invasive helophytic species</i>	Monitoring reports and field observations indicate that the lianas of families <i>Marantaceae</i> and <i>Zingiberaceae</i> or invasive helophytic species have not become more abundant after harvesting operations	Field observation  Code of Harvesting Practice	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS

### Criterion 3.3

#### The impact of harvesting activities on biodiversity is minimized

*(Harvesting of timber and non-wood forest products should not change significantly species diversity in the forest ecosystem within the area of FMU)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 3.3.1</b> <i>At the forest concession level, decisions concerning forests with high conservation value are taken within the context of precautionary principle</i>		Contract holder's EIA report Contract holder's strategic forest management plan, 5-year and annual operational plans Field observation	FDA Central and Regional office Contract holders office FDA Code of harvesting practices Guidelines for forest management planning in Liberia	
<b>Indicator 3.3.2</b> <i>Adequate procedures and guidelines exist and are implemented to identify and protect, in a manner which is representative of the diversity of habitats and at a scale adapted to the subject to be preserved:</i>  <i>- endangered, rare or threatened species of fauna and flora: and other biological components of the forest of particular interest, such as reproduction sites, rare habitats and key species</i>		Contract holder's EIA report Contract holder's strategic forest management plan, 5-year and annual operational plans Field observation	FDA Central and Regional office Contract holders office Liberia Wildlife law	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>Sub-indicator 3.3.2.1</i> <i>Sensitive areas are selected during the ecological survey and assessment are included in the protected zones</i>	Contract holder's EIA report Contract holder's strategic forest management plan, 5-year, annual operational plan Field observation	FDA Central and Regional office Contract holders office	
	<i>Sub-indicator 3.3.2.2</i> <i>There is a map showing the protected zones and other forest areas where harvesting is excluded.</i>	FMU land use suitability map	FDA Central Office Contract holder's office Management Plan	
	<i>Sub-indicator 3.3.2.3</i> <i>The limits of protected zones are clearly defined and marked in the field</i>	Contract holders strategic forest management map, FMU land use suitability map, stock map Contract holder's demarcates protected areas within concession, Field observation	FDA Central Office Contract holder office Management plan	
	<i>Sub-indicator 3.3.2.4</i> <i>Standardized data on fauna and flora are available</i>	Ecological surveys and monitoring provide standardized data on the vegetation types as well as distribution and habitat requirements of rare, endangered or threatened flora and fauna species	Discussion with Contract holder's and FDA Central Office EIA report FDA central database	
<b>Indicator 3.3.3</b>				
	<i>The diversity and relative abundance of fauna species do not change significantly.</i>			
	<i>Sub-indicator 3.3.3.1</i> <i>National and international regulations on the protection and hunting of, and trade in, animal species or parts of animal species are known and respected</i>	Contract holder's staff and workers are aware of CITES, provisions of 9.12 of the Liberia National Forestry Reform Law, Liberia Wildlife Law, Guidelines for forest management planning in Liberia, 2009 Ten Core regulations	<ul style="list-style-type: none"> <li>• Discussions with staff and workers of contract holder</li> <li>• Liberia National Forestry Reform Law</li> <li>• National legal instruments of the CITES Convention</li> <li>• The Liberia National Forestry Reform Law,</li> <li>• Liberia Wildlife Law,</li> </ul>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
			<ul style="list-style-type: none"> <li>Guidelines for forest management planning in Liberia,</li> <li>Ten Core regulations</li> </ul>	
	<p><i>Sub-indicator 3.3.3.2</i></p> <p><i>There is an internal rule forbidding and also penalizing the transportation and trade of bush meat, and also the transport of guns and weapons for hunting in the vehicles of the forest concessionaire</i></p>	Contract holder's internal rules to enforce and encourage compliance with provisions made in 9.12 of the Liberia National Reform Law	<p>Discussion with contract holder staff and workers, local communities</p> <p>Liberia National Reform Law</p>	
	<p><i>Sub-indicator 3.3.3.3</i></p> <p><i>Access to the forest concession is controlled and reserved for use of only by authorized vehicles</i></p>	Contract holder's current list information or rules on authorized vehicles	Contract Holder's office Contract holder's internal rules	
	<p><i>Sub-indicator 3.3.3.4</i></p> <p><i>Secondary roads/paths are closed after harvesting, except those required for forest monitoring of for local development</i></p>	<p>Contract holder's block closure policy</p> <p>Field observations</p>	<p>Discussions with contract holder and FDA officials</p> <p>FDA Code of harvesting practices</p> <p>Guidelines for forest management planning in Liberia 2009</p>	
	<p><i>Sub-indicator 3.3.3.5</i></p> <p><i>The non-fragmentation of tree populations is ensured by the maintenance of a continuous canopy, which may be broken to a minimal extent by the network of primary and secondary paths/roads</i></p>	Forest has continuous forest canopy cover except broken by roads	<p>Field observation</p> <p>FDA Code of harvesting practices</p> <p>Guidelines for forest management planning in Liberia 2009</p>	
	<p><i>Sub-indicator 3.3.3.6</i></p>	Contract holder has up-to-date	<del>Note: the draft</del> Regulations on	

<b>INDICATOR</b>	<b>SUB-INDICATOR</b>	<b>VERIFIERS</b>	<b>SOURCES OF INFORMATION</b>	<b>FINDINGS</b>
	<i>There is no noted or recovered scarcity in the availability, supply and consumption of bush meat for subsistent living in the village settlements.</i>	information on bush meat for subsistence living  Contract holder. FDA and affected villages agree and implement bush meat supply strategy	NTFPs  Discussion with local communities, FDA Officials, Contract holder, CFDC, CBOs, NGOs	
	<i>Sub-indicator 3.3.3.7 Commercial hunting and non-selective hunting methods are forbidden in the forest concession.</i>	FDA rules on hunting  Contract holder's internal rules  Contract holder's mechanism for controlling hunting activities in and around contract area	Note: the draft regulation on NTFPs Liberia Wildlife Law  Discussion with contract holder forest workers	
	<i>Sub-indicator 3.3.3.8 The inappropriate hunting, collection and trapping of bush meat are controlled.</i>	Contract holder's rules and education to staff and worker  Contract holder's education and awareness programme for fringe communities Contract holder's social agreement with communities	Discussions with staff and workers of contract holder  Discussions with fringe communities and CFDCs	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 3.3.4</b>				
<i>The diversity and density of flora species are not significantly modified by harvesting</i>				
<i>Sub-indicator 3.3.4.1</i> <i>Rare and endemic species with a confined area of distribution are protected</i>		Contract holder's management plan documents contain information on rare and endemic species and their valuable habitats that should be protected when present	Field visits  Discussions with field staff, local communities, NGOs, CBOs, CFDC,  FDA Code of harvesting practice	
<i>Sub-indicator 3.3.4.2</i> <i>The species' diversity of plants in the undergrowth of forests restored after harvesting is similar to that noted intact forests</i>		Contract holder and FDA post-harvest monitoring reports	Field observations Discussion with contract holder and FDA officials  FDA's multi-resource inventory reports	
<i>Sub-indicator 3.3.4.3</i> <i>The use of biological control agents is documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. The use of genetically modified organisms is prohibited</i>		Contract holder's policy on the use of chemical and BCA's and prohibition of GMOs  Contract holder's chemical and BCA use records	Field observations Discussions with Contract holder and FDA , EPA	
<i>Sub-indicator 3.3.4.4</i> <i>The use of exotic species is carefully controlled and actively monitored to avoid adverse ecological impacts</i>		Contract holder's management plan documents.  Field monitoring reports  Field visits	Note: Pending FDA Reforestation policy and Afforestation Strategy Discussions with fringe communities, CFDCs, experts and environmental NGOs	

### Criterion 3.4

#### The natural regeneration capacity of the forests is ensured.

*(Forest management should ensure that the capacity of forest and the harvested species to regenerate naturally. If there is a risk for an unsatisfactory regeneration result, prompt measures to enhance the regeneration should be taken)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 3.4.1</b>				
	<i>The conditions for natural regeneration are fulfilled and regeneration processes are maintained</i>	Contract holder's management plan document makes provision for encouraging natural regeneration	Field visit Discussion with contract holder FDA guidelines on management planning	
	<i>Sub-indicator 3.4.1.1 The phenology and dispersal mechanisms of flora species are not disrupted</i>	Contract holder's has knowledge of the phenology and dispersal of plant species  Contract holder Monitoring records	FDA Central Office Discussion with employee of contract holder	
	<i>Sub-indicator 3.4.1.2 The number of seed-producing trees is sufficient for adequate regeneration</i>	Contract holder's annual/block harvesting plan (# of mother trees/block)	Field visit  FDA Code of harvesting practice	
	<i>Sub-indicator 3.4.1.3 The populations of pollen producers and dispersers are comparable in density and distribution with what can be found in non-exploited forests</i>	Contract holder's guidelines for safeguarding special dispersers and pollen producers in Management plan documents or FDA's SOP  Contract holder's Monitoring records	Field visit  Discussions with contract holder and FDA officials  FDA's SOP	
	<i>Sub-indicator 3.4.1.4 Seeding of all harvested species exist under the forest canopy and in natural and artificial openings</i>	Results on regeneration from Permanents Sample Plots Contract holder's Monitoring results on changes of flora and		

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		fauna		
	<i>Sub-indicator 3.4.1.5</i> <i>There is no abnormal change in the size-class distributions of such harvested species.</i>	Contract holder's Monitoring results shows no evidence of change in structure of harvested species	Field visits Discussions with contract holder and FDA officials	
	<i>Sub-indicator 3.4.1.6</i> <i>The regeneration of secondary vegetation occurs on disused paths and tracks</i>	Contract holder's Monitoring results indicate satisfactory regeneration	Field visit Discussions with contract holder and FDA officials	
	<b>Indicator 3.4.2</b> <i>Measures are taken to promote natural regeneration whenever necessary</i>	Contract holder's management plan documents and SOP detail measure for promoting natural regeneration	Contract holder's office	
	<i>Sub-indicator 3.4.2.1</i> <i>Appropriate steps are taken to protect degraded areas in order to foster their regeneration</i>	Contract holder's annual operational plan	Field visit	
	<i>Sub-indicator 3.4.2.2</i> <i>Healthy mother trees or seed-bearing trees are protected and preserved within stands of forest to be harvested in the future, in order to maintain, as far as possible, the structure of the forest and the pattern of species.</i>	Contract holder's annual/block harvesting plan Contract Holder stock maps Contract Holder pre-harvest maps 20m radius of protection buffer for each mother tree No felling done within 10m of mother tree	Field visit Discussions with contract holder's field workers FDA code of Harvesting Practice	
	<i>Sub-indicator 3.4.2.3</i> <i>The harvesting of forest products/produce (fruits, kernels, bark, wood for service, and ornamental plants) ensures the maintenance of adequate stocks of seed-bearing trees and fruits</i>	NTFP harvesting records Multi-resource inventory data Field visit	FDA NTFPs Regulation Discussions with fringe communities, CFDC, FDA and contract holder's field workers	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
			Research reports on NTFP harvesting	
	<i>Sub-indicator 3.4.2.4 For enrichment planting in harvested natural forests or in agroforestry systems, the use of indigenous species with proven commercial value is preferred</i>	Field visit  Evidence of use of proven commercial indigenous species for enrichment planting or agroforestry systems	FDA Reforestation Policy and Afforestation strategy project  Discussions with contract holder	

### Criterion 3.5

#### The impact of harvesting activities on water, soils and slopes is minimized

*(Forest harvesting and timber transport should not impair the quality of water in small or larger water bodies or change directly or indirectly the natural water levels or flow of water. Soil damages; depressions, or disturbances on soil surface cause erosion especially on slopes and other sensitive areas. Soil erosion increases leaching of soil particles to water bodies and cause crucial changes in water ecosystems and impairs the quality of water for domestic use. Soil and water protection should be safeguarded in all forest management operations)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 3.5.1</b>				
	<i>The flow rate and quality of water are maintained</i>	Contract holder's Forest management plan sets water protection methods and are protected  Contract holder's workers are aware of company water and soil protection practices	Field visit  Contract holder's management plan documents Code of Harvesting Practice	
	<i>Sub-indicator 3.5.1.1 No water retention areas are created and there is no disruption to drainage in the FMU</i>	Water crossing points indicated on the block map Road construction is done in the dry season 20m to 30 m Riparian buffer created during harvesting  Trees felled away from river courses and buffer	FDA's SOP Liberia code of harvesting practice, 2007	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		<p>Trees felled into river courses or buffer zones are cleared</p> <p>Bridges extend by 10% on both sides</p> <p>Creek and river beds not filled with soil</p> <p>Field visit</p>	<p>Discussion with contract holder's field workers</p>	
	<p><i>Sub-indicator 3.5.1.2</i>  <i>The formation of sandbanks and any form of in-fill in watercourses and swamps does not significantly disrupt water flows</i></p>	<p>Field visit</p> <p>FDA's SOP</p>	<p>Liberia code of harvesting practice, 2007</p>	
	<p><i>Sub-indicator 3.5.1.3</i>  <i>Used oils are recovered</i></p>	<p>Contract holder's oil spillage and recovery practices</p>	<p>Field visit</p> <p>FDA's SOP</p> <p>Contract holder's strategic management plan</p>	
	<p><i>Sub-indicator 3.5.1.4</i>  <i>There is no sign of chemical contamination of food chains or aquatic ecosystems (e.g. sick or dead invertebrates, fish or mammals, abnormal invasion of seaweeds).</i></p>	<p>Contract holder's chemical application policy and practices</p> <p>Training records for personnel responsible for chemical application</p> <p>Dates, time, quantity and other records on chemical application</p> <p>No chemical application when raining</p> <p>Contract holder's monitoring reports</p>	<p>Field visit</p> <p>Discussions with workers and forest fringe communities of any signs of sick or dead fish, mammal etc</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 3.5.2</b>	<i>The impact of harvesting activities on the biological, physical and chemical characteristics of soils and on hill slopes is minimized</i>	<p>Contract holder's Forest Management plan specify the basic provisions for water and soil protection and defines any sensitive areas with restricted use</p> <p>Contract holder's workers are aware of the FMU level norms for water and soil protection and management of hazardous waste (oils, chemicals)</p>	<p>Contract holder's officer and FDA Central and regional offices</p> <p>Field visit</p> <p>Liberia code of harvesting practice, 2007</p> <p>Discussion with FDA officials and contract holder's staff and forest workers</p>	
<b>Sub-indicator 3.5.2.1</b>	<i>Harvesting and its related infrastructure avoid buffer zones and other sensitive areas on slopes (low relief, river sides, steep slopes).</i>	<p>Roads must:</p> <ol style="list-style-type: none"> <li>1) Avoid protected/exclusion areas/buffer strips</li> <li>2) Be kept 40m+ away from strip edges, except at designated watercourse crossing points</li> <li>3) Be on well drained soils and slopes where drainage will move away from the road</li> <li>4) Avoid locations that require box cuts</li> <li>5) Avoid steep and very flat terrain</li> <li>6) Avoid unstable locations e.g. swamps</li> </ol> <p>Felling not allowed:</p> <ol style="list-style-type: none"> <li>1) within protected or exclusion areas and their buffer strips,</li> <li>2) on slopes steeper than 30%</li> </ol>	<p>Field visit</p> <p>Liberia code of harvesting practice, 2007</p> <p>Discussion with FDA officials and contract holder's staff and forest workers</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Trees felled into watercourses or their buffer strips, or other logging debris are cleared		
	<i>Sub-indicator 3.5.2.2 Erosion due to harvesting and related infrastructure is within acceptable limits</i>	<p>FDA and other stakeholders (community rep for roads) approval of harvesting infrastructure</p> <p>Road:</p> <ol style="list-style-type: none"> <li>1) Construction during the dry season only,</li> <li>2) to start 12 months before logging</li> <li>3) Side slopes – primary and secondary roads should not be located on slopes greater than 10% and 15% respectively, but side slopes of roads may have greater slope</li> </ol> <p>Road maintained at least annually</p> <p>Road surface and crown maintain to ensure good drainage</p> <p>Drain out-flow Ditches must not drain directly into watercourses. Instead turnout drains (outlets) must be installed at least 50 m before meeting a watercourse to divert water into the surrounding vegetation</p>	<p>Liberia code of harvesting practice, 2007</p> <p>Field visit</p> <p>Discussions with FDA official and fringe community representatives, CFDCs</p> <p>FDA's monitoring reports</p> <p>Contract holder's monitoring report</p>	
	<i>Sub-indicator 3.5.2.3 Unused secondary infrastructure (skid trails, timber yards, quarries) is covered again by vegetation</i>	<p>Field trip</p> <p>FDA's monitoring reports</p> <p>Contract holder's monitoring reports</p>	<p>FDA's SOP</p> <p>Field visit</p>	
	<i>Sub-indicator 3.5.2.4 Management systems promote the development and adoption of environmentally friendly, non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health</i>	<p>Contract holder's promote Integrated Pest Management and vegetative pest control given the first option</p> <p>Justification for use of pesticide when used</p>	<p>Contract holder's management plan documents</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<p><i>Organization Type 1A and 1B and chlorinated hydrocarbon pesticides, pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use, and any pesticides banned by international agreement, are prohibited. If chemicals are used, proper equipment and training is provided to minimize health and environmental risks</i></p>	<p>Contract holder's Forest Management Plan specifies the chemicals that may be used in the pest control and rules for their use.</p> <p>Contract holder keeps:</p> <ul style="list-style-type: none"> <li>• chemical procurement records</li> <li>• Store and storage records of chemicals procured</li> <li>• Store requisition records of all chemical used</li> <li>• Detail records kept for all chemicals used to include – Product name, location of application, total quantity applied, application method and date of application</li> </ul> <p>Documented safe handling, storage and application procedure exist</p> <p>Procedures are followed for safe handling, storage and application</p> <p>Proper equipments are used in application</p> <p>Field visit</p>	<p>Discussions with contract holder's workers responsible for chemical application</p> <p>Field observation</p>	
	<p><i>Sub-indicator 3.5.2.5</i> <i>Chemicals, containers and liquid and solid non-organic wastes including fuel and oil are disposed of in an environmentally appropriate manner</i></p>	<p>Contract holder's procedure for handling and disposal of waste</p> <p>Contract holder provides workers and contractors with feasible facilities to recover oils and chemicals.</p> <p>Waste recovery is monitored and reported.</p> <p>Field visit</p>	<p>Discussion with field staff of FDA and contract holder</p> <p>Code of Harvesting Practice</p> <p>Contract holder's management plan documents</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>Sub-indicator 3.5.2.6</i> <i>The setting up of necessary infrastructure for harvesting is optimised in relation to the topography of the sites and the location of the resource</i>	<p>Location of Log landing At intervals that minimize the number and length of skid trails, between 250 m and not more than 1000 m apart.</p> <p>Should not form part of the public roadway, and should be located 50m from the public roadway Size of log landing</p> <p>Large enough to facilitate log sorting, to allow for entry (skidder) and exit (loader) points Should not exceed 1400 m<sup>2</sup> (35 x 40 m in size),</p> <p>Total area should not exceed 0.42 ha per unit area of 100 ha, i.e. 3 landings per 1 km square block</p> <p>See specification for road in 3.5.2.2</p>	<p>Liberia Code of Harvesting Practice, FDA, 2007</p> <p>Contract holder's Management plan document</p>	
	<b>Indicator 3.5.3</b> <i>Water and soil restoration measures are implemented whenever necessary</i>			
	<i>Sub-indicator 3.5.3.1</i> <i>Old infrastructure still in use is upgraded and maintained so as to meet current standards</i>	<p>Contract holder make use of old roads Make use of old log landing etc</p> <p>Logging history of block</p> <p>Field visit</p> <p>Contract holder's road maintenance records</p>	<p>FDA Code of Harvesting Practice</p> <p>Contract holder's Management plan document</p> <p>Discussions with field workers and fringe communities</p>	
	<i>Sub-indicator 3.5.3.2</i> <i>All sites showing signs of severe erosion or other types of important water and soil degradation are</i>	<p>Contract holder's road maintenance records</p> <p>Contract holder's Monitoring records</p>	<p>Discussion with field</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<i>restored.</i>		Field visit	workers	

#### **Principle 4**

**According to the importance and intensity of forest operations, the FMU manager contributes to the improvement of the economic and social well being of workers in the FMU and of local populations**

*(Sustainable forest management should contribute to the overall well-being and socio-economic development at the local, regional and national levels. Well-managed forests are constantly self-renewing resources that produce benefits ranging from high-quality timber and non-timber products, to environmental protection services and satisfying the basic needs of all the groups of local populations. Employment opportunities and investments in forest management and use strengthen the economic development and well-being of local communities. Sustainable forest management also enhances the quality of life by providing opportunities for recreation and maintenance of cultural values related to forests).*

#### **Criterion 4.1**

**The rights and responsibilities of workers in the FMU and local populations are clearly defined, acknowledged and respected.**

*(The traditional rights and duties of local populations to use forest resources are recognized and documented by the concessionaire in mutual understanding with all the groups of the local populations. Also the terms on working conditions are defined and comply with the international norms defined e.g. in ILO Conventions that the country has ratified)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b><i>Indicator 4.1.1</i></b>		Contract holder's management plan	Community rights law	
		FDA's SOP	National Forestry Reform Law 2006	
		Social Agreement	Ten Core regulations	
			FDA regional offices and contract holders office	
			Discussions with the	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
			communities, CFDCs, CBOs, NGO and FDA officials	
	<i>Sub-indicator 4.1.1.1 The provisions of the forestry law on rights of use and ownership are known and respected.</i>	Contract holder has documentation of the outcome of community rights law.  Contract holder's awareness programme for staff  Discussion with contract holder, CFDCs and local population	FDA central office  Contract holder's office  CFDC records  Discussions with the communities, CFDCs, CBOs, NGO and FDA officials	
	<i>Sub-indicator 4.1.1.2 The rights of use within village boundaries are respected.</i>	FDA and the community defined village boundaries.  Field observations and discussions with affected communities	FDA Central Office FDA regional offices  Discussion with communities  Liberia Forestry Reform Law	
	<i>Sub-indicator 4.1.1.3 As much as possible, local populations have control over the forestry operations on their community forest land and resources, unless they freely delegate this control to a third party</i>	Contract holder's letter from community given free consent to holder to operate in community forest	Note: Not applicable to FMCs, and TSCs except on community forest and private or deeded land  National Forestry Reform Law 2006	
	<i>Sub-indicator 4.1.1.4 Sites of religious, cultural or particular economic value are clearly identified in collaboration with local populations and protected by the FMC's holder</i>	Community defined restricted sites are indicated in contract holder's Management Plan SRA document  FMU EIA report	Contract holder's office  CFDC records  FDA's offices	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Field observations and discussions with the affected local communities	FMU EIA report	
	<i>Sub-indicator 4.1.1.5</i> <i>Local populations receive compensation for the use and application of their traditional knowledge and techniques in the forest area. This compensation is freely and formally accepted prior to the commencement of operations</i>	Discussions with the local communities, for evidence of use of local knowledge, of prior negotiation, payment etc  Contract holder's records on compensation for the use and application of their traditional knowledge and techniques in the forest area.	FDA offices  Contract holder's office  Discussions with the local communities, FDA officials, NGOs and other relevant stakeholders	
	<b>Indicator 4.1.2</b> <i>The modalities of access to forest resources are clearly defined and respected by all.</i>	Contract holder has the necessary permits to cover any forest resources being exploited  Evidence of no natural resource exploitation without permit.  Field observations	Ministry of Land, Mines and Energy (MLME)  Community rights law  National Forestry Reform Law 2006	
	<i>Sub-indicator 4.1.2.1</i> <i>The provisions of the forestry law and the modalities of access to resources are known and respected</i>	Contract holder has NFRL (2006), the Ten Core of Regulations.  Contract holder went through the laid down modalities to acquire permit	FDA offices  MLME and  Contract holders office  Community rights law	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Contract holders SOP and education for staff include provisions of Liberia forest law and modalities of access to resources  Discussions with communities and staff of contract holder	National Forestry Reform Law 2006  Social Agreement	
	<b>Indicator 4.1.3</b>  <i>All relevant labour code regulations are applied</i>			
	<i>Sub-indicator 4.1.3.1</i> <i>The labour code and other related regulations (collective agreements, rules of procedure, memoranda, etc.) are respected</i>	Evidence of worker's to associate, minimum national wage not violated, etc  Discussions with workers and local trade union executives	Collective Bargaining Agreements (CBA)  Liberia Code of Labour Law	
	<i>Sub-indicator 4.1.3.2</i> <i>Wages and social benefits are comparable to national norms</i>	Staff and Workers paid not less than the Liberia minimum wage  Staff pay slips  Discussion with Contract Holder staff and workers Contract holders payroll records	Collective Bargaining Agreement  Liberia Code of Labour Law	
	<b>Indicator 4.1.4</b>  <i>Information is provided on and all stakeholders are fully informed of their rights and duties by FDA, CFDC, CBOs, Contract Holder and other forest related NGOs</i>	Contract Social impact study report Records of contract holder's education and awareness activities Discussions with relevant stakeholders	Contract holder's office  Discussion with, communities, FDA officials, Contract holder's workers and Staff  Liberia Code of Labour Law	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
			Community rights law  National Forestry Reform Law 2006  Social Agreement	
	<i>Sub-indicator 4.1.4.1</i> <i>Targeted sensitization campaigns are conducted by FDA, CFDC, CBOs, Contract Holder and other forest related NGOs</i>	Contract holder's sensitisation programme, Content of programme Report/minutes of activities Discussions with relevant stakeholders	FDA Central and regional offices Contract holder's office  Discussions with the local communities, FDA officials, NGOs and other relevant stakeholders	
	<b>Indicator 4.1.5</b> <i>Damages caused are compensated according to the norms in force or after negotiation</i>	Contract holder has documented procedures for identifying damage and payment for compensation  Contract holder's records	Ministry of Agriculture  Discussions with the local communities, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	
	<i>Sub-indicator 4.1.5.1</i> <i>Specialized services are consulted and their decisions respected.</i>	Contract holder follows Standard for valuing damage. Damage valuation documentation Contract holders payment records Discussions with communities/individual/organisation	Ministry of Agriculture  Discussions with the local communities, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	
	<i>Sub-indicator 4.1.5.2</i> <i>The procedure to compensate for the damage caused to cultivated crops is respected</i>	Contract holder follows existing standard for paying compensation to cultivated crops Discussions with affected communities/individuals /organisations	Ministry of Agriculture  Contract holder's record  Discussions with the local communities, FDA	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
			officials, NGOs, CBOs, CFDC, and other relevant stakeholders	

## Criterion 4.2

### The concessionaire encourages the participation of local populations present in the FMU in the management of forest resources

*(The FMU should provide all the groups of local populations' possibilities to participate and influence the planning of forest management operations to ensure that local needs are taken into consideration in harvesting and other operations related to forest management. Location of harvesting sites, species selection and road construction are examples of activities that can have significant impacts on local use of forests)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 4.2.1</b>				
	<i>The FMC holder sets up ad hoc bodies for consultation and negotiation with local populations</i>	Contract holder sets up ad hoc committees for negotiation and consultation  Records on committee formation/committee meeting minutes etc  Discussions with local population	FDA's regional offices  Contract holder's office  Discussions with the local communities, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	
<b>Indicator 4.2.2</b>				
	<i>The procedure for dialogue and the resolution of conflicts is functional both between stakeholders and within each stakeholder body</i>	Contract holder's procedure for dialoguing and resolution of conflict with stakeholders  Procedure includes support for dialogue within stakeholder group	Contract holder's Social Agreement  Discussions with the local communities, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	
<b>Sub-indicator 4.2.2.1</b>				
	<i>There is efficient and effective communication</i>	Minutes of meeting of ad hoc committee with stakeholders	Contract holder's office	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>between stakeholders</i>	Discussions with stakeholder		
<b>Indicator 4.2.3</b>	<i>All stakeholders participate in the control of forest and wildlife resources management on the basis of a protocol accepted by all.</i>	Contact holders social economic survey report, strategic forest management plan  Minutes of meetings with stakeholders  Documentation of consultation with stakeholders  Discussions with stakeholders	FDA Guidelines for forest management planning  Discussions with the local communities, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	
<b>Indicator 4.2.4</b>	<i>Procedures for consultation with populations during the establishment and demarcation of forest concession boundaries are respected</i>	Field visit to confirm procedures as stated in New Forestry Reform Law (2006)  Discussions with local communities	FDA offices Contract holder's office  Discussions with the local communities, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	
<b>Indicator 4.2.5</b>	<i>Mechanisms for applying sanctions in the case of rule violations are in place and agreed by stakeholders</i>	New forestry Reform Law (2006)  FDA breach records	FDA head office/regional office  Discussions with the local communities, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	

### Criterion 4.3

#### All the stakeholders consider the share of benefits derived from forests to be satisfactory

*(The views and needs of different stakeholders have been taken into consideration in the participatory planning processes as well as in operational planning and implementation of forest management. Also the sharing of material and immaterial benefits from forests is fair and carried out according to the protocols made)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
<b>Indicator 4.3.1</b>				
	<i>The FMC holder ensures that the populations living within or near the FMU receive a proportion of the revenue generated by the exploitation of the FMU according to the regulations in force and in a case by case basis.</i>	<p>Contract holders payment receipts of 30% of land rent to affected communities</p> <p>US\$1/m<sup>3</sup> of total timber volume exploited</p> <p>Discussions with affected communities (CFDC)</p> <p>Records of Publish-What-you-pay (PWYP)</p> <p>In case of private land 100% land rental pay to land owner</p>	<p>FDA/LiberFor database</p> <p>Office PWYP</p> <p>CFDC</p> <p>National Forestry Reform Law of 2006</p> <p>LEITI news</p> <p>Discussions with the local communities, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders</p>	
<b>Indicator 4.3.2</b>				
	<i>Local communities living in or near the harvested forest area benefit preferentially from opportunities in employment, training and other services according to the regulations in force and in a case by case basis.</i>	<p>Contract holder's documented recruitment, training and procurement policy,</p> <p>Contract holder's forest management plan</p> <p>Contract holder's current staff/employment/training and services records</p>	<p>Liberia Code of Forest Harvesting Practices</p> <p>CFDC records</p> <p>Social agreement</p> <p>Discussions with the local communities, FDA officials, NGOs, CBOs,</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Contract holder's SA with the affected communities  Discussions with local communities	CFDC, and other relevant stakeholders	
	<i>Sub-indicator 4.3.2.1</i> <i>The percentage of local people recruited is higher than that of non-locals, given equal competence</i>	Contract current staff/workers records (% of local people and competences)  Discussions with affected communities	Contract holder's office CFDC records  Social agreement  Discussions with the local communities, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	
	<i>Sub-indicator 4.3.2.2</i> <i>The FMC holder maintains a recruitment and training policy for young people originating from local communities</i>	Contract holder's recruitment and training policy  Contract holder's recruitment records  Contract holder's training records	Discussions with workers and communities, CFDCs FDA officials, NGOs, CBOs, and other relevant stakeholders	
	<i>Sub-indicator 4.3.2.3</i> <i>The FMC holder makes provision for and accepts trainees in its production units</i>	Contract holder's recruitment policy  Contract holder's trainee program	Discussion with workers and communities, CFDCs, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	
<b>Indicator 4.3.3</b>	<i>In accordance with the importance and impact of the forest operations at the local level, the FMC holder</i>	Contract holder's social agreement with communities makes provision for:	Field visit  Discussion with affected communities, CFDCs, FDA	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>contributes to the development of the local economy.</i>	<ul style="list-style-type: none"> <li>• A description of the financial benefits that the communities will receive from the holder</li> <li>• paying on a quarterly basis into an escrow account equal to or more than \$1 per m<sup>3</sup> of logs harvested annually</li> </ul> <p>Contract holder gives each CFDC and affected communities the opportunity to participate in at least one public meeting, facilitated and attended by the FDA during social agreement negotiation</p> <p>Contract holder's records</p>	<p>officials, NGOs, CBOs, CFDC, and other relevant stakeholders</p> <p>Social Agreement</p>	
	<p><i>Sub-indicator 4.3.3.1</i></p> <p><i>The FMC holder encourages the creation of small and medium-sized enterprises related to its forestry activities</i></p>	<p>Contract holder has analysed the possibilities to improve local level timber processing and taken measures regarding utilization of their potential.</p> <p>Contract holder's records</p> <p>Number of small and medium enterprises established related to contract holder's activities</p>	<p>Discussion with affected communities, CFDCs, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders</p>	
	<p><i>Sub-indicator 4.3.3.2</i></p> <p><i>The FMC holder encourages local and sub-contracting activities</i></p>	<p>Contract holder encourages private entrepreneurship e.g. in forest harvesting, transport, maintenance and supply of forest camps etc. by e.g. providing training on working</p>	<p>Discussion with affected communities, CFDCs, FDA officials, NGOs, CBOs, CFDC, and other relevant</p>	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		techniques and on business management and social obligations  Contract holder's records  Number of contract holders operations subcontracted to the communities  Field visit	stakeholders	
	<i>Sub-indicator 4.3.3.3</i> <i>With the support of the FMC holder local populations develop food-crop farming activities (gardening, stock-breeding, fish-breeding, etc.).</i>	Existence of micro-projects at the level of local communities initiated/supported by FMU manager  Contract holder's records  Field visit	Discussion with affected communities, CFDCs, FDA officials, NGOs, CBOs, CFDC, and other relevant stakeholders	

#### Criterion 4.4

**According to the importance and impact of the forestry operations, the concessionaire contributes to improving the health and education of local populations**

*(FMU contributes to the development of health and educational services to meet the needs of all the groups of the local populations in relation to the significance of forest management in the local economy and employment)*

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<b><i>Indicator 4.4.1</i></b> <i>The FMC holder takes preventive measures to minimize any professional hazards in relation to forestry activities</i>	Contract holder carries out risk assessment of all operations and design the necessary preventive, curative and compensation measure	Discussions with contract holder, its staff and workers	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Contract holder's possesses the Liberia Labour Code and other national regulations on work contracts, work safety, working time, minimum wages, social benefits etc. and respects them	Discussion with community  Liberia Labour Code	
	<i>Sub-indicator 4.4.1.1 Working conditions are in accordance with the labour code and/or ILO recommendations</i>	Contract holder provides the workers with adequate and ergonomic safety gear  Contract holder provision of access to medical treatment in case of accident or emergency situations.  Availability of first aid equipment in working sites  The requirements apply also to contractors	Discussions with workers and contractors  Liberia Labour Law  ILO Conventions on forestry work safety and equipment  Contractor Agreement	
	<i>Sub-indicator 4.4.1.2 There are rules of procedures and memoranda that are widely circulated to remind employees about the observance of safety norms.</i>	Contract holder policy for enforcement and encouragement of use of safety gears  Workers contract/employment letters  Health and safety awareness, training and education records  Health and safety gear use sanction and incentive records	Field visit  Discussions with worker and local trade union executives	
	<i>Sub-indicator 4.4.1.3 Appropriate safety gear and equipment are distributed and worn by employees in their various working environments</i>	Health and safety gear procurement records  Health and safety gear distribution records	Discussions with workers, local trade union executives	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
		Worker seen using gears  Field visit		
	<i>Sub-indicator 4.4.1.4 Employees are regularly submitted to medical examinations in accordance with national norms</i>	Workers medical examination records (including dates) medical record/card of each employee  Contract holder's convention with doctors/physicians	Contract holder's office  Liberia Labour Law  Discussions with workers, local trade union executives, workers doctor/physician	
	<b>Indicator 4.4.2</b>  <i>Health-related aspects of living conditions are improved for employees and their families</i>	<i>Where workers are housed in contract holder's camp</i> , an action plan to develop hygiene and health of employees and their family exist  Action plan is implemented according to specified schedule  Field visit	Discussions with workers and families	
	<i>Sub-indicator 4.4.2.1 The FMC holder takes measures to ensure adequate public hygiene and health (e.g. the provisions of safe drinking water and hygienic latrines, the disposal of household refuse, etc.).</i>	Workers have access to good drinking water, hygienic latrines, household refuse disposal services etc  Field visit	Discussions with workers and families	
	<i>Sub-indicator 4.4.2.2 Health centre exists, have qualified staff living on-site, and function at a satisfactory level.</i>	Existence of health centre  Qualification certificates of medical staff, convention with doctors/physicians	Field visit and discussions with health centre staff or doctors/physicians	
	<i>Sub-indicator 4.4.2.3</i>	Action plan contains provision for ensuring availability of medicine to	Visit to health centre and discussion with health staff	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>The provisions of medicines to Health centre is ensured</i>	health centre and is implemented  Medicine procurement records  Medicine dispensing records	or doctors/physicians	
	<i>Sub-indicator 4.4.2.4 There is a store well-stocked with canned and fresh foodstuffs (particularly those high in proteins to substitute for bush meat).</i>	Existence of a store  Store is well-stocked with foodstuff especially food high in protein)	Visit to store  Discussion with workers and store manager	
	<b>Indicator 4.4.3</b>  <i>The health conditions of local populations are improved as a result of the forestry activities</i>	Contract holder participates in the development of health programs for all the groups of local populations  Provides resources for their implementation within the share of its significance to the local economy and employment  Report on health programme implementation	Field visit	
	<i>Sub-indicator 4.4.3.1 Local populations have access to FMC holder's health center in case of emergency</i>	Data on opening hours and access to medical services and health center	Visit to health centre and discussion with health staff	
	<i>Sub-indicator 4.4.3.2 The FMC holder contributes to educational programs on nutrition, including for pregnant or breast-feeding women,</i>	Contract holder's health education programme  Records on contract holder's contributions	Discussion with workers and families  Discussions with the communities, NGOs, FDA officials and other relevant stakeholders	
	<i>Sub-indicator 4.4.3.3 The FMC holder contributes to programs on vaccination and sensitisation campaigns on AIDS and</i>	Records on contract holder's contributions	Discussions with workers and families, local communities, NGOs, FDA	

INDICATOR	SUB-INDICATOR	VERIFIERS	SOURCES OF INFORMATION	FINDINGS
	<i>sexually transmitted diseases</i>		officials and other relevant stakeholders	
<b>Indicator 4.4.4</b>	<i>The FMC holder contributes to the basic education of local populations and workers present in the FMU, in accordance with the contractual provisions established consistent with national norms</i>	Where worker live inside contract holder's concession/camp there is evidence of contract holders' contributions towards development of educational services that enable the school-aged children to attend classes according to the national standards for basic education  Records on contract holder's contributions	Discussions with workers and families, local communities, NGOs, FDA officials and other relevant stakeholders  Discussions with the District Education Office	
<b>Sub-indicator 4.4.4.1</b>	<i>The FMC holder develops school infrastructure for its workers families</i>	Contract holder's Records Field observations	Discussions with workers and families, local communities, NGOs, FDA officials and other relevant stakeholders Field Visits Discussions with the District Education Office	
<b>Sub-indicator 4.4.4.2</b>	<i>Children in local communities have access to the FMC holder's school infrastructure.</i>	Records on children in a school age and those attending school	Visit to school  Discussions with school workers and the communities	

## **ANNEX I RELEVANT REFERENCE DOCUMENTS FOR THE IMPLEMENTATION AND ASSESSMENT OF CONFORMITY TO THE LIBERIA ATO/ITTO PCI**

Appropriate documentation on agreements, rules, guidelines and plans ensures that the State, contract holder, communities and other stakeholder are aware of right procedures and working methods. Documentation on monitoring of activities and various records provide feed-back on the quality and impact of forest management. Appropriate documentation fitted to the scale and needs of a contract holder is a precondition to an effective and systematic implementation and verification of the Liberia ATO/ITTO PCI. The core documentation includes forest management plan, adequate guidelines for forest work, records on operations and monitoring results on quality and impacts of forest management. This Liberia ATO/ITTO PCI requires explicitly a number of documents and records that the contract holder should adhere to, or compile.

The scope and content of the documentation are adapted to the needs of the various licenses or contract holder and its activities. For example while Environmental Impact Assessments, Social Agreements and operational plans are required for both FMCs and TSCs, Forest Management Plans are required of only FMCs...

**Table 1** presents the documentation that a contract holder should be aware of, develop or maintain. The documents are classified into following categories:

- (i) the national level documents, regulations contract holder should take into consideration;
- (ii) FMU level administrative documents and plans that set the framework for forest management;
- (iii) guidelines and instructions concessionaire should develop for systematic implementation of the Liberia ATO/ITTO PCI;
- (iv) records;
- (v) monitoring reports; and
- (vi) development initiatives.

Column one presents the documents proposed in the Liberia ATO/ITTO PCI. The referred ATO/ITTO Criteria and Indicators in the column II set provisions on the content of each document. All the documents marked with \* are specifically required in the ATO/ITTO PCI.

The content and structure of documentation are adapted to the management system and needs of the contract holder so as to support efficient high quality work and provide feed-back on the economic, environmental and social impacts of forest management.

**Table 1 Documentation Referred to in LIBERIA ATO/ITTO STANDARD FOR SUSTAINABLE MANAGEMENT OF NATURAL FOREST**

<b>(i) National level norms, regulations, standards</b>	<b>Reference ATO/ITTO indicators</b>
1. National/international guidelines on for forest management National Forest Policy of Liberia –National Forestry Reform Law 2006 –Liberia Labour law –Public Procurement and Concessions Act –CITES, Laws on hunting and trading of bush-meat –BD Convention –ILO Conventions, Labour Code –Recognition of customary rights –Legislation on the use of chemicals –Legislation on protection of forests against damages –Norms on waste management	1.1.3 (National Forest Policy and related laws) 1.1.6 (Procedure for access to natural resources) 1.1.9 (Functioning industrial Policy) 1.1.12. 2 (procedure and guidelines for HCV) 1.1.6 2.2.3 (preliminary studies) 2.6.2 (forest management documents) 3.2.2 (land conversion) 1.1.1, 1.1.2, (international agreements) 3.3.3 (hunting and trade of animals) 4.2.5 (sanctions) 4.1.3, 4.4.1-2 4.1.1-2  3.3.4 (chemical, biological protection measures, 3.5.1 chemicals in use) 3.5.1 (soil and water protection, waste management)
2. National standards on timber recovery rates*	2.3.4, 3.2.1
3. Data on rare, threatened and endangered species	3.1.1
4. Scientific or technical publications	3.1.4
<b>(ii) FMU level administrative documents and plans</b>	
3. Timber sales contract	2.2.1
4. Forest management contract	4.1.1, 4.2.3 (protocol), 4.2.5 (sanctions)
5. Forest resource permits	
6. Concession contract (TSC & FMC)* –Financial obligations –Provisions for technical work –Provisions for social benefits –Forest protection (if not defined elsewhere)	2.2.3, 2.2.4, 2.2.6, 2.3.3, 4.2.5 (sanctions), 4.3.1-3 revenue allocation) 4.3.1-3, 4.4.4 (health care, education)  2.4.3 (multiple use), 2.5.1, 2.5.3 (NTFP) 3.2.2 (land conversion) 4.1.1-2 (customary rights),
7. Preliminary studies* –Forest inventory	2.2.3

<ul style="list-style-type: none"> <li>– Ecological study</li> <li>– Multiresource study</li> <li>– Socio-economic study</li> </ul>	3.3.2/2.2.3-4 (protection), 3.3.4 (species protection)
<p>8. Forest Management Document*</p> <ul style="list-style-type: none"> <li>– Forest management plan: forest resources, annual allowable cut, minimum diameter for exploitation, number of harvestable trees per hectare</li> <li>– Harvesting plan</li> <li>– Wildlife management plan</li> <li>– High conservation value forests (HCVF)</li> <li>– Definition of areas of cultural, religious importance or used for customary rights</li> <li>– Other</li> </ul>	2.2.3-4 (zones for restricted use), 2.2.6, 2.3.1-3, 2.4.2 (single tree method), 2.4.3 (multi-purpose trees), 2.5.1-3 (NTFP), 2.6.1 (yield), 2.6.2 (revision), 3.1.4 (new information), 3.1.1/3.3.2 (maps), 3.2.2/ 3.3.3 (structure) 3.3.1 (HCVF), 3.3.2/2.2.3-4 (protection), 3.3.4 (species protection) 3.3.4 (GMO), 3.4.1-2 (regeneration) 3.5.1-2 (soil and water protection, waste management, use of chemicals), 3.5.3 (restoration activities), 4.1.1-2 (customary rights),
9. Annual Harvesting Plan*	2.2.3, 2.3.1-3, 2.3.5, 2.4.2 (single tree harvesting), 2.4.3, 2.5.1 (NTFP) 3.4.1, 2.6.1 (yield), 3.2.1 (techniques), 3.2.2 (structure), 3.3.1 (HCVF), 3.4.1-2 (regeneration)
10. Pre-harvest Inventories*	2.3.1, 2.3.2, 2.4.2-3 (valuable trees), 2.5.2 (NTFP), 3.1.1 (maps on ecologically valuable areas)
<b>(iii) Guidelines and instructions</b>	
<ol style="list-style-type: none"> <li>1. Silvicultural regulations and guidelines</li> <li>2. Ten Core Regulation Guidelines</li> <li>3. *</li> </ol>	2.4.1, 2.4.2 (single tree management), 2.4.3 (multi-purpose trees), 2.5.1, 2.5.3 (NTFP) 3.4.1, 3.5.1 (soil and water protection), 3.2.1-2 (techniques), 3.3.1/2.2.3-4, 3.3.4 (protection, HCVF) 3.4.1-2 (regeneration) 3.5.1-2 (soil, water protection, waste management)
<b>(iii) Guidelines and instructions</b>	
<b>Reference ATO/ITTO indicators</b>	
4. Regulations on the use of biological and chemical pest control agents	3.3.4
5. The Code of Harvesting Practices*	2.3.3, 2.3.4 (waste wood)
6. Recruitment guidelines	2.2.2, 2.4.4, 4.1.3 (workers' rights), 4.3.2, 4.4.1 (work safety and health care)

7. Work safety and health care guidelines	4.4.1-2 (work safety and health care)
8. Guidelines for development of infrastructure (roads, stock yards, quarries, logging camps)	2.2.7, 3.2.1, 3.5.2-3,
9. Program for workers' competence building	2.4.4
10.FMU rules on access to the area*	3.3.3, 4.1.2
11.FMU rules on hunting and trading bush-meat*	3.3.3
12.Procedures for conflict management	4.2.2-3
<b>(iv) Monitoring Documents</b>	
1. Growth, yield and regeneration*	2.6.1-2, 3.1.2, 3.2.2,
2. Ecological impacts*	2.6.1-2 (species) (2.2.3), 3.1.1-2, 3.2.2, 3.3.1 (structure), 3.3.4 (species composition), 3.5.3 (erosion)
3. Social and socio-economic impacts*	2.6.1-2 (2.2.3), 3.1.2
4. Economic productivity*	2.6.1-2, 3.1.2
5. Data on the network of permanent sample plots	2.6.1-2, 3.1.2, 3.1.3 (results)
6. Dispersal patterns of exotic species	3.3.4
7. Use of biological/chemical pest/herbicide control	3.5.2
<b>(v) Records</b>	
1. Stakeholder information/consultation on –FDA Guidelines for Forest Management Planning –Forest Management Document* –Use of NTFP* –Water and soil protection, waste management* –Recognition and documentation of customary rights* –Compensation on the use of traditional knowledge or techniques, for damages* –Rights and duties (incl. workers' rights)*	4.2.3, 4.2.5 (sanctions), 4.3.1-3 revenue allocation)  2.2.6, 2.2.8, 4.2.1-4 (ad hoc bodies) 2.5.1, 2.5.3, 3.3.3 (subsistence living), 2.5.1 4.1.1  4.1.1, 4.1.5 4.1.4
2. Records on staff and workers, contractors	2.2.2, 2.4.4 (training), 4.1.4, 4.3.2,
3. Training –Forest management –Harvesting standards* –Water and soil protection, waste management –Work safety and health care	2.4.4 (program) 4.3.2 (records) 2.2.6, 2.2.8, 2.4.4 2.3.3 3.5.1 4.4.1
4. Complaints, internal non-conformities, corrective measures	4.1.5, 4.2.5 (sanctions)
5. Sales	

– Timber*	2.3.6, 2.6.1 (yield), 3.1.2
– NTFP	2.5.3 (marketing potential)
6. Control reports on the access to and hunting in the FMU*	3.3.3
7. Use of biological/chemical pest/herbicide control	3.5.2
8. Accounting data on revenue allocations	4.3.1 - 3
<b>(vi) Development initiatives</b>	
1. Concessionaire initiates/participates on the development of	
– local timber processing	4.3.3
– entrepreneurship	4.3.3
– health care	4.3.3, 4.4.2, 4.4.3
– education (primary; adult education)	4.4.4