

Readiness Preparation Proposal (R-PP)

for Country: Republic of Liberia

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***For use by countries for submitting a
Readiness Preparation Proposal (R-PP)***

Forest Carbon Partnership Facility (FCPF)

United Nations REDD Programme (UN-REDD)

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Summary of the R-PP

Dates of R-PP preparation (beginning to submission):	18/05/09 to 25/01/11
Expected duration of R-PP implementation (month/year to month/year):	01/06/11 to 31/05/2014
Total budget estimate:	\$5,074,000 USD
Anticipated sources of funding:	<p>from FCPF: \$3,758,000 USD</p> <p>from UN-REDD: \$0 USD</p> <p>National government contribution: \$1,200,000 USD (approx.)</p> <p>other source: CI – In-kind</p> <p>other source: IUCN – In-kind</p> <p>other source: FFI – \$116,000 USD (community processes for REDD+), plus in-kind support</p>
Expected government signer of R-PP grant request (name, title, affiliation):	<p>Hon. Augustine K. Ngafuan, Minister of Finance</p> <p>Ministry of Finance, Broad Street, Monrovia</p> <p><libfinancemin@yahoo.com></p>
Expected key results from the R-PP implementation process:	<p>Outcome 1) National, county and local capacity sufficient to understand and engage in R-PP implementation process;</p> <p>Outcome 2) Key knowledge for REDD+ gained and shared among stakeholders, including legal context, carbon (biomass) and socio-economic baselines, and reference emission levels (REL);</p> <p>Outcome 3) Key systems for REDD+ (Monitoring, Reporting and Verification, FPIC, tenure arrangements, benefit distribution systems and M&E) explored and developed</p> <p>Outcome 4) All stakeholders fully aware of and participating in REDD+ / R-PP and consulted on each component, activity and phase during planning and implementation</p>

Executive Summary

Liberia is well placed to undertake the programme of activities required to prepare for REDD+, a performance-based payments for emission reductions. As outlined below, many crucial activities are already in process. Furthermore, the country's unique history of community based development and unique political and developmental situation make it an ideal model for the application of REDD+ at a country level.

1. Component 1 : Organize and Consult

- 1.1. Management Arrangements
- 1.2. Information Sharing and early dialogue
- 1.3. Consultation and Participation

Current status:

Significant actions have been taken by the government of the Republic of Liberia, with support from Non-Governmental Organization (NGOs and INGOs) and Civil Society Groups (CSOs), towards putting in place the architecture for REDD+ and ensuring that all stakeholders are participating in REDD+ planning (e.g. R-PP) and implementation. There exists a REDD+ Technical Working Group with the specific role of leading and monitoring REDD+ actions, in addition to numerous existing frameworks and institutions which are now mobilized and tasked with supporting REDD+ development. The government, with support from NGOs, has already undertaken several rounds of participatory workshops and produced awareness raising materials (including radio and print media) to increase understanding of REDD+ and allow for active engagement at all political and social levels. In addition, there have been consultation on the R-PP within these REDD+ dialogues, plus specific consultations with all stakeholders on the R-PP process itself.

Expected results from component activities:

All stakeholders – from national government and ministries, to local community members – will be fully aware of the R-PP and REDD+ processes, including opportunities, challenges and the rights of refusal, participation and shared benefits. Government institutions will also receive the necessary support and training to raise capacity and knowledge on REDD+, to be able to lead a successful programme.

2. Component 2: Prepare the REDD-plus Strategy

- 2.1. Assessment of Land Use, Forest Law, Policy and Governance
- 2.2. REDD-plus Strategy Options
- 2.3. REDD-plus Implementation Framework
- 2.4. Social and Environmental Impacts

Current status:

The forest of Liberia is extremely rich in biodiversity, being a recognized global hotspot and priority for conservation – containing charismatic, rare mega-fauna such as chimpanzees, elephants and forest cats, as well as a raft of lesser-known but endemic species including the pygmy hippopotamus, zebra duiker and extraordinary diversity of other primates. Liberia also holds the majority, with around 43%, of the remaining Guinea Forest Ecosystem, far more than the other countries in the region. However, Liberia is also a post-conflict nation, with wide-spread poverty, and yet rich in natural minerals – especially gold, diamonds and ore.

At present, Liberia has in-place the necessary institution, laws and political will to develop a successful REDD+ strategy. However, the threats and competing interests outlined above, are compounded by a lack of resources and capacity, at all levels of society.

Expected results from component activities:

The R-PP describes a process that will address the gaps in knowledge, data and capacity, providing the necessary skills, research and mechanism needed to fully explore and develop REDD+ at the project, sub-national and national level.

3. Component 3: Develop a Reference Level or Scenario

Current status: Preliminary studies have been conducted reporting on forest coverage (2004 and 2010) and estimating deforestation rates. Degradation and future emissions have yet to be assessed.

Expected results from component activities:

- Roles and Responsibilities and current capacity and gaps defined. Forest Management Units (FMU) and staffing established and capacity built.
- Activity data for deforestation, degradation, and reforestation in Liberia from 1990-2005 collected and collated.
- IPCC Reporting Tier Selected and emission factors for deforestation, forest degradation, and forestation developed.
- Historical emissions and removals developed. Uncertainty in this data assessed.
- Predictive spatial models developed for various socio-economic scenarios.
- Linkages with site-level initiatives considered.

4. Component 4: Design a Monitoring System

Current status: As with component 3 above, some limited capacity exists within the FMU to undertake development of the monitoring system. However, system design cannot be finalized without guidance from the UNFCCC.

Expected results from component activities:

The MRV system will build on activities undertaken as part of component 3. The overall aim is a functional MRV system that meets the needs of the national REDD+ program and complies with the UNFCCC guidelines.

Additional results will include:

- A trained and resourced FMU with the capacity to undertake the necessary monitoring and continue to develop methodology.
- A working definition of forest that can be applied to the Liberian context.
- An assessment of the current MRV.
- An effective data base system to facilitate centralisation of data and data management.
- International collaborative relationships established and developed via MRV workshops
- Testing and refinement processes in place.

5. Component 5: Schedule and Budget

A total of \$3,758,000 is requested between 2011 and 2014, which will be split between the development partners as detailed below. Co funding of approximately \$1,200,000 will be provided/sought from the government of Liberia, in addition to significant in-kind support (most notably the provision of staff / time).

Development Partner	Amount
Government of Liberia	\$1,200,000 USD + in-kind funding
Fauna & Flora International	\$116,000 for REDD+, including R-PP support on research and community / participation
Conservation International	In-kind
IUCN	In-kind

6. Component 6: Design a Program Monitoring and Evaluation Framework

A comprehensive M&E system is outlined in the R-PP to be further developed with funding to cover the costs of consultancy support and training of key stakeholders to develop and maintain effective M&E throughout the 4 year during of the REDD+ readiness preparation process (and REDD+ strategy as a whole).

Acronyms the country uses in the R-PP

AACC: Action Against Climate Change
BDS / BSM: Benefit Distribution System / Benefit Sharing Mechanism
CARI: Center for Agriculture and Research Institute
CBOs: Community-Based Organizations
CCBA: Climate Community and Biodiversity Alliance
CDM: Clean Development Mechanism
CER: Certified Emission Reduction
CFDCs: Community Forestry Development Committees
CFM: Community Forest Management
CI: Conservation International
CoP: Conference to the Parties
DBH: Diameter at Breast Height
DFS: Deutsche Forstservice GmbH
DNA: Designated National Authority
EIA: Environmental Impact Assessment
EPA: The Environmental Protection Agency of Liberia
ESMF: Environmental and Social Management Framework
FAO: Food and Agriculture Organisation of the United Nations
FCPF: Forest Carbon Partnership Facility
FDA: Forest Development Authority
FFI: Fauna & Flora International
FLEG-T: Forest Law Enforcement, Governance & Trade
FLY: Federation of Liberian Youth
FMU: Forest Management Unit
FPIC: Free, Prior and Informed Consent
FRA: FAO Forest Resource Assessment
FRM: Forest Resources Management
GHG: Green House Gas
GIS: Geographic Information Systems
INGO's: International Non Governmental Organisations
IUCN: International Union for Conservation of Nature
IPCC: International Panel on Climate Change
LCM: Land Change Modeler
LFR: Liberia Forest Reassessment
LISGIS: Liberia Institute of Statistics and Geo-Information Services
MMU: Minimum Monitoring Unit
MRV: Monitoring, Reporting and Verification
NAPA: National Adaptation Plan of Action
NCCS: National Climate Change Secretariat

NRWS: National Rural Women Structure

NGO: Non Governmental Organisation

NOCOL: National Oil Company of Liberia

PRS: Poverty Reduction Strategy

REDD: Reducing Emissions from Avoided Deforestation and Forest Degradation

RL/REL: Reference Level/ Reference Emission Level

R-PIN: Readiness Project Identification Note

R-PP: Readiness Preparation Proposal

RTWG: REDD+ technical working group

SADS: Skills and Agricultural Development Services

SDSU: South Dakota State University

SEA: Strategic Environmental Assessment

SESA: Strategic Environmental and Social Assessment

SGS: Société Générale de Surveillance

ToR: Terms of References

TWG: Technical Working Group

UN-REDD: The United Nations REDD Programme

VER: Voluntary Emission Reduction

WB: World Bank

Component 1: Organize and Consult

1a. National Readiness Management Arrangements

[Please include each component's standard box like this one in your submission]

**Standard 1a the R-PP text needs to meet for this component:
National readiness management arrangements**

The cross-cutting nature of the design and workings of the national readiness management arrangements on REDD, in terms of including relevant stakeholders and key government agencies in addition to the forestry department, commitment of other sectors in planning and implementation of REDD+ readiness. Capacity building activities are included in the work plan for each component where significant external technical expertise has been used in the R-PP development process.

Introduction

Establishing an effective management and regulatory framework for REDD+ readiness and implementation is critical for REDD+ in Liberia. Currently, Government of Liberia (GoL) operational structures at national, sub-national and local levels have, and will continue to support REDD+ management where possible, however, additional structures will have to be established where gaps are evident. Although, some of the existing structures were not designed principally for managing REDD+, their functions and activities provide incremental support for managing REDD+ in country. Most notably there exists structures for key REDD+ components, including forest allocation, protection, and management planning, monitoring and linking forestry to livelihood improvements. As such, REDD+ management will be integrated into these existing structures, including cross cutting elements that overlap existing legislation and/or authorities, as well as facilitating new ones.

The overall responsibility for the implementation of REDD+ enabling activities and governance rest with the Forestry Development Authority, with the National Climate Change Steering Committee giving policy guidance. This will be done through the NCCS which will coordinate with the Steering Committee, the RTWG, and the FDA to insure that all stakeholders are actively part of the design and implementation of the REDD program. The REDD Technical Working Group, which is chaired by the Forestry Development Authority (FDA) and co-chaired by the Environmental Protection Agency (EPA), will be the platform for bringing together all stakeholders and channeling technical support to the FDA for all REDD+ activities.

National Readiness Management Arrangements for REDD+

The 1986 Constitution of Liberia encourages bilateral and regional co-operation with international and regional organizations for the attainment of the global protection of the environment and the promotion of sustainable use of natural resources. Liberia is a party to the Kyoto Protocol and the three Rio Conventions; the UNCBD, UNFCCC and the UNCCD and is committed to meeting her obligation under those Conventions. However, institutional and capacity constraints have reduced the capability of the GoL to carry out appropriate national actions to implement these Conventions including the response to Climate Change. Despite these constraints, the establishment of the EPA in 2002, the launching of the National Climate Change Secretariat in 2010 and the establishment of the Land and Governance Commissions, in 2010, shows that Liberia has been building institutions and capacity to ensure compliance with the different multilateral environmental agreements.

The REDD Technical Working Group (RTWG), an off-shoot of the Carbon Consultative Group established in 2007, is one of such multi-stakeholders structures that have emerged as an interim arrangement, to provide technical support to the FDA for REDD+ readiness. Under the national

arrangements, the FDA is the designated authority for managing forest issues and will implement and manage the REDD+ Program. However, due to the cross cutting nature of the REDD program, the National Climate Change Steering Committee will provide the necessary policy support to FDA as well as upon request at the highest level of Government.

National Climate Change Steering Committee (NCCSC)

In September 2010, the President, through the members of Cabinet, endorsed the establishment of the National Climate Change Steering Committee (NCCSC); which was subsequently launched in October 2010. The NCCSC is a high-level policy coordination committee and is responsible for overall climate change policy in Liberia. It comprises of the President of Liberia, Ministers of Government, Directors of Governmental Agencies, National Energy & Climate Change Adviser to the President, private sector, civil society and international partners (see Table 1 below). This advisory body will serve as the policy clearing house for the REDD+ and all other Climate Change related issues. Consequently every policy will be reviewed and approved by this high level policy committee to secure political will. All functions of the NCCSC will be facilitated through the NCCS.

The primary roles of the NCCSC are as follows:

- Set overall climate change policy in Liberia and ensure that such policy is carried out
- Supervise, Support and when necessary recommend training for the efficient and effective functioning of the NCCS
- Create/Dissolve Working Groups (WGs) on an ad-hoc basis to assist in addressing technical issues related to Climate Change that may arise.
- Establish credible consultative processes, , which shall provide input to the REDD+ program among others
- Provide overall Supervision, advice and assist in coordination of the REDD+ Program
- Approve budgets and solicit funds for all climate change related activities including REDD+ programs
- Adopt measures and take appropriate actions necessary for achieving the mandate and goals of the NCCSC, including and in particular:
 - To approve the work plan of the NCCS;
 - To approve the budget of the NCCS;
 - Review and Approve REDD+ programs and other Climate Change reports for presentation by FDA/other relevant implementing Agencies to their Board of Directors
 - To authorize and/or approve the solicitation of external assistance;
 - To recruit and have the power to dismiss the Head of Secretariat of the NCCS;
 - To hire or approve the engagement of an independent auditor to perform audits of the NCCS financial transactions;
 - The NCCSC is an advisory and policy body for all Climate Change activities in Liberia, however implementation of programs will be carried out by relevant GOL Ministries and Agencies. For instance, REDD+ program will be implemented by FDA.

Figure 1. Structure of REDD Management and Governance

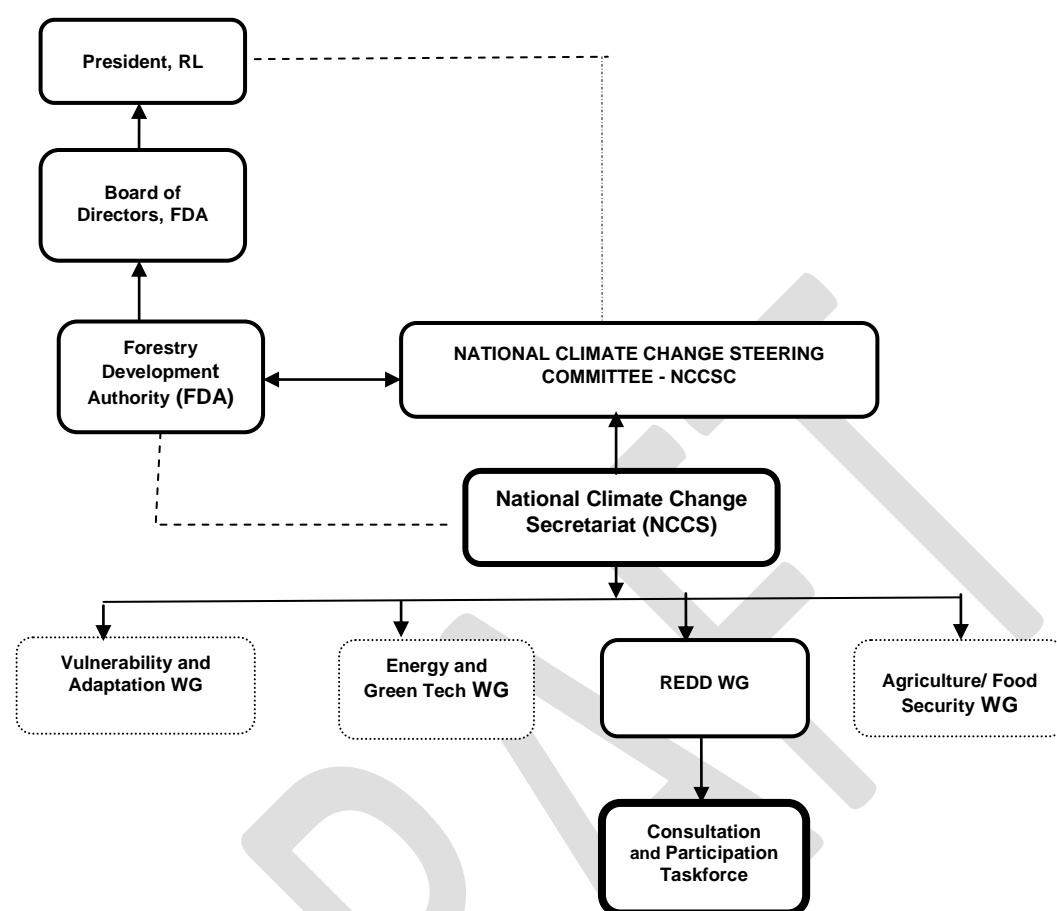


Table 1 Current Composition of the NCCSC

Composition of the NCCSC:
President of the Republic of Liberia-ex-official Energy, Environment and Climate Change Advisor to the President of Liberia Minister of Planning and Economic Affairs(MPEA) Minister of Land, Mines and Energy (MLME) Minister of Agriculture(MoA) Minister of Finance (MOF) Minister of Gender and Development Managing Director of the FDA Executive Director of the EPA Chairman, National Investment Commission Commissioner of Liberia Maritime Authority World Bank University Of Liberia Civil society, SADS Fauna & Flora International NCCS- Executive Director-Secretary

The National Climate Change Secretariat (NCCS)

The NCCS has been set up as a supportive arm of the NCCSC. The NCCS provides coordination, monitoring of programs and ensuring the implementation of policies as well as carrying out the administrative supervision functions, as the operational arm of the NCCSC. It is technically supported by various experts to include: Climate Change Adaptation Specialist, Mitigation/REDD+ Specialist, GIS/Mapping Specialist, Climate Change Policy Specialist, Communication /Information Specialist.

The secretariat shall compose of key staff to include: Head of Secretariat, Administrative Coordinator, Finance/Procurement Manager, Monitoring and Evaluation Manager, Policy officer, Secretary, Driver, Office Assistant. These staff members are located in the Presidency at the Executive Mansion and are under the direct supervision of the Energy, Environment and Climate Change Advisor to the President who also heads the NCCS. The creation of the NCCS at the Presidency is indicative of the high level support given to climate change in the Country and REDD+ promises to be further demonstration that Liberia is ready to join global efforts to mitigate GHG emissions.

The specific roles of the NCCS are as follow:

- Operationalize/integrate Climate Change Policies in to GoL development agenda
- Propose domestic policies relating to climate change
- Coordinate national adaptation and mitigation strategies
- Raise national awareness of climate change
- Serve as liaison between the office of the President, the NCCSC, the various working groups, and other relevant national stakeholders and other groups that will be established in the future
- Engage in appropriate programs to strengthen national capacity in addressing climate change
- Cooperate with international organizations, regional centers, institutions and experts in developing programs of action to mitigate and adapt to climate change in the region
- Collate, document and store data, record and disseminate climate change information to the public and media
- Undertake and facilitate research on climate change effects and mitigation potential in Liberia
- Maintain full records of the proceedings of the Climate Change Steering Committee, issue citations, serve as a clearing house on climate change, REDD and carbon matters and inform all stakeholders on a regular basis
- Ensure that WGs give proper attention to all cross-cutting issues in the design and implementation of interventions
- Collaborate closely with the WGs to ensure regular and timely reporting on the progress of activities and ensure timely presentation of reports to the NCCSC
- Follow-up with various taskforce under the REDD Working Group to ensure the timely completion of activities

The Forestry Development Authority (FDA)

The FDA was created in 1976, to manage all forests and forest resources in Liberia. The FDA is also responsible for ensuring that forest resources benefit the local communities and the entire country. This mandate allows the FDA to negotiate issues related to forest management, wildlife conservation, and biodiversity protection. Due to this central role in forest management, the FDA was assigned as the agency responsible to lead the development of the REDD+ readiness activities in Liberia. The FDA co chairs the REDD+ Technical Working Group (RTWG) and will implement the REDD+ program in Liberia.

The Environmental Protection Agency (EPA)

The Environmental Protection Agency of Liberia is the Designated National Authority (DNA) for the CDM of the UNFCCC/Kyoto Protocol and the environment. A National Environmental Policy Council oversees policy formulation at the EPA and sets priorities for national goals and objectives for the protection of the environment. The Minister of Lands, Mines and Energy heads the Policy Council of the EPA. The EPA also has a Board of Directors that is the supervisory body of the Agency. The

Minister of Planning and Economic Affairs serves as the head of the Board of Directors of the EPA. The EPA has now completed the National Adaptation Plan of Action (NAPA) of Liberia. The EPA co chairs the REDD Technical Working Group and coordinates with the FDA to manage the process of the REDD+ preparatory activities.

The REDD+ Technical Working Group (RTWG)

In June 2009, the Government of Liberia set- up a National REDD+ Technical Working Group composed of representatives from Government including the Energy, Environment and Climate Change Advisor to the President, NGOs, civil society, private sector, and academia. The Technical Group replaced the Carbon Consultative Group (CCG) established in 2007, and has the mandates of advising the FDA, building the capacity of the Authority and serving as a platform for multi-stakeholders to meet on REDD+ issues. Under the leadership of the FDA, the RTWG lead the drafting process of the Readiness Preparation Proposal (R-PP). The RTWG current membership comprises institutions and individuals that participated in the preparation and submission of Liberia's R-PIN in 2008. The objectives of the Working Group are listed in the TOR (Annex 1). The work of the RTWG will depend upon consultations of members of Table 2.

Table 2. Membership of the RTWG

Category	Stakeholders
National Government	<u>Ministries of:</u> <ul style="list-style-type: none"> - Health and Social Welfare - Education - Lands, Mines & Energy - Agriculture - Gender and Development - Youth & Sports - Commerce & Industry <u>Agencies:</u> <ul style="list-style-type: none"> - Forestry Development Authority - Environmental Protection Agency - Standing Committees on Forestry & Agriculture; FDA (FMAC & FDA Board) - Lands Commission
Forest Dependent People	<ul style="list-style-type: none"> - Town Chief/ Elders - Hunters Group - Community Forestry Development Committees (CFDCs) - District Forest Forum - County Forest Forum - National Forest forum
Civil Society Groups	<ul style="list-style-type: none"> - Press Union of Liberia - Liberia Media Initiatives (LMI) - Federation of Liberian Youth (FLY) - National Paramount Chiefs & Traditional Rulers (Council) - National Religious Councils - National Rural Women Structure - National Non-Governmental Organizations (NGOs) - International NGOs - Community-Based Organizations (CBOs)
Research and Academia	<ul style="list-style-type: none"> - University of Liberia - Cuttington University - Forestry Training Institute (FTI) - Center for Agriculture and Research Institute (CARI)
Trade Associations	<ul style="list-style-type: none"> - National Transport Union - Liberia Marketing Association - National Teachers association - National Charcoal and Fuel Wood Producers Association - Cooperative Development Agency
Private Sector	<ul style="list-style-type: none"> - Pit Sawyers Association - Traders in pit-sawn lumber - Small Scale Carpenters - Liberia Timber Association - Liberia Loggers Association - Forest Concessionaires & Oil palm Producers - Cottage Industries - Mining Companies (large and artisanal)

The Consultation and Participation (C&P) Taskforce

The C&P Taskforce was established by the RTWG during the R-PP information sharing and early dialogue phase. This group is made up of GoL, Civil Society, and International Organizations (see component 1b for detailed description). The Taskforce was set up principally to carry out information sharing during the R-PP formulation and develop a consultation and outreach plan integrating inputs from communities during the information sharing exercises. The Taskforce has been a medium through which communities received information about REDD+ and carbon rights and give their inputs. Its work has provided a platform for communities to voice their expectations of, interest in and support for (or possible criticism / grievances) REDD+.

Other Existing Forest Management Arrangements

Several other existing management structures working on forest management and forest governance will contribute to the successful management and implementation of REDD+ readiness. Although these structures work outside of the REDD arrangement frameworks, their activities support current and future REDD management. It will be critical to ensure that these structures communicate with each other and the RTWG (etc), via holding regular meetings and workshops where research and the production of guidelines, and so forth, related to REDD+ will be advanced.

The Benefit Sharing Working Group (BSWG) is a clear example of a framework that could be used during the next phases of REDD readiness and piloting. The BSWG has created guidelines and procedures for distributing benefits within the forestry sector especially in relation to commercial forestry. This multi-sector arrangement, when proven successful (because it is yet to be tested, since commercial forestry has just started again after the lifting of the UN ban), can be easily replicated to the REDD arrangements.

In 2006, the Government of Liberia established the **Liberia Forestry Initiative (LFI)** to address the increasing level of mismanagement and corruption existing within the forestry sector. The LFI was created as a platform where development partners, donors, government line ministries and agencies, and forest communities can interact and share ideas to sustainably manage the Liberian forest. The LFI initiated the forestry reform process which led to many reforms within the forestry sector including the enactment of the National Forestry Reform Law (NFRL) in 2006. LFI reforms provided enormous input into the government national strategy formulation on forest management and natural resource planning. The management provided by the LFI resulted in the international community lifting the ban on the sale of Liberia timber.

The NFRL (2006) gives exclusive rights to the Forestry Development Authority as the principal “manager” of national forest endowment in Liberia and mandates it to establish **Community Forestry Development Committee (CFDC)** to assist in administering control and effectiveness in the management of forest resources, especially those within communities. CFDCs have been established in all forest regions in the country and are inclusive stakeholder arrangements involving chiefs, elders, youth groups, women groups and community-based organizations. The committee has participated in many national and community level forest management processes including the development of the benefit sharing mechanism scheme, the R-PP information sharing workshops, consultation to establish the Community Rights Law, etc.

Table 1a: Summary of National Readiness Management Arrangements Activities and Budget

Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2011	2012	2013	2014	Total
REDD-, Technical Working Group management (These capacities may be built with in the Secretariat since it will be carrying out the over all coordination)	Meetings (e.g., travel for stakeholders on WG) and staff time (full and part-time)	\$250	\$250	\$250	\$250	\$1,000
	Dissemination of reports	\$50	\$50	\$50	\$50	\$200
Hire 2 staff for working Group	Hire information specialist	\$50	\$40	\$20		\$110
	Hire economist	\$30	\$30	\$20		\$80
Total		\$380	\$380	\$340	\$300	\$1,390
Domestic Government		\$300	\$310	\$340	\$300	\$1,500
FCPF		\$80	\$70			\$150
UN-REDD Programme (if applicable)						
Other Development Partner 1 (name)						
Other Development Partner 2 (name)						
Other Development Partner 3 (name)						

1b. Information Sharing and Early Dialogue with Key Stakeholder Groups

[note: former component "1b Consultation and Participation" has been divided into two new subcomponents: "1b" as shown here (for early stages, pre-consultation); and "1c Consultation and Participation Process" (which contains most of the former 1b material)]

[Keep this box in your R-PP submission]

Standard 1b the R-PP text needs to meet for this component: Information Sharing and Early Dialogue with Key Stakeholder Groups

The R-PP presents evidence of the government having undertaken an exercise to identify key stakeholders for REDD-plus, and commenced a credible national-scale information sharing and awareness raising campaign for key relevant stakeholders. The campaign's major objective is to establish an early dialogue on the REDD-plus concept and R-PP development process that sets the stage for the later consultation process during the implementation of the R-PP work plan. This effort needs to reach out, to the extent feasible at this stage, to networks and representatives of forest-dependent indigenous peoples and other forest dwellers and forest dependent communities, both at national and local level. The R-PP contains evidence that a reasonably broad range of key stakeholders has been identified, voices of vulnerable groups are beginning to be heard, and that a reasonable amount of time and effort has been invested to raise general awareness of the basic concepts and process of REDD-plus including the SESA.

Introduction

Liberia's legal and regulatory framework supports community participation in REDD+. The 2030 National Vision highlights the importance of broad participation in achieving sustainable economic development and inclusive growth. In 2006 Liberia adopted a new Forest Policy which seeks to harmonize Community, Conservation and Commercial uses of her forest resources, known as the 'Three C's approach'). Significant information sharing and dialogue with the population was conducted at national, regional, district and local levels when seeking the views of stakeholders in the design and adoption of this law. In relation to REDD+ specifically, the government of Liberia recognizes the importance of inclusion and stakeholder engagement in the R-PP process. It has further recognized that the multi-sectoral nature of REDD+ calls for a more inclusive and participatory process that takes into consideration the interest and realities of relevant stakeholders, particularly the forest dependent communities (Liberia National Vision, Ministry of Planning and Economic Affairs)

The Community Rights law provides absolute rights to forest communities to access forest resources and to use them in a sustainable way. This law provides a mandate for the concessionaires to develop social agreements contracts with communities highlighting how they will adequately and equitable benefit from operation of concessionaires in the utilization of their forest resources.

The Liberia Voluntary Partnership Agreement (VPA) process has put in place a multi-stakeholder VPA platform that has conducted several stakeholder consultations with affected forest communities, timber associations/companies civil society, and others, to inform the public and raise awareness on the threats and dangers the illegal timber trade poses on their economic and social development. The VPA has called for an independent forest monitoring initiative to be conducted by the forest dependent communities and civil society to report on illegal timber harvesting. The National Adaptation Plan of Action (NAPA) calls for a robust stakeholder consultation and participation during its implementation (Annex 2). During the development of NAPA extensive consultations with forest communities were also conducted throughout the country to seek inputs.

The VPA and NAPA stakeholders consultation processes were carryout at the national levels through which individual were identified from keys and relevant institutions and cross- section of Liberia to participate, and the outcome was then use to organize a national validation workshop for the document vetting. The R-PP information sharing dialogue (processes) bridge these gaps by increasing local participation through regional workshops,

The Consultation and Participation Taskforce intend to build on the National Forest Program Facility, which has facilitated the establishment of fora at national, regional, county and community level to ensure that all stakeholders including forest-dependent people are well inform, consulted and actively participating. Table 5 below demonstrates the composition of consultation at all levels of governance.

Table 3: Consultation levels and representation

Consultation Levels	# of Representatives	Interest group/ organization
National	15 persons	Private sector, NGOs, Networks, association, traditional authority, relevant Government agencies/ ministries, Academia
Regional	25/region	Legislative caucus, traditional Authority, Relevant Government Agencies and Ministries, Private sector, Associations, Academia, Religious council, NGOs, VPA platform
County	35/county	Legislative caucus, traditional Authority, Relevant Government Agencies and Ministries, Private sector, Associations, Academia, Religious council, NGOs, VPA platform
District	25/district	Traditional Authorities, CBOs, NGOs, Associations, Traditional Societies, schools, Local Network, SMEs, Private Sector
Clan	40/clan	Traditional Authorities, CBOs, NGOs, Associations, Traditional Societies, schools, Local Network, SMEs, Private Sector, hunters, farmers, fishermen,
Town	50/town	Traditional Authorities, CBOs, NGOs, Associations, Traditional Societies, schools, Local Network, SMEs, Private Sector, hunters, farmers, fishermen, land lords, video club,

Information Sharing and Early Dialogue with Key Stakeholder Groups in the R-PP Process in Liberia

Rationale

Liberia herein presents the R-PP, through a multi-stakeholder process strongly committed to building on the lessons learned from stakeholder engagement and consultations highlighted above. The R-PP document calls for a transparent, accountable and inclusive process. The government has conducted a social mobilization campaign that shares information and raises awareness on REDD+ and the R-PP + to all the relevant stakeholders. The campaign will also capture their views, concerns, and expectations on this issue. Information sharing and dialogue with Stakeholders will be integral to the process. This enables the participation of all relevant stakeholders, particularly those who will be affected or whose activities will have an impact on REDD+ implementation going forward.

The need for adequate care in handling the expectations of forest-dependent people cannot be overemphasized. As a post conflict country, Liberia faces serious challenges and potential hindrances to the REDD+ process.

These include:

- limited confidence reposed by forest dependent people in government and concessionaires;
- uneven bargaining power between different interest groups;
- hijacking of concessions negotiations by powerful interests;
- differing perceptions of participation process;
- misunderstanding and exaggerated expectations of REDD+;
- insufficient sharing of knowledge;

- poorly planned processes;
- limited resources for a genuine information sharing and dialogue process; and
- During the formulation phase extensive information sharing and sensitization campaign on REDD+ and the R-PP process was conducted with the relevant stakeholders based on the mapping exercise below. Furthermore participatory structures and conflict resolution and management mechanisms were discussed and identified. These will be elaborated further below in the text.

R-PP Consultation and Participation Activities

- A consultation and participation task force was established under the national REDD+ technical working group to be primarily responsible for driving the information sharing sensitization awareness campaign on REDD+ and the R-PP process (Annex 3). The composition of the task force consists of representatives from civil society, IUCN, FFI, youth organization, the Ministry of Gender and Development, EPA and FDA. This taskforce recognizes the major capacity gaps and other challenges faced in Liberia. Furthermore, the taskforce realizes that early stakeholder engagement in the R-PP process is crucial to overcome the challenges. Stakeholder engagement is essential so as to; inform understanding of the issues; get stakeholders adequately prepared for the implementation phase of REDD+; ensure that the all the relevant stakeholders are consulted; stakeholders' rights to clear and simplified information is respected.
- Stakeholder Mapping/analysis exercise: Before the commencement of the information sharing process, the REDD+ technical working group together with the C+P taskforce, conducted a vigorous stakeholder mapping exercise. This process identified the key stakeholders contributing to the drivers of deforestation, stakeholders who have an interest or stake in REDD+, and those that are mostly likely to loose from this initiative. The following were mapped in the various categories as seen below:

Table 4: Results of stakeholder mapping (stakeholders)

Category	Stakeholders
National Government	<ul style="list-style-type: none"> - Ministry of Health and Social Welfare - Ministry of Education - Ministry of Lands, Mines & Energy - Ministry of Internal Affairs; - Ministry of Agriculture - Ministry of Gender and Development - Ministry Planning and Economic Affairs - Ministry of Justice - Ministry Labor - Ministry of Culture, Information and Tourism - Ministry of Finance - Ministry of Foreign Affairs - Ministry of Youth & Sports - Ministry of Industry and Commerce - Forestry Development Authority - Environmental Protection Agency - Standing Committees on Forestry & Agriculture; FDA (FMAC & FDA Board) - National Investment Commission; Lands Commission
Forest Dependent People	<ul style="list-style-type: none"> - Town Chief/ Elders - Hunters Group - Community Forestry Development Committees (CFDCs) - District Forest Forum - County Forest Forum - National Forest forum
Civil Society Groups	<ul style="list-style-type: none"> - Press Union of Liberia - Liberia Media Initiatives - Federation of Liberian Youth (FLY) - National Paramount Chiefs & Traditional Rulers (Council)

	<ul style="list-style-type: none"> - National Religious Councils - National Rural Women Structure - National Non-Governmental Organizations (NGOs) - International NGOs - Community-Based Organisations (CBOs)
Research and Academia	<ul style="list-style-type: none"> - University of Liberia - Cuttington University - Forestry Training Institute - Center for Agriculture and Research Institute (CARI)
Trade Associations	<ul style="list-style-type: none"> - National Transport Union - Liberia Marketing Association - National Teachers association - National Charcoal and Fuel Wood Producers Association; - Cooperative Development Agency
Private Sector	<ul style="list-style-type: none"> - Pit Sawyers Association - Traders in pit-sawn lumber - Small Scale Carpenters - Liberia Timber Association - Liberia Loggers Association - Forest Concessionaires & Oil palm Producers - Cottage Industries - Mining Companies (both large and artisanal)
Other potential groups include	<ul style="list-style-type: none"> - Women - Female heads of household - Extreme poor

Strategic planning for information sharing and dialogue with stakeholders: following the stakeholder mapping exercise the taskforce convened a series of working sessions to plan the process and procedures for the overall information sharing exercise this included: setting up objectives for the information sharing and dialogue campaign; categorizing counties into regional sectors; identify venues for meetings and develop content (Annex 4).

Information sharing and stakeholder dialogue to date: The C+P taskforce implemented a series of regional, national and civil society workshops with the aim of sensitizing relevant stakeholders on REDD+ and the R-PP process. Furthermore stakeholder were provided with the opportunity to have meaningful discussions on information provided and come up with initial ideas on REDD+. Due to budget constraints the government was not able to implement targeted information sharing with forest dependent communities and other relevant stakeholders onsite. Instead concerted efforts were made to converge the stakeholders at regional workshops. In order to ensure that each stakeholder groups concerns, suggestions and recommendations were fully captured, the C+P task force had focus group discussions at each regional workshop. Below is a synopsis of information sharing and dialogue to date:

- Regional Workshops: The C&P taskforce used the existing FDA regional forestry sectors structures which categorise the 15 counties within the country into four regions. A two day workshop was organised in each region (Grand Gedeh, Bong, Bomi and Montserrado) (Annex 5) bringing together 120 participants from a broad cross-section of stakeholders identified in the stakeholder mapping carried out earlier. The workshop methodology consisted of presentations, focused group discussion per stakeholder group; and plenary discussions. Please refer to annex 5 for detailed information on these workshops.
- Information sharing and dialogues with Civil Society: this took place on July 22, in Monrovia involving 50 participants from over 30 civil society organizations and traditional councils (Annex 6).
- National information sharing Workshop: the issues and concerns from the above workshops were further discussed and agreed upon to inform the R-PP formulation at the national multi stakeholder (including women and youth) workshop held on August 10 2010, in Monrovia (Annex 7a & 7b).

Issues discussed during the information sharing dialogue processes

- Topics presented during information sharing exercises
 - i. Overview of Climate Change;

- ii. Climate Change Mitigation and Adaptation;
- iii. Reducing Emission from Deforestation and Forest Degradation (REDD) in Liberia;
- iv. Stakeholders Concerns and Expectations about REDD+;
- v. Drivers of Deforestation and Forest Degradation in Liberia;
- vi. REDD+ Readiness Arrangement in Liberia;
- vii. Initial concerns on the environment and social implication of REDD+;
- viii. The Role of Stakeholders in REDD+;
- ix. Policy Options (low carbon green economy and risks involved in REDD);
- x. Consultation and Participation of Forest dependent Communities (lessons learned);
- xi. Economic Development and Resources Tenure Security;
- xii. Oil Palm Best Practices, Rights and Community forestry;
- xiii. Benefit Sharing (IUCN Global Best Practices on Benefit Sharing for REDD+ National Standards, Voluntary Partnership Agreement, Local Governance Structures);
- xiv. Monitoring, Reporting and Verifications (lessons learned from a training of FDA personnel in community engagement in Ghana)
- Questions discussed with Stakeholders during the information sharing and dialogue processes
 - i. How can communities collaborate? – What is the best way by which communities and local people can participate in the design and implementation of REDD+ activities?
 - ii. What is the best way to consult people to get them to participate in REDD+?
 - iii. Benefits from REDD+? – How can we increase the chances that forest dependent people will benefit from REDD and what could be the benefits? List different forms of practical benefits to the communities?
 - iv. Capacity needs for empowerment? – How can forest dependent people be empowered to contribute to decision making by providing their experiences and ideas; what can be done to empower them?
 - v. How can we control our forest? – How can we make our forest better and control deforestation and forest degradation; list possible methods.
 - vi. Policy Options (low carbon green economy and risks involved in REDD);
 - vii. Consultation and participation - lessons learned?
 - viii. What are economic development and resources tenure security issues?
 - ix. What is the role oil palm best practices, rights and community forestry?
 - x. Links to Economic Development Corridors and Poverty Reduction Strategy?
 - xi. Benefit Sharing (IUCN Global Best Practices on Benefit Sharing for REDD+ National Standards, Voluntary Partnership Agreement, Local Governance Structures)?
 - xii. Monitoring, Reporting and Verifications – application of lessons learned from a training of FDA personnel in community engagement in Ghana?

Outcomes and Stakeholders Expectation/ Concern from different stakeholders

Participants in the all of the information sharing and dialogues workshops/ meetings expressed concerns and expectations about key issues ranging from concerns over recent threats to forests from deforestation activities perpetrated mainly by youths, to rights of forest dependent people in REDD+ projects. More stakeholders' concerns/expectations are summarized below:

- Is REDD+ not another way to further prevent forest communities from adequately using forest resources for their livelihood?
- How does REDD+ influence rural communities especially when it is perceive that they will not have access to the forest?
- Stakeholders expressed lack of adequate information regarding how the forest can sustainably be used to ensure that it remains intact for future generations;
- What can communities do to positively reduce the impact of climate change from deforestation and forest degradation in Liberia?
- What options can communities practice as alternative to shifting cultivation, clear felling of forest, bush burning in their farming system?
- What means does the government have to disseminate the information to other forest dwellers that are not presence in these workshops?

- The C&P Task force should be able to go to their villages and towns to sharing information with more people, especially those whose livelihood have been identified as driver of deforestation and degradation;
- What will FDA do to mechanism to discourage charcoal producers and pit-sawyer from destroying the forest?
- Can REDD+ really help to stop climate change or are developed countries using REDD+ to shy away from their responsibility to reduce green house gas emissions?
- That benefit sharing mechanisms in the current forest concessions agreement are not clear yet, how would REDD+ benefit sharing be different?
- Would there be issues of resettlement under REDD+?
- Sufficient time should be given to village and local level consultation;
- Hard copies of presentations and information should be sent to localities prior to consultation for internal discussions and more active participation;
- Will private deeded land be considered under the REDD+ Regime?
- What will the government do any land owner that refuse for their forest land to use for REDD+ activities?
- Some people are coming into our communities talking about REDD+ and Carbon Credit, are they the same or not?
- What additional plans REDD+ have to consider the voices of women, youth and vulnerable forest dependents?

Methods and tools used during the early information sharing and dialogue on REDD+ and R-PP

- Methods:
 - i. Town hall meetings / Palava huts discussions
 - ii. Workshops
 - iii. Interviews
 - iv. Focus Group Meetings with stakeholder groups
 - v. Self-administered questionnaires
 - vi. Expert consultations
- Communication Strategy: prior information on REDD+ and the R-PP process was disseminated to all stakeholders in order to prepare them for meaningful discussions during regional workshops. The following communication and outreach strategies were initiated:
 - i. Information Leaflet: An Information leaflet on REDD+ has been finalised and printed. This was used extensively prior to and during all workshops.
 - ii. Local FM and Community Radio
 - iii. Theatre (plays, sketches, drama)
 - iv. Skits and documentaries at cinemas and video centers
 - v. Websites
 - vi. Town crier
 - vii. Print and Electronic media

Other Information Sharing and Dialogue Activities:

- A bi-monthly radio talk show on REDD+ and Climate Change dubbed Green Forum, has also been initiated by Skills and Agricultural Development Services (SADS);
- Video documentary demonstrating challenges and impacts of Climate Change;
- Design and finalization of REDD+ Liberia website;
- The IUCN and FFI have supported an extensive national outreach programme through various local dialects in Liberia conducted by Media Initiative (LMI); and
- Newspaper articles on REDD+ and Climate Change are issued by SADS and Action Against Climate Change (AACC) regularly.

Table 1b: Summary of Stakeholder Consultation and Participation Activities and Budget					
Main Activity	Estimated Cost (in thousands)				
	2011	2012	2013	2014	Total
Consultancy Fees		\$15	\$15	\$15	\$45
Conduct awareness training workshops on REDD+ readiness strategy and the implementation of the RPP		\$60	\$40	\$20	\$120
Travel costs for stakeholder consultations/ Workshops		\$40	\$10	\$10	\$60
National, regional, local & village level Meetings/workshops:		\$40	\$40	\$20	\$100
Information Production & Electronic media costs:		\$20	\$20	\$20	\$60
Consultation Workshop costs:		\$10	\$10	\$10	\$30
Total	\$0	\$185	\$135	\$95	\$415
Government	\$	\$	\$	\$	\$
FCPF	\$	\$185	\$135	\$95	\$415
UN-REDD Programme (if applicable)	\$	\$	\$	\$	\$
Other Development Partner 1 (name)	\$	\$	\$	\$	\$
Other Development Partner 2 (name)	\$	\$	\$	\$	\$
Other Development Partner 3 (name)	\$	\$	\$	\$	\$

1c. Consultation and Participation Process

Consultations held so far in the development of the R-PP and the consultation plan

**Standard 1c the R-PP text needs to meet for this component:
Consultation and Participation Process**

Ownership, transparency, and dissemination of the R-PP by the government and relevant stakeholders, and inclusiveness of effective and informed consultation and participation by relevant stakeholders, will be assessed by whether proposals and/ or documentation on the following are included in the R-PP (i) the consultation and participation process for R-PP development thus far (ii) the extent of ownership within government and national stakeholder community; (iii) the Consultation and Participation Plan for the R-PP implementation phase (iv) concerns expressed and recommendations of relevant stakeholders, and a process for their consideration, and/or expressions of their support for the R-PP; (v) and mechanisms for addressing grievances regarding consultation and participation in the REDD-plus process, and for conflict resolution and redress of grievances.

Introduction

The objectives of consultation and participation in Liberia is to conduct nation-wide consultation on issues of REDD+; establishment a channel through which impacted communities can access information and participate in the design and implementation of REDD+ activities; improve the quality of decision-making about REDD+ processes by giving voice to and capturing the experiences of civil society organizations, forest-dependent peoples and local communities and other relevant stakeholders; encourage the development of regulatory frameworks that are socially inclusive, transparent and reportable; strive towards equitable outcomes of REDD+ policies and activities, and increase the chances that forest-dependent peoples benefit from the revenues from REDD as well as improving forest governance.

During the preparation phase of the R-PP Liberia will undergo extensive consultations with relevant stakeholders on the various components of the R-PP by building on the early information and social mobilization campaign and dialogue conducted. Participatory mechanisms and structures identified in the initial stage of information sharing will also be used to enhance the active engagement and inclusion of stakeholders most especially the forest dependent communities.

1. The Consultation and Participation Process for the R-PP

The Consultation & Participation (C&P) Taskforce, in collaboration with UN-REDD, implemented a series of regional, national and civil society workshops with the aim of informing relevant stakeholders about REDD+ and the R-PP process. Stakeholders were also provided with an opportunity to have meaningful discussions on the information provided and to present their own ideas, hopes and concerns about REDD+.

Concerted efforts (see below) were made to converge forest dependent communities and other relevant stakeholders at regional workshops. In order to ensure that each stakeholder groups concerns, suggestions and recommendations were fully captured, the C+P task force convened focused groups discussions at each regional workshop. Below is a synopsis of information sharing and dialogue carried out to date:

- i. **Regional dialogue and information sharing workshops** - Lead by the Consultation and Participation (C&P) Taskforce of the REDD+ TWG (Liberia), included specific information on the R-PP development process (dates and participants - Annex 3)
 - Tubmanburg, Bomi County;
 - Gbangar, Bong County;
 - Zwedru, Grand Gedeh County; and

- Monrovia, Montserrado County
- ii. **National Stakeholder Workshop** – All relevant stakeholders for REDD+ development and implementation, including: civil society groups, private sector, religious and traditional council, forest dependent people and government agencies (Annex 3)
- iii. **National Civil Society Dialogue** – Workshops held with representative all civil society groups (NGO, academia, media, youth groups, etc – see Annex 3) to develop a road map for CS engagement in REDD+ and the R- PP process itself, including the nomination of representatives for the CSO's to be present at and engage with the NCCS and RTWG.
- iv. **Nationwide radio campaign for REDD+ and R-PP awareness raising** – Dissemination of REDD+ and R-PP (FCPF) information in both Liberian English and translated into 16 local Liberia languages, and broadcast via 54 local radio stations in the 15 counties of Liberia
- v. **Mainstreaming REDD+ information into on-going REDD+ project development and implementation** in forest communities, including awareness raising and FPIC testing in pilot REDD+ sites (for example, in Sinoe County).
- vi. **Best practice in engaging stakeholders** – research undertaken by FDA (with support from FFI and the RTWG) to highlight in REDD+ and FPIC consultation mechanisms¹
- vii. **R-PP multi-stakeholder proposal writing team meetings** – participants: FFI, CI, FDA, EPA and SADS:
 - RTWG meetings on R-PP preparation – bi-monthly (from October 2010)
 - R-PP progress review and planning meeting – Tuesday, 4th January, 2011
 - R-PP draft review meeting – Friday, 7th January, 2011
 - R-PP review session with key government partners (Moses Wogbeh- FDA and Annya Vohiri - EPA) – Saturday, 8th January, 2011
 - R-PP final draft presentation, final review and submission meeting; all stakeholders – 10th January, 2011
- viii. **Additional leaflets and radio programs** – (see 1b) for REDD and R-PP awareness raising.

2. Consultation and Participation Plan

Goals of the C&P Plan

- Increased Awareness
- Participatory Decision Making
- Involvement in Implementation
- Integration with safeguard measures (SESA)

Objectives of C&P Plan

- Collective ownership of the process to develop strategies that reduce emissions through deforestation & forest degradation and to support conservation, sustainable forest management and the enhancement of forest carbon stocks
- Better understanding of REDD+ by all stakeholder groups

Specific Objectives

- Establish a channel through which beneficiaries can access information and participate in the design and implementation of REDD activities
- Improve the quality of decision-making processes
- Promote the development of regulatory frameworks that are socially inclusive and transparent
- Promote equitable outcomes of REDD policies
- Increase the chances that forest-dependent & other forest dwellers benefit from the revenues from REDD

Key Stakeholders

- Government agencies (national, county, local)
- Law enforcement agencies such as police & prosecutors

¹ Potential for establishing as REDD programme based upon community co-management – with particular focus of consultation and participation mechanism required for REDD+, E. B. Jones, 2010, Fauna and Flora International

- Private sector (loggers, energy producers, industry, etc.)
- Civil Society Organisations
- Vulnerable groups (women, youth, etc)
- Local communities, farmers who depend on forests for livelihoods
- Development Partners

List of Ministries and Public Agencies

- Ministry of Health and Social Welfare; Ministry of Education; Min of Lands, Mines & Energy; Ministry of Internal Affairs; Ministry of Agriculture; Ministry of Gender and Development; Ministry of Planning and Economic Affairs; Forestry Development Authority; Environmental Protection Agency; Ministry of Justice; Ministry of Labor; Ministry of Information; Ministry of Finance; Ministry of Foreign Affairs; Ministry of Youth & Sports; Ministry of Commerce; Standing Committee on Forestry & Agriculture; FDA (FMAC & FDA Board); Investment Commission; Lands Commission
- Research and Academia

Civil Society Groups

- Media ; Federation of Liberian Youth (FLY); Paramount chiefs & Traditional Rulers (Council); Religious Councils; National Rural Women Structure; National NGOs; International NGOs; Community-Based Organisations

Trade Associations

- Transport Union; Marketing Association; Teachers Association; Charcoal and fuelwood Producers Association; Agriculture cooperatives

Private Sector

- Pit Sawyers; Traders in pit-sawn lumber; Small Scale Carpenters; Liberia Timber Association; Liberia Loggers Association; Forest Concessionaires; Oil palm Producers; Cottage Industries; Mining Companies (both large and artisanal)

Stakeholders

Table 5 outlines the key stakeholders who will be consulted and prioritized for participation as part of this plan. It also outlines those categories of stakeholders who will require additional support in order to be able to effectively participate in the process.

Table 5: Stakeholder categories and those who require additional participation support

Category	Stakeholders	Support required for participation
National Government	<ul style="list-style-type: none"> - Ministry of Health and Social Welfare - Ministry of Education - Ministry of Lands, Mines & Energy - Ministry of Internal Affairs - Ministry Agriculture - Ministry of Gender and Development - Ministry Planning and Economic Affairs - Ministry of Justice - Ministry of Labour - Ministry of Information, Culture and Tourism - Ministry of Finance - Ministry of Foreign Affairs - Ministry of Youth & Sports - Ministry of Industry & Commerce - Forestry Development Authority - Environmental Protection Agency 	<p>Technical support to support drafting and implementation of the R-PP</p> <p>Financial commitments for drafting and implementation of the R-PP</p> <p>Capacity building for lead agencies at nationals and county levels that will be involved in implementing R-PP processes and managing REDD+ on the ground</p>

	<ul style="list-style-type: none"> - Standing Committees on Forestry & Agriculture; - FDA (FMAC & FDA Board) - National Investment Commission - Lands Commission 	
Forest Dependent People	<ul style="list-style-type: none"> - Town Chief/ Elders - Hunters Group - Community Forestry Development Committees (CFDCs) - District Forest Forum - County Forest Forum - National Forest forum 	<p>Logistical support (including transport, lodging etc) to attend R-PP workshops</p> <p>Financial support to be able to allow sustained participation in both R-PP dialogue and REDD+ activities in their communities</p> <p>Capacity building / training on technical REDD+ activities (participatory carbon stock/ biomass assessment, MRV, BSM, training of trainers and forest protection)</p>
Civil Society Groups	<ul style="list-style-type: none"> - Press Union of Liberia - Liberia Media Initiatives - Federation of Liberian Youth (FLY) - National Paramount Chiefs & Traditional Rulers (Council) - National Religious Councils - National Rural Women Structure - National Non-Governmental Organizations (NGOs) - International NGOs - Community-Based Organisations (CBOs) 	<p>Logistical support (including transport, lodging etc) to attend R-PP workshops</p> <p>Financial support to be able to allow sustained participation in both R-PP dialogue and REDD+ activities in their communities</p> <p>Capacity building / training on technical REDD+ activities (participatory carbon stock/ biomass assessment, MRV, BSM, training of trainers and forest protection)</p>
Research and Academia	<ul style="list-style-type: none"> - University of Liberia - Cuttington University - Forestry Training Institute - Center for Agriculture and Research Institute (CARI) 	Ensuring that academic institutions have the necessary knowledge of REDD+ and R-PP to promote engagement of faculty, students and the communities where they live
Trade Associations	<ul style="list-style-type: none"> - National Transport Union - Liberia Marketing Association - National Teachers association - National Charcoal and Fuel Wood Producers Association - Cooperative Development Agency 	Training / awareness raising on the value of REDD+ and R-PP procedures to ensure participation and eventual behaviour change post the R-PP
Private Sector	<ul style="list-style-type: none"> - Pit Sawyers Association - Traders in pit-sawn lumber - Small Scale Carpenters - Liberia Timber Association - Liberia Loggers Association - Forest Concessionaires & Oil palm Producers - Cottage Industries - Mining Companies (both large and artisanal) 	Training / awareness raising on the value of REDD+ and R-PP procedures to ensure participation and eventual behaviour change post the R-PP
Other possible groups	Relate to gender and other vulnerable groups (see section 1b)	As for forest dependent people, above

Key issues to address during consultation and participation

I. Key REDD+ Topics/issues to consult on

- Based on the REDD Strategy options and already identified issues affecting land use, benefit sharing and forestry, the following issues will be key discussion topics (Annex 8):
 - Current status of national forests
 - Previous and current policies to halt deforestation and forest degradation
 - Main causes and drivers of deforestation and forest degradation
 - Proposed REDD strategies
 - The economic, social and environmental impacts of REDD and the mitigation of risks
 - Land tenure and land use rights
 - Ownership of carbon and trees
 - Equitable distribution of revenues
 - Issues of forest governance
 - Institutional, policy and regulatory frameworks
 - Opportunity costs of land use
 - Interest of forest dependent people and forest dwellers
 - Existing and future monitoring systems to keep track of forests and forest emissions
 - Inclusive participation in the design and implementation of REDD strategies
 - Additionally, the consultation and participation process will address the following issues which emerged during previous information sharing and dialogues workshops/ meetings:
 - Is REDD+ another way to further prevent forest communities from adequately using forest resources for their livelihood?
 - How does REDD+ influence rural communities especially when it is perceived that they will not have access to the forest?
 - Stakeholders expressed lack of adequate information regarding how the forest can sustainably be used to ensure that it remains intact for future generations;
 - What can communities do to positively reduce the impact of climate change from deforestation and forest degradation in Liberia;
 - What options can communities practice as alternative to shifting cultivation, clear felling of forest, bush burning in their farming system;
 - What means does the government have to disseminate the information to other forest dwellers that are not present in these workshops?
 - The C&P Task force should be able to go to their villages and towns to share information with more people, especially those whose livelihoods have been identified as drivers of deforestation and degradation;
 - What will FDA do to mechanism to discourage charcoal producers and pit-sawyer from destroying the forest;
 - Can REDD+ really help to stop climate change or are developed countries using REDD+ to shy away from their responsibility to reduce greenhouse gas emissions?
 - That benefit sharing mechanisms in the current forest concessions agreement are not clear yet, how would REDD+ benefit sharing be different?
 - Would there be issues of resettlement under REDD+?
 - Sufficient time should be given to village and local level consultation;
 - Hard copies of presentations and information should be sent to localities prior to consultation for internal discussions and more active participation
 - Will private deeded land be considered under the REDD+ Regime?
 - What will the government do any land owner that refuse for their forest land to use for REDD+ activities?

- Some people are coming into our communities talking about REDD+ and Carbon Credit, are they the same or not?
- What additional plans REDD+ have to consider the voices of women, youth and vulnerable forest dependents?

II. For Information Sharing

- What is REDD-plus
- Incentives from REDD
- Forest Governance
- Potential REDD projects and activities

III. Consultation on REDD+ Strategies (Policy level – linked to SESA)

- How to address deforestation and degradation?
- What policies and in which sectors should be implemented?
- What is working and what is not presently?
- How to address governance challenges?
- Who is benefitting from current forest uses?

IV. Consultation on Specific Activities (linked to EIA)

- How benefits and costs of a specific activity will be distributed
- How to mitigate eventual negative impacts

V. Institutional Arrangements for C&P - Use existing structures and processes at:

- Community level, e.g. Community Assembly as provided for by the Community Rights Law, Coalition of CBOs
- County level, such as County Forestry Development Committees (CFDCs), County Law Makers Caucus, County Development, County Forestry Forums, Local NGOs
- Regional level and National levels such as National Forestry Forum, Benefit Sharing Trust Committee, NGO Coalition, Liberia Media Initiative, Traditional Councils and Councils of Religious Bodies, INGOs, National Parliament,

VI. Responsible agencies

- C&P Task Force
- REDD Technical Working Group
- National Climate Change Secretariat

Steps for Consultation and Participation

Different Consultation Groups may be constituted for specific issues:

Synthesis and Consultation

- Analysis, Preparation and Consultation to define Strategy
 - Awareness Raising
 - Analysis of Existing Knowledge
 - Expert Consultations
- Preparation of a Synthesis of the proposed aspects of REDD+ Strategy
- Broad Stakeholder Consultation and Inputs
- Resulting increased awareness of REDD+, its challenges and opportunities
- Final Selection of:
 - REDD+ Strategy and
 - Pilot Projects

Piloting and Testing

- Goal: Establishment of Institutions, Legislation and Operational Plan
- Proposed Steps/Activities
 - Continued awareness raising
 - Pilot Projects

- On-going Review of Pilot Projects
- Stakeholder-led & Focus Group Consultation on Legal and Institutional Changes

Becoming Ready

- Consultation and Validation of Comprehensive National REDD+ Strategy
- Broad stakeholder consultations on Policy Design and Implementation
- Mechanisms for Conflict Resolution
- Monitoring and Evaluation Mechanisms

3. Grievance and complaints handling mechanism

- Standard operating procedures will be developed for a grievance and complaints handling mechanism for the project.
- A complaints handling system will be established based on input from key stakeholders about the most appropriate mechanism to be established. Options include: postal systems, SMS messaging call centre, hosted call centre, email system.

4. Mechanisms for Conflict or Dispute Resolution

- Local (community) level:
 - Palava hut discussions (Chiefs, Landlords, Zoes and Elders)
 - Poro and Sande Societies levels (Zoes and Chiefs)
 - Family to family (Heads of family)
 - Religious Institutions (Churches and Mosques)
 - Community Police
- County level:
 - Magisterial courts
 - Religious Institutions (Churches and Mosques)
 - Palava hut discussions (County Officials, Chiefs, Landlords, Zoes and Elders)
 - National level (involving head of national institutions / ministries as mediators and decision makers)
 - Legal (Court) system
 - Mediations through Traditional and Religious Councils/Groupings
 - Lands Commission
 - NCCS
 - RTWG
- National level
 - Legal (Court) system
 - Mediations through Traditional and Religious Councils/Groupings
- Lands Commission
 - NCCS
 - RTWG

These systems relate to already established mechanisms for resolving disputes in Liberia. However, there is a need to further explore ideas for how grievances will be handling, including: How do these existing systems function? Are there specific processes which could be established to resolve grievances related to REDD+ in particular?

Possible actions to be developed as part of the national REDD+ strategy and implementation:

- In order to ensure independence a legal aid organization could be supported to handle disputes at the first instance.
- Capacity building may need to be provided to the legal aid organization.
- As local communities tend to trust traditional dispute resolution mechanisms, these should be prioritized for the resolution of intra or inter-community disputes.

5. Ensuring meaningful participation

This table (Table 6) summaries key activity of decision making stages and which stakeholder category(s) will be involved in which activity or decision making stage.

Table 6: Project activity and stakeholder involvement

Key activity or decision	Stakeholder group						
	Community	Local government	Country level government	National government	CSO	NGO	Private sector
a) Establishing baselines (carbon inventory and socio-economic)	X	X	X	X		X	
b) Setting up the MRV	X	X	X	X		X	
c) Impact assessments/ SESA	X	X	X	X	X	X	
d) Designing the BSM	X	X	X	X	X	X	
e) Land tenure arrangements	X	X	X	X	X	X	
f) Legal review and provisions			X	X	X	X	X
g) REDD+ market and management plan(s)	X	X	X	X	X	X	X

During national and regional multi stakeholder information sharing and dialogue processes, participants were able to identify the most appropriate participatory structures to be used during the next phase of the R-PP to allow for a more inclusive and participatory process. Based on this input the following are the existing structures and processes will be utilised:

- **Community level** - e.g. Community Assembly as provided for by the Community Rights Law, Coalition of CBOs, Community Youth and Sport clubs, Community Based Forest Forums, Rural Women Structures.
- **County level** - County structures such as County Forestry Development Committees (CFDCs), County Law Makers Caucus, County Development Officers (CDOs), County Forestry Forums, Local NGOs.
- **National levels** - such as National Forestry Forum, Benefit Sharing Trust Committee, NGO Coalition, Liberia Media Initiative, Traditional Councils and Councils of Religious Bodies, INGOs, National Parliament, Association of Female Lawyers of Liberia (AFELL), Liberian BAR Association, Association of Liberian Journalists, VPA Platforms.

6. Monitoring Mechanisms

- There are a number of existing mechanisms that will be used to measure the effectiveness of REDD strategies and good practices, including this plan. Existing laws and regulations include:
 - Community Rights Law (CRL)
 - National Forestry Reform Law (NFRL, 2006)
 - Community Forestry Development Committee (CFDC)
 - County Forest Forum
 - Benefit Sharing Trust Committee
- New structures that may have to be established to monitor the process include:
 - National R-PP Multi-stakeholder Monitoring and Evaluation Committee
 - National Climate Change Steering Committee
 - Local R-PP Multi-stakeholder Monitoring and Evaluation Group (County level)

- The following stakeholders will be involved in monitoring (Table 7):

Table 7: Roles and responsibilities for monitoring

Stakeholder group	Roles / responsibilities
1. Community Leaders (Local Government Officials, Chiefs, women, Youths, Elders)	Mobilisation of the community for monitoring (etc) activities
2. Religious and Traditional Leaders	Provision of moral and behavioural guidance
3. Civil Society	Independent viewpoint and monitoring equitability of monitoring process
4. Trade Unions	Support to forestry workers involved in REDD+ monitoring
5. Consultants	Provision of international best M&E practices
6. REDD Technical Working Group (including FDA and EPA representatives), NCCSC	Oversight and coordination of monitoring activities (nationally)

7. Lessons learned

Lessons learned from the consultation and participation processes implemented to date (Annex 8):

- Consultation was made difficult by a lack of clarity over membership of, and coordination among, R-PP drafting team
- Delays on logistical decisions effecting the draft team meant that members of the team experienced scheduling issues and conflicting priorities
- A high level of capacity and REDD+ competency is essential to be able to facilitate consultation effectively – skills that require further development in key government institutions
- Wider consultation, facilitated by great clarity of process and time available for drafting, would have resulted in a broader and richer input from a variety of additional stakeholders
- Consultations held early on in the R-PP process highlighted the need to avoid land grabs and make sure sufficient (equitable) benefits reach local communities – as such, the land commission and CSOs / forest dependent community representatives need to be (more) involved in the REDD+ / R-PP process
- With greater time made available for drafting the R-PP, the level of transparency, inclusion and consultation would have been (and should have been) greater. For example, wider consultations with more stakeholders over each successive draft of the R-PP would be preferable. This would have allowed for the inclusion of more varied voices in the R-PP and its preparation process, especially from marginal groups (defined by gender, ethnicity and poverty). However, despite the challenges, the R-PP drafting team did include community CSOs, NGOs and government representatives

Table 1c: Summary of Consultation and Participation Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
Materials Development	Develop best practice key messages	\$25	\$10		\$15	\$50
	Prepare appropriate local language and accessible media for broad use	\$10	\$10		\$10	\$30
Project coordination	Develop office, staffing and workplan for managing social impacts of REDD+	\$20	\$10	\$10	\$5	\$45
Consultations & feedback forums	National (4)	\$10	\$10	\$5	\$5	\$30
	Industry actors (4)	\$10	\$10	\$5	\$5	\$30
	Legal reviews (4)	\$10	\$10	\$5	\$5	\$30
	Local forums (100)	\$50	\$50	\$50	\$50	\$200
Grievances and response mechanism	Develop & dispute resolution policy	\$10	\$5	\$3	\$2	\$20
	Establish & manage local phone system	\$5	\$2	\$2	\$1	\$10
	Disseminate grievance information	\$5	\$2	\$2	\$1	\$10
Total		\$155	\$120	\$80	\$100	\$445
Government						
FCPF		\$155	\$120	\$80	\$100	\$445
UN-REDD Programme (if applicable)						
Other Development Partner 1 (name)						
Other Development Partner 2 (name)						
Other Development Partner 3 (name)						

Component 2: Prepare the REDD-plus Strategy

2a. Assessment of Land Use, Forest Law, Policy and Governance

Introduction - The Liberian Context

Liberia is a forest-rich country, which is “infested with diamonds in the North West and contaminated by gold in the South East”.² Her modern history has been conditioned by the plunder of these natural resources, during which time the themes of Land Use, Forest Law, Policy and Governance have interplayed to the detriment of her people. The outcome has been the ever-present ‘Resource Curse’, punctuated by violent episodic conflict.

The ongoing forest reform process, which has been strongly supported by the international community through the Liberia Forest Initiative, has put in place new forest law, policy and governance instruments which will be required for REDD, including specific work undertaken to ensure Liberia develops a Low Carbon Economy. However, land use and tenure remain contentious, and REDD will be weighed against other land uses and opportunity costs. The assessments undertaken to date (partly under the umbrella of the R-PP preparation process), together with further assessments proposed in this document, identify the most promising opportunities for REDD in Liberia to address drivers of deforestation and forest degradation (D&FD), which will lay the ground for selected REDD Strategy Options in component 2b.

This section describes key drivers of deforestation, including an explanation of the need for REDD+ that qualifies that while deforestation rate in the past has been low, due to Liberia’s extraordinary history, current drivers (ironically, partly as a result of peace) are leading to mounting and more potent threats. Further work that will be done to analyze project deforestation rates in the future are proposed as activities to be undertaken during R-PP implementation.

Forest Cover of Liberia

Liberia contains approximately 4.3³ million hectares (Mha)⁴ of lowland tropical forest that comprises 43% of the remaining Upper Guinea forests of West Africa, which extend from neighboring Guinea to Togo. These forests have been identified as one of 35 such critical areas for global biodiversity conservation⁵. They are immensely important for their biological diversity which encompasses the last long-term viable populations of several endemic species, ecosystem service provisioning, and potential to contribute to the country’s development goals.

Whilst the overall extent of the Upper Guinea Forest has dwindled to an estimated 14.3% of its original extent, Liberia still hosts two massifs of forest including evergreen lowland forests in the southeast and the semi-deciduous mountain forests in the northwest. Liberia’s forest resources were assessed in 2004 and classified by canopy and use.^{6 7} This forest classification was subsequently

² Statement by Augustine Johnson, GIS Manager, FDA at a REDD workshop, Monrovia, March 2009.

³ The figure of 4.3Mha is contained in the FAO GFRA tables for 2010 and is consistent with the estimate of 4.5Mha in 2004 (Bayol et al, 2004), adjusted by an annual deforestation rate of 0.7%. However, it is acknowledged that different estimates have arisen owing to the treatment of areas obscured by cloud, assessment of the forest element in shifting cultivation and discrepancy in estimates of Liberia’s surface area.

⁴ Mha is used throughout as an abbreviation for “million hectares”

⁵ Bakarr, M., Bailey, B., Byler, D., Ham, R., Olivieri, S. & Omland, M. Eds., *From the Forest to the Sea: Biodiversity Connections from Guinea to Togo*. Washington, D.C.: Conservation International., 2001

⁶ Nicolas BAYOL & Jean-François CHEVALIER, *Current State of the Forest Cover in Liberia: Forest information critical to decision making*, World Bank, 2004

⁷ For an area classification and assessment, see table in Annex 2a

used to stratify forest cover in a National Forest Inventory which provided a volumetric and species assessment of Liberia's forests.⁸

The intent of these two interlinked studies was to identify those areas which had previously been over or recently exploited, and thus inform the process of restoring commercial forestry production in Liberia. Despite this, a later study in 2009 suggested that new forest concessions had been poorly sited in areas of previous exploitation which were lacking sufficient productive resources.⁹ This later study, although cursory and not definitive, was highly suggestive that information on forest resources in Liberia was imprecise and, possibly, biased statistically. As a result, the World Bank will support an in-depth review of this report early in 2011. Beyond that, more thorough investigation of many aspects of forest resource assessment will be required for REDD.

Land Use and Trends

The classification of forest cover into classes (2.3 through 3.3) reflected agricultural dynamics and previous logging history.^{6 10} Thus, Class 3.3 (2.42 Mha) has not been logged in the recent past or at all, and is relatively unaffected by intensive shifting cultivation. Class 3.2 (1.0 Mha) is differentiated by the presence of visible forest roads and tracks, which is taken to indicate recent logging history. Classes 3.2 & 3.3 (3.42 Mha) therefore correspond to those areas where forestry has not yet been challenged by the agricultural dynamics. Class 3.1 (0.96 Mha) comprises forest in transition to agriculture, where undertaking sustainable forest management operations would entail a more complex socioeconomic component. Lastly, Class 2.3 (1.32 Mha) is mainly converted to agriculture with forest islands over 20 to 50% of their surface, and such areas are dominated by agricultural dynamics.

Using the above cover classification, the predominant land uses are shown in Table 8 to be forestry and shifting cultivation:

Table 8: Land Use (%) in Liberia (2004)¹¹

Land Use	Area (%)
Forests	45.2
Extensive shifting cultivation	19.4
Intensive shifting cultivation	33.1
Plantations, tree crops, small holding	1.7
Other cultivated areas	0.2
Savanna grass with shifting cultivation	0.2
Towns and settlements	0.2
Water and Marsh	0.2
Total Area by Cover Class	100.0

During the study period 2000-2002, there were 42 forestry concessions operating over an area of 5.95 Mha¹². Anomalously, this area exceeds by a large margin the productive area owing to overlapping areas. United Nations timber sanctions halted commercial forestry in 2001¹³, and government annulled all existing concession contracts in 2006, which marked the beginning of the

⁸ P. Hess, S. Trainer *Forest Inventory in Liberia*, World Bank, 2006

⁹ Sherman, P.L. An Assessment of Liberian Forest Area, Dynamics, FDA Concessions Plans, and their Relevance to Revenue Projections. Green Advocates, 2009

¹⁰ See appendix of forest class definitions

¹¹ Bayol & Chevalier, op cit.

¹² Bayol & Chevalier, op cit., table (3)

¹³ UNSC 1343, 2001

national forest reform process involving a new forest policy, a new forestry law and stricter forest governance.¹⁴

Following the lifting of UN timber sanctions in 2006, the roll-out of new concessions has been much slower than planned by FDA and proposed in the Poverty Reduction Strategy.¹⁵ Currently, there are 1,008,179 ha issued under seven forest management concessions (FMCs) and 45,000 ha under nine Timber Sales Contracts. However most of this area is not yet in operation and production in 2009-10 was a mere 25,687m³. Whilst the 25 year felling cycle under long term forest concessions envisages that on average 96% of land should be idle in any one year, the actual rate is currently 99.77%.

Future plans are for a further 1.4 Mha planned for concession by year 2014 as an addition to the already existing 1.01 Mha. Given the unpredictable impact of the Community Rights Law (CRL),¹⁶ it is possible that a considerable part of this future production area, particularly in the northwest, could take place in forest claimed as Private Land or recognized as Community Forest Lands under the CRL.

Timber Sales Contracts are intended for conversion of degraded forest (Class 3.1) to plantations or permanent agriculture, and allow the exploitation of all commercial species exceeding 50 cms, in a three year period. This amounts to destructive felling of land in which up to 80% of biomass may be removed.

Even forest cover not under active production or management is termed in Table 8 as being in Forestry use. This includes those areas reserved as Protected Areas (PAs), Parks and Reserves, as well as the Proposed Protected Areas (PPAs).

The National Forest Reform Law (NFRL) requires that 30% (approx 1.3 Mha) of Liberia's forest estate shall be placed under protected area status.¹⁷ Currently, Liberia has just two formally designated PAs – Sapo National Park (SNP, 180,000 ha) and East Nimba Nature Reserve (ENNR, 13,500 ha). There is currently GEF funding under two projects, COPAN and EXPAN, to assist in the creation of five new PAs (229,000 ha), which leaves a funding shortfall for 894,000 ha against the legally mandated target.

Affected communities have generally acquiesced to the alienation of forest for protection purposes, although there have been border skirmishes and, in the case of Sapo, substantial encroachment by artisanal miners and hunters, which arose out of the breakdown of civil order during and after the war years. Recently, government has reached agreement with local communities on the boundaries of ENNR and succeeded to evict illegal occupants from Sapo National Park.

The third land use by area size is Plantations, tree crops, small holding, (159,831 ha) which appears to be far less than other land uses. However, this figure is deceptively low owing to the low rate of planting of plantation tree crops on agricultural concession areas (1.25M ha)¹⁸. Consequently, a large extent of area formally designated agricultural concessions is in fact "idle" and presently covered by forest.

Plantation-oriented privately owned commercial estates or concessions of rubber, and to a lesser extent coffee, cocoa and oil palm, have been promoted for several decades in Liberia. From the late 1970s the strategy for agricultural development included support for small holder coffee, cocoa and rubber farmers and the establishment of large-scale nucleus plantation estates of oil palm and coconut. These plantations were operated by public corporations and supported by smallholder out-growers.

Recently, and in the pipeline, there are substantial investment proposals in Oil Palm amounting to \$2.95 billion and covering 494,500 ha, with 56,000 ha of out-grower areas. If approved, these will become legal commitment to convert forest lands to plantations.¹⁹

¹⁴ Executives Order #1, Liberia, 2006.

¹⁵ Poverty Reduction Strategy, Republic of Liberia, 2008

¹⁶ Community Rights with respect to Forest Lands, Republic of Liberia, 2009

¹⁷ National Forestry Reform Law, Republic of Liberia, 2006

¹⁸ Land Acquisition Study for large scale Agricultural Projects, World Bank, 2009

¹⁹ Liberia Sustainable Oil Palm Study, Fauna and Flora International (FFI), Sustainable Palm Oil and Biofuels Programmes, Indonesia, 2010

Implicit is the formal allocation of forest land for commercial forestry, protection areas and for plantation development are the possibilities of overlapping tracts of land and competing land uses. Although mineral extraction has a relatively small area footprint, it can and does sometimes conflict with conservation goals.

Informal land use is more difficult to assess. The main agricultural land use identified in Table 8 is shifting cultivation (5.1 Mha) which occurs extensively in closed forest without forest tracks, but becomes intensive when farmers enter recently logged areas. Concomitant, therefore, with the expected expansion of logging areas, is the threat of increasing encroachment of shifting cultivation into forest areas as rural security improves and farmers return to traditional livelihoods. This will impact on assumptions concerning the underlying rate of deforestation in Liberia. Whereas a recent estimate of Liberia's underlying deforestation rate by the CI-SDSU (Christie and al., 2007) was as low as 0.35% p.a., this is likely to be exceeded for a number of years until the influx of new farmers stabilizes. Consequently, farming is considered a major driver of deforestation and forest degradation and will need to be monitored accordingly.

In the forest sector, Chainsaw Logging is informal, unmanaged, unregulated and unlicensed, yet employs up to 4000 people and supplies all domestic timber in Liberia, estimated to be as much as 200,000 m³ of sawn timber annually. Estimates of timber recovery rates vary from below 20% to as much as 31%; whichever figure is applicable, the log off take by the chainsaw industry far exceeds that from formal concessions.²⁰ Apart from the degrading effects on forests, the activities of this production model have become synergetic with shifting cultivation, thus enabling the clearance of larger farms than would be possible without,

Policy and Governance

Forestry

Liberia's revised Forest Policy of 2006 turns the page on her past. It places the Liberian people centre-stage as beneficiaries of the nation's forests, and its central theme is a balanced and integrated approach between the Commercial, Community and Conservation uses of forests – the so-called 3C approach.²¹ Although carbon sequestration is not explicitly mentioned, it fits well under both ecosystem services (Conservation) and forest products (Commercial).

In the context of the integrated 3-C policy, revenue from Commercial forestry is the financial driver of Conservation (through PA funding mechanism) and Communities (through community benefit sharing and social agreements).

The NFRL provided the enabling legislation of this policy. Whilst the law was primarily aimed at Commercial Forestry in order to secure the lifting of UN timber sanctions, it required follow-up legislation within 12 months on community rights and conservation as part of the policy balance between the 3Cs.

The CRL was eventually enacted in October 2009, and the National Wildlife Conservation and Protected Area Management Law is currently awaiting ratification. But, the extended delay before enactment of this subsequent legislation has fostered a widespread perception that Liberia's 3Cs are of different priority and size, with Commercial as the big C. This notion has been reinforced by maps which misinterpret the relative areas of forest suitable for Commercial, Conservation and Community uses.

The Forest Suitability study which was undertaken as part of the National Forest Management Strategy (NFMS,) ²² initially identifies 3.41, 1.14 and 0.052 Mha of forest suitable for Multiple Sustainable Use, Protected Areas and pilot Community Forests, respectively²³. But, the study goes on to state that the management modality for Multiple Sustainable Use (MSU) area may be either by commercial firms or community forest management, with at least 1.09 Mha of forest suitable for community forest management. Thus, the NFMS identified forest areas suitable for: (i) Conservation in Proposed Protected Areas; (ii) permanent MSU – i.e. mainly for long term production forestry; and, (iii) temporary MSU for short term production forestry and potential for conversion to agricultural use.

²⁰ Hugh Blackett, Dr. Aiah Lebbie & Dr. Emanuel Marfo ; Chainsaw Logging In Liberia: An Analysis of Chainsaw Logging (Pit-Sawing) In The Natural Forests Of Liberia Towards A More Sustainable Production, FDA, 2009

²¹ Forest Policy, Republic of Liberia, 2006

²² National Forest Management Strategy, Forestry Development Authority, 2007

²³ Mha is used as an abbreviation for million hectares'

Of the 4.3 Mha of Liberia's forest, it is FDA's intent to work towards 30% of forests under protection (approx. 1.3 Mha) and up to 54% (approx. 2.4 Mha) under commercial production, whilst the area under community forest lands is currently amorphous owing the uncertainty surrounding the impact of the Community Rights Law.

Although this Forest Suitability study was developed through stakeholder consultation with other land-based sector ministries, it does not represent an agreed land suitability statement for Liberia. This is because land was classified by reference to its forest value in isolation from alternative land uses such as agricultural plantations or mineral extraction. Consequently, there exists unresolved contention between the sector ministries (forestry, agricultural and minerals) regarding land use which, in some cases, has led to overlapping land use proposals. This lack of a credible Land Use Policy needs to be addressed in the context of REDD during R-PP implementation.

Even in terms of suitability for forest production, the Study did not include any analysis of access infrastructure, such as primary roads and port facilities, which are principal determinants of f.o.b. log export costs and economic viability.

Agricultural

The Food and Agricultural Policy and Strategy (FAPS)²⁴ lists forestry, natural resources management and climate change as key action areas which serves to commit the Ministry of Agriculture (MOA) to REDD.

Table 9. FAPS: Selection of Key Policies and Strategies

ACTION AREA	KEY POLICY	MAIN STRATEGY
Forestry	Ensure sustainability of Liberia's forestry resources.	Balancing conservation, community and commercial utilization of forest resources; undertaking environmental impact assessment, and designing and implementing environmental conservation plans in agriculture projects.
Natural Resource Management	Effective transition from shifting cultivation to sedentary farming	Providing technical support and best practices for sustainable land use, organic and integrated farming; participatory management of forest resources
Climate Change	Monitored sector activities to prevent contribution to climate change; reduced impact of climate change in sector	Providing farmers information on climate change; implementing programs on climate change adaptation

The policy explicitly recognizes that: (i) Liberia's agriculture sector is dominated by traditional subsistence farming systems on uplands that are characterized by labor intensity- shifting cultivation, low technologies, and use of rudimentary inputs, resulting in low productivity; (ii) the farming systems are primarily forest based; and, (iii) account for almost half (50%) of the total land area and almost 90% of arable land.

The policy also recognizes that agricultural projects should not undermine the sustainability of forest resources. Recommendations on policy implementation are provided by a recent study tour which would strengthen collaboration between the forestry and agricultural sectors in this challenging area.

²⁵

²⁴ Food and Agricultural Policy and Strategy, Republic of Liberia, 2008

²⁵ Liberia Sustainable Oil Palm Study, Fauna and Flora International (FFI), Sustainable Palm Oil and Biofuels Programmes, Indonesia, 2010

Energy

The National Energy Policy (NEP) ²⁶ fully recognizes the important role of wood fuel in climate and that 95% of Liberians rely on the inefficient use of wood fuels for domestic purposes. The policy envisages a Rural and Renewable Energy Agency which would administer a Rural Energy Fund to receive, inter alia, carbon finance. The policy includes more efficient wood fuel utilisation but stops short of energy planning for the wood fuel.

Forest Ownership and Use Rights in Liberia

In Liberia, the legal framework of land ownership and tenure comprises three elements: public, private customary land. Duality between customary and statutory land rights is not unusual in Africa but circumstances in special circumstances apply in Liberia owing to acquisition by the State and Settlers of customary land, the inadequate legal recognition of customary land rights and the sometimes corrupt administration of private land deeds and titles which can flourish in the absence of a functioning deeds repository. These factors have in the past been a cause of conflict in the past and remain “work-in-progress” under the auspices of the new Lands Commission, set up in 2009.

Government has administered rural land – so-called “hinterland” - through a customary system based on Clans and Chiefdoms. Implicitly, it has asserted public ownership of (and the right to alienate) large areas of land occupied by traditional communities, who regard this land as in some sense their own. Despite this, government has transferred farm and forest land to become Private Land through the award to private individuals, business entities and cooperatives of Public Land Deeds, despite overlapping customary claims. Similarly, large tracts of land have been alienated as concessions for agriculture and forestry²⁷, as well as for national forests, reserves, parks and other protected areas. In contrast, there is unanimity of perception or views amongst rural Liberians that they “own the forest, in their communities, and everything that is in it”.²⁸

Forest Governance and Stakeholder Benefits

The key issues pertaining to forest governance are legality of origin, compliance with laws and guidelines, taxation collection and its equitable distribution. The national forest reform in Liberia has addressed all of these with remarkable alacrity and success. This law’s associated regulatory structure provides for Public Participation under Regulation 101-7.²⁹ This sets out the requirements for a list of recognised stakeholders, procedures for their transparent participation and public access to and dissemination of all laws and regulations.

Thus, the law provides open doors for stakeholder engagement in forest governance. This has not precluded direct engagement with and lobbying of legislators by civil society and the private sector when vital interests are at stake. However, communities have been passive stakeholders reliant on the articulation of their interests by civil society organisations, largely funded from external sources.

This representation through NGOs has been inevitable pending the extension of democratic structures down to District and Community levels, which is the eventual aim of the Governance Commission. In order to broaden the channels of communication on forestry matters between communities, clans, districts counties and the government at large, FDA has requested participation in the FAO-managed National Forest Programme Facility. This is currently establishing county level forums as well as a national one which will provide more opportunity for dialogue with stakeholders.

Furthermore, Chapter 4 of the Community Rights Law (2009) strengthens considerable community governance on community forest lands through the establishment of Community Assemblies, Executive Committees, Community Forestry Management Bodies and mechanisms for the management of funds derived for their forests. The regulatory structure has been drafted and publically discussed. The potential flow of significant funds to communities is a powerful incentive for them to engage with community forest governance. The role of civil society will continue to be needed to assist capacity building and guard against corruption and misappropriation

In the commercial sector, the bedrock of legality and revenue collection is the Chain of Custody (CoC) which has been built, tested and operated by SGS under contract to government over the past

²⁶ National Energy Policy, Republic of Liberia, 2008

²⁷ Bruce J, et al, Insecurity of Land Tenure, Land Law and Land Registration in Liberia, World Bank, 2007

²⁸ Strategic Environment Assessment of the Forestry Sector, FDA, 2010

²⁹ Ten Core Regulations, FDA, September 2007

three years. During these early phases it has been supported financially by the US government and through WB Donor Trust Funds. The CoC is also an important contribution towards a Voluntary Partnership Agreement which Liberia is currently negotiating with the EU. In addition, the CoC is a strong instrument for addressing unsustainable commercial logging and represents an important element of forest certification.

The CoC ensures near 100% revenue capture, which forms a solid foundation for benefit sharing. These revenues which government receives from forestry taxes and charges contribute towards general government spending, including upkeep of the Forestry Development Authority (FDA). But a significant portion is earmarked under the NFRL for distribution to County Development Funds (30% of basic land rental taxes) and Community Forestry Development Funds (also, 30% of basic land rental taxes).

Communities also benefit directly through Social Agreements with forest production contract holders which include a mandatory timber production levy, as well as an agreed list of infrastructure, employment opportunities and other services. However, implementation delays have meant that the benefit sharing mechanism is not yet in place, although it should have been before logging commenced. This has resulted in discontent among communities which are affected by logging. These have been further exacerbated by shortcomings in the processes leading to Social Agreements, which have generally not satisfied the test of free, prior, informed consent. The FDA has received support from EU-ACP funds through FAO to conduct a thorough assessment of Social Agreements with a view to addressing their deficiencies for communities and companies.

In line with the 3C policy, part of commercial logging revenues (10% of Stumpage fees and 10% of Forest Products fees) is earmarked to support the operational costs of Protected Areas. The mechanism for this is currently under development. Again, delays in setting up the mechanism for transferring this share of logging revenues to a protected areas fund. This funding shortage is severely impacting on the operational maintenance of the integrity of Sapo National Park, which is a national asset.

During the immediate years after the lifting of UN Timber Sanctions in 2004, and particularly as a result of ambitious projections for logging revenues in Liberia's Poverty Reduction Strategy (2008), FDA was under cabinet pressure to roll out its concession programme, despite objections from civil society that the Community Rights Law was not yet in place, and that there were legal irregularities in concession awards. These claims were reviewed by the Supreme Court which upheld the contested awards. The current issue is the apparent lack of will and capacity of current contract holders to operate their concessions and pay taxes. The award of any further concessions will be strongly influenced by lessons learnt.

During the past two years, it has been proposed that Liberia should be compensated under bilateral funding arrangements for not logging her forests. The underlying calculus has been based narrowly on forest taxes forgone, but has failed to encompass the direct and indirect (multiplier) impacts of value added and employment creation on rural development.

Despite the positive environment for good Forest Governance which has been created through the reform process in Liberia, there remain two areas of concern. Firstly, FDA's implementation capacity and ability to maintain regulatory oversight is extremely weak. Secondly, the role of civil society in providing independent "watchdog" monitoring over forest operations has not yet evolved, although is envisaged in forestry regulations.

Deforestation and forest degradation (D&FD)

Deforestation rates have been held relatively low in Liberia during the past two decades due to the civil conflict. This forced many to leave the countryside and immigrate to the capital and elsewhere explains much of the low historical deforestation rates. This was also a period of relatively low international timber and agricultural exports.

Table 10. Deforestation in Liberia over two decades³⁰

Forest area (1 000 ha)				Annual change rate (000 ha and %)					
1990	2000	2005	2010	1990-2000		2000-2005		2005-2010	
				1 000 ha/yr	%	1 000 ha/yr	%	1 000 ha/yr	%
4929	4629	4479	4329	-30	-0.63	-30	-0.66	-30	-0.68

Now that peace has been restored, there is a general return of the population to rural areas, assisted by extensive infrastructure rehabilitation of road and bridges. These domestic factors, coupled with expanding global markets for tropical agricultural products, biofuels and timber will exert considerable pressure on land use conversion from forests.

Recent clearing activity is mostly concentrated in ten or so sectors of the country. Most places that showed clearing from 1986 to 2000 showed continued clearing after 2000. Almost all clearing is in the form of numerous small (<10 hectare) clearings around towns and roads near towns in Liberia's forest regions. This indicates the strong relationship between patterns of settlement, road access and forest clearing in Liberia.³¹

Generally, in the Liberian context, forest degradation arises as collateral damage from poorly implemented selective logging, and from shifting cultivation conducted too intensively for forest gaps to be replenished. Deforestation arises from forest clearance leading to land use change, which may be initiated through chainsaw logging or clearance logging and followed by intensive shifting cultivation, semi-permanent or permanent agriculture, or plantation development.

Mineral exploitation is not listed as a surface land use in Table 8. In regard to artisanal mining, there scant evidence of widespread impact on D&FD, which is unlikely. In regard to formal mineral exploitation, this tends to have a small footprint in comparison with agriculture and forestry. Owing to the relatively high economic value of mineral resources, there is a presumption that this use would override other uses, even areas of high biodiversity value, such as PPAs or potentially existing PAs. However, recent mining concession agreements include mitigation offsets, and are unlikely to be significant in terms of REDD balances. What should be noted is that Liberia is rich in mineral resources, including gold, diamond and iron ore. Pre-war, Liberia was among the world's 3 highest producers of iron ore, and at present several companies are under taking scoping studies. While the numerous concessions (see preceding sections) granted to logging companies are the most significant threat to mature forest, implementation of the R-PP must include on-going research into, and monitoring of, mining leases, at county and national levels.

In many sub-Sahel African countries, wood energy, particularly charcoal, is a major driver of deforestation after initial forest degradation from logging, which provides access to logged areas. In Liberia's case, wood energy production is a corollary of intensive shifting cultivation and smallholder farm clearance.

Key Drivers of Deforestation and Forest Degradation

From the above assessment, it is clear that Deforestation and Forest Degradation (D&FD) arise from driving forces within the forest, agricultural and energy sectors. In terms of impact significance, seven principal driving forces are tabulated below.

³⁰ Global Forest Resource Assessment, FAO 2010

³¹ Bayol and Chevalier, op cit

Table 11. Direct Drivers of Deforestation and Forest Degradation.

Sector	Direct Drivers of D&FD
FOREST SECTOR	<p>1) Commercial Logging, categorised as:</p> <ul style="list-style-type: none"> a. Extensive logging - without area regulation (i.e. allocated commercial sector too large and failure to abide with periodic felling cycle), resulting in eventual timber shortages, reduced felling intervals, progressive canopy degradation, unsustainable logging and industry. (<i>This practice facilitates chainsaw logging and ingress of shifting cultivation – see below</i>) b. Over logging – without selection control of species or diameter limits; and, resulting in creaming of species (genetic impoverishment), removal of undersize trees (future shortage of canopy trees), harvesting of all species (degraded canopy cover) c. Hi-impact logging – the antithesis of Reduced Impact Logging, arising from a failure of site planning of extraction, roading and landing areas for minimal impact and cost; and, resulting in degraded canopy cover and collateral tree damage.
	<p>2) Chainsaw logging – unregulated forest logging with similar results as for Over-logging, characterized by low recovery rate but mitigated by lower extraction damage. Studies show that chainsaw logging can reach into forest over 5 km from access roads (<i>Synergistic with shifting cultivation – see below</i>)</p>
AGRICULTURAL SECTOR	<p>3) Shifting cultivation – unregulated clearance and farming on forest land for a temporary period (2-3 yrs) followed by a fallow period (5-12 yrs) by the same or another farmer. Opportunistic on forest road accessibility and chainsaw logging operations. May be intensive involving larger forest clearing assisted by chainsaw operatives, resulting in deforestation.</p>
	<p>4) Plantations and Permanent Agriculture - higher economic value land use than forest, resulting in complete forest conversion with deforestation liability on the REDD balance sheet, even if actual clearance and planted may be delayed for several years. Replacement crops may comprise trees, but do not provide a full range of forest services nor sequester comparable carbon stocks.</p>
ENERGY SECTOR	<p>5) Charcoal Production – most charcoal production is a bi-product of agricultural clearance for shifting cultivation or small holder farms. It may have a significant impact on deforestation of degraded areas.</p>
	<p>6) Oil – Oil companies have moved into Liberia relatively recently and while current activities appear to be focused off-shore, there needs to be communication between relevant ministries, the FDA and RTWG on any plans to develop on-shore wells and pipelines</p>
MINING SECTOR	<p>7) Mineral extraction and mining – Although not regarded as a significant driver of D&FD at present, it is possible that artisanal mining might be more damaging than currently recorded and that large scale mining (e.g. open cast gold mines currently under pre-scoping) will become a major driver.</p>

Evidence on the relative strengths of the deforestation and degradation drivers is not directly available. But, noting that logging is often the precursor to shifting cultivation, areas of 1.0 Mha of recent logging in otherwise undisturbed forest were reported by Bayol, who also identified 0.95 Mha of shifting cultivation and 1.3Mha of extensive cultivation. During REDD implementation, studies will be conducted to provide reliable evidence.

These direct drivers of D&FD arise from a combination of five underlying causes as described in **Error! Reference source not found.** below, which may be categorized as:

Table 12: Underlying causes of drivers leading to D&FD

Underlying cause	Description
1. Policy and Institutional	<ul style="list-style-type: none"> - Policies relating to the extractive industries (including mining and forestry) that conflict with efforts to conserve (carbon rich) mature forest. - Possible conflict between ministries where more powerful ministries or those which relate to higher revenues for the national purse are able to dominate or veto the interests / decisions made by forestry / environmental officials and agencies
2. Economic & Market Factors	<ul style="list-style-type: none"> - Forestry / REDD revenues will be valued in relation to competing land uses and opportunity costs. Market forces, especially related to palm oil, and timber, and potentially mining, may directly conflict with efforts (public or private) to secure land for sustainable REDD payments
3. Landlessness & Unclear Allocation Rights	<ul style="list-style-type: none"> - REDD, at the ground level, will fail unless there is absolute clarity of land rights and allocation. Different land uses need to be identified, zoned and demarked, using participatory process and resulting in clear boundaries, rules and beneficiaries. There are risks here that competing allocations or unclear boundaries will result in conflict, leading to forest loss and a failure to receive eventual REDD funds / credits.
4. Demographic Factors	<ul style="list-style-type: none"> - Population pressure and its effects on land use, together with tribal locations / lands effecting ancestral rights and land allocation, may result in conflicts over rights to forest, carbon and subsidiary benefits of REDD (payments)
5. Other socio-economic & cultural factors	<ul style="list-style-type: none"> - The past conflict in Liberia, which had a significant tribal /cultural manifestation, may lead to further conflicts over land and benefits, once it become clear that certain forests will eligible for (potentially high levels of) REDD revenue

Table 13: Underlying Causes of Deforestation and Forest Degradation by Sector

Category	Underlying causes of D&FD	Category
FOREST SECTOR	<ul style="list-style-type: none"> • Overemphasis on commercial forest use vis-à-vis conservation and non-destructive uses • Ineffective Lack of regulatory supervision • Corruption of forest service • Lack of capacity to implement sustainable forest management and prevent unsustainable or unregulated logging • Lack of forest monitoring, evaluation and certification processes 	Policy and Institutional
	<ul style="list-style-type: none"> • High international demand and prices • Unsatisfied local markets (inadequate supplies at wrong prices) • Excess processing capacity 	Economic & Market Factors
	<ul style="list-style-type: none"> • Overemphasis on commercial forest use vis a vis conservation and non-destructive uses 	Landlessness & Unclear Allocation Rights
AGRICULTURAL SECTOR	<ul style="list-style-type: none"> • Impermanent agriculture comprising small plots without fixed investment in productivity 	Landlessness & Unclear Allocation Rights
	<ul style="list-style-type: none"> • Access to forest land enabled by forest roads and capacity for land clearance enhanced by chainsaw logging 	Economic & Market Factors??
	<ul style="list-style-type: none"> • Lack of accessible markets to justify investment in productivity and larger production units 	Economic & Market Factors
	<ul style="list-style-type: none"> • Conversion to higher economic value land use 	Economic & Market Factors
	<ul style="list-style-type: none"> • Need to provide subsistence food requirements, particularly in response to internal migration and resettlement after war 	Demographic Factors
	<ul style="list-style-type: none"> • Need to meet deficit in domestic food production 	Economic & Market Factors
	<ul style="list-style-type: none"> • Lack of coordinated land use planning 	Policy and Institutional
ENERGY SECTOR	<ul style="list-style-type: none"> • Need to provide cooking fuel for food preparation 	Demographic Factors
	<ul style="list-style-type: none"> • Income generation 	Economic & Market Factors

Past and Ongoing Efforts to tackle drivers of D&FD

During the war years and before commercial logging was blocked by the imposition of UN timber sanctions, FDA practiced a weak regulatory oversight which sanctioned unsustainable logging. The underlying economic and market factors which provide short term incentives for unsustainable commercial logging cannot be directly addressed in a free market economy. But, the forest reform process, which was strongly supported by the international community through the Liberia Forest Initiative, has set in place the policy, legal and institutional environment to combat these direct drivers of D&FD on the supply side. One of the key instruments is the Chain of Custody for commercial forestry.

Concomitant with the past rampant overexploitation of forest resources was an absence of equitable benefits and, also, growth without development, typified as the “Resource Curse”, which went unchallenged in forests characterized by landlessness & unclear allocation rights. The Community Rights Law (2009) now lays the ground for formalization of greater clarity.

During the past two years, in-depth socioeconomic assessment of chainsaw logging has been undertaken, resulting in proposals for management and regulation (currently awaiting FDA Board approval),

Emerging Opportunities under REDD to address drivers of D&FD

Policy, governance and land use

The recent reform of forest policy, legal and governance framework provides a focus on balancing the economic, social and environmental roles of Liberia's forests. This can serve as a basis for incorporating a REDD strategy to address drivers of D&FD; for example, forest use suitability has been provisionally mapped, and a benefit sharing mechanism is ready for application.

Commercial Logging

With the policy and institutional framework in place for sustainable commercial forestry and the mitigation of its associated drivers of D&FD, there is an opportunity to reduce its negative role through a number of possible measures which would raise forest logging standards.

Whilst commercial logging may be done on a sustainable basis under Forest Management Concessions, the current under-utilization of forest concessions offers an opportunity to review and cap Liberia's commitment to commercial forestry to a lower level, and switch forest use to carbon sequestration, conservation and non-destructive utilization. This could be achieved through reduced allocation of new production concessions and/or by allowing switching within existing concessions

The retroactive imposition of improved forest management on areas which were severely and extensively over-logged prior to the imposition of timber sanctions would represent a one-off bonus to Liberia's current carbon stocks. At a rough estimate, this could amount to one million hectares in Open and Dense Forest classes (3.2 & 3.1) where agriculture agricultural dynamics have not irreversibly come into play.³² This potential would be quantified more precisely during REDD implementation

Community Forestry

It has been suggested that up to 500,000 ha of community forest land, designated and recognized under the Community Rights Law, might be managed as Carbon Concession. By this, it is meant that commercial forestry operations would take place according to the raised logging standards which have been identified as possible under Commercial Forestry. This would represent an alternative ownership modality for forest areas which might not be offered by government as concession areas, but would not be additional.

Chainsaw Logging

With a new regulatory structure for chainsaw logging about to be set in place, there is an opportunity to reduce its negative role through a number of possible measures which would reduce the scale and impact of chainsaw logging.

Conservation and Protected Areas

Whilst Liberia has committed through policy and legislation to allocate 30% of forest area to protected areas, there is a shortfall of 894,000 ha and no current plans to fill this gap. Much will depend on donor funding in the future. This represents a potential additional opportunity for REDD through a unified approach to the provision of eco services.

Shifting Cultivation

Moving to a more efficient agricultural system can be an extremely cost-effective way to generate carbon credits. By replacing shifting cultivation with either conservation agriculture or irrigated lowland rice cultivation, or by subsidizing fertilizer inputs, Liberia can reduce amount of forest lost to slash-and-burn practices each year. Under these systems there would be enough land available to both produce Liberia's food needs and assign large areas to regenerate the natural forest cover.

These policies require significant set-up costs, but would then be profitable for farmers on an ongoing basis, even without carbon credits. However, the challenges in changing the dominant

³² Bayol et al (2004)

mode of agriculture should not be understated: land tenure is often insecure; access to capital, knowledge, and appropriate land is often absent; and mindsets are difficult to change.

Plantations and Permanent Agriculture

Given the large area of land available for agriculture in Liberia, it would make economic sense to limit new concessions to degraded agricultural land that has lower carbon content. There do not seem to be major limitations to doing so, given the new agricultural policy is highly supportive.

Capacity Weaknesses

The ongoing forest reform process, involving new laws and regulations, has stretched FDA's ability to implement them. The suggested opportunities to address the drivers of deforestation and forest degradation will add to the challenges already faced. There is no assessment of whether Liberia has the capacity to manage such a complex and demanding set of forest management arrangements. There is virtually no trained or experienced forestry staff available to hire in Liberia and the current FDA staff need extensive training in order to be ready for such tasks. These constraints will be addressed during REDD implementation.

Current Information gaps

Chainsaw logging

Despite recent studies, there remains considerable variation in estimates of some key parameters affecting chainsaw logging and, therefore, potential REDD impacts. Further field research is required to determine more precise recovery rates for log and sawn timber production, and absolute levels of sawn timber production.

Slash & burn agriculture

Although prevalent in some regions, its extent and impact is only roughly known. Further field research is required to determine its area extent and location, its productivity and role in family livelihoods, average field sizes, cultivation intensity and cycle.

Land use and Ownership

There is a presumption that land use values are highest for minerals, followed by tree crops, annual crops and then forestry. However, a full study of economic returns from alternative use would include the value chain, multiplier effects, environmental mitigation and carbon footprint.

Building of the forest land use suitability study, there also needs to be a broadened approach to land suitability undertaken collaboratively between mineral, agricultural and forestry sectors. Based on the above values, there is also a need to develop decision tools for land use allocation in cases of overlapping land use potential.

As noted in Table 12, the uncertainty attached to tenure and land use rights potentially generates several "unknowns" relating to the allocation of potential benefits from REDD, and in regard to land management responsibilities. The Lands Commission was set up in August 2009 to propose, advocate and coordinate reforms in land policy and laws. Shortly afterwards, in October 2009, the Community Rights Law (CRL) was enacted, but its regulatory structure has not yet been approved. The intent of the CRL is to empower communities to seek recognition of their rights over relatively small areas of forest lands (maximum of 50,000 hectares, but intended to be much smaller), but a domino effect is conceivable which could excise substantial areas proposed for concession forest areas, as well as for proposed protected areas. In an extreme case, communities might seek redress for past alienation by government of community lands.

Paradoxically, recognition of community land rights on larger areas may be less problematic than landlessness and insecurity at a micro level which would deter investment and adoption of alternatives to shifting cultivation. This because the separation of use from ownership is foreseen under the CRL.

Plantations and Permanent Agriculture

The identification of potential TSC areas needs to be based on demand from the agricultural sector for large scale forest conversion to Plantations and Permanent Agriculture. The extent of this demand is currently indeterminate and needs more reliable quantification

Effects of logging on biomass reduction, and biomass recovery rates

There is considerable uncertainty about the rate of biomass reduction as forest degradation becomes deforestation – i.e. for the forest class 3.3 downwards to agricultural class 2.1. More robust estimates of biomass factors for each land use class would strengthen assessment of REDD effects and policies.

Closely related, is the need for better understanding of the rate of biomass recovery following logging operations in order to ensure sustainable forest management.

International Cooperation in Liberia's forest sector

In 2004, the Liberia Forestry Initiative (LFI) was formed to assist Liberia to reach sufficient standards of forest governance and management to enable the lifting of UN Timber Sanctions. The LFI, which was led by the US Government, included UN agencies (FAO, UNEP), bilateral partners (EU), funding institutions (World Bank), international NGOs (Environmental Law Institute, Conservation International, IUCN, Fauna & Flora International) and local NGOs (Green Advocates, Sustainable Development Initiative).

The LFI is an informal arrangement but provides a forum for consensus on development priorities and for programme coordination in the forest sector. The advent of REDD has seen a number of new initiatives by development partners which are summarized below:

Table 14: LFI Initiatives.

Partner	Interventions	Status
UN-REDD		
FFI(NORAD)		
CI		
RSPB/BLI (EU)	Gola Trans boundary Peace Park -	Operational project -
Government of Norway		Concept stage

Table 2a: Summary of Assessment of Land Use, Forest Policy and Governance Activities and Budget – Follow-up activities to be added						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
Chainsaw logging recovery study	Studies to estimate recovery rates for log and sawn timber production		\$25			\$25
		\$	\$	\$	\$	\$
Slash & burn agriculture assessment	4 x regional studies (2 per yr) to study all aspects of these agricultural practices in Liberia			\$20	\$20	\$40
		\$	\$	\$	\$	\$
Land use valuation	a) Full economic evaluation of mineral, agricultural and forestry p plan, including carbon footprints			\$12		\$12
	b) Full integrated land use suitability mapping				\$12	\$12
Plantations and Permanent Agriculture projections	Studies to determine demand for forest conversion, and selection of TSC areas		\$10			\$10
Forest biomass Studies	Off take and recovery studies			\$10	\$10	\$20
Wood energy market survey	Update previous wood energy demand studies for demographic increase focused on Monrovia			\$5	\$5	\$10
Assessment of forest resources, including standing volumes, areas previously logged, opportunities for carbon recovery etc						
Studies on relative strengths of drives of D & D						
Strengthening implementation capacity						
Total			\$35	\$47	\$47	129
Government						

FCPF		\$35	\$47	\$47	\$129
UN-REDD Programme (if applicable)					
Other Development Partner 1 (name)					
Other Development Partner 2 (name)					
Other Development Partner 3 (name)					

DRAFT

2b. REDD-plus Strategy Options

Introduction

In component 2a, the key drivers of deforestation and forest degradation (D&FD) in Liberia were identified as:

Table 15. Summary of the Direct Drivers of Deforestation and Forest Degradation

FORESTRY SECTOR	AGRI SECTOR	ENERGY SECTOR
1) Commercial Forestry – extensive, over-intensive, & hi-impact; 2) Chainsaw logging;	3) Shifting cultivation. 4) Plantations and Permanent Agriculture	5) Wood energy production

Liberia is fortunate to have been assisted in an economic analysis of REDD strategy options for a Low Carbon Economy which constitutes a major contribution to the preparation of a REDD-plus strategy to address D&FD.³³ This component 2b selects in Table 16 the most promising of these strategies, which were presented in Monrovia on 25 November 2009 for stakeholder feedback.

Table 16. Summary of REDD Strategy Options

FORESTRY SECTOR	AGRI SECTOR	ENERGY SECTOR
1) Raising commercial logging standards; 2) Reducing its area footprint; 3) Regulating and managing chainsaw logging 4) Integrating of Conservation and Protected Areas into REDD and acceleration of the timeline	5) Transforming shifting cultivation into permanent or semi-permanent agriculture to reduce land use and forest degradation 6) Ensuring that plantation and permanent agriculture development is located on degraded forest lands	7) Regulating and managing wood fuel energy 8) Introducing more efficient kilns and cooking stoves

FORESTRY SECTOR

Strategy Options for REDD

With the policy and institutional framework in place for sustainable commercial forestry, potentially on two million and three hundred thousand hectares (2.3 Mha)³⁴ of long term concessions and two hundred thousand hectares (0.2 Mha) of short term contracts, the REDD strategy will address unsustainable logging by:

1. **Raising commercial logging standards** – by improving the technical capacity of all actors in the commercial forestry sector through outreach and training to:
 - 1.1. Assess economic viability of forest resources at forest management unit (FMU) level;
 - 1.2. Prepare and implement effective forest management plans,

³³ Keith Lawrence, Eduard Niesten, Eric Werker; Economic Analysis of a Low Carbon Economy for Liberia, Conservation International, 2009.

³⁴ Mha is used throughout to denote “million hectares”

- 1.3. Implement Reduced Impact Logging (RIL) and also reduce production costs;
 2. **Reduce the area footprint of commercial logging** - by supporting FDA policy decision-making with studies and socio-economic analysis of the implications of capping commercial forestry at:
 - 2.1. the current level of one million hectares (1.0 Mha);
 - 2.2. an increased level of approximately one million and six hundred thousand hectares (1.6 Mha);
 - 2.3. Reducing by one hundred thousand hectares (0.1 Mha) the area under Timber Sales Contracts, that would be restricted to conversion of degraded forest to an identifiable and specific higher value use.³⁵
 3. **Regulating and managing chainsaw logging** - by improving the technical capacity of all actors in chainsaw logging through outreach and training to:
 - 3.1. Create a regulatory environment for chainsaw logging according to the provisions of the new regulations;³⁶
 - 3.2. Introducing sustainable chainsaw logging through area control, harvesting rules and a chain of custody for chainsaw timber;
 - 3.3. Improving the productivity, quality and profitability of chainsaw logging;
- Whilst Liberia has committed through policy and legislation to allocate 30% (1.3Mha) of forest area to protected areas, there is a shortfall of approximately 20% (0.894 Mha) and no current plans to fill this gap. This represents a potential **additional** opportunity for REDD by:
4. **Integrating of Conservation and Protected Areas into REDD** and acceleration of the timeline by supporting FDA and affected communities in developing a:
 - 4.1. A unified approach to forest ecosystem services that combines sequestration with conservation and non-destructive uses, and enables funding of PA management and operational costs;
 - 4.2. An acceleration of the timeline for protection of these forest areas which, by retaining a higher percentage of forest cover, would augment the benefits;

Estimating the expected costs and benefits³⁷

The expected baseline annual loss of CO₂ from unimproved logging in Liberia is 2.64 t/ha/year.³⁸ With the introduction of raised commercial logging standards, it is likely that biomass reduction arising from logging, as well as collateral logging damage, will be less.⁴⁰ Studies will determine the extent of the savings to be made in Liberia, which is provisionally assumed at a conservative level of 25% on forest management concessions, which would reduce annual CO₂ loss to, say, 2.0 t/ha/year.

Applied to a full concession programme of 2.3 Mha, this would yield annual CO₂ savings of approximately 1.5 Mt. The possible capping of forest area committed to FMCs at 1.6 Mha or 1.0 Mha would reduce annual CO₂ losses by around 1.8 or 3.2 Mt, respectively. In turn, the unallocated commercial forest would earn credits as carbon concessions.

Noting that Timber Sales Contracts involve over logging, the effect of reducing their usage would be expected to reduce CO₂ losses on those areas by a factor significantly greater than for FMCs – for example, by around 50% on, say, 100,000 hectares taken out of forest clearance.

With the possibility of better machinery and techniques, it is likely that recovery rates from chainsaw logging operations will gradually increase. For example, an increase in recovery rate from 31% to

³⁵ See also Plantations and Permanent Agriculture strategy option.(6)

³⁶ New chainsaw logging regulations are expected to be approved early in 2011

³⁷ Figures quoted are from Keith Lawrence, Eduard Niesten, Eric Werker, op cit

³⁸ t is used throughout to denote (metric) "tonne" and Mt is used to denote "million tonnes".

³⁹ The rate quoted is an annualized rate over a 25 year cycle.

⁴⁰ Studies have shown that best practice removes as little as 20% of standing biomass, whilst poorly planned or implemented logging operation on unsuitable sites can lose as much as 80%. - based on Keith Lawrence, Eduard Niesten, Eric Werker, op cit

40% would reduce the high-end estimate of total annual CO₂ loss by 23%, or nearly 3 Mt, holding total production constant.⁴¹

Whilst better techniques and machines will generally be cost effective and not incur a cost for saving CO₂, a reduction of the area footprint of commercial logging would render that unused land vulnerable to other driving forces of D&FD. As with proposed protected areas, this forest set aside for carbon sequestration would incur annual protection costs which are provisionally assumed to be \$2.38 per hectare.⁴²

Most critically, not logging commercial forest would incur opportunity costs of foregone logging revenues, restriction on employment and value added, and absence of associated multiplier effects. These have been conservatively estimated, on a per 100,000 hectare basis, as:

Table 17. Opportunity Costs of reducing logging by 100,000 hectares

Benefit per 100,000 ha FMC	Directly	Indirectly
Employment generated (no.)	99	248
Value-added (M\$/yr)	5.19	8.83
Taxation incl, Corporate Income Tax (M\$/yr)	2.47	

With the recognition that carbon sequestration would be additional in the proposed protected areas, excepting the existing and funded pipeline areas, the introduction of forest protection in those areas would make a significant contribution to REDD in Liberia. Assuming a CO₂ stocking of 527 t/ha, and deforestation rates of 0.125% and 0.5% with and without protection, respectively, the annual reduction in CO₂ loss is likely to be 1.8 million tonnes for 0.894 Mha under protection, at an assumed cost of \$2.38 per ha per year.⁴³

Whilst carbon payments would contribute towards operational costs of forest protection in PPAs, there may arise opportunity costs may from displaced livelihoods which will be carefully calibrated through studies of the socio-economic impacts of protection. Whilst it is likely that carbon credits will constitute a viable source of compensatory payments for displaced livelihoods of a subsistence nature, higher value activities such as artisanal mining will need careful review. Partial leakage arising from effective protection therefore represents a risk to be assessed.

Overall, the cost estimates associated with each forestry strategy option are not yet precisely quantified, in part due to the uncertainties attached to the baseline scenario of full commercial logging of 2.3 Mha. During REDD implementation, further cost studies will be required.

Sustainability and integration with other sector policies and strategies

The option to reduce the area footprint of commercial forestry is contrary to the role of the forestry sector in the Poverty Reduction Strategy as a prime mover of economic revitalization in rural Liberia. The upcoming development of Vision 2030 provides an opportunity to review the role of forestry backed by convincing evidence of the opportunity costs in order that REDD should not be perceived as anti-development.

Whilst the PRS explicitly recognizes forest conservation, it is important that such areas be seen as contributing to national economic recovery, which conjoining with REDD would provide. There may arise contention with other major alternative land uses (e.g. mining and agriculture), which is best countered by a positive income stream associated with REDD. It would be very advantageous to target agricultural strategy (5) to address shifting cultivation in forest areas proposed as carbon concessions..

The option to reduce the area committed to TSCs would require close coordination with the Ministry of Agriculture and agricultural concession holders (see section on Plantations below).

Feasibility and Risks

⁴¹ Hugh Blackett, Dr. Aiah Lebbie & Dr. Emanuel Marfo ; Chainsaw Logging In Liberia: An Analysis of Chainsaw Logging (Pit-Sawing) In The Natural Forests Of Liberia Towards A More Sustainable Production, FDA, 2009

⁴² FDA. 2006. A Business Plan for the National Protected Area Network Of The Republic of Liberia Draft Report of the Working Group on Liberia's Protected Area Network..

⁴³ See FDA 2006 op cit

The main constraint to raising standards in commercial logging is a widespread lack of technical capacity in the industry. FDA also lacks sufficient resources to provide regulatory oversight, and it will face difficulties in introducing a regulatory system for chainsaw logging where none has previously existed. The scattered and dispersed nature of chainsaw logging presents immense challenges to FDA in exercising its regulatory role. The clear risk is that those operators unable or unwilling to adjust to a legalized production system will carry on as before, with no benefit to emissions reduction.

Whilst FDA has already committed substantial areas of forest to eventual protected area status, this remains aspirational on at least 0.894 Mha. Designation of such areas as “multiple sustainable use” rather than strict protection would minimize overall impact on affected communities yet still provide legal protection against major drivers of D&FD such as commercial and chainsaw logging, plantation development and permanent agriculture.

Assessing leakage risks

The main risk in reducing the area footprint of commercial logging is that intense pressure could arise from business interests and political lobbies for unallocated areas of forest to be licensed for production under the guise of community or private forests ownership rather than as carbon concessions. However, the risk of this production gap being filled by illegal logging is negligible owing to the stringent requirements of the chain of custody.

Unless alternative livelihood solutions are offered, it is likely that some livelihood activities would be displaced and partial leakages would occur.

AGRICULTURAL SECTOR

Strategy Options for REDD

With a new and supportive Food and Agricultural Policy & Strategy (FAPS) in place which explicitly recognizes that shifting cultivation locks subsistence farmers into low productivity with a high environmental penalty, Liberia is well positioned to adopt a REDD strategy that would:⁴⁴

1. **Transform shifting cultivation into permanent or semi-permanent agriculture to reduce land use and forest degradation** by supporting the Ministry of Agriculture (MoA) and subsistence farmers, especially within proposed protected areas, to:
 - 1.1. Switch away from upland rice cultivation to irrigated lowland (“swamp”) production, which has a comparative advantage in productivity and does not rely on shifting cultivation;
 - 1.2. Expand fertilizer use in Liberia, which is currently minimal, as a means to boost productivity and prolong land occupation before resting for fallow.
 - 1.3. Scale up existing pilot introductions of Conservation Agriculture (CA) as a means to increasing productivity without inorganic fertilizers, and prolong land occupation before resting for fallow.

Agricultural tree crops sequester carbon in their own right and often represent a higher land use value than forest. The FAPS envisages improvements in many social and environmental aspects of plantation development including the developing an appropriate land utilization policy for concessions that addresses environmental needs.. This represents an opportunity for a REDD strategy to:

2. **Ensure that tree crop plantation and permanent agriculture development is located on degraded forest lands** by supporting the MoA, FDA and agricultural concession holders to:
 - 2.1. Identify and site new plantation development according to forest quality criteria;
 - 2.2. Within existing agricultural concessions, focus on degraded forest and negotiate forest swaps to achieve this aim;

Estimating the expected costs and benefits⁴⁵

⁴⁴ Food and Agricultural Policy and Strategy, Republic of Liberia, 2008

⁴⁵ Figures quoted are from Keith Lawrence, Eduard Niesten, Eric Werker, op cit

Adoption of permanent or semi-permanent agriculture by subsistence farmers would free up land for forest regrowth and carbon sequestration. In the case of CA, carbon would also be sequestered in the soil.

While currently most households (63%) currently grow their rice on the uplands through shifting cultivation, it is conservatively estimated that irrigated lowland sites can boost yields by between 50 - 300% without fallow. If, for example, an area of 30,000 ha of irrigated lowland farming were to be developed over 25 years, this would free up 150,000 ha of land for forest regrowth, with a saving of 41.0Mt CO₂ over 25 years at a cost of \$1.16/tonne.

Recent success with targeted fertilizer subsidies (e.g. Malawi) suggests that such a policy in Liberia could boost yields and permit more intensive agricultural practice. For example, a program that subsidizes fertilizer over 60,000 ha, together with appropriate land use policies that would free up at least 120,000 ha of land for forest regrowth, which would represent around one quarter of all upland rice areas in Liberia, with a saving of 44.1 Mt CO₂ over 25 years, at a cost of \$1.02/tonne

In theory, all other upland agriculture in Liberia could be converted to CA (with some inorganic fertilizer potentially necessary), thus freeing up the degraded land used in extensive agriculture to sequester carbon. In practice, CA conversion would likely require scaling up over a decade or more as pilot and demonstrations schemes matured. For example, if 48,000 ha were converted to CA over a ten year period, this would contribute savings of 43.0Mt CO₂ over 25 years, at a cost of \$1.44/tonne.

Selection of degraded forests or cleared land for plantation development and permanent agriculture would ensure that this agriculture poses no threat Liberia's carbon stock since tree crops have significant carbon content - far more than that of short-fallow agriculture. If, for example, 100,000 ha of new tree-crop concessions were limited to degraded agricultural land instead of forest, nearly 53 million tons of CO₂ emissions would be avoided at zero cost per tonne.

Sustainability and integration with other sector policies and strategies

The new FAPS strongly supports a collaborative approach with the forestry sector and is synergetic with the Forest Policy of Liberia.

Given the immensity of the challenges posed by shifting cultivation, it would be advantageous to link option (5) to the possible displacement effects arising from active protection of forests under option (4). The productivity boots from transforming shifting cultivation would provide a powerful basis for programme sustainability and the provision of fertilizer inputs, improved seeds, extension and outreach.

The selection of degraded forest for conversion to plantations is attractive owing to a minimal cost (assumed zero here). This strategy option (6) would need to be coordinated with FDA's review of its TSC programme under option (1), and would require close cooperation between MOA and FDA.

Feasibility and Risks

Whilst empirical evidence on fertilizer use and lowland cultivation is persuasive, that for CA may be unconvincing and would require pilot development and demonstrations to ensure adoption.

The sectoral responsibility for options (3) & (4) rests with the Ministry of Agriculture, which has limited capacity to work with subsistence farmers, although a policy priority. Success would be contingent on working through NGOs which have a demonstrable track record.

In regard to plantation development, there exists a slight risk exists that existing agricultural concession holders may have factored the revenues from forest clearance into their business plan, but this is less likely in the older established concessions which remain heavily forested.

Assessing leakage risks

The main leakage risk emanates from replacing shifting cultivation with swamp rice cultivation which is know to emit methane, another greenhouse gas that is around 21 times more potent than CO₂. For the increased methane to be offset, an additional 0.5 ha of land used in extensive agriculture would need to be freed up (i.e. 165,000 rather than 150,000 ha in the example used), which could be achieved through a modest fertilizer application.

ENERGY SECTOR

Strategy Options for REDD

With explicit recognition in the National Energy Policy that 95% of Liberians rely on the inefficient use of wood fuels for domestic purposes, there is an opportunity to launch a REDD strategy that would:⁴⁶

1. Regulate and manage wood fuel energy by supporting the MLME and FDA to:

- 1.1. Carry out peri-urban planning of wood energy supply and demand;
- 1.2. Identify and prepare an appropriate licensing and permit system;
- 1.3. Develop feasible options for utilization of bi-products of primary forest log breakdown as fuel stock substitute for fossil fuels in power generation,

2. Introduce more efficient kilns and cooking stoves by supporting MLME and NGOs to:

- 2.1. Acquire and test demonstration models from other countries
- 2.2. Develop production options.

Estimating the expected costs and benefits⁴⁷

The potential savings in CO₂ emissions from using efficient stoves could be as much as 28.5Mt over 25 years if all Liberians were to use them instead of open fires, at costs for charcoal or wood stoves of \$2.67 or \$3.20 per ton CO₂, respectively. Improved kilns can typically increase conversion efficiency to around 25%, which could yield comparable savings in CO₂.

The planning and regulation of the charcoal industry would ensure sustainability without ever increasing transport costs, whilst linkage to commercial logging and conversion sites would lower costs, but not qualify for CDM.

Sustainability and integration with other sector policies and strategies

Wood energy lies outside the remit of the FDA to manage. Whilst the National Energy Policy fully recognizes the important role of wood fuel in climate change, it is not at the centre of the policy stage. Collaboration between FDA and MLWE will be essential to maintain these programmes, and implementation may need to be delegated to NGOs. However, stove improvement programmes in other countries have floundered when external assistance ceases.

Feasibility and Risks

Government capacity to regulate the wood energy supply chain is limited, and any interventions that restrict supplies or increase prices may spark protests.

Assessing leakage risks

The wood energy industry is driven by costs in which transport is the major factor. Government attempts to restrict supplies or impose taxes may be circumvented without strong monitoring of distribution points.

⁴⁶ National Energy Policy, Republic of Liberia, 2008

⁴⁷ Figures quoted are from Keith Lawrence, Eduard Niesten, Eric Werker, op cit

Table 2b: Summary of Strategy Activities and Budget (or Result framework)**FORESTRY SECTOR**

Output (major activity)	Organizations involved	Activities or Sub-activities	Budget allocation in thousand (estimated cost in US\$000)				
			2011	2012	2013	2014	Total
Outcome 1: Mitigation of Logging as a driver of D&FD							
Output 1.1) Raised Commercial Forestry Standards	FDA with LTA, NGOs, UoL, & consultants	1.1.1 Assess economic viability of forest resources for commercial logging	0	50	0	0	50
		1.1.2 Capacity building in management planning, operational management and reduced impact logging	0	20	10	10	40
Output 1.2) Reduced area footprint of commercial logging	FDA with LTA, NGOs, UoL, & consultants	1.2.1 Full socio-economic assessment of applying caps at various levels of commercial logging	0	20	0	0	20
Output 1.3) Regulation and management of chainsaw logging	FDA with LCS Org NGOs, UoL, & consultants	1.3.1 Create a regulatory environment for chainsaw logging according to the provisions of the new regulations	0	20	20	0	40
		1.3.2 Introduce sustainable chainsaw logging through area control, harvesting rules and a chain of custody for chainsaw timber;	0	15	15	10	40
		1.3.3 Capacity building for improving the productivity, quality and profitability of chainsaw logging;	7	7	7	0	21
Outcome 2: REDD integrated with Conservation							
Output 2.1) Integration of Conservation and Protected Areas into REDD and acceleration of the timeline	FDA with NGOs, UoL, & affected communities	2.1.1 Consult and develop a unified approach to forest ecosystem services	0	5	0	0	5
		2.1.2 Consult and propose an accelerated timeline for proposed protected areas	0	5	0	0	5
TOTAL			7	142	52	20	221

AGRICULTURAL SECTOR

Output (major activity)	Organizations involved	Activities or Sub-activities	Budget allocation in thousand (estimated cost in US\$000)				
			2010	2011	2012	2013	Total
Outcome 3: Mitigation of agricultural practices as drivers of D&FD							
Output 3.1) Transform shifting cultivation into permanent /semi-permanent agriculture	MoA	3.1.1 Extension outreach to target subsistence farmers within two selected areas proposed as possible carbon concessions	0	30	30	0	60
		3.1.2 Rehabilitate rice ponds for target groups	0	15	15	0	30
		3.1.3 Provide fertiliser and seed inputs for target groups	0	10	5	5	20
		3.1.4 Introduce CA to target groups	0	15	15	10	40
Output 3.2) Plantations and permanent agriculture sited on degraded forest lands	MOA and FDA	3.2.1 Carry out assessments of forest quality within existing and proposed new plantation areas	0	35	0	0	35
		3.2.2 Carry out review of suitability of proposed TSC areas and match to conversion needs	0	40			40
TOTAL			0	145	65	15	225

ENERGY SECTOR

Output (major activity)	Organizations involved	Activities or Sub-activities	Budget allocation in thousand (estimated cost in US\$000)				
			2010	2011	2012	2013	Total
Outcome 4: Mitigation of wood energy as a driver of D&FD							
Output 4.1) Regulate and manage wood fuel energy	MLME and FDA	4.1.1 Planning wood energy supply for Monrovia	0	30	5	5	40
		4.1.2 Prepare wood energy permit and licensing system	10	0	0	0	10
Output 4.2) Introduce more efficient kilns and cooking	MLME and FDA with NGOs	4.2.1 Acquire and test demonstration stoves and kilns, with focus on logging waste	5	10	10	0	25
		4.2.2 Develop viable production proposals and secure startup funds	0	10	10	0	20
TOTAL			15	50	25	5	95
GRAND TOTAL			22	337	142	40	541

Notes: 1. Countries are encouraged to include outcomes, outputs, and organizations involved in this table for this component, for consistency with normal program outcomes and indicator procedures. If identifying outcomes and outputs is difficult at this stage, include your tentative early ideas and then revisit them during Readiness Preparation.

2. Outcome: Actual or intended change in development condition that project interventions are seeking to support. Outcome includes key results such as governance reforms functioning national inter-ministry coordination, national or regional policy or legal reforms, etc.

3. Output: The direct result of project inputs, achieved through the completion of project activities, including tangible products for services necessary to achieve the outcomes of a programme or project. E.g., workshop reports, studies, new training courses, etc.

2c. REDD-plus Implementation Framework

Introduction

All policy or economic decisions regarding REDD+ development in Liberia must ensure compatibility with efforts to stabilize the country's political situation and promote its transformation from a fragile post-conflict state to one on the path to sustainable development. In Liberia, a REDD+ program must be aligned with the country's economic planning, such as is outlined in the Poverty Reduction REDD+ must add value, beyond than financial value, to existing programs and initiatives.

An effective national REDD+ program will include roles for multiple institutions at a range of levels of government and society. Monitoring, reporting and verification as well as compliance and enforcement mechanisms must also be established and will require human and technical resources, political will, and good governance.

Successful implementation of a REDD+ program will require meaningful capacity building from the central government to local beneficiaries and monitors. REDD+ objectives and co-benefits can only be achieved with a coordinated effort to build governance capacity and a coherent program designed with clear standards and processes that embrace equity and prevent corruption.⁴⁸ Any REDD+ law(s) and enabling regulations must set rules that are clear, comprehensive, and harmonized with other legal provisions. Additional national structures and capabilities that would need to be developed for REDD+ implementation have the potential to improve forest governance, as a REDD+ program must establish mechanisms for monitoring and enforcement, as well as identifying and addressing drivers of deforestation.⁴⁹

While the specific criteria that Liberia would need to follow will depend on the outcome of ongoing international negotiations, the broad outline of REDD+ is established and the general considerations outlined below reflect the necessary elements of a REDD+ program. The major legal, institutional and policy issues recommended by the R-PP are summarised as follows:

Legal framework for REDD+

Certain key aspects of REDD+ can, consistent with Liberian law, be implemented administratively, without the need for new legislation. However, because Liberian laws now on the books do not contemplate the uses of forest land envisioned under REDD+, there is a risk that a REDD+ program established under current law could be vulnerable to a court challenge. Certainly, a REDD+ program enacted by way of new legislative amendments would be on much surer legal footing than a program established solely through agency regulations under existing law. Legislative enactment would provide an opportunity for comprehensive program design and allow lawmakers to give clear guidance to implementing agencies, affected communities, and other stakeholders. Also, the legislative and executive imprimatur carried by a new law could help to build public knowledge about and confidence in a REDD+ program for Liberia. New legislation could also be expected to provide greater confidence to donors and international investors.

It is critical that, at a minimum, any REDD+ program be designed and implemented to reflect fundamental elements of the reformed forest management program—especially because that program operates within the larger context of post-conflict reconstruction and restoration of the rule of law in Liberia. Key to REDD+ readiness is the establishment of a national REDD+ program and development of laws, regulations, and policies that will ensure that REDD+ projects demonstrate that the carbon emission benefits resulting from the project are *additional* (i.e., that the project results in real, measurable, and long-term carbon emissions reductions that would not have occurred without the project) and *permanent*, and that *leakage* is minimized (i.e., that emissions reductions resulting

⁴⁸ Concerns around poor governance and corruption in REDD systems are not unfounded, as evidenced by recent investigations into a carbon deal in Liberia. In June 2010, the City of London police arrested the CEO of the UK-based Carbon Harvesting Corporation on suspicions of bribery relating to a carbon deal in Liberia. This deal, between Carbon Harvesting Corporation and Liberia's FDA, would involve payments of \$1 million per year for a 400,000 hectare land concession (Peel and Harvey 2010).

⁴⁹ The process of establishing ownership of carbon rights could also help to motivate governments to clarify in the land rights.

from a REDD+ project in one geographical area do not lead to an increase in emissions in another geographical area).

In a general sense, a REDD+ program will include international, national, and sub-national policies and players. Under REDD+, international buyers or funders will make payments, through offset markets or a financial transfer from a global fund, for actual reductions in emissions from deforestation and degradation, or measures likely to deliver such reductions. At the national level, individual governments will develop REDD+ programs that put into place broad policies to address deforestation at a national scale and establish a national system for monitoring, reporting, and verification. A national approach to REDD+ will help to minimize leakage by developing policies to ensure that preventing deforestation in one area does not cause deforestation in another. National programs will also include policies to control corruption, ensure equitable benefit sharing, and provide other social and environmental co-benefits. Through these forest related policies, which are further discussed - were relevant - in following sections, a national REDD+ program has the potential to improve forest governance.

Managing REDD+ revenue, classification and funding structures

The REDD+ program will need to establish a unit to manage revenues, including developing a REDD+ fund at the national level, disbursing funds to support development and implementation of REDD+ policies, programs, and projects; instituting revenue policy measures; establishing a payment system to carbon rights holders; providing a legitimate benefit-sharing system (see benefit sharing below); and establishing a transaction registry. Options for a national REDD+ funding structure include - each option entails tradeoffs with respect to governance, coordination, effectiveness, efficiency, equity, and co-benefits:

- **Projects** – Payments from international sources (carbon market or fund) are made directly to local project proponents.
- **Independent fund** – Carbon payments are made to an independent fund outside the government with independent administration and decision-making authority.
- **State-administered fund** – Payments are made to a REDD+ fund within the central government, and funds are distributed through a REDD+ board.
- **State agency budgets** – Payments are made to existing government institutions (e.g, the Forestry Development Authority).

REDD+ requirements have much in common with traditional forest management activities. Thus, much of the financial structure and procedures, as well as institutional structure, needed to initiate a REDD+ program already exist in Liberia. They are found in land, forest sector, and business legislation including the 2006 National Forestry Reform Law (NFRL), the 2009 Community Rights Law (CRL), the Liberia Extractive Industries Transparency Initiative Act of 2009, the 2005 Public Procurement and Concessions Act (PPCA), and the Investment Incentives Code of 1973. While the legislation does not explicitly include REDD, the objectives and general structure of the 2006 NFRL are supportive of a carbon sequestration framework designed to protect the global environment from climate change as long as there is a meaningful benefits-sharing structure and the program benefits the Liberian people.⁵⁰ Moreover, under the NFRL, REDD+ could be conducted through a commercial license or through the protected area program, with the commercial approach more likely and the law on this is more developed.

⁵⁰ The National Forest Management Strategy (2007) does, however, include exploring REDD as a program goal. The Strategy would have to be updated in light of the finalized details of a REDD+ program or the validation of any area designated for REDD+ (2006 NFRL § 4.5). To reinforce the pervasive importance of environmental assessment in the prevention-oriented forest management reform scheme, the forest regulations require the FDA to “identify adverse environmental impacts” of proposed decisions and actions under the National Forest Management Strategy. Elaborating their environmental assessment requirements, the regulations require the FDA to work with all stakeholders to minimize or mitigate adverse environmental impacts (FDA Regulation 102-07, secs. 63 (a) and 63 (b)). REDD+ would also have to be added to the National Forest Policy (2006 NFRL S 4.3).

Clarifying and securing carbon rights

Land tenure is a delicate and unsettled subject in Liberia. The 1956 land law established a formal tenure system, but this applied primarily to the settled coastal areas. Customary tenure has prevailed in the interior where tenure is established by customary use. Under the customary system, individuals have rights to use but not own land; land is under the control of the chief, who holds a communal deed.⁵¹ Liberia enacted a Title Registration Law in 1974, but its implementation was precluded by the brewing civil conflict.⁵² As a consequence, clouded and contested land titles remain a legacy of Liberia's extended civil conflict, with the courts apparently clogged by a significant backlog of disputes⁵³ (it is revealing that the LFI concession review found that almost two and a half times the entire surface forested area of Liberia had been granted as forest concessions during the period of civil disturbance).⁵⁴ The salient fact about tenure in post-conflict Liberia is that ongoing conflicts and confusion concerning land claims based on customary law have not been systematically reconciled with land and resources ownership under the formal law.

To add to the complicated land picture in Liberia, the Constitution vests the ownership of Liberia's natural resources in the government.⁵⁵ The National Forestry Reform Law tries to add clarity to the land situation by stating that the government holds forest resources in trust for the people with such exceptions as forested land in communal forests.⁵⁶ Thus, to take natural forests as an example, regardless of whether the government or a private party owns the land, the government may allocate arboreal resources through concession arrangements.⁵⁷ Consequently, under the NFRL, sequestered carbon is owned by the government. As a thing of use to humans that exists in the forest environment carbon is a forest resource and forest resources are held in trust by the government for the benefit for the People (§§1,3, 2.1(a)). As long as this distinction is maintained, the lack of clarity of land ownership should not affect development of a REDD+ program.

Although Liberia could implement a REDD+ program based on the NFRL as discussed above, it would be preferable for Liberia to address and clarify land tenure issues. The incentive of the benefits from REDD+ projects may provide additional leverage in efforts to reform land tenure policy.

1. Alienability of Carbon Rights

Under a REDD+ program, the government would exchange the right to the forest resource, sequestered carbon, in a commercial transaction. A similar transaction is also permissible on community forest land (CRL §1.3).

2. Commercial Considerations

The Public Procurement and Concessions Act (Concessions Act) outlines the basic process all agencies must follow for granting concessions in Liberia.⁵⁸ In order to enter into any REDD+ arrangements, FDA must prepare and submit to the Public Procurement and Concessions Commission a Concession Procurement Plan that meets the Commission's requirements. The legal framework governing investment in Liberia is provided by the Investment Incentives Code of 1973.⁵⁹

⁵¹ Unruh JD (2009) Land rights in postwar Liberia: the volatile part of the peace process. Land Use Policy 26: 425-433.

⁵² Administration of the title registration system is lodged in the Ministry of Lands, Mines and Energy.

⁵³ The lack of data that characterizes land disputes in Liberia extends to ignorance of how many cases have been mooted through abandonment of claims or unrecorded settlements.

⁵⁴ Forest Concession Review Committee (FCRC) 2005, Forest Concession Review Report: Phase III and Appendices, Monrovia, available at <http://www.fao.org/forestry/site/29659/en>

⁵⁵ Republic of Liberia, Making Democracy Work in Liberia: The Constitution, University of Liberia Press, 2000. (Thus, the categorization of tradeable carbon credits as a personal property forest resource is critical. There are significant restrictions on real property ownership by foreigners in Liberia. The Constitution of Liberia forbids foreign ownership of real property. Chap. III, Art. 22 of the Constitution of Liberia. Foreign investors, however, may lease property for specified periods (21 years, except for 99 years for undeveloped land) with an option for renewal. See Investor's Guide at 34.)

⁵⁶ National Forestry Reform Law, sec. 2.1(hereinafter Forestry Reform Law).

⁵⁷ Unruh JD (2009) Land rights in postwar Liberia: the volatile part of the peace process. Land Use Policy 26: 425-433.

⁵⁸ Public Procurement and Concessions Act, as amended. The authors have not yet had the opportunity to review the 2010 Public Procurement and Concessions Act.

⁵⁹ An Act Amending the Investment Incentive Code of the Republic of Liberia (Investment Code) (March 6, 1973)

The fact that foreign investors may not own property in Liberia makes it especially important that any REDD legislation define the foreign investor's legal interest in carbon credits, which may not take the form of a property interest such as a carbon estate or property right. There are no restrictions in Liberia, however, on the repatriation of profits or dividends.⁶⁰ An array of approaches may be used to establish marketable carbon rights. To establish long-term carbon rights, project proponents may:

- *Acquire* forest concession rights.
- Enter into *agreements with landowners* (or communities with common property ownership) who possess existing carbon rights to develop carbon projects and share the credits produced.
- Enter into an *agreement with land users* (or communities with common property rights) who possess existing carbon rights to develop carbon projects and share the credits produced.
- Enter into an *agreement with the local or national government*, who possesses carbon rights, to develop a forest project. Though these actors (e.g., NGOs) lead the development and implementation of a REDD project, they do not seek any carbon rights or benefits for themselves.

National accounting and nesting

Under a national REDD+ program, credits for emissions reductions could be generated through national level policies that address deforestation generally or through sub-national projects that preserve forests in a single location. International credit could be given for sub-national projects directly (current international REDD+ debates consider this possibility as only an intermediate step in the development of a national REDD+ program because these projects may occur outside of the safeguards developed under a national program) or through a system to allocate national credits to project proponents and local communities for projects that reduce carbon emissions (i.e., payment for ecosystem services). All projects should be developed within the framework of a transparent, equitable, and effective national REDD+ program. A set of criteria will need to be developed for identifying, approving, and implementing REDD+ projects under the national program. Revenues generated from the sale of REDD+ credits will be collected in a national REDD+ fund and distributed according to a transparent and equitable benefit sharing structure.

A national REDD+ program will establish roles for multiple institutions across sectors and scales, including broad participation from national and local governments, civil society, and NGOs. The roles and jurisdictions of each institution need to be clearly defined, and coordination among institutions will be critical. A REDD+ coordinating body could be established in a division within the central government, a division within a central government agency (e.g., FDA), a task force within the central government with representatives from several agencies or offices, or a combination of these approaches.⁶¹

The REDD+ program will require entities to oversee funding distribution, monitoring and reporting, benefit sharing, and verification tasks. Specifically, the national program will need to:

develop and implement REDD+ strategies;

link REDD+ institutions into regional and local plans or development policies, including climate change and poverty reduction strategies;

ensure high-level government commitment as well as commitment within all relevant sectors, including forestry, finance, agriculture, mining, etc.;

- identify responsibilities and delegate authority;
- identify and engage stakeholders;

⁶⁰ See Investor's Guide at 35.

⁶¹ In Liberia, a carbon working group has already been established. The National Climate Change Steering Committee, headed by the Special Advisor to the President on climate, includes Technical Working Groups on agriculture, energy, the Kyoto Protocol's Clean Development Mechanism (CDM), and REDD. The REDD Technical Working Group is co-chaired by the FDA and EPA, with strong technical assistance from international partners. Other government members, civil society representatives, international NGOs, and development partners also sit on the working group. In addition, a separate entity, the National Carbon Working Group, is responsible for developing a strategy for carbon activities in Liberia. This structure should maintain involvement in development and management of a REDD+ program.

- ensure coordination within government agencies, including between climate change strategies and forest policy, and among government and non-government organizations;
- design mechanisms for participation and benefit sharing;
- establish monitoring, reporting, and verification systems;
- assess implementation; and
- report to international bodies.

While recent legislation has decentralized some forest governance authority, the limited technical capacity in Liberia suggests the need for central government action to realize effective carbon reductions. The central government may also need to assume liability for carbon reversals (i.e., when avoided deforestation projects fail or permanence is not achieved) for local REDD+ projects. As the entity with legal authority to regulate forest activities, it seems the FDA is a likely candidate to be the institutional home for a REDD+ program. Furthermore, for national accounting and nested systems Liberia will work with The Institute for Conservation and Sustainable Development of Amazonas (IDESAM), Brazil.

Addressing drivers of deforestation

Liberia's reformed forestry laws have begun to address the drivers of deforestation. The law requires the FDA to develop and act on a national strategy to address deforestation.⁶² The deforestation strategy must include protection of wetlands and areas with fragile soils on forest lands and require industry to promote forest enrichment planting and improved forest quality through employment of best practices in silviculture.⁶³

The FDA's on-going efforts to sustainably manage forests and protect against deforestation basically consist of two parts: first, by controlling commercial yields through the various types of forest concessions (called licenses or contracts); and second, by severely limiting or prohibiting the extraction of timber and non-timber products, mining, and consumptive uses (including farming in some areas) in designated protected areas that are part of the Protected Areas Network that the FDA must develop and administer. The National Forestry Reform Law establishes the following categories of protected areas with specific prohibitions and occasional exceptions (for example, allowing non-commercial resource extraction in communal forests) attached to each category: 1) Strict Nature Reserve; 2) National Park, Nature Reserve, or Game Reserve; 3) Communal Forests; 4) Cultural Sites; and 5) National Forest.⁶⁴ The law also allows FDA to establish other protected forest area categories including, but not limited to, Game Reserves, Controlled Hunting Areas, Communal Forests, and other Buffer Zones, as Conservation Corridors to facilitate sustainable protected forest management and Biodiversity protection.⁶⁵ The FDA regulations specifically require that no commercial forestry use be allowed in a designated or proposed Protected Area.⁶⁶

Establishing the MRV system

Liberia's existing forest monitoring systems may serve as a basis upon which to build an effective REDD+ MRV program and the primary responsibility for monitoring and reporting could be assigned to the FDA. Under the 2006 NFRL, license holders must report annually, (§ 18.13) and FDA must monitor lands to ensure use of forest resources is lawful (§8.2(a)). The FDA is also required to collect and maintain a forest land use database, containing all available socio-economic, biological, and physical data on forest land in Liberia (FDA Regulation 102-07, sec. 22 (d)).⁶⁷ Existing community forest monitoring or management programs could also provide structure for and inform the development of a national REDD+ MRV structure. Communities are explicitly responsible for transparency and reporting on community forest lands (CRL §3.2) and also have a role in monitoring commercial forest activities (NFRL §20.10). Local monitoring may help the REDD+

⁶² Sec. 8.3 a., Forestry Reform Law.

⁶³ *Op. cit.*, Sec. 8.3 b. and d.

⁶⁴ Sec. 9.10 (b), Forestry Reform Law.

⁶⁵ Sec. 9.9, Forestry Reform Law

⁶⁶ FDA Regulation 102-07, sec. 61 (c) (1).

⁶⁷ FDA database(s) when compared with land use categories including protected areas can be used to help identify and prioritize REDD+ projects for maximum forest protective impact.

program to achieve the principles of transparency and accountability and improve the overall efficiency and effectiveness of the program. Local monitoring could, for example, help to verify where forest degradation is taking place as opposed to deforestation, which can often be verified remotely. In fact, a recent study shows that local people can collect forest condition data of comparable quality to trained scientists, at half the cost.⁶⁸ Incorporation of local monitoring can also help to build support for the REDD+ program among the local population.

Designing a pro-poor resource distribution system

REDD+ requires the development and implementation of careful and effective benefit-sharing structures, funds channelled through the central government could be misdirected. Lack of legal and political clarity regarding land ownership and carbon rights claims could lead to a land grab. These situations could foster resentment and conflict among indigenous and rural populations, and ultimately undermine the efficacy of a Liberian REDD+ program and the sustainable forest program more generally.⁶⁹

The NFRL contains a robust and progressive structure for benefits sharing. Holders of FMCs and TSCs must pay stumpage fees, land rental fees, and forest product fees, which will be distributed in legally established percentages to the central government, communities, and counties, and to the protected areas network, respectively (NFRL §14.2). In addition, the holder of a FMC or TSC must establish a social agreement with affected communities.⁷⁰

On community forest lands, a benefits-sharing structure would have to be developed as part of the REDD+ regulation as none of the existing categories of commercial activities apply to REDD+ (CRL §§6.1 – 6.3). Communities do have the authority to direct benefits from community forest management (CRL §3.2). Funds from REDD+ activities on community forest land could be channelled through the community forest fund (CRL §4.3).

Strengthening law enforcement

The National Forestry Reform Law prescribes the array of direct remedies for legal violations typical of a modern environmental enforcement program. It gives the FDA the administrative power to issue notices of violation and to suspend or terminate concessions for non-compliance.⁷¹ The NFRL also empowers the FDA in its discretion to bring enforcement actions for civil penalties, equitable relief (injunctions), and criminal penalties. Importantly, given the lawless nature of Liberia's concessions in the recent past, FDA is given the authority to suspend and debar persons from eligibility to bid on forest concessions.⁷² One notable feature of the National Forestry Reform Law's enforcement regime is the mandate it imposes on FDA to prepare and make available to the public an annual enforcement report specifying all violators it identified and all enforcement actions it brought in the preceding year.⁷³

The National Forestry Reform Law adds teeth to the enforcement provisions by making the FDA's requirements legally enforceable by private damage suits against concession holders, citizens' lawsuits against the government, and citizens' lawsuits directly against the violator in cases of inaction by the government (after notice to the government and opportunity to cure).⁷⁴

However, while the comprehensive enforcement provisions of the National Forestry Reform Law secure Liberia's ability to enforce its REDD+ program, operational structures for improving the effectiveness of law enforcement are required. Forestry enforcement provisions are central to any

⁶⁸ F. Danielsen, M. Skutsch, N.D. Burgess, P.M. Jensen, H. Andrianandrasana, B. Karky, R. Lewis, J.C. Lovett, J. Massao, Y. Ngaga, P. Phartiyal, M.K. Poulsen, S.P. Singh, S. Solis, M. Sørensen, A. Tewari, R. Young & E. Zahabu (2010) At the heart of REDD+: a role for local people in monitoring forests? Conservation Letters DOI: 10.1111/j.1755-263X.2010.00159.x

⁶⁹ For example, the Baka, Bagyeli, and Bakola communities in Cameroon have stressed their mistrust of REDD+ projects, because of concerns regarding the impact of REDD+ projects on their rights and livelihoods.

⁷⁰ The requirement for social agreements for TSCs is imposed by Regulation 105-07.

⁷¹ See, e. g., sec. 6.1, Forestry Reform Law.

⁷² Another basis of enforcement under Liberia's reformed forest management regime – one not automatically associated with enforcement – is provided by the rigorous bidder prequalification requirements in the National Forestry Reform Law. The pre-qualification procedures are designed to weed out those with lack of capacity or intent to conduct commercial forestry in a legally compliant and sustainable manner.

⁷³ Forestry Reform Law, sec. 20.11.

⁷⁴ *Op. cit.*, sec. 20.11

REDD+ program to the extent they are required to ensure the bases of the program, such as maintaining the integrity of protected areas and preservation requirements. Critically, effective law enforcement is required for performance-based payments (distribution), at the heart of the REDD+ mechanism, to be effective. Forest protection also needs examine and make improvements to both community-based law enforcement, translating these into national regulations, and existing state-run institutions / agencies, including the police and forest ranger forces.

Access to information, public participation, and access to justice

Liberia's reformed forest management regime is exemplary in its pervasive provisions for mandated public participation, which are properly focused on local communities. Communities now have guaranteed access to information concerning forest concessions and the operation of the forest management program. In particular, communities must be given notice and provided with the opportunity to comment before title to forest land is granted to private parties. In its forest land use planning, the FDA is directed to allocate sustainable land uses through a detailed "participatory process, based on local validation."⁷⁵ Before the FDA may adopt its Forest Management Strategy – the basis of its land use planning process – it must serially hold a national level and a regional level meeting according to prescribed criteria. Moreover, proposed FDA actions related to forest land are subject to at least one prior public meeting in the immediate community or communities potentially affected by the action.⁷⁶ The reformed forest management regime gives legal teeth to its public participation requirements by broadening legal standing to challenge decisions of the FDA and authorizing citizens' lawsuits.⁷⁷

Ensuring free prior and informed consent

The expansive public notice and opportunity to comment and expanded standing provisions of the National Forestry Reform Law, essential as they are to a democratic and transparent process, do not by themselves guarantee results favourable to the public or particular communities. But the National Forestry Reform Law and the regulations therefore go further to require that timber companies directly negotiate a social agreement with communities affected by their operations. The social agreement is designed to provide benefits to compensate communities for burdens or restrictions the forest concessions may impose on community access to or use of forest resources that arise directly or indirectly from the forest concession.⁷⁸

Existing institutions and frameworks for REDD+

1. REDD+ Structure: Three tiered approach to REDD Structure

- 1.1. National Climate Change Steering Committee: Multi-sectoral committee responsible for formulating and aligning climate change policies with national development programs
- 1.2. National Climate Change Secretariat: Operational Arm of the Steering committee providing coordination, monitoring and evaluation (CC A&M, REDD+, CDM etc)
- 1.3. Working groups:
 - 1.3.1. REDD Technical Working Group: providing technical guidance on the development and implementation of a national REDD Strategy
 - 1.3.2. C&P/SESA Working group: providing guidance on the development of consultation and participation plans

2. Voluntary Partnership Agreement: Governance platform for legally sourced timber including strong stakeholder engagement and community forest monitoring platform which could be used for REDD+

3. National Forest Program Facility/ Community Forest Forum: two level structure operating at the national and county level- forums for forestry consultation and multi stakeholder engagement

⁷⁵ FDA Regulation 102-07, sec. 21 (a).

⁷⁶ *Op. cit.*, sec. 62.

⁷⁷, sections 3.1, 4.5, 5.8, 8.2, 18.5, 20.10, and 20.11, FDA Regulation 101-07.

⁷⁸ FDA Regulation 104-07.

4. **Community Forestry Development Committee:** Community initiatives established in NFRL (2006) to assist in administering control and effectiveness in the management of forest resources
5. **Liberia Extractive Industry Transparency Initiative (LEITI):** LEITI monitors the agriculture, timber and extractive industries to ensure they follow laws and pay taxes etc, via the “publish what you pay” principle in Liberia
6. **PRS/ National Visioning for 2017:** Next iteration of Liberia’s development agenda originating from the county for which REDD+ needs to be included in
7. **Land and Governance Commissions:** Commissions working to resolve land rights and governance issues across Liberia
8. **Liberia Forestry Initiative:** Collaboration of donors and implementing partners addressing forestry issues in Liberia
9. **Key Government Agencies:** EPA, FDA, MOA, MIA, MLME, MPEA, MOF and MOJ
10. **Civil Society Networks:** FPIC processes are institutionalized within the national REDD Regulations
11. **Private Sector:** logging, agriculture, marketing associations
12. **National Traditional and Religious Councils:** Networks of traditional and religious leaders

Proposed activities

These activities which are presented here in approximate order of implementation, although most will overlap, will form the REDD+ strategy work Plan:

- **Identify and address the drivers of deforestation** - In order to determine how to reduce deforestation, Liberia must determine what is driving it, as addressing the underlying causes of deforestation is necessary to achieve actual, lasting emissions reductions. Although international rules for REDD+ are still being developed, real, quantifiable, and lasting reductions in deforestation will certainly be required. An effective and transparent system will be needed to identify the drivers of deforestation and develop appropriate policies to reduce deforestation.
- **Develop and implement monitoring, reporting, and verification structures and capabilities** - To meet the international requirements for a reliable and credible national REDD+ program, monitoring, reporting, and verification (MRV) will be critical. An effective and transparent MRV system is needed to identify and develop appropriate policies to reduce deforestation, determine the effectiveness of and enforce such policies, reduce the likelihood of leakage, determine the emissions reductions from specific REDD+ projects, determine the long-term sustainability (permanence) of REDD+ projects, and track REDD+ transactions. Existing forest monitoring systems may serve as a basis upon which to build an effective REDD+ monitoring program.
- **Establish REDD+ program institutional and fund management structures** - A national REDD+ program will need to establish roles for multiple institutions across sectors and scales, including broad participation from national and local government, civil society, and NGOs. The roles and jurisdictions of each institution need to be clearly defined, and coordination among institutions will be critical. Liberia will need to establish a REDD+ coordinating body. The national program may also integrate sub-national projects. All projects, however, should be developed within the framework of a transparent, equitable, and effective national REDD+ program. Liberia will need to develop criteria for identifying, approving, and implementing REDD+ projects under the national program. The REDD+ program will also need to establish a unit to manage revenues, including disbursing funds to support development and implementation of REDD+ policies, programs, and projects; establish a payment system to carbon rights holders; secure legitimate benefit sharing; and establish a transaction registry.
- **Clarify carbon ownership rights** - Any REDD+ program will be premised upon the exchange of rights to carbon, likely in the form of volume of trees preserved, for a credit. This exchange can only be accomplished by an individual or institution with rights to the carbon or forest in question. While ownership of the land is not necessary to possess a right to use of the land or its carbon, resolving questions of forest ownership will be critical to development of a REDD+ policy. Carbon rights must be clarified in order to determine who has what rights, who can make REDD+ agreements, and who is eligible for benefits.

- **Develop a transparent and equitable benefit sharing structure for the REDD+ program** A REDD+ program must have an effective system for sharing any benefits from REDD+ projects. Benefit sharing in the REDD+ context will entail not simply equitably sharing the profits of any REDD+ project or policies, but compensating certain defined communities that do not already own or possess other rights to the trees or the carbon that they may lose through an agreement not to harvest such resources. The benefit sharing provisions under the 2006 Forestry Law offer one model, with implementation challenges from that model providing lessons to consider in developing a REDD+ benefit sharing regime.
- **Develop an effective enforcement system for REDD+** – A system is needed to ensure that national REDD+ policies are enforced and that benefits are equitably distributed to affected communities. Enforcement for REDD+ should include strengthened enforcement within Liberia's broader forestry policies as well as improved anti-corruption policies.
- **Ensure that access to information, participation, and justice are integral components of Liberia's REDD+ program** – Involvement of the public will be critical at all stages of developing a national REDD+ program, as well as for specific projects. This includes providing public access to information, facilitating public participation in decision-making, including comprehensive outreach to local communities, and ensuring a public role in monitoring and enforcement of REDD+ requirements.
- **Develop national accounting system** – A national carbon accounting system will be developing once the MRV is in place and it had been agreed how project level, sub-national and national carbon emission reductions will be rationalised and harmonised into a nested system – this be largely based upon external, international decisions by the UNFCCC post-Kyoto agreements and the emerging bilateral and sub-national markets for compliance level REDD+ carbon credits (CERs).

Table 2c: Summary of Implementation Framework Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
Study on carbon ownership and tenure in the context of Liberia	Consultancy fees		\$10			\$10
	Multi-stakeholder dialogue with communities and government at local and county level		\$5			\$5
Assessment of financial instruments to create a REDD+ fund	Consultancy fees		\$10			\$10
	Review and validation workshop for key ministries and other stakeholder reps		\$5			\$5
Review and improve M&E system(s)	Consultancies: i) Review current process(s); & ii) Assessment of monitoring needs and costs		\$30	\$15		\$45
	Workshop for key government agencies, NGOs and CSOs		\$5			\$5
Review of the enabling legislative context for REDD+ and issues relating to law enforcement	Consultancy fees	\$10				\$10
	Consultation workshop with forest dependent communities and law enforcement agencies (police, FDA, MOJ)	\$5				\$5
	Policy advice and advocacy		\$5			\$5
Prepare concept benefit (revenue) distribution system	Piloting BDS and revenue management at structures at the provincial level	\$25	\$40			\$65
	Investigate standard procedures for permissible government retention of funds	\$15	\$25	\$15		\$55
	Investigation of opportunity costs	\$30	\$50			\$80
Total		\$85	\$185	\$30		\$300
Government						
FCPF		\$85	\$185	\$30	\$	\$300
UN-REDD Programme (if applicable)						

Other Development Partner 1 (name)					
Other Development Partner 2 (name)					
Other Development Partner 3 (name)					

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2d. Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation

Introduction

A Strategic Environmental and Social Assessment (SESA) is a range of analytical and participatory approaches that aim to integrate environmental and social considerations into policies, plans and programs (PPPs) and evaluate the inter linkages with economic and institutional considerations.

Often, environmental and social considerations are not incorporated in PPPs in Liberia; economic considerations being the overriding objective. Session 37 (1) and (2) of the Environmental Protection and Management Act (2002) calls for environmental impact assessment of all projects deemed by the EPA to have negative impact on the environment; The Agency shall require that an environment impact assessment be undertaken on all projects, policies, programs and activities specified by the Agency in consultation with relevant ministries and agencies and published by notice; and in part (2); A developer, or project proponent, shall not commence, carry out, execute, implement or conduct a project or activity for which an environmental impact assessment is required unless an environmental impact assessment has been concluded and an environmental regulations made there under.

These legal requirements are often ignored by project proponents but the relevant GoL Agencies are up in arms with their scarce resources to reverse this trend. SESA seeks to safeguard and manage risks and potential impacts associated with REDD strategy options, ensure that stakeholders are engaged throughout the REDD readiness process including identification, prioritization and management of potential risks and likely impacts associated with REDD readiness, and ensure compliance with World Bank Safeguard Policies, among other benefits.

Context

Activities that reduce emissions from deforestation and forest degradation (REDD) and contribute to conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+) have the potential to deliver significant social and environmental co-benefits. Yet many have also highlighted the serious risks, particularly for forest-dependent communities. Strategic environmental and social issues which must be considered at the REDD readiness stage includes biodiversity and ecosystem services loss; disruption of micro-climate; reduction in water services and quality; soil degradation; food insecurity, displacement of people and fauna, cultural erosion and social conflict as result of migration and immigration, loss of land ownership, land tenure insecurity, loss of access to land and energy supply.

There is growing awareness at both international and national levels of the need for effective social and environmental safeguards, R-PP aims to define and build support for a higher level of social and environmental performance from REDD+ policies. Liberia as a country will benefit in terms of gaining greater recognition for the high social and environmental performance that is achieved by conducting SEA, the SESA are expected to build support for a more effective, equitable and sustainable approach to REDD+.

Justification of the Strategic Environmental and Social Assessment

The purpose of this component is to assess the likely impacts of the REDD strategy options and implementation framework identified in Sections 2b and 2c or that will be identified in the course of the preparatory work. The spirit is that REDD, starting with the preparation for REDD readiness to implementation, should 'do no harm' and, instead, should 'do good'. Apart from The Bank's Safeguard Policies that are designed to avoid, limit and/or mitigate harm to people and the environment, and strive to achieve benefits instead, Liberia has the legal framework that provide directives for conducting EIA/SESA to various projects and programmes.

The legal Frameworks are provided under Environmental Protection Act of 2002 and National Forest Reform Law of 2006. Both of these instruments specify projects and programs that are mandatory for Environment Impacts Assessment which also covers social aspects. Social and environmental

assessments help minimize, mitigate, or duly compensate negative consequences if these are inevitable, and shed light on ways to create benefits for people and the environment. The SESA is a tool that seeks to integrate social and environmental considerations into the policy-making process, leading to sustainable policies and programs. It is a tool to address issues of injustice in benefit sharing, exclusion of forest dependent people and various conflicts arising from resource allocation.

Why is the social and environmental assessment useful?

Safeguarding and managing risks and potential impacts associated with REDD strategy options that will be selected for implementation;

Ensuring that stakeholders are engaged throughout the REDD readiness process including identification, prioritization and management of potential risks and likely impacts associated with REDD readiness, particularly in the development of REDD readiness to ensure long term sustainability of the selected options;

Ensuring compliance with World Bank Safeguard Policies;

REDD has the potential to increase incentives for sustainable forest management. The Government of Liberia in collaboration with bi-lateral partners and donors are expected to undertake program in order to address issues identified in the SEA. REDD schemes do not automatically guarantee a capacity to link carbon sensitive policies with pro poor and environmental policies (for income, employment generation, for asset/rights/biodiversity preservation and for social/cultural cohesion). REDD induced changes to legal frameworks that regulate incentives, rights, financing options (including taxation) and practices do not necessarily ensure environmental safeguards and possible impacts on the environment as well as livelihoods and rights of communities.

TOR for SESA

Liberia is facing challenges related to deforestation and reducing forest resources from various drivers of deforestation and forest degradation. Most of the forest resources are depleted due to shifting cultivation traditional agricultural practices and plantation establishment that are already stressed due to various factors including inadequate management regimes. The Government intends to embark on the REDD+ policies that will improve such situation in collaboration with other stakeholders. It is within this context that SESA is seen as an important component in the implementation of REDD+ policy.

The Strategic Environmental and Social Impact Assessment (SESA) is a tool that seeks to integrate social and environmental considerations into the policy-making process, leading to sustainable policies and programs. Liberia has a detailed Environmental protection Act and regulations which guide the conduct of environmental activities, assessments, impacts and audits. The development of SESA will be informed by an analysis of the current environment policies and regulations, World Bank Safeguards and any foreseen social and environmental impacts as a result of REDD implementation.

The SESA ToR will include findings from the national Strategic Environmental Assessment (SEA) conducted in the forestry sector, all initial diagnostic work, including an initial analysis of the environmental and social context of the legal aspect by the Environmental Law Institute (ELI), institutional activities, stakeholder analysis designed to map out the expected outcomes, opportunities and risks related to the REDD and REDD readiness, consultations with key stakeholders and interest groups, including forest-dependent peoples in a transparent manner. The SESA will give special consideration to livelihoods, rights (including those of forest dependent Peoples), biodiversity, cultural heritage, gender, the special protection of vulnerable groups in society, capacity development and governance.

There exist very limited national capacities and tools for conducting SESA at the moment. There will have to a capacity building initiatives undertaking at national and local levels. The Environmental Protection Agency which is responsible for enforcement of environmental policies and regulations will coordinate SESA activities at national and sub-national levels, and will help in capacity building for SESA. There are no REDD pilots currently ongoing, so it is still early days yet to determine its impacts. The following terms of reference are intended to guide the SESA process for the proposed Liberia REDD+ policy.

Objectives

The objective of these Terms of Reference (ToR) is to ensure a comprehensive and participatory Strategic Environmental and Social Assessment (SESA) for the proposed REDD+ scheme. The Terms of Reference outlines activities, methodology to be followed and expected outputs.

Activities to be undertaking

The SESA team will undertake the following activities:

1. Must consult with all key stakeholders including, indigenous people/forest- dependent communities vulnerable segment of society in order to capture their views and concerns regarding the proposed REDD+ policy
2. Provide detailed baseline condition covering all key social, economic, cultural, institutional and legal issues that may have potential negative and positive impacts arising from the proposed REDD scheme.
3. Consider all alternatives including the “ no REDD policy alternative”
4. Ensure adequate stakeholder participation throughout the EIA process and show stakeholders views and concerns in the EIA report
5. Identify all possible negative and positive impacts and propose mitigation and enhancement measures
6. Prepare Social and Environmental Management Plan (EMP) for the all the negative and positive impacts and clearly define responsibilities for the implementation of the EMP;
7. Carry out cost benefit analysis of the proposed REDD+ scheme;
8. Assess the viability of the proposed development also to benefit from CDM arrangement considering current Kyoto Protocol provision on carbon trade and national policies.

Methodology

A SESA is an exclusive participatory process; it is therefore required to ensure that appropriate methods that would ensure maximum participation of all key stakeholders are followed. Methods such as consultations with key stakeholders, interviews, meetings, and focus group discussions are encouraged. Other methodologies will also be employed to conduct this baseline assessment. The CCB standards will provide useful additional options and best practice guidelines.⁷⁹ These additional methods should include the Nested Sphere of Poverty Approach (NESP), providing quantitative data on community wellbeing.⁸⁰ This approach enables analysis through a sustainable livelihoods lens taking into account socio-economic, cultural and institutional issues. It could be implemented in specific areas or across scale.

Furthermore, the team should strategically visit the potential REDD areas/sites and consult with relevant stakeholders for detailed information. Other methods include literature review. The team should also use relevant techniques in data analysis. The SESA team may propose the best methods as deemed necessary.

Expected Output

The SESA should produce A Strategic Environmental and Social Impact Statement /framework that should ensure REDD+ policy/REDD+ scheme ‘do no harm’ and, instead, should ‘do good’ to all environmental and social aspects.

Expertise to be involved

This assignment requires a multidisciplinary team consisting of experts from various filed of specialization. The minimum qualification is Masters degree in respective specialization and over 5 years in similar experience. The proposed expertise may include but not limited to:

⁷⁹ <http://www.climate-standards.org/standards/index.html>

⁸⁰ <http://www.cifor.cgiar.org/nc/online-library/browse/view-publication/publication/3286.html>

1. Land use expert
2. Forest ecologist and forest management expert
3. Lawyer in human rights
4. Economist
5. Sociologist /Social Anthropologist
6. Energy expert
7. Market specialist

Indicative REDD+ Interventions

1. NATIONAL FOREST REFORM LAW, 2006 (3Cs):
 - 1.1. Commercial: 4 FMCs & 7 TSCs (A & R to be undertaken by concessionaires, Chain of Custody)
 - 1.2. Conservation: GOL plan to set aside 30% as PAs (1.5 million ha)
 - 1.3. Community: CRL – empowering communities to have exclusive forest management rights for timber concessions, conservation and environmental services (including carbon sequestration)
2. Low Carbon Development Strategy:
 - 2.1. More efficient agricultural systems
 - 2.2. Ensure tree crop plantations are located on degraded lands
 - 2.3. Reduce the number of TSCs
 - 2.4. Energy efficient stoves for charcoal and fuelwood
 - 2.5. Replace some timber concessions with carbon concessions
 - 2.6. Increase the number of protected areas
 - 2.7. This compliment s the 3Cs

Table 2d: Summary of Social and Environmental Impact Activities and Budget					
Main Activity	Sub-Activity	Estimated Cost (in thousands)			
		2011	2012	2013	Total
Conduct finalization of the SESA Training and Capacity building of national instructions to undertake SESA	Consultants and technical assistants	\$25	\$25	\$10	\$60
	Coordination and support to EPA and FDA	\$20	\$20	\$10	\$50
	National stakeholders workshop for sharing results	\$15			\$15
	Training at national and sub- national level	\$60	\$50	\$30	\$140
	Support EPA and other organizations to implement SESA	\$10	\$10	\$10	\$30
Total		\$130	\$105	\$60	\$295
Government					
FCPF		\$130	\$105	\$60	\$295
UN-REDD Programme (if applicable)					
FFI					
CI					

Component 3: Develop a Reference Level or Scenario

Standard 3 the R-PP text needs to meet for this component: Reference level:

Present work plan for how the reference level for deforestation, forest degradation (if desired), conservation, enhancement of carbon stocks, and sustainable forest management will be developed. Include early ideas on a process for determining which approach and methods to use (e.g., forest cover change and GHG emissions based on historical trends, and/or projections into the future of historical trend data; combination of inventory and/or remote sensing, and/or GIS or modeling), major data requirements, and current capacity and capacity requirements. Assess linkages to components 2a (assessment of deforestation drivers), 2b (REDD-plus strategy activities), and 4 (MRV system design).

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a stepwise approach may be useful. This component states what early activities are proposed.)

Objective

A REDD reference scenario is defined here as a combination of recent historical data on emissions from deforestation and/or forest degradation and other relevant land uses, and estimations of future emissions and removals, to produce a national scenario over time of GHG emissions, without additional REDD+ incentives. The reference scenario will be developed by combining emission factors with activity data to model quantity/location of forest change as well as future emissions/removals over different time periods and under various socio-economic scenarios.

Activities

The Terms of Reference below outline the proposed activities needed to accomplish the objective of Component 3, developing a reference scenario. The list of activities follows the recommendations inferred from numerous consultations and assessments. Many of these activities and steps were introduced to a FCPF/NORAD mission to Liberia in March 2010.

A technical working group created under the NCCSC (See Component 1 and Annexes - Institutional Structure) will oversee the development process of the reference scenario and MRV system. The working group will be composed of relevant inter-ministerial representatives and various governmental and non-governmental research institutions providing technical assistance and support during the development and implementation phases.

The following should be defined prior to developing the reference scenario:

I. Steps used to define and develop the reference scenario

1. Forest Definition

The definition of forest is a key component to the reference scenario and MRV system. Liberia has not established a definition of forest, but proposes a definition that takes in account the forest landscape of Liberia, what is possible to map with Landsat-type remote sensing imagery data, eligible activities, and the level of importance that a carbon pool contributes to the overall inventory. Liberia is proposing a forest definition that consists of a minimum canopy cover of 30%, trees greater than 5 meters, and a minimum mapping unit of 1 hectare.

The forest landscape of Liberia is mainly composed of tropical moist forest with minimal woodland, and shifting cultivation. By maintaining a threshold of 30% and greater, this will effectively eliminate inclusion of short to medium period fallows as forest, which are capable of reaching canopy cover of less than 30% due to Liberia's intensive rainfall and long growing seasons.

“Closed canopy” forest in Liberia also contains significant carbon pools of below- and above-ground biomass, as well as soil. Any change in canopy cover below 30% will have a substantial impact on carbon stock inventory. It is important to understand that shifting cultivation is a practice that clearcuts forest, essentially transitioning from high percent canopy cover to low percent canopy cover (i.e., forest to non-forest). However, fallows are part of an agricultural cycle, or agroforestry system, in which many older fallows can exhibit sparse tree cover < 30% canopy cover. Therefore, this land cover type is correctly classified as non-forest. If the definition criteria are too broad, fallow would be classified as “forest” and any clearing of these areas would be classified as deforestation when in reality it is not.

The transition from forest to non-forest is easily detectable with relatively high accuracy using Landsat-type imagery data. A wall-to-wall forest cover change map developed from Landsat imagery between the time period of 1990 and 2000 and was assessed with a map accuracy of 87% after applying a 0.5ha MMU. There is high confidence that detecting shifting cultivation related deforestation of ≥ 1 ha MMU can be achieved with acceptable accuracy ($\geq 90\%$).

A preliminary spatial analysis was conducted to test the proposed forest definition criteria using existing forest cover data and the MODIS VCF (i.e., percent tree cover product). The first criterion examined was percent canopy cover. The CI Forest Cover Change map and the LULC map produced by FRM include a “closed canopy” forest class, meaning that when in full leaf, neighboring trees are in contact. In terms of remote sensing, “closed canopy” is associated with a strong vegetative signature with minimal background soil albedo or reflection. The forest classes derived from the map products were applied as an analysis mask in GIS to extract percent tree cover from the MODIS VCF product. The threshold of the extracted product was adjusted to provide areal proportions of percent tree cover that fall above or below 30% within the mapped forest areas. Results of the analysis concluded that “closed canopy forest” derived from remote sensing interpretation was composed almost entirely of tree canopy > 30%. The land cover below this threshold was considered degraded or nonforest in terms of remote sensing classification. Details are below:

- a. FRM Map – 96.7% of the “dense canopy forest” area was composed of > 30% tree cover.
- b. CI Map – 96.6% of the “forest” area was composed of > 30% tree cover.

The second analysis compared various MMU thresholds and concluded that there was only a 0.01% difference between a 0.5 hectare and 1 hectare MMU. Given that the difference between the upper and lower MMU thresholds are insignificant, applying a larger MMU threshold will eliminate patchy artifacts, thus improving map accuracy and reducing spectral confusion among (1) other cover types (such as scrub/fallow etc) and (2) secondary forests.

In summary, applying a cover rate of >30%, a MMU of ≥ 1 ha, and a tree height of ≥ 5 m is optimal for Liberia for the following reasons:

- a. Changes in forest cover associated with shifting cultivation and fallow cycles are separated and classified correctly.
- b. “Forest” captures the most significant carbon pool (i.e., tropical moist forest).
- c. Changes in forest cover associated with shifting cultivation are easily and accurately detectable using Landsat-type imagery.
- d. Fallow areas are not mistakenly included in REDD+ activities.

2. Deforestation and degradation.

Deforestation can be defined by a complete loss of canopy cover and carbon stocks, whereas degradation is a more subtle change in canopy cover and/or composition over time.

Two main studies have recently reported on historical deforestation rates in Liberia. Based on their objectives, they applied significantly different criteria and produced different results.

The first study conducted in 2004 by Forest Resources Management (FRM) estimated 4.5 million ha of forest cover and an average annual deforestation rate of 0.6%, or approximately 30,000 ha per annum. The deforestation figure was derived from a land use/land (LULC) cover change matrix derived from a digitized 1979 aerial survey and digitized circa 2000 Landsat imagery. It is noted that the base data and LULC classes were different for each map. These figures were recently published

in the 2010 FAO Forest Resource Assessment (FRA)

The second study conducted by the Liberia Forest Reassessment (LFR) applied a standardized Landsat classification methodology to develop a multi-temporal map of forest cover change with a MMU of 0.5ha. The study reported an average annual deforestation rate of 0.22% between 1990 and 2000. A recent update to the LFR study using the same standardized classification methodology was conducted through a partnership with FDA, CI, and South Dakota State University (SDSU). The updated study reported a slight increase in the historical deforestation rate of 0.35% between 2000 and 2005. The unpublished results of these studies report 3.7 Mt CO₂e between the years of 1990 and 2000 and 4.8 Mt CO₂e between the years of 2000 and 2005. These figures relate to an IPCC Tier 1 estimates and do not include additional emissions from degradation or future emissions from deforestation and degradation (Annex 14).

Rates of historical forest degradation in Liberia have not been estimated. In terms of remote sensing, degradation mapping is technically more difficult. Annual time-series analysis of Landsat can be used to identify degradation, but the temporal resolution of Landsat combined with the excessive cloud-cover throughout most of the year in Liberia could make this approach impracticable. Other data such as MODIS meet the temporal collection frequency, but the data are too coarse to identify small scale degradation.

Activity 2-1. Defining deforestation and degradation

This activity will be conducted with support from the relevant technical institutions identified by the NCCSC. The goal of this activity is to develop a definition of deforestation and degradation by determining the carbon stock and canopy cover thresholds in relation to Liberia's forest definition.

Activity 2-2. Assess current activity data on deforestation and degradation.

An intensive assessment of national historical deforestation data will be conducted to determine the applicability to the reference scenario. The data most relevant to developing a national reference scenario is the Landsat derived forest cover change map from 1990-2000-2005. The methodological process used to develop these data is standardized, transferrable, replicable, and applies the proposed forest definition of Liberia to determine non-forest from forest. An assessment will be conducted to determine the possibility of updating the forest cover map with circa 2010 data. Completion of an update will provide more recent estimates of deforestation during the post-conflict period of Liberia and can vastly improve the reference scenario development.

Liberia wishes to include degradation in a REDD reference scenario and MRV system, but research will be required to demonstrate credible measurements with clearly determined uncertainty. A feasibility assessment will initially concentrate on existing methodologies of direct and indirect forest degradation monitoring and determine the applicability to Liberia.

3. Biomass

Providing reliable and usable reference data on forest carbon stocks is a crucial step in developing a reference scenario and national REDD+ mechanism.

Activity 3-1. Compile existing inventory data.

In 2005/06, with the assistance of Deutsche Forstservice GmbH (DFS), the government of Liberia established permanent forest inventory plots as part of a ground-based monitoring strategy repeated every five years. The sample plots were systematically arranged in a 10 km x 10 km nation-wide grid and were stratified among 5 forest categories derived from the FRM land use/land cover map. The strata included three forest classes, and two agriculture-forest mosaic classes. A three cluster sampling methodology was applied to each inventory plot and divided into 1m - 3m radius circles for measuring small and large tree regeneration, and 6m and 12m radius circles for measuring small trees (dbh 10cm to 39.9cm) and large trees (dbh >40cm). A rapid forest inventory was implemented, but due to inaccessibility and poor infrastructure, only 167 of the required (SE + 10%) 405 sample clusters were collected. Below-ground biomass, liana, dead woody vegetation and litter were not measured. A preliminary estimation of forest biomass was derived from the inventory data to provide insight on possible carbon stock values per forest type. Equations used to estimate AGB and BGB for tropical moist hardwoods were taken from Annex 4A.1 of the IPCC GPG for LULUCF. The table below includes carbon estimates for the 5 forest categories:

*AGB – Above ground biomass

****BGB** – Below ground biomass

*****S.E.** – Standard Error

******C.I.** – Confidence Interval (95%)

Activity 3-2. Evaluate and develop methodology to stratify and estimate carbon stocks.

The first phase of this activity will evaluate the pre-established forest inventory and sampling strategy to determine its applicability to carbon stock measurement. In addition, the LULC map developed by FRM will be evaluated for future application as a forest stratification layer for sampling. The second phase of this activity will develop and finalize a standardized methodology for carbon accounting. This activity will be supported by the relevant technical institutions identified by the NCCSC working group, also taking in consideration external consultation.

Activity 3-3. Select IPCC Reporting Tier.

The IPCC GPG and AFOLU guidelines present three “Tiers” for reporting forest carbon stocks, with each Tier increasingly more costly and technically complex. In the effort to balance cost with accuracy and precision during the short to mid-term, Liberia will aim for Tier 2 carbon stock reporting and later assess the feasibility of meeting the demands of Tier 3 reporting.

Activity 3-4. Identify key carbon pools to include in the historic estimate of emissions/removals.

Five forest carbon pools are recognized by the IPCC: aboveground biomass, belowground biomass, soil, litter and dead wood. Liberia will investigate and identify key categories of emissions and removals that have a significant contribution to the national inventory and/or uncertainty. By applying the principle of “conservativeness” in an effort to minimize the risk of overestimation as compared to the reference case, Liberia can omit or apply a lower reporting tier than required to carbon pools of lesser importance. For example, Tier 1 reporting using default transfers and decomposition rates can be applied if the soil, litter, and dead wood carbon pools represent less than 25% of emissions from deforestation.

Currently, aboveground biomass remains the main carbon pool to be considered for the national carbon accounting.

4. Predictive Spatial Modeling

Post-conflict Liberia is aggressively pursuing economic recovery by implementing policies that focus on natural resource extraction, agricultural expansion, and infrastructure restoration and development. The subsequent return of the population to rural areas combined with a potential global market trade in tropical agricultural products, biofuels and timber, will likely increase pressure on forest resources beyond historical trends. Therefore, the immediate and future pressures on forest conversion to alternative land use types is a key significant technical challenge in measuring Liberia’s emissions from deforestation and degradation and Therefore, Liberia proposes developing a reference scenario from a combination of spatial analysis and econometric models rather than applying a standard linear trend.

Activity 4-1. Collect additional spatial data to incorporate into scenario modeling.

Liberia will likely develop multiple reference scenarios to understand how different policies will impact forest cover and associated emissions and removals. In addition to deforestation data, information such as population census, protected areas, agro-industrial plantations, timber concessions, infrastructure rehabilitation projects, and extractive industries will be required to develop the most representative models. The multiple scenarios are also meant to demonstrate how these processes can help guide policy and decision makers in an analytically robust manner. Most of these data are available and will be collected from LISGIS, FDA, and relevant ministries.

Activity 4-2. Determining relevant driver variables.

Historically, the main drivers of deforestation included:

- a. shifting cultivation in the form of “slash-and-burn” agriculture
- b. large-scale agro-industrial plantations
- c. unsustainable commercial timber harvesting
- d. commercial and artisanal mining

- e. illegal pit-sawing operations supplying the local lumber market
- f. post-conflict migrations.

Although many of the historical drivers have present and future relevancy, post-conflict economic recovery will influence patterns, quantity, and location of deforestation differently from the past. Recent studies have demonstrated that deforestation in Liberia is highly associated with proximity to roads and settlements. Revitalization and development of new infrastructure will increase accessibility to the forest and the following emigration to the rural countryside will increase conversion of forest to agricultural uses.

Investment in agricultural development such as large scale oil palm plantations could place pressure on forested lands in the absence of careful land use planning. Large agri-business companies are currently negotiating large tracts of land for oil palm concessions.

Regarding the “3C” forest management framework, 2.5 million ha have been placed under commercial forestry with over 2.3 million ha designated as Forest Management Concessions (FMC) and approximately 260,000 ha allocated to Timber Sales Contracts (TSC) which can be completely cleared and converted to other land uses. Forest degradation will be particularly relevant in FMCs which are sustainably managed on a 25-year rotation. Logging roads, landings, and selective cutting operations will contribute primarily to degradation. 1.3 million ha were designated to forest conservation, however only 164,000 ha are legally protected under current legislation, East Nimba Nature Reserve and Sapo National Park. Community forests, defined as areas set aside for sustainable use of forest products on a non-commercial basis, are designated the remaining 600,000 ha of forest. However, community forests are challenged by an unsettled land tenure policy in which Liberians have submitted claims to approximately 3.2 million ha of land, some of which overlap.

Mining and mineral extraction is planned to sharply increase. Mining development in general may indirectly lead to deforestation through infrastructure development and increasing accessibility to otherwise remote forested areas. These areas include forested and non-forested lands. Artisanal mining continues to be practiced illegally in many forest regions.

Pit-sawing (or chainsaw logging) is an illegal, but traditional form of forestry in Liberia. It is given quasi-legal status by the practice of issuing official waybills for lumber transport to Monrovia. Studies have shown that forest within 5 to 10 km of a roadside is vulnerable to pit-sawing.

Geophysical constraint variables such as elevation and slope also determine areas at risk to deforestation.

A comprehensive assessment will be conducted to determine the most relevant and parsimonious driver variables.

Activity 4-3. Developing reference scenarios and estimating emissions using spatial analysis software.

Numerous spatial modeling tools exist to predict future trends and patterns of land use change. They typically have two requirements:

- a. Estimate total amount of future change from econometric models and assumptions on expected future changes in population, markets, policy and infrastructure.
- b. Estimate location and quantity of change using spatial modeling. Several GIS modeling tools exist for these analyses, the strongest being IDRISI, with the Geomod tool and the Land Change Modeler (LCM) tool. These models are based on the relationship between historical patterns of change and other features, such as soils, terrain, roads, infrastructure and market distance. The software creates outputs of transition potential and predicts the likelihood of future changes.

The following describes the general steps used to estimate future deforestation/degradation and emissions from spatial models under a *Business as Usual* scenario:

- a. Apply model results and the total rate projections to map probable deforestation patterns.
- c. Combine predicted deforestation and biomass maps to produce emissions estimates, the Business-As-Usual deforestation scenario (A)
- d. Obtain best estimates of future demand for forest products at the national level, maps of planned logging concessions, data on logging extraction rates per hectare for Liberian forest

types

- e. Apply IPCC GPG and GOFC-GOLD Sourcebook on mortality from logging damage to surrounding trees and combine projected logging rate and biomass for each concession to estimate total logging emissions, the *Business-As-Usual degradation scenario (B)*
- f. Define national goal for reductions in deforestation, and which regions will be focus areas for REDD
- g. Combine planned lowered deforestation with biomass to estimate REDD emissions, the *REDD scenario deforestation baseline (C)*
- h. Define national goal and focus areas for exclusion of logging and for reduced-impact logging
- i. Combine planned excluded and reduced logging impacts with biomass to estimate REDD emissions, the *REDD scenario degradation baseline (D)*
- j. Estimate REDD benefits: $(A + B - (C + D))$

Activity 4-4. Consider linkages with site-level initiatives

Potential REDD+ projects in Liberia are being supported by the Forest Trends Katoomba Incubator and the McCall-McBain Foundation. The regions of interest include the proposed protected area of Wolegizi-Wonegizi in Lofa County and the Lake Piso Multiuse Reserve in Grand Cape Mount County. Members of the Community Forest Partnership (CFP) participate in the national REDD discussions and are the primary organization responsible for collecting socio-economic and land use data at these project sites. Although the methodologies can differ between national and sub-national reference scenario development, the national model can be used as a first order proxy to estimate emission levels during the project feasibility stage. In turn, project level data can be used to improve national level reference scenario models.

5. Technical Capacity Assessment.

The three main government institutions relevant to reference scenario development are the FDA, LISGIS, and the Ministry of Lands, Mines, and Energy. Long-term consultation and assessments have been conducted on the current capacity of government agencies responsible for implementing REDD at a national level. The current accessibility of data, technical capacity to collect, analyze and report data, and the availability of computer hardware and software required to develop a reference scenario and an associated forest monitoring, reporting, and verification system (MRV – Component 4) are very limited.

Although the FDA has the most institutional knowledge on REDD+ related issues, the FDA has very limited technical staff, and hardware/software to collect the activity data and emission factors required to develop a reference scenario and support a MRV system. The current GIS staff numbers less than three with some, but obsolete associated hardware. The hardware required to manage a functioning spatial database system is available at the FDA, but a truly knowledgeable IT staff required to setup network access and backup systems is lacking. Furthermore, funding has been available for several months to acquire the GIS and image processing software but the FDA procurement department lacks the capacity to obtain technically associated software in a timely and efficient manner.

In contrast, LISGIS has a higher number of capable GIS staff members with a functioning IT department in addition to adequate hardware and GIS software. The main technical limitations at LISGIS are related to lack of image processing software and knowledge to process, analyze, and report activity data and estimate factors.

The Ministry of Lands, Mines, and Energy also has adequate GIS technical capacity, but major participation in REDD+ related issues in Liberia has been limited. Engagement with this ministry would be beneficial for both transparency in REDD+ and the extractive industry sector as well and exchange of technical capabilities.

There are no known non-governmental organizations with GIS capacity at the local level. Most of these organizations that have been engaged in REDD+ Liberia have very high capacity at the perspective home offices, but engagement at the country-level can be limited and not guaranteed.

Activity 5-1. Capacity building and training

Technical analysis training and assistance has been provided to past members of the LFR, but many of the participants expressed concern that post-training follow-up has either been limited or non-existent. Furthermore, software provided during training sessions was not made available for follow-up. Conservation International responded by providing trial software and scheduled training sessions to technicians from FDA (Forestry Development Authority) and the Liberia Institute of Statistics and Geo-Information Services (LISGIS). Sessions cover the disciplines of remote sensing analysis and spatial modeling. However, the scale of training must increase exponentially across a number of disciplines as this marks only the beginning of building the capacity required for developing a reference scenario. In addition to the technical support provided by Conservation International, the governments of Norway, Brazil, and Liberia have discussed potential cooperation that would allow the technical support and knowledge transfer between institutions associated with REDD. Brazil has a long history of forest monitoring systems and has the greatest potential of providing long-term collaboration with Liberia's REDD initiatives. Woods Hole Research Center (WHRC) in Massachusetts, USA, has also expressed interest to assist Liberia in developing a nation-wide biomass density map using existing forest inventory data.

Table 3a: Summary of Reference Scenario Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
Activity 1. Forest definition	Complete					
Activity 2. Deforestation and degradation	Activity 2-1	\$10				\$10
	Activity 2-2	\$10				\$10
Activity 3. Biomass	Activity 3-1	\$10				\$10
	Activity 3-2	\$20	\$20			\$40
	Activity 3-3	\$10				\$10
	Activity 3-4	\$10	\$5			\$15
Activity 4. Predictive Spatial Modeling	Activity 4-1	\$10				\$10
	Activity 4-2	\$10				\$10
	Activity 4-3	\$40	\$40			\$80
	Activity 4-4	\$20				\$20
Activity 5. Technical Capacity Building	Activity 5-1	\$10	\$10	\$10	\$10	\$40
Total		\$160	\$75	\$10	\$10	\$255
Government						
FCPF		\$160	\$75	\$10	\$10	\$255
UN-REDD Programme (if applicable)						
Other Development Partner 1 (name)						
Other Development Partner 2 (name)						
Other Development Partner 3 (name)						

Component 4: Design a Monitoring System

4a. Emissions and Removals

Standard 4a the R-PP text needs to meet for this component:

Emissions and Removals

The R-PP provides a proposal and workplan for the initial design, on a stepwise basis, of an integrated monitoring system of measurement, reporting and verification of changes in deforestation and/or forest degradation, and forest enhancement activities. The system design should include early ideas on enhancing country capability (either within an integrated system, or in coordinated activities) to monitor emissions reductions and enhancement of forest carbon stocks, and to assess the impacts of the REDD strategy in the forest sector.

The R-PP should describe major data requirements, capacity requirements, how transparency of the monitoring system and data will be addressed, early ideas on which methods to use, and how the system would engage participatory approaches to monitoring by forest-dependent indigenous peoples and other forest dwellers. It should also address independent monitoring and review, involving civil society and other stakeholders, and how findings would be fed back to improve REDD implementation. The proposal should present early ideas on how the system could evolve into a mature REDD monitoring system with the full set of capabilities.

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

Objective

The overall objective of Component 4a is to develop a MRV system that provides an operational and transparent approach to the monitoring, estimating, and accounting of emissions and removals of carbon in comparison to the projected reference scenario.

Activities

The Terms of Reference below outline the proposed activities needed to accomplish the objective of Component 4a, Design a Monitoring System. A monitoring, reporting, and verification (MRV) system will be developed to monitor changes in forest area and carbon stocks by providing an operational data collection, synthesis, analysis, and reporting structure that meets the acceptable principals and procedures of estimating and reporting carbon emissions and removals. Given the abovementioned note by the FCPF, Liberia will not finalize the details of the MRV without definitive guidance from the UNFCCC policy process, but will likely develop the framework for data collection and analysis and refine as guidance is developed.

Activity 1. Roles and Responsibilities

Much of the structures and entities providing technical oversight and input in Component 3 will also have a participatory role in MRV development. The MRV system will be overseen by the NCCSC and relevant technical working group, in addition to technical input from a newly established Forest Monitoring Unit (FMU). The inter-ministerial and multi-institutional structure of the NCCSC is essential to maintaining a consistent national REDD+ strategy and to maintain awareness at their respective institutions.

Activity 1-1. Establish the Forest Monitoring Unit and assigning staff.

The purpose of establishing the Forest Monitoring Unit (FMU) is to ensure that there is a full-time and dedicated staff assigned to MRV development and implementation. The existing GIS and Remote Sensing lab at the FDA has similar attributes to the proposed FMU, but the staff is overburdened with other responsibilities and assigning operational priority to a MRV system is not guaranteed. Furthermore, the FMU would also be staffed by members from other governmental institutions to ensure transparency and objectivity.

CI has trained 12 persons from FDA and LISGIS over a six month period in remote sensing methodologies recommended by the GOF-C-GOLD sourcebook. The trainings covered activity data development relevant to the reference scenario and MRV system. These trainees would be ideal for selection and permanent staffing of the FMU, but the continuation of extensive training is obligatory. A full-time technical coordinator will be assigned to the FMU for the duration of reference scenario and MRV development. The main duty of the technical coordinator is to liaise with technical institutions on MRV development and to enhance the technical capacity of FMU staff.

Activity 2. Activity Data.

Remotely sensed data are widely available, especially after the release of the Landsat archive. Landsat provides a globally consistent record of high resolution (30-meter) earth observation data over the last 30-years and is the subject of countless peer-reviewed articles on land use/land cover and forest specific mapping methods. Landsat meets the criteria of the IPCC Good Practice Guidelines (GPG) for LULUCF and is the recommended sensor for establishing “wall-to-wall” forest cover baselines used in developing a reference scenario and operational monitoring system. Landsat-7 ETM+ collects images over Liberia every 16 days. Although Landsat-7 suffers from a data gap artifact, algorithms have been developed to create lossless images. Liberia also benefits from the collection of Landsat-5 TM data, which continues to provide high quality imagery over major forested regions in Liberia. “Wall-to-Wall” national mapping can be achieved with six Landsat scenes with significant overlap into neighboring countries.

MODIS time-series data are also freely available. Although spatially coarse, > 250 m, MODIS data are useful for detecting large-scale change, fires, or “hotspot” anomalies in vegetation. Coverage is regional and collected on a daily basis. A +10-year MODIS NDVI (MOD13) time series dataset is freely available and preprocessed for Liberia. The preprocessing included maximum value compositing and temporal smoothing using a modified Savitsky-Golay filter to eliminate most cloud contamination. The dataset is updated by Conservation International at a monthly basis and is made available to the government of Liberia for large scale change detection. Integrating MODIS with Landsat imagery helps provide an analysis mask for identifying areas of change that deviate significantly from the historical variance in time-series values.

Mapping deforestation using remote sensing can be performed with high accuracies using freely available Landsat imagery. Individual Landsat scenes can be used to determine forest vs. non-forest with 90% to 95% classification accuracy, whereas national level mapping composed of multiple concatenated scenes are capable of slightly lower accuracies from 85% to 95% due to higher spatial variance. The current “wall-to-wall” forest cover change map of Liberia achieved 85% classification accuracy between 1990 and 2000. The map accuracy of forest cover change between 2000 and 2005 has yet to be determined.

Mapping forest degradation is technically more challenging than deforestation monitoring and will require further assessment to determine what is possible with current and planned capacity building. The FMU coordinator will be responsible for remaining current on emerging technologies that can be incorporated into Liberia’s MRV system.

Activity 2-1. Acquire software and hardware for national-scale mapping.

Standard forest mapping methodologies have been developed using Erdas Imagine and See5 CART software. See5 applies a decision tree algorithm to create classified map outputs. The advantages of See5 include a non-parametric machine learning technique that accepts continuous and categorical spatial variables, an intuitive hierarchical decision process, and rapid processing combined with accurate map outputs. The See5 algorithm is employed by the US Geological Survey, US Department of Agriculture, and the US Forest Service for much of their national-level image classifications. Erdas Imagine provides the interface for See5 as well as the tools required for standard image pre-processing. A single-user license of ENVI will be needed for any specialty

processing such as RADAR interpretation, cloud/gap filling algorithms, and running IDL scripts. Idrisi Taiga, developed by Clark Labs, will provide the spatial modeling tools needed to develop a reference scenario. The Land Change Modeler (LCM) in Idrisi was developed under partnership with Clark Labs and CI with an emphasis on REDD scenario modeling (**Annex 14**).

The FMU will require new Intel-based computers with dual processor capability. Hand-held GPS-linked PDAs such as the Trimble Juno SC will be acquired for the field technicians in addition to updated forest mensuration equipment (e.g., dbh tapes, clinometers, compass, etc.). Dedicated bandwidth is needed for higher download speeds. Current speeds at the institution's respective locations average 10kb/s. It would take several days to download one Landsat scene at this rate.

Renewable anti-virus software will be required for all computers.

Activity 2-2. Develop standardized mapping methodology for developing activity data.

Standardized mapping methods will adhere to "Forest Cover Mapping and Change Detection using Moderate-Resolution Satellite Imagery (Landsat, ASTER and MODIS)" by Steininger et al., 2006. Additional methodological resources include the GOFC-GOLD sourcebook on REDD.

Base maps developed from circa 1990, 2000, and 2005 Landsat imagery provide "wall-to-wall" coverage of forest area and change. Portions of the SE are missing from cloud-cover and data gaps, but assistance from CI will provide training in correcting these image artifacts. FDA has also expressed interest in updating the forest cover benchmark dataset using 2010 Landsat imagery where available.

All data will be projected to Universal Transverse Mercator, Zone 29-North, Datum World Geodetic System of 1984 (UTM-29N, WGS84).

Activity 2-3. Map land cover change with multi-temporal Landsat imagery.

Land cover mapping follows a standardized flow of image pre-processing activities before applying map classification (Annex 9):

1. Images will be orthorectified using nearest-neighbor resampling and co-registered to an accuracy of at least half a pixel, or an RMSE of 0.5.
2. Images will undergo radiometric corrections such as haze removal and contrast stretching to enhance target materials in the imagery.
3. Spectral bands from two or more years will be aggregated into multi-temporal image stacks. Applying various band combinations from Time-1 and Time-2 of the image stack can be used to enhance and locate significant changes in land cover.
4. Cloud and cloud-shadow can be classified directly from a multi-temporal image stack and used as an analysis mask. A gap filling algorithm available in IDL script has proven to remove Landsat-7 SLC-off data gaps successfully. The algorithm requires two cloud-free images within the same year.
5. Ancillary data will be developed to represent environmental or biophysical variables using image transformation techniques such as vegetation indices, principal components analysis, Kauth-Thomas, and spectral mixture analysis. Fraction images developed from spectral mixture analysis can also be applied to developing normalized difference fraction indices (NDFI) used for degradation mapping. This methodology is still in testing phases and must be assessed further for operational use..
6. Topographic variables such as slope and aspect will be derived from SRTM 90-meter digital elevation model.
7. Training site development for multi-temporal image classification will follow the methods provided in "Forest Cover Mapping and Change Detection using Moderate-Resolution Satellite Imagery (Landsat, ASTER and MODIS)". Land cover mapping is an iterative approach requiring training site and variable adjustment until the desired level of accuracy is achieved.
8. See5 CART algorithm will be used for supervised map classifications.
9. Final map products will be digitally filtered using a 3x3 majority filter and sieved to a minimum mapping unit (MMU) of 0.5 hectares to meet the national forest definition.

Activity 2-4. Assess Map Accuracy.

Overall map accuracy is an important step to developing uncertainties in carbon stocks. Map accuracy can be determined using sample scenes of fine resolution imagery (< 5m spatial resolution), field ground-truthing, or a combination of both. High resolution imagery is available from commercial satellites such as Quickbird and IKONOS, or available through aerial photography. Using fine scale remote sensing for validation is highly feasible for assessing inaccessible forest areas, but is generally expensive to acquire. Commercial satellite image providers also restrict usage to single-license agreements that limit the use of fine resolution imagery to single tasks and institutional use. Google Earth is a publicly available source of no-cost fine resolution data, but coverage can be limited for certain countries. The coverage for Liberia has increased significantly, but is not substantial enough to support national-scale map validation. However, Google has expressed interest in working with LISGIS to enhance mapping capabilities for the institution.

The 1990-2000 forest cover benchmark co-developed by CI and FDA applied aerial videography to assess accuracy. A final map accuracy of 86% was achieved.

Acquiring Quickbird or pan-sharpened SPOT imagery would be ideal for inaccessible regions, but the affordability of such imagery must be assessed during the MRV development stages. A complimentary and statistically robust ground-truthing methodology will be also be determined during MRV development.

Activity 2-5. Build technical capacity of FMU staff.

Training and consultation from remote sensing and geospatial experts will be required to build the geospatial analytical capacity of the FMU. Training will be provided on spatial modeling and remote sensing analysis for forest cover mapping. Technical support will also be required to establish appropriate database routines and protocols for all field and spatial data related to the reference scenario and MRV. The assistance would include training in database structure, storage, and management.

Training can be provided by existing in-country partners such as CI and FFI, but support should be focused on developing the long term capacity of Liberian institutions. The FMU coordinator will be required to establish working relationships with technical institutions that can improve Liberia's capacity in MRV development and implementation, and strengthen ownership of the overall system.

Multi-institutional support will be crucial during both the REDD+ development stages in Liberia and future implementation. Research and development is an ongoing effort in MRV development, and applications of various data sources and methods are advancing rapidly. This support will ensure that REDD+ implementation in Liberia will remain current and parallel with programs worldwide.

New technologies include the integration of RADAR data and automated change detection systems. Like most tropical countries, imagery acquired over Liberia is plagued with cloud-cover. Active microwave sensors are available and can collect data regardless of cloud cover or time of day. For example, Guyana supplemented a Landsat derived land cover map with ALOS PALSAR, a synthetic aperture radar (APR) capable of penetrating cloud-cover and collecting land cover information in dual polarity. A freely available 50-meter mosaic product that collects PALSAR in HH and HV polarity began in 2008 and is programmed to support tropical forest carbon mapping efforts into the future. The annual continuity of this program potentially makes PALSAR an excellent supplemental activity data source for Liberia forest cover mapping. RADAR data is also used as an input in carbon stock mapping; an effort being conducted by Conservation International-Liberia's partner, NCRC Ghana, who works closely with local Liberian NGOs and government institutions in technical capacity building.

Google Earth Engine is another tool that was designed for detecting deforestation and mapping land use trends in a semi-automated environment. Google has already begun working with individual countries develop their own applications that can be applied to REDD MRV.

Activity 3. Emission Factors

Although forest cover can be detected using satellite image data, no remote sensing instrument can measure forest carbon stocks directly, thus additional and statistically robust ground-based inventory must be collected to accompany any remote sensing analysis.

and field inventory data collection. The FDA is the government institution responsible for forest inventory data collection. Previous training in field data collection are a good starting point but staff will require additional training when the appropriate sampling scheme has been selected (See Component 3, Activity 3-2).

Activity 3-1. Build FDA technical capacity in forest inventory data collection.

FDA will require further capacity building in forest inventory collection that adheres to the IPCC GPG for assessing carbon stocks. Additional training-of-trainers workshops will be required to facilitate FDA engagement with forest community members in the data collection process. Other countries have demonstrated through research projects such as “Kyoto: Think Global Act Local” (K:TGAL) that forest community members are capable of using GPS equipment and collecting forest inventory data as accurately as experts, but at significantly lower costs. The benefits of community participation include raising the awareness of REDD at the community level, increasing transparency, providing incentive to maintain or regenerate forest, alleviating the burden of a national inventory collected solely by FDA, and creating jobs within the communities. Conservation International and the Land Rights and Community Forestry Partnership (LRCFP) have initiated the first training-of-trainers workshop and participatory GPS-GIS in the surrounding communities of the East Nimba Nature Reserve. Attending community members are capable of demarcating forest types, taking GPS inventory of non-timber forest products (NTFP), mapping threats to forests, and collecting data on community and forest assets.

Training is needed on field data analysis and relating these data to reference scenario development and the MRV system. Specialized training and/or workshops will be needed to facilitate interpretation of IPCC GHG manuals and methods.

Activity 3-2. Estimating carbon stock from inventory data.

Following implementation of Activity 3-1, training will be provided to the FDA staff on standard methods of estimating carbon stocks. A set of measuring protocols suitable will be established using available reference sources. These include the GOF-C-GOLD Sourcebook on REDD, K:TGAL Field Guide, IPCC GPG LULUCF, and World Bank’s BioCarbon Sourcebook for LULUCF. A Quality Assurance (QA) and Quality Control (QC) system following GPG2000 guidelines will be developed to provide routine checks on data quality, identify and address errors and omissions, and document and archive inventory material and QC activities.

Activity 3-3. Assess uncertainty in carbon stock estimates.

In order to develop conservative REDD estimates, inventories consistent with good practice neither significantly overestimate nor do underestimate, while uncertainties are reduced as much as practicable. Due to high spatial variability in tropical forests, assessing uncertainties in Liberia’s carbon stock estimates can be more challenging than estimating uncertainties of area derived from activity data. Systematic errors leading to uncertainties in carbon stocks can be reduced by accounting for completeness of the included carbon pools and the representativeness of a particular estimate for a carbon pool.

Two methods of measuring uncertainty are described by the IPCC:

1. IPCC Tier 1 - error propagation
2. IPCC Tier 2 - Monte Carlo simulation

Tier 1 error propagation is a method of combining uncertainties in the activity data and emission factors using an error propagation equation described in Annex I of GPG2000 (Conceptual Basis for Uncertainty Analysis). Methods will be developed to identify correlation among input data and to provide the steps needed to modify equations accordingly.

Tier 2 Monte Carlo simulation demands more input data, but can manage varying degrees of correlation and assess uncertainty in complex models. Given that extensive country-specific data will be available, a statistical software package will need to be assessed and acquired to conduct a Tier 2 analysis.

Initial training will be provided on Tier 1 uncertainty calculation and later progress to Tier 2.

Activity 4. MRV System Development

Activity 4-1. Assess current MRV systems

A detailed assessment will be conducted on current monitoring systems to facilitate information exchange and capacity building. The assessment will provide helpful information during Liberia's MRV system development stage such as lessons-learned, methodologies, and possibly provide better integration of individual country's MRV systems. Communication on this activity between the governments of Brazil and Liberia has already commenced. The FMU technical coordinator will focus particularly on MRV systems that successfully monitor both deforestation/degradation and carbon stocks.

Activity 4-2. Develop MRV framework

Members of the NCCSC and the FMU will ultimately be responsible for developing the MRV framework with contributions from established supporting partners and expert consultation, but an intensive assessment will be required to ensure that Liberia's MRV system will be able to monitor the proposed REDD+ strategy—this focuses on logging, fuelwood, and agricultural intensification. The MRV framework will consider the accepted principles and procedures of estimating and reporting the emissions and removals criteria specified by the IPCC. Additional resources to facilitate framework and design are made available through the 2006 IPCC GL AFOLU, 2003 IPCC GPG LULUCF and the COP-15 GOFC-GOLD Sourcebook on REDD.

The following components will be considered for the MRV framework:

- a. Satellite imagery will be used to map forest cover and changes in areal extent. Liberia will apply "wall-to-wall" mapping using Landsat or similar resolution imagery that meets the mapping criteria required to classify Liberia's forest definition. Liberia proposes a mapping interval of five years using circa image dates of + 2 years to ensure cloud-free imagery. This interval may be adjusted according to the availability of PALSAR or similar RADAR data that can be used to alleviate the temporal and radiometric issues caused by extensive cloud cover. Maintaining high map accuracies with "wall-to-wall" mapping is very feasible for Liberia. The small geographic extent of the country limits the numbers of scenes required and therefore reduces the spatial variability that can lead to mapping error.
- b. Forest base maps have been developed for 1990-2000-2005. A benchmark and reporting period will be established through the working group.
- c. A field inventory system will need to be developed and evaluated, taking in consideration the pre- and post- training capacity, costs, feasibility, scale, timing, and data availability.
- d. Liberia has expressed interest in creating a centralized data repository that can facilitate data accessibility and transparency. An assessment will be conducted on developing a database system that will store and maintain the most updated activity and emission factors data. QA/QC, data analysis, and reporting will also be incorporated into this open system.
- e. Accounting and reporting of GHG emissions must be independently verified. Reporting periods will be defined and provided at various levels if appropriate (i.e., national and sub-national).

Activity 4-3. Establish database system

The development and implementation of a data storage system will be assessed. A data storage system will be designed to centralize and manage of data relevant to the MRV system. This system will facilitate data analysis and reporting, QA/QC of inventories, and increase transparency by openly providing source data. The system will be used to store and maintain updated activity and emission factors data such as satellite imagery and biomass inventory. Systematic updates to the database will include newly acquired and preprocessed satellite imagery (e.g., Landsat), field data, and geospatial drivers data.

Activity 4-4. Attend and host workshops

Select members of the FMU and the NCCSC will attend international workshops held on MRV systems. Recent workshops held by UN-REDD Programme such as "Measurement, reporting, and verification (MRV), a roadmap for implementation at the country level" are designed to bring

representatives from pilot and partner countries together to share their experiences on the challenges and successes of implementing a MRV system. These venues are also conducive to developing collaborative relationships between international groups.

Any participants attending workshops overseas will also present their findings at a locally hosted workshop. This will provide an opportunity for multiple stakeholders to understand the function of MRV systems or remain updated on the latest developments.

Activity 4-5. Test and refine MRV system

The MRV framework developed in Activity 3-2, which includes monitoring activity data and changes in carbon stocks within a REDD+ strategy, will be tested at demonstration sites and revised as necessary to ensure that the finalized MRV plan is functional and of high quality. The monitoring system will ultimately allow for national-scale reporting of carbon emissions and removals achieved during the selected reporting period as compared to the reference scenario. During future monitoring periods, scheduled assessments will be conducted in order to refine the MRV system with the most up-to-date methodologies. Refinement will allow for improved performance monitoring of REDD+ activities at the national to regional scales. After this initial testing phase, appropriate carbon stock data will be collected during each monitoring period following the methods established in Component 3. Results of each monitoring event will be documented and reviewed by national and international experts. A conceptual framework, to be completed as part of REDD+ readiness is provided as guidance, below:

Conceptual overview of developing the MRV workplan

Major Elements of MRV System					
Time frame	National Forest Inventory	Remote sensing of land cover change and forest degradation	Carbon density data	Non-carbon multiple benefits	Governance and stakeholders participation
Current country MRV capacity					
Near-term MRV capacity objectives					
Longer-term MRV capacity objectives					

4b. Other Multiple Benefits and Impacts

Standard 4b the R-PP text needs to meet for this component:

Other Multiple Benefits and Impacts

The R-PP provides a proposal for the initial design and a workplan, including early ideas on capability (either within an integrated system, or in coordinated activities) of an integrated monitoring system of other benefits and impacts. Such benefits may include, e.g., rural livelihoods, conservation of biodiversity, key governance factors directly pertinent to REDD-plus implementation in the country.

(The FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

Introduction

Increased forest cover provides direct benefits that include wildlife habitat, ecotourism industry, soil conservation and sustainable agriculture, protection of water resources, and availability of non-timber forest products to local communities. An effective REDD+ strategy will have significant social and environmental impacts beyond climate change mitigation, both at a national and local level. However, individuals and/or interest groups could be negatively impacted by the proposed REDD+ strategies and these impacts must be identified and mitigated. For example, increasing forest cover area and stopping agricultural encroachment and expand the forest area will leave less land available for food crop production, while addressing unsustainable use of forests will reduce the quantities of forest products available for harvest in the short term. Recognizing growing awareness at both international and national levels of the need for effective social and environmental safeguards, this initiative aims to define and build support for a higher level of social and environmental performance from REDD+.

Objective

Component 4b outlines a monitoring and reporting system for social, environment and other impacts of increased forest cover resulting from implementation of REDD+ activities. Component 4b builds on the Strategic Environmental and Social Assessment (SESA) described in component 2d. The SESA will use participatory processes and diagnostic tools to identify potential social and environmental impacts associated with reducing deforestation and degradation and will generate baseline information which can be used for monitoring. The Environment and Social Management Framework (ESFM) elements of the SESA will provide the basis for defining and monitoring an action plan to mitigate risks related specifically to WB safeguard policies. Liberia has also indicated an interest in developing and applying REDD+ Social & Environmental Standards. These standards could provide a framework and a participatory process for monitoring of social and environmental benefits and impacts, including governance.

Activity 1. Monitoring social and environmental impacts

This activity will build upon the participatory processes and diagnostic tools described in 2d, and will be closely aligned with national REDD+ SES piloting. Social and environmental impacts, as well as additional multiple benefits of REDD will be monitored through the following steps:

1. identify potential social and environmental impacts (positive and negative) of specific interventions
2. Identify stakeholders and their roles (individuals, groups, communities, institutions etc)
3. Select key principles and indicators

4. Identify capacities (including local capacities) and resources for monitoring and requirements (training, equipment, tools etc)
5. Collect relevant baseline data based on selected indicators and assess.
6. Design a periodic data collection system to monitor change
7. Identify key stakeholder group and necessary communication mechanisms to ensure participation in monitoring processes

Activity 2. Monitoring governance factors relevant to REDD implementation

The SESA will provide a governance baseline using the analytical framework and indicators referred to in 2d. The monitoring system will need to go beyond governance indicators to include monitoring change in carbon stock resulting from governance interventions.

The monitoring function will be overseen by the NCCSC and implemented by LISGIS (with possible support from EPA). Design of the monitoring system, indicator selection, data collection and analysis will involve stakeholders in the form of a REDD Technical Working Group. Specialist data collection will be required to provide information to support community and other stakeholder assessments.

Activity 3. Assessment and Refinement

An participatory monitoring process (such as those promoted through REDD+ SES) involving all stakeholders will be developed to monitor and evaluate the environmental, social and other impacts/benefits of the program to date and will provide independent assessment of the impacts of the interventions.

Flow = Technical institutions > REDD TWG > REDD+ SES stakeholder group> REDD TWG>NCCSC

Table 4a. & 4b. - Summary of Monitoring Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
Component 4a. (350)						
Activity 1. Roles and responsibilities	Activity 1-1	\$10				\$10
Activity 2. Activity Data	Activity 2-1	\$100				\$100
	Activity 2-2	\$10				\$10
	Activity 2-3	\$10				\$10
	Activity 2-4	\$10				\$10
	Activity 2-5	\$10	\$10	\$10	\$10	\$40
Activity 3.Emission Factors	Activity 3-1	\$20	\$20	\$20		\$60
	Activity 3-2	\$10				\$10
	Activity 3-3	\$10				\$10
Activity 4. MRV	Activity 4-1	\$10				\$10
	Activity 4-2	\$50	\$50	\$50		\$150
	Activity 4-3	\$50	\$50	\$50		\$150
	Activity 4-4	\$10	\$10	\$10	\$10	\$40
	Activity 4-5			\$50	\$50	\$100
Component 4b						
Activity 1. Monitoring Social and Environmental Impacts	Activity 1-1. Identify potential environmental and social impacts	\$10				\$10
	Activity 1-2. Identify stakeholders and roles	\$10				\$10
	Activity 1-3. Select key indicators	\$10				\$10
	Activity 1-4. Identify capacities and technical resources	\$10				\$10
	Activity 1-5. Collect and assess baseline data	\$20	\$10			\$30
	Activity 1-6. Design data collection system		\$20	\$20		\$40
Activity 2. Monitoring Governance Factors		\$20				\$20
Activity 3. Assess and				\$20	\$20	

Refine S&E Monitoring System						\$40
Total		\$220	\$120	\$110	\$70	\$520
Government						
FCPF		\$220	\$120	\$110	\$70	\$520
UN-REDD Programme (if applicable)						
Other Development Partner 1 (name)						
Other Development Partner 2 (name)						
Other Development Partner 3 (name)						

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Component 5: Schedule and Budget

**Standard 5 the R-PP text needs to meet for this component:
Completeness of information and resource requirements**

The R-PP proposes a full suite of activities to achieve REDD-plus readiness, and identifies capacity building and financial resources needed to accomplish these activities. A budget and schedule for funding and technical support requested from the FCPF and/or UN-REDD, as well as from other international sources (e.g., bilateral assistance), are summarized by year and by potential donor. The information presented reflects the priorities in the R-PP, and is sufficient to meet the costs associated with REDD-plus readiness activities identified in the R-PP. Any gaps in funding, or sources of funding, are clearly noted.

Table 5.i. Overall Summary Budget for Liberia R-PP						
Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2011	2012	2013	2014	Total
Component 1 Organise consult &	1a National Readiness Management	\$80	\$70			150
	1b Information sharing and early dialogue		\$185	\$135	\$95	415
	1c Consultation and participation	\$155	\$120	\$80	\$100	445
Component 2: REDD strategy preparation	2a Assessment of land use, law and policy		\$35	\$47	\$47	129
	2b REDD+ strategy option	\$22	\$337	\$142	\$40	541
	2c REDD+ implementation framework	\$85	\$185	\$30		300
	2d SESA	\$130	\$105	\$60		295
Component 3 Develop reference scenario	3a Reference / scenario (RL/REL)	\$285	\$130	\$100	\$65	575
Component 4 Develop monitoring system	4a Emissions and removals					350
	4b Other multiple benefits / impacts	\$220	\$120	\$110	\$70	170
Component 6: Develop M&E framework	M&E	\$49	\$159	\$85	\$95	\$388
Total		\$1,026	\$1,446	\$789	\$512	\$3,758
Government		\$300	\$300	\$300	\$300	\$1,200
FCPF		\$1,026	\$1,446	\$789	\$512	\$3,758
UN-REDD Programme (if applicable)						\$0
Other Development Partner 1 (FFI)						\$116
Other Development Partner 2 (CI)						In-kind
Other Development Partner 3 (IUCN)						In-kind

The total funding requested from the FCPF is **\$3,758,000 USD**. A further \$1,316,000 USD will be sought from FFI and the Government of Liberia giving a total project budget of \$5,074,000 USD.

Component 6: Design a Program Monitoring and Evaluation Framework

**Standard 6 the R-PP text needs to meet for this component:
Design a Program Monitoring and Evaluation Framework**

The R-PP adequately describes the indicators that will be used to monitor program performance of the Readiness process and R-PP activities, and to identify in a timely manner any shortfalls in performance timing or quality. The R-PP demonstrates that the framework will assist in transparent management of financial and other resources, to meet the activity schedule.

Introduction

The creation of the National Climate Change Steering Committee has provided a multi-sectoral body at the highest level to review all climate change related activities. As such this group will be able to oversee and review REDD+ activities and results as set out in the Program Monitoring and Evaluation Framework. Liberia already has several fairly robust monitoring systems in place such as: the Chain of Custody for Forestry which involves the independent monitoring of SGS; developing FLEG-T and Voluntary Partnership Agreement programmes; and a PRS monitoring unit within the Ministry of Planning and Economic Affairs- LRDC. This multi-sectoral group will also be able to advise on a practical approach to designing an M&E framework which will improve efficiency and transparency of the program without duplicating efforts. During this phase of implementation the RTWG will work with the NCCSC and the NCCS to review the various existing national M&E programs such as the ones developed for the forestry and the poverty reduction strategy and the national visioning process to evaluate the linkages that can be created. We will also evaluate the opportunity and need for hiring an M&E specialist within the NCCS to oversee this work.

Below we lay out an iterative plan for M&E of the REDD+ initiative in Liberia. This will be further refined during the next phase of work as described above. During this period we will also develop a set of guiding principles for REDD+ Monitoring and Evaluation including guidelines for baseline data gathering and reporting requirements for all REDD + activities. We will seek additional support from the Climate Community and Biodiversity Alliance team to help develop these principles.

Table 18: Monitoring Framework

Expected Results	Indicators	Means of Verification	Risks and assumptions
<i>From country Results Framework or R-PP components</i>	<i>From Results Framework or R-PP components.</i> <i>Baselines are an indicator at the start of the joint programme</i>	<i>From identified data and information sources</i>	<i>Summary of assumptions and risks for each result</i>
1.a National Readiness Management Arrangements	<ol style="list-style-type: none"> 1. Secretariat fully established, staff recruited and operational 2. RTWG meeting regularly and providing appropriate guidance 3. Carbon consultative group established and meeting 4. REDD+ management arrangements (roles and responsibilities) are developed between various institutions 	<ul style="list-style-type: none"> -Meeting minutes -Staff Contracts completed -Attendance lists -MOUs for REDD management -Quarterly and Annual reports -NCCSC review meeting records 	Roles and responsibilities are still very preliminary and will need agreement among various government entities. This also assumes appropriate funding will be sourced at the appropriate time for these actions
1.b Information sharing and Early Dialogue with key stakeholder groups	<ol style="list-style-type: none"> 1. Target groups are fully identified 2. Platform established for continuous for dialogue 3. Opportunity for feedback and adjustment exists 4. Information sharing tools developed 5. awareness raised among stakeholder 	<ul style="list-style-type: none"> -meeting minutes and attendance lists -stakeholder mapping document -informational materials: leaflets, posters, radio shows, banners etc - pre and post awareness survey 	Assumes that Targets are appropriately identified to achieve successful implementation but there is a risk that key groups could be missed especially forest dependent communities. There is a risk of raising expectations at the local level without being able to deliver.
1.c Consultation and Participation Process	<ol style="list-style-type: none"> 1. REDD Regulations drafted through a transparent consultative process, vetted among all stakeholders, and then sent for legislative review 2. FPIC processes are institutionalized within the national REDD Regulations 	<ul style="list-style-type: none"> -Consultation plan -Consultation Reports freely available through various means; website, fliers etc -Community meeting minutes -Draft Regulations 	<p>Risk that opinions can be manipulated by various interest groups</p> <p>Risk that local opinions could be swayed towards REDD without full understanding of the mechanism</p> <p>Consultations may slow or block implementation processes</p>

2.a Assessment of Land Use, Forest Law, Policy and Governance	<ol style="list-style-type: none"> 1. Joint land use suitability assessment by FDA, MLME and MoA, including land use valuation 2. 4x regional surveys of occurrence and impact of shifting agriculture 3. Survey of chainsaw logging recovery rates 4. Survey of biomass stocking and recovery rates after logging 	<ul style="list-style-type: none"> - Validation at stakeholder workshop and endorsement by cabinet - Published studies available on FDA website 	<p>These studies address key information gaps which desktop studies alone cannot fill.</p> <p>Field work needs to be done when access is possible and forward planning will be essential.</p>
2.b REDD-plus strategy option	<ol style="list-style-type: none"> 1. Start up funding is sufficient to incentivize participants until market / fund mechanisms are in place to provide REDD+ payments 2. A commercial forest has become a demonstration model for adoption of reduced impact logging 3. FDA regulations and chain of custody effective in one forest area supplying Monrovia 4. One carbon concession established on set-aside production forest 5. At least 25% transfer away from shifting cultivation in target area 6. All plantation development sited on degraded forest 7. Wood energy licensing and permit system effective in Monrovia 	<ul style="list-style-type: none"> - Quarterly reports by sectoral ministries (FDA, MoA, MLME), independently verified by three specialist NGOs 	<p>Although the policy environment and political will are conducive, implementation capacity and technical know-how are weak.</p> <p>Engagement and motivation of shareholders are preconditions of success (commercial loggers, chainsaw loggers, subsistence farmers, plantation holders, wood energy industry)</p>
2.c REDD-plus Implementation Framework	<ol style="list-style-type: none"> 1. Implementation framework for REDD+ developed and approved 2. Laws and regulations are compatible or adapted to facilitate REDD+ implementation 3. Stakeholder capacity needs are identified and plans are in place to address these needs 4. Funding for REDD+ implementation is achieved 	<ul style="list-style-type: none"> -Framework document -Draft laws and regulations -Capacity needs report -Training materials -Additional funding commitments 	<p>Successful REDD + implementation is dependent on achieving appropriate capacity and funding which is not yet secured or in place. There are currently many laws in place that facilitate REDD but there may be gaps or loopholes in these legislations that could create complex issues.</p> <p>There is a risk that is frameworks are not robust enough Carbon projects and accounting could end up managed inappropriately</p>

2.d Social and Environmental Impacts	<ol style="list-style-type: none"> 1. FPIC processes are institutionalized within the national REDD Regulations 2. REDD+ Framework and regulation appropriately identifies and addresses Social and Environmental impacts 3. SEIA are being carried out 4. SEIA recommendations are being included in REDD Management 5. Impacts of REDD are well integrated in to landscape management 	<ul style="list-style-type: none"> -EIA and SEA reports -draft regulations -adaptive management processes in place 	<p>SEIA does not identify key Environmental and social issues.</p> <p>Adaptive management is not properly addressing issues identified</p> <p>Expectations may not be fully met by REDD+ implementation and could lead to social conflict if not appropriately addressed</p>
3. Develop a reference Level or Scenario	<ol style="list-style-type: none"> 1. Data on forest areas, land cover change and carbon density is collected 2. Reference scenario is being refined as REDD + strategy is developed 	<ul style="list-style-type: none"> -GIS databases -maps -scenario approved by 3rd party verifiers 	<p>Scenario models overestimate carbon amounts and removals</p> <p>Scenarios are dependent on national land use decision making which is not coordinated as of yet</p>
4.a Emissions and Removals	<ol style="list-style-type: none"> 1. Biomass plots established and being regularly monitored and measured 2. Sufficient satellite imagery acquired and synthesized 3. Forest cover/monitoring database established 4. Capacity built to analyze data appropriately 	<ul style="list-style-type: none"> -maps and documents produced -verification process taking place and peer reviewed -training program in place and ongoing 	<p>Assumption is that capacity will be sufficient to conduct MRV</p> <p>Technical infrastructure is in place for MRV including acquisition of cloud free remote sensing data</p>
4.b Other Multiple Benefits and Impacts	<ol style="list-style-type: none"> 1. Other benefits are appropriately identified by stakeholders 2. Appropriate monitoring system established 3. Training provided 4. Partnership initiated with CCBA with National Social and Environmental Safeguards program 5. Costs/benefit analysis refined for various land use options 	<ul style="list-style-type: none"> -monitoring plan for additional benefits -Social and Environmental safeguards assessment reports -stakeholder meeting minutes/attendance etc. -CCBA meeting minutes/ draft national principles 	<p>Risk that unforeseen impacts are missed by monitoring system</p> <p>REDD funding may not be sufficient to sustain multiple benefits</p>

5. Schedule and Budget	<ol style="list-style-type: none"> 1. Implementation plan in place and being adhered to 2. Budget being appropriately allocated and monitored 3. Procurement procedures are clarified and easily addressed in a timely fashion 4. METT developed for implementation 	<ul style="list-style-type: none"> -workplans -regular performance and financial reports -receipts verified -METT system in place 	<p>Complicated procurement procedures limit implementation</p> <p>Risks of financial mismanagement or misuse of REDD funds</p> <p>Consultations and adaptive management may require changes in implementation</p>
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Table 6i: Summary of Program M&E Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
Develop and M&E system to align with national M&E for other sectors	Consultancy	\$24				\$24
	Meeting, coordination, and NCCS Review	\$10				\$10
	Workshops	\$15				\$15
Develop specific indicators with stakeholders	Consultancy		\$24			\$24
	Consultations		\$10		\$10	\$20
Independent review/finalization	Consultancy		\$40			\$40
	Consultations		\$20	\$20	\$20	\$60
	External Auditing		\$30	\$30	\$30	\$90
Carry our M&E	Consultancy		\$30	\$30	\$30	\$90
	Reporting		\$5	\$5	\$5	\$15
Total		\$49	\$159	\$85	\$95	\$388
Government						
FCPF		\$49	\$159	\$85	\$95	\$388
UN-REDD Programme (if applicable)						
Other Development Partner 1 (name)						
Other Development Partner 2 (name)						
Other Development Partner 3 (name)						

Suggested Annexes for the R-PP (Optional)

Annex 1a: National Readiness Management Arrangements

Annex 1: TERMS OF REFERENCE - THE NATIONAL CLIMATE CHANGE STEERING COMMITTEE (NCCSC)

1.0 OVERVIEW & BACKGROUND

- 1.1 More than 190 countries have joined the United Nations Framework Convention on Climate Change (UNFCCC) to address global temperature increase. This action followed the alarm raised globally by the Intergovernmental Panel on Climate Change in 1988, presenting scientific findings on evidence of global warming, emission increase and climate change impacts.
- 1.2 Climate Change Regulatory Frameworks were put into place by the establishment of two bodies:
 - The United Nations Framework Convention on Climate Change (UNFCCC), which was established in 1992, with an objective to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system;
 - The Kyoto Protocol, which was adopted at the 3rd Session of the Conference of the Parties in Kyoto, Japan in 1997, with an objective to provide mechanisms (Clean Development Mechanism, Emission Trading and Joint Implementation), targets and timetable for the reduction of greenhouse gas emissions.
- 1.3 Liberia is vulnerable to the impacts of climate change and the way of life of its people is under threat. Liberia is a country with low carbon emissions, however the effects of climate change may be significant. Climate change could have deleterious consequences for the following in Liberia:
 - Coastal Landscape
 - Agriculture
 - Health
 - Livelihoods
 - Food Security
 - Habitat/Settlement security
 - Water Resources
 - Biological diversity
- 1.4 Liberia is a nation with significant remaining forest cover and therefore rich in sequestered carbon. Coupled with other ecosystem and livelihood services, the carbon storage in the forests provides a valuable resource in the global fight against global warming. Payments for this service could assist the country's development and contribute significantly to the actualization of the Poverty Reduction Strategy.
- 1.5 The Government of Liberia must ensure that the nation act with sufficient strength, speed and foresight to mitigate the effects of climate change as well as to respond to any strategic opportunities that arise to be involved in the production and marketing of emission reductions.

2.0 INSTITUTIONAL FRAMEWORK

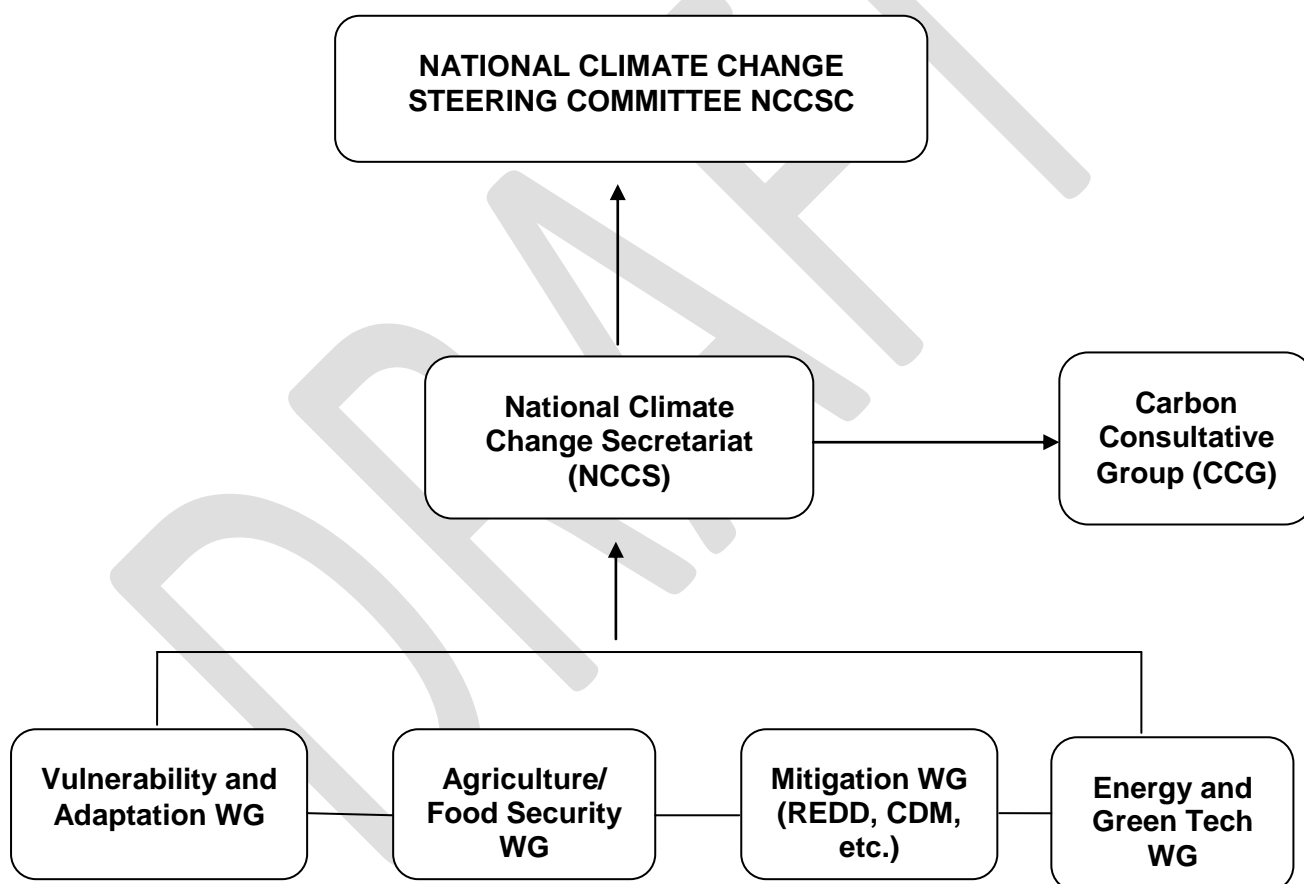
- 2.1 Article 9, Chapter II of the 1986 Constitution of Liberia encourages bilateral and regional co-operation with international and regional organizations for the attainment of the global protection of the environment and the promotion of sustainable use of natural resources; Liberia is a party to the UNFCCC, the Kyoto Protocol and United Nations Convention on Biological Diversity (UNCBD).
- 2.2 National response to climate change has been slow mainly because of institutional and capacity constraints; however, despite these constraints, Liberia is building institutions and capacities to ensure compliance with both the UNFCCC and the Kyoto Protocol.
- 2.3 The Environmental Protection Agency (EPA) of Liberia is the Designated National Authority (DNA) for the CDM of the UNFCCC/Kyoto Protocol and custodian of the environment. A National Environmental Policy Council oversees policy formulation at the EPA and sets priorities for national goals and objectives for the protection of the environment. The Minister of Lands, Mines and Energy heads the Policy Council. The EPA also has a Board of Directors that is the supervisory body of the Agency. The Minister of Planning and Economic Affairs serves as the head of the Board of Directors of the EPA. The EPA has made a number of gains over the years, including the completion of the National Adaptation Plan of Action (NAPA).
- 2.4 Internationally, with the launch of the World Bank's Forest Carbon Partnership Facility (FPCF) in Bali 2007, forest nations are now on track to be rewarded for any additionalities to their conservation efforts that will bring about a reduction in greenhouse gases. Reducing Emissions through Deforestation and Forest Degradation (REDD) is an initiative to provide a value for forests other than that provided by deforestation activities. Liberia currently has an ad-hoc REDD Technical Working Group composed of representatives from Government and civil society, chaired by the Forestry Development Authority (FDA) and co-chaired by the Environmental Protection Agency (EPA) and coordinated by the Energy and Climate Change Advisor from the Office of the President. This Working Group has made progress preparing Liberia to qualify for REDD activities but is constrained by a limited mandate, uncertain delegation of responsibilities, and an unsustainable funding structure.
- 2.5 Capacity Gaps. Climate change related disasters are a thing of daily occurrence in all parts of the world and they are predicted to increase to catastrophic levels in the near future if collective global actions are not implemented to reduce greenhouse gas emissions and restore and maintain forests of all kinds. No one institution in Liberia has the resources to give climate change issues the kind of priority attention that it requires. Consequently, the following capacity needs still exist which the NCCS will endeavour to fill:
- Insufficient professionals with technical expertise on climate change due to emigration and reduced human capital investment during the conflict;
 - Inadequate infrastructure for climate data collection and monitoring;
 - Limited public and governmental awareness of the effects of climate change;
 - Non-existence of a governmental entity with the ability to lead a coordinated multi-sectoral approach to climate change adaptation and mitigation.

3.0 NATIONAL CLIMATE CHANGE STEERING COMMITTEE

- 3.1 The National Climate Change Steering Committee (NCCSC), a high-level policy coordination committee, will be responsible for overall climate change policy in Liberia. It shall comprise the President of Liberia, Ministers of Government, Directors of Governmental Agencies, National Coordinator and Advisers to the President. Most of its work will be achieved through the National Climate Change Secretariat (NCCS) that it will oversee.
- 3.2 Terms of Reference:
1. Set overall climate change policy in Liberia and oversee that such policy is carried out.
 2. Establish a Secretariat (NCCS) to be responsible for carrying out and coordinating the daily operations of the NCCSC;
 3. Create/Dissolve Working Groups (WGs) on an ad-hoc basis to assist in addressing technical issues related to Climate Change that may arise.

4. Establish credible consultative processes, including the Carbon Consultative Group (CCG) which shall provide input to the NCCS, and through the NCCS to the NCCSC.
5. Adopt measures and take appropriate actions necessary for achieving the mandate and goals of the NCCSC, including and in particular:
 - To approve the workplan of the NCCS;
 - To approve the budget of the NCCS;
 - To authorize and/or approve the solicitation of external assistance;
 - To recruit and have the power to dismiss the Head of Secretariat of the NCCS;
 - To hire or approve the engagement of an independent auditor to perform audits of the NCCS financial transactions;
 - To develop any and all other policies and procedures associated with or required for executing the effective and transparent implementation of the mandate of the NCCS.

3.3 Organizational chart. (Note that the Working Groups (WGs) are only suggestive; actual WGs will be formed on an ad-hoc basis.)



4.0 CARBON CONSULTATIVE GROUP

4.1 The Carbon Consultative Group, a multi-stakeholder structure involving industry, civil society and development partners, will provide high-level strategic advice into climate change policy-making in Liberia.

4.2 Terms of Reference:

1. Facilitate and advise on the development and implementation of climate change policy and activities;
2. Facilitate a national consensus on climate change policy and activities through stakeholder engagement;

3. Disseminate information to national and international audiences on climate change policy and activities nationally and internationally;
4. Advise and assist in the development of data base and information system for land use activities;
5. Identify capacity needs in governmental climate change policy and activities, and participate in their solutions;
6. Provide input into climate change mitigation or adaptation proposals that have fiscal consequences for the Government;
7. Advise on monitoring and validation systems of terrestrial carbon stock, including the potential to establish independent or parallel monitoring in an advisory capacity;
8. Develop additional sub-groups as needed to advise and assist the CCSC in particular subject or technical areas.

5.0 THE NATIONAL CLIMATE CHANGE SECRETARIAT

5.1 The National Climate Change Secretariat will provide coordination, monitoring and evaluation, as the operational arm of the NCCSC and the governmental liaison for the CCG. Links between the CCSC and its technical level organs, the Working Groups (WGs) as well as with other government institutions and development partners on climate change matters will be coordinated by the Secretariat. In this regard, an appropriately staffed support office (SO) will be located at the Executive Mansion and initially under the direct supervision of the Energy, Environment and Climate Change Advisor serving as Head of Secretariat who shall report to the President and the NCCSC. The President and the NCCSC may elect to recruit a Head of Secretariat of the NCCS other than the Energy, Environment and Climate Change Advisor when it deems it necessary.

5.2 Terms of Reference:

1. Advise the GoL in the development of multi-sectoral land use and climate change policies, proposals and programs;
2. Coordinate domestic and international policies relating to climate change;
3. Coordinate national adaptation and mitigation strategies;
4. Raise national awareness of climate change;
5. Serve as liaison between the office of the President, the NCCSC, the CCG and other relevant national stakeholders;
6. Engage in appropriate programs to strengthen national capacity in addressing climate change;
7. Cooperate with international organizations, regional centers, institutions and experts in developing programs of action to mitigate and adapt to climate change in the region;
8. Collate, document and store data, record and disseminate climate change information to the public and media;
9. Undertake and facilitate research on climate change effects and mitigation potential in Liberia;
10. Maintain full records of the proceedings of the Climate Change Steering Committee, issue citations, serve as a clearing house on climate change, REDD and carbon matters and inform all stakeholders on a regular basis;
11. Ensure that WGs give proper attention to all cross-cutting issues in the design and implementation of interventions;
12. Collaborate closely with the WGs to ensure regular and timely reporting on the progress of activities and ensure timely presentation of reports to the CCSC and CSG;

5.3 Staffing Arrangement: A National Coordinator, who will report directly to the National Climate Change Steering Committee and the President, will head the Secretariat. There will be at least two experts covering priority technical areas. There will also be an Administrative Coordinator and support staff. All staff may not necessarily be located in the Office of the President, but may be physically closer to a given implementing agency, based on perceived operational needs.

6.0 HEAD OF SECRETARIAT

6.1 The Head of Secretariat will be the chief executive of the NCCS and a member of the NCCSC.

6.2 Terms of reference:

1. Responsible for overall direction and coordination of the NCCS;
2. Liaison between Office of the President, the NCCSC and the CCG.
3. Mobilize resources to support the work of the Secretariat and WGs;
4. Ensure overall performance of staff to meet all targets, deadlines and project implementation;
5. Liaise with the international partners and donors in soliciting both technical and financial support for the effective operation of the NCCS.

7.0 ADMINISTRATIVE COORDINATOR

7.1 The Administrative Coordinator shall assist the Head of Secretariat in administering the day-to-day affairs of the Secretariat, supervising its staff and ensuring the timely implementation of the Secretariat's work plan.

7.2 Terms of reference:

1. Manage the affairs of the NCCS in assistance to the Head of secretariat to ensure enhanced coordination in the implementation of national mitigation and adaptation strategies;
2. Work through the Cabinet and Autonomous Agencies to ensure complementarities between projects implemented by the development partners and those of the government in support of the goals and objectives of the NCCS;
3. Manage the overall administration of the NCCS ensuring coordination of activities both internally and externally as well as provide administrative support to the technical staff of the secretariat
4. Liaise with WGs to ensure the collection of information/data from implementing agencies, undertake or oversee monitoring and evaluation activities and ensure the timely preparation of relevant reports for the NCCS;
5. Develop an operating budget for the Secretariat, prepare monthly progress reports, account for all materials and supplies, and ensure full reporting on activities undertaken and results achieved.
6. Manage the daily schedule of the Head of Secretariat including preparing for meetings and ensuring that tasks are performed by other administrative staffs of the secretariat.

8.0 CLIMATE CHANGE MITIGATION AND ADAPTATION SPECIALIST

8.1 The Climate Mitigation and Adaptation Specialist shall be the technical expert at the NCCS responsible for issues pertaining to climate change adaptive mechanisms and mitigation programs.

8.2 If at any time in the future the NCCSC shall wish to focus on a different area of climate change expertise, they may replace the Specialist with another technician of equal caliber but different substantive focus consistent with Liberia's Poverty Reduction Strategy.

8.3 Terms of reference:

1. Assess long-term projections of climate change, including potential social, economic and environmental impacts;
2. Assess Liberia's vulnerability to climate change;
3. Identify appropriate adaptation and mitigation measures to climate change;
4. Design national adaptation and mitigation strategies, working with appropriate Ministries/Agencies;
5. Contribute to national awareness programs of adaptation to changing climatic and environmental conditions, including environmental education schemes in schools and local stakeholder communities;
6. Investigate the potential for new technologies to mitigate the impact of climate change;

7. Identify capacity-building needs for the identification, evaluation and implementation of mitigation policies and measures.

9.0 REDD SPECIALIST

- 9.1 The REDD Specialist shall be the technical expert at the NCCS responsible for issues pertaining to emissions and emission reductions through changing land use patterns.
- 9.2 If at any time in the future the NCCSC shall wish to focus on a different area of climate change expertise, they may replace the Specialist with another technician of equal caliber but different substantive focus consistent with Liberia's Poverty Reduction Strategy.
- 9.3 Terms of reference:
 1. Assess the patterns of land use in Liberia, including but not limited to forestry and agricultural practices, and how it may contribute to carbon emissions;
 2. Assess the potential for Liberia to reduce emissions by altering the land use patterns, including the facilitation of institutional or contractual innovations that may attract international financial flows for emission reductions;
 3. Identify and oversee appropriate monitoring and compliance measures to track land use changes;
 4. Oversee Liberia's successful implementation of FCFP REDD proposals and preparation;
 5. Design national strategies to tackle long-term impediments to environmentally and financially efficient land use, working with appropriate Ministries/Agencies;
 6. Contribute to national awareness programs of REDD programs, including environmental education schemes in schools and local stakeholder communities;
 7. Identify capacity-building needs for the identification, evaluation and implementation of REDD policies and measures.

10.0 EXECUTIVE SECRETARY

- 10.1 The Executive Secretary shall ensure the efficient and well-documented operation of the NCCS, under the direct supervision of the Administrative Coordinator.
- 10.2 Terms of reference:
 1. Maintain daily records of the NCCS including external/internal communications, reports, and receipts;
 2. Ensure an effective filing and/or record system within the NCCS;
 3. Draft letters, memoranda, circulars, and other office documents;
 4. Assist the Administrative Coordinator in performing administrative functions within the secretariat;
 5. Perform any other task as designated by the National Coordinator or Administrative Coordinator.

11.0 OFFICE ASSISTANT

- 11.1 The Office Assistant shall maintain a clean, orderly, and well-supported headquarters of the NCCS.
- 11.2 Terms of reference:
 1. Distribute internal/external communications and ensure that they are delivered;
 2. Maintain all offices within the NCCS, ensuring tidiness and proper arrangement on a daily basis;
 3. Run errands and other external tasks as assigned by members of the NCCS;
 4. Support the overall vision of the NCCS by closely assisting the Executive Secretary in the performance of duties/functions;
 5. Observe working hours by preparing the secretariat offices before the start of day.

12.0 DRIVER

12.1 The Driver shall be responsible for the transportation of the NCCS members and the delivery of important documents.

12.2 Terms of reference:

1. Transport NCCS members in matters of Secretariat business;
2. Deliver NCCS documents as needed;
3. Maintain a clean vehicle including supervising necessary maintenance and keeping all records.

13.0 WORKING GROUPS

13.1 Working Groups led by the relevant line Ministries/Agencies or NCCS technical expert will be formed on an ad-hoc basis and will be responsible for coordination of specific projects/programs and regular reporting of progress on assigned tasks. WGs shall be composed of NCCS representatives, line ministries/agencies, commissions, UN Agencies, donors, private corporations and key NGOs active within the area. WGs will be co-chaired by identified sector partners.

13.2 Each WG will have a Technical Coordinator who will be based in the NCCS or her/his respective ministry. If the Technical Coordinator is not based at the NCCS, s/he will be responsible for regular communication with the NCCS.

13.3 Terms of Reference:

1. Oversee the planning and implementation of activities according to agreed sector priority results and outcomes as articulated by the Government. This will include cluster level and sectoral coordination of projects and programmes;
2. Meet regularly at such frequency to be determined by the Technical Coordinators;
3. Ensure that the relevant line Ministries/Agencies, in collaboration with all relevant partners, prepare project and programmes in accordance with identified priorities. The projects will be consolidated into overall short and medium term work plans;
4. Prepare the necessary documentation for monthly reporting on the progress of implementation to the National Climate Change Steering Committee;
5. Ensure implementation of policy-level NCCSC decisions;
6. Ensure sectoral coordination through a lead line Ministry;
7. Prepare annual sector development plans for bi-annual reviews, and monthly progress reporting;
8. Conduct periodic reviews of projects in accordance with guidelines prepared by the NCCS.

Annex 2: National Adaptation Plan of Action (NAPA) (and see supporting documents separate to the R-PP annexes for full document)

Executive Summary

Although endowed with bountiful and diverse natural resources, Liberia has become susceptible to the adverse effects of climate change. Contributing factors include shifting cultivation, unsustainable logging practices, unregulated coastal mining, high levels of biomass consumption(charcoal and fire wood) and decreasing river flows due to high evaporation. Each of these contributing factors is further aggravated by inadequate infrastructure, low levels of social development, population displacement, low institutional capacity, and inadequate meteorological and hydrological data.

The National Adaptation Programme of Action (NAPA) has been prepared by the Environmental Protection Agency based on the initiative that emerged from the Seventh Session of the Conference of the Parties (COP-7) of the United Nations Framework Convention on Climate Change (UNFCCC) held in Marrakech in 2001. The preparation of NAPA followed guidance provided by the Least Developed Country Expert Group (LEG) in their annotated guidelines. Consistent with this guidance, the NAPA document explicitly accounts for synergies between adaptation and national development plans, such as the National Reconstruction and Development Plan (NRDP), as well as with multilateral initiatives such as Millennium Development Goals (MDGs) and the National Biodiversity and Strategy Action Plan.

The participation of stakeholder groups was an essential part of the NAPA process. Civil society organizations, women groups, indigenous people, CBOs, National and International NGOs, policy makers, academic and research institutions played major roles in the development of the NAPA document, as well as in the assessment of impacts, vulnerabilities, and adaptation measures.

As a result of this process, it is now overwhelmingly clear that the adverse effects of climate change variability and extreme events are already significantly impacting sustainable development priorities in Liberia. At the policy level, several adaptation initiatives aimed at reducing the adverse effects of climate change while promoting sustainable development were identified as being of the highest priority, including:

- Capacity building to integrate climate change in development planning, designing infrastructure, land and coastal zone management planning and institutions
- Raising awareness by dissemination climate change and adaptation information, particularly to vulnerable communities such as farmers and coastal settlements
- Mainstreaming adaptation to climate change into policies through programs in agriculture, forestry, fisheries, energy, health, gender and meteorology/hydrology.

At the project level, several highest priority initiatives aimed at reducing the vulnerability of local communities to increasing climatic variability were identified through a participatory process, including:

- Integrated cropping/livestock farming with the objective of diversifying crop farming through the cultivation of soybeans, lowland rice and small ruminants rearing;
- Improved Monitoring of Climate Change with the objective of generating reliable hydrometeorological data and improving the measurement of climatic parameters.
- Coastal defense systems for the cities of Buchanan and Monrovia with the objective of reducing the incidence of flood, erosion, and siltation in Monrovia and Buchanan.

Annex 1b: Information Sharing and Early Dialogue with Key Stakeholder Groups

Annex 3: Liberia R-PP Consultation and Participation Meetings

	Date	Place	Workshop	Sponsorship
1.	22 – 23, April 2010	Zwedru	Regional C&P, Eastern Region	UNDP
2.	20 - 21, May 2010	Gbarnga, Bong County	Regional C&P, North Central Region	FCPF + UNDP
3.	17 – 18, June 2010	Tubmanberg, Bomi County	Regional C&P, Western region	FCPF + UNDP
4.	15 – 16, July 2010	Zwedru	Regional C&P, Eastern Region	FCPF
5.	22, July 2010	Monrovia	C&P with Civil Society & Traditional Rulers	FFI
6.	10, August 2010	Monrovia	National Stakeholders Conference	FFI, CI, IUCN

Annex 4: Liberia Consultation & Participation Plan

S/HOLDERS	NATIONAL WRAP-UP WORKSHOP	<u>GOVERNMENT</u>	<u>CIVIL SOCIETY</u>		<u>PRIVATE SECTOR</u>	
		Public Servants	Local NGOs	Communities	Loggers	Concession- aires
Composition	Representative s of all relevant stakeholders	Ministries of: Justice, Labour, Information, Internal Affairs, Investment Commission, Finance, Foreign Affairs, Gender & Development, EPA, Youth & Sports, Agriculture, Commerce, Representatives of the Standing Committee on Forestry & Agriculture, FDA(FMAC & FDA Board),	GA, SDI, LDI, SADS, Liberia Council of Churches, National Moslem Unions, National Rural Women Networks etc	Paramount Chiefs in CFDC areas, Local communities /CFDCs Community Groups in Protected Areas Forest Community- Based Organisations (CBOs)	Loggers (‘chain sawyers’), Traders in Chain sawn lumber; Small Scale Carpenters ,	Liberia Timber Association, Liberia Loggers Association, Pre-qualified timber firms
Tools to be used	1 Workshop (Monrovia)	1 Workshop (Monrovia)	1 Workshop (Monrovia)	Workshops (4 FDA Regional Centres -Preparation of simple REDD messages in Liberian English & selected local dialect(s) for distribution		1 Working Session (Monrovia)
	Radio/TV interviews & Talk Shows, County/Community FM stations Use electronic media houses (e.g. Liberia Media Initiative/Talking Drums etc)					
Timing	August, 2010	March, 2010	May, 2010		June, 2010	July, 2010

Annex 1c: Consultation and Participation Process

Annex 5: REDD C&P WORKSHOP, CATHOLIC PASTORAL & RETREAT CENTER, GBARNGA, BONG, MAY 20-21, 2010

Bong County Participants

No.	Name	Title	Institution	Contact
1	T. Kelvin Kollie	County Development Officer	Ministry of Planning & Economic Aff.	06987748
2.	Owen Dunbar	Regional Coordinator	Ministry of Gender & Development	06520148
3.	Mama R. Barseu	Coordinator	Transport Union/ Gbarnga	06496760
4.	Bangalee Kamara	Representative	Traditional Council	077711640/ 06745540
5.	Rev. Isaac Duwah	Representative	Religious Council	06513971
6.	George Yah	Co-chair	Charcoal Producers Association	077383995
7.	Viola Cooper	Chair lady	Liberia Marketing Association/ Bong	06591985
8.	Daniel Weedor	Secretary	Federation of Liberian Youth/ Gbarng	06416908
9.	Christina Kollie	Environmental Inspector	Environmental Protection Agency	06411505
10	Olivia Weetol	Coordinator	Rural Women	06416908
11	Louis A. York	Member	Coalition of LNGO/ Gbarnga	06404907
12	Lincoln Roberts	Chairman	Pit sawyers Association	06655774
13	Joseph G. Goukpala	V. President	Teachers Association	06594020
14	Wilson Dolo	Adm./ County Education office	Ministry of Education	077811466
16	Lucia F. Herbert	Development Superintendent	Ministry of Internal Affairs	06672603
17	James Juman	Environmental Health Coordinator	Ministry of Health & Social Welfare	--
18	Gertie Sulunteh	County Agriculture Officer	Ministry of Agriculture	--
19	Clarence Jackson	Station Manager	Radio Gbarnga	06458902

Grand Bassa County Participants

1	Samuel W. Cooper	County Development Officer	Ministry of Planning & Economic Aff.	06568653
2.	Nettin Topoe	Gender Officer	Ministry of Gender & Development	06445240
3.	John Swaagaye	Chairman	Transport Union/ Gbarnga	06605710
4.	Obediah Zangar	Representative	Traditional Council	06569504
5.	Rev. Fr. Joseph Garber	Representative	Religious Council	077316082

6.	Maxwell Williams	President	Charcoal Producers Association	076044609
7.	Moses G. Saye	Chairman	Liberia Marketing Association/ G. Bas	077816726
8.	Blojay Doe	Coordinator	Federation of Liberian Youth/ Bassa	06783006
9.	Darus Toe	Environmental Inspector/Buch	Environmental Protection Agency	077277632
10	Esthela Kilby Pailey	Representative	Rural Women	06524947
11	Jeremie Moiwoih	Coordinator	Concern World wide/ Buch.	06534344
12	Paul K. Jones	Chairman	Pit sawyers Association	077029195
13	Robert Wallace	Coordinator	Forestry Development Authority	06117461
14	George Gaybouah	President	Teachers Association/ G. Bassa	077001874
15	Sam Garter	Representative	Malavisi (Loggers)	06858495
16	Joe W. Banny	Representative	Ministry of Education	076147473
17	Baily Togba	Development Superintendent	Ministry of Internal Affairs	0652991
18	Amos Zeon	County Agriculture Officer	Ministry of Agriculture	06535373
19	Daniel Korvah	EHC	Ministry of Health	06422926
20	Hector Mulbah	Station Manager	Radio Gbezon	06354999

Lofa County Participants

1	Stanley Sheriff	County Development Officer	Ministry of Planning & Economic Aff.	06517969
2.	Esther Koryon	Gender Coordinator	Ministry of Gender & Development	06476823
3.	Augustin Lasalau	Chairman	Transport Union	06556885
4.	Worlobah Dorbor	Representative	Traditional Council	077989956
5.	Pastor Emmanuel Goldingpin	Representative	Religious Council	06624167
6.	Samuel M. Jusu	President	Charcoal Producers Association	077757220
7.	D. Saamolu Pongay	Chairman	Liberia Marketing Association/ Lofa	06982729
8.	Daniel Kolie	Representative	Lofa Youth	06403860
9.	Stephen Martor	Environmental Inspector/ Lofa	Environmental Protection Agency	076035183
10	Joanna Sayegula	Representative	Rural Women/ Lofa	077122880
11	Sekou Selmah	Representative	Bosied Africa (LNGO)	06139026
12	Alfred Koion	Chairman	Pit sawyers Association/ Lofa	076027384

13	William Peewee	Coordinator	Forestry Development Authority	06593306
14	Joseph Aquoi	President	Teachers Association	---
15	Yarkpazuo Gbusiwoi	Representative	Loggers Association	06597949/ 06534976
16	Anthony Azoaquoi	Central DEO/ Voinjama District	Ministry of Education	06200130
17	Fofee Baimba	Development Superintendent	Ministry of Internal Affairs	-
18	JohnDove	County Agriculture Officer	Ministry of Agriculture	06992486
19	James Jubah	Representative	Ministry of Health	
20	John Gayflor	Station Manager	Radio Voinjama	06465761

Nimba County Participants

1	Mulbah A. Harris	County Development Officer	Ministry of Planning & Economic Aff.	06510142
2.	Kou Luogon	Gender Coordinator	Ministry of Gender & Development	06542827
3.	Everlyn Whyee	Representative	Transport Union/ Nimba	06406217
4.	Arthur Kopah	Representative	Traditional Council	06746348
5.	Mohammed Keita	Representative	Religious Council	06388303
6.	James Wuo	Coordinator	Charcoal Producers Association	06226446
7.	Marie Gbartu	Coordinator	Liberia Marketing Association/ Nimba	06622892
8.	Eddie Gbatu	Coordinator	Federation of Nimba Youth	06648780
9.	Rebecca Kobo	Environmental Inspector/ Nimba	Environmental Protection Agency	06463728
10	Comfort Kopah	Representative	Rural Women	06406372
11			Local NGO	
12	Roland Boayue	Chairman	Pit sawyers Association	077926228
13		Coordinator	Forestry Development Authority	
14	Augustus Flomo	Co-chair	Teachers Association/ Nimba	
15		Representative	Loggers Association	
16	Avery Newah	Adm. Assist./ County Edu. officer	Ministry of Education	
17	Cooper Mykers	Development Superintendent	Ministry of Internal Affairs	06367750
18	John Mator	County Agriculture Officer	Ministry of Agriculture	-
19	D. Mathew Caine	Manager	Radio Nimba	-

River Cess County Participants

1	D. Emmanuel Williams	County Development Officer	Ministry of Planning & Economic Aff.	06513670
2.	Joseph B.M. Toe	Gender Coordinator	Ministry of Gender & Development	06586599
3.	Jerome Smith	Representative	Transport Union	06971676
4.	Kofi Zarr	Representative	Traditional Council	
5.	Rev. Jeffrey Howard	Representative	Religious Council	
6.	Victoria Doe	Women Coordinator	Charcoal Producers Association	06463483
7.	Oretha Toe	LMA Representative	Liberia Marketing Association (LMA)	
8.	George Gbargee	Youth Representative	Youth Group	06780195
10	Martha Faah	Rural Women Representative	Rural Women Structure	
11	Isaac D. Toe	CHN Representative	Local NGO	06444508
14	Charles M. Vonleh	Representative	Teachers Association/ River Cess	06680729
15		Representative	Loggers Association	
16	Simpson A. Cephas	Development Superintendent	Ministry of Internal Affairs	06418378
17	Odell Vakun	Representative	Ministry of Health	--
18	Oliver Tekpeh	County Agriculture Officer	Ministry of Agriculture	06116100
19	Obediah Swen	Station Manager	Radio Rivercess	06447950

List of Facilitators

1.	Benjamin S. Karmorh	UNFCCC Focal Point/EPA Representative	Environmental Protection Agency of Liberia (EPA)	06518928
2.	Kumeh S. Assaf	Climate Change Adaptation Specialist	EPA	06381644
3.	Ernest Massaquoi	FDA Representative	Forestry Development Authority	06513734
4.	Jefferson Dahn	Logistician	EPA	06942794
5.	H. Zayzay	Rapporteur	Ministry of Gender and Development	06454659
6.	Bernice Paye	Adm. Coordinator Climate Change Secretariat	Ministry of State	06452654
7.	Earla Neblett	Media Representative	Media	06812701
8.	Peter Mulbah	CSO Rep./REDD Secretariat	Skills and Agricultural Development Services (SADS)	06545758
9.	John Jeh	Rapporteur/UNDP	EPA	06520212
10.	Moses Massa	Head/ Energy & Env. Unit	UNDP Monrovia	06558574
11.	Emmanuel Robers	Finance Assistant	UNDP	06493759
12.	Morris Chelleh	DRR Assistant	UNDP	
13.	Andrew Dorlea	Account Officer	FDA	

REDD C&P WORKSHOP, FORESTRY TRAINING INSTITUTE, TUBMANBURG, BOMI COUNTY, JUNE 20-21, 2010

Bomi County Participants

No.	Name	Title	Institution	Contact
1	Lee Mason	County Development Officer	Ministry of Planning & Economic Affairs	
2.		Regional Coordinator	Ministry of Gender & Development	
3.		Coordinator	Transport Union	
4.	Momo Kanneh	Representative	Traditional Council	
5.	Pst. Alex Washington	Representative	Religious Council	
6.	Peter Mulbah	Co-chair	Charcoal Producers Association	
7.	Mala Okai	Chair lady	Liberia Marketing Association	
8.	Onesmus Sackie	Representative	Federation of Liberian Youth	
9.	William B. Gibson	Environmental Inspector	Environmental Protection Agency	
10	Zoe Ross	Coordinator	Rural Women	
11	Kimah Richardson	Representative	LEYA/ Local NGO	
12	Lansana Darblo	Chairman	Pit sawyers Association	
13	Roosevelt Tulay	V. President	Teachers Association	
14		County Education officer	Ministry of Education	
16		Development Superintendent	Ministry of Internal Affairs	
17		Environmental Health Coordinator	Ministry of Health & Social Welfare	
18		County Agriculture Officer	Ministry of Agriculture	
19		Station Manager	Radio Bomi	
20	Jeff Zoldua	Member	Loggers Association	
21	Tally Joseph	Forester	FDA	

Grand Cape Mount County Participants

1	C. Kelvin Marvie, II	County Development Office (M & E)	Ministry of Planning & Economic Aff.	
2.	Magdalene H. Fahnbulleh	Gender Officer	Ministry of Gender & Development	
3.		Chairman	Transport Union	
4.	Sekou Balo	Representative	Traditional Council	
5.		Representative	Religious Council	
6.	Morris Kiazolu	Member	Charcoal Producers Association	
7.	Dodoe Graye	Chairman	Liberia Marketing Association	
8.	Thomas B. Massaquoi	Coordinator	Federation of Liberian Youth	
9.	Darlingstone McGee	Environmental Inspector	Environmental Protection Agency	
10	Satta Balo	Representative	Rural Women	
11	Shadrach Fahnbulleh	Representative	Local NGO	
12	Kona Cassel	Chairman	Pit sawyers Association	
13	Darlingstone Tuagben	Coordinator	Forestry Development Authority	
14	Mohammed Sheriff	President	Teachers Association	
15	Boima Quaye	Representative	Logging Association	
16	William Johnson	County Education Officer	Ministry of Education	06941853
17	Erasmus D. Fahnbulleh	Development Superintendent	Ministry of Internal Affairs	
18	Botoe Massaquoi	County Agriculture Officer	Ministry of Agriculture	
19	Lawrence Moore	Environmental Health Coordina.	Ministry of Health	
20		Station Manager	Radio Cape Mount	

Grand Gedeh County Participants

No	Name	Title	Institution	Contact
1	Bryant T. Slah	County Development Officer	Ministry of Planning & Economic Aff.	06910-420
2.	Madeline T. Clark	Gender Officer	Ministry of Gender & Development	088601033
3.	Adama Konneh	Dispatcher	Transport Union	077924444
4.	Oliver W. Solo	Advisor	Traditional Council	-
5.	Paynyonoh Jarjuahwiah	Pastor	Religious Council	06464775
6.	Dennis Yaoh	Secretary	Charcoal Producers Association	06214129
7.	Oretha Tagblor	Community Chair	Liberia Marketing Association	-
8.	Amos Wulu	Representative	Youth Group/ Grand Gedeh Youth Development Association	06601650
9.	Alfred Doebor	County Environmental Inspector	Environmental Protection Agency	-
10	Ruth Sharlty	Mobilizer	Rural Women	
11	Franklin Blaye	Senior Monitor	LNGO	06975244
12	B. David Towah	Chairman	Pit sawyers Association	06462394
13	Alexson Dennis	Secretary	National Teachers Association	077774728
14	Barjibo Nyapan	Co-chair	Loggers Association	06610370
15	Alexander D. Akoi	Contract Administrator	Forestry Development Authority	06845472

Maryland County Participants

No	Name	Title	Institution	Contact
1	Numene B. Reeves	County Development Officer	Ministry of Planning & Economic Aff.	
2.	Susannah W. Hne	Gender Officer	Ministry of Gender & Development	
3.	Yaya Fofana		Transport Union	
4.	Nelson Neal	Representative	Traditional Council	
5.	George Dowah	Representative	Religious Council	
6.	James Appleton		Charcoal Producers Association	
7.	Gladys Collins		Liberia Marketing Association	
8.			Federation of Liberian Youth	
9.	Samuel Nangbah		Environmental Protection Agency	
10	Bessie Worlor		Rural Women	
11	Carolyn B. Weah		LNGO	
12	Alfred Keshin		Pit sawyers Association	

13	Jacob H. Brown		National Teachers Association	
14	E. Nmah	FDA Officer	Forestry Development Association	
15	Eric Dio Moore	Volunteer	National Youth Volunteer	06933709

River Gee County Participants

No	Name	Title	Institution	Contact
1	William F. Jeffy	County Development Officer	Ministry of Planning & Economic Aff.	
2.	Veronica G. Tanyon	Gender Coordinator	Ministry of Gender & Development	
3.	Bobby Toe	Representative	Transport Union	
4.	Pah Sayee		Traditional Council	
5.	James Daryours		Religious Council	
6.	Julius Debleh		Charcoal Producers Association	
7.	Comfort Toe		Liberia Marketing Association	
8.	Gbain Sampson		Youth Group	
9.	John Kenda	Env. Inspector	Environmental Protection Agency	
10	Bessie Seekor		Rural Women	
11	Comfort Doe	Representative	LNGO	
12	Jackson Tarbah	Representative	Pit sawyers Association	
13	S. Taryee Toe		National Teachers Association	
14	Natt Dardieh		Loggers Association	
15	Philip Cheapo	FDA Officer	Forestry Development Authority	

Grand Kru County Participants

No	Name	Titles	Institutions	Contacts
1	Osman K. Jackitay	County Development Officer	Ministry of Planning & Economic Aff.	
2.	Annah J. Wreh	Gender Officer	Ministry of Gender & Development	
3.	Sunday Teah		Transport Union	
4.	Gba Nyowan		Traditional Council	
5.	Mathew Nyenkan		Religious Council	
6.	Joseph Sando		Charcoal Producers Association	
7.	Esther Nyan	Marketer	Liberia Marketing Association	
8.	Isaac Suduail		Youth	
9.	Augutine Koffa		Environmental Protection Agency	
10	Sophia T. Gray		Rural Women	
11	Gabriel Nimely		LNGO	
13	Gabriel Jobo, Jr.		National Teachers Association	
14	Juah Maison			
15	Jayneh Swen			

Sinoe County Participants

No.	Name	Title	Institutions	Contact
1	D. Isaac Govego		Ministry of Planning & Economic Aff.	
2.	Gabriel B. Threason		Ministry of Gender & Development	
3.	Nelson Kanmoh		Transport Union	
4.	Samuel Slewion	Representative	Traditional Council	
5.	Pst. James Yaney	Representative	Religious Council	
6.	Prince Brown	Representative	Charcoal Producers Association	
7.	Joyce Y. Tweh	Representative	Liberia Marketing Association	
8.	Timothy S. Kennedy	Representative	Federation of Liberian Youth	
9.	Michael Fajue	Env. Inspector	Ministry of Health	
10	Judith M. Richards		Rural Women	
11	Lucy Woart		LNGO	
12	George Wreh	Representative	Pit sawyers Association	
13	Alexander G. Kaydor		National Teachers Association	
14	James Koffa	Representative	Loggers Association	
15	James R. K. Karmoh	FDA Officer	Forestry Development Authority	

Gbarpolu County Participants

1	Ellis W. M. Samah	County Development Officer	Ministry of Planning & Economic Aff.	
2.	Paul M. Kimba	Gender Coordinator	Ministry of Gender & Development	
3.	Patrick Daykeah	Chairman	Transport Union	
4.	Johnson Togbeh	Representative	Traditional Council	
5.	William K. Maude	Representative	Religious Council	
6.	Stephen Barclay	Coal burner	Charcoal Producers Association	
7.	Rebecca Jah	Co-Chairman	Liberia Marketing Association	
8.	Henry F. Mulbah	Representative	Youth	
9.	Olu Nangbe	Environmental Inspector/ Lofa	Environmental Protection Agency	
10	Fatu Nyei	Representative	Rural Women	
11	Joe F. Molubah	Secretary/ GTA	LNGO	
12	John Jallah	Co-Chairman	Pit sawyers Association	
13	G. Cooper Selee	Coordinator	Forestry Development Authority	06593306
14	John Kollie	Member	Teachers Association	
15	Boimah Ross	Representative	Loggers Association	
16	Boimah Tarweh	County Education Officer	Ministry of Education	06634851
17	Moses Monlonporlon	Development Superintendent	Ministry of Internal Affairs	
18	Josiah Davis	County Agriculture Officer	Ministry of Agriculture	
20	J. Botoe McCay	Station Manager	Radio	

Margibi County Participants

1	James Jabber	County Development Officer	Ministry of Planning & Economic Aff.	06516200
2.	Danilette Asilton	Gender Coordinator	Ministry of Gender & Development	06430056
3.	Victor Warnley	General Secretary	Transport Union/ FRTUL	06806724
4.	S. Sulon	Native Supt.	Traditional Council	06352078
5.	Samuel Saihwean	President	Religious Council	06525960
6.	Ismail Dunah	Supervisor	Charcoal Producers Association	076277634
7.	Daniel Benson	Asst. Superintendent	Liberia Marketing Association	06751459
8.	Theophilus Kiah	Ambassador	Youth Group	06747771
9.	Edwin Wingbah	Environmental Inspector	Environmental Protection Agency	06576150
10	Esther T. Clark	President	Rural Women	06296149
11	Samuel Zinne	Representative	Local NGO	06315296
12	Joseph Sector	Secretary	Pit sawyers Association	077084342

13	Dabe W. Blkaga	Community Forest Ranger	Forestry Development Authority	06433539
14	Milton A. F. Coleman	President	Teachers Association	06456882/ 077747592
16	William Gizi	County Education Officer	Ministry of Education	06760564
17	John Buway	Development Superintendent	Ministry of Internal Affairs	06558044
18	Willie Cooper	County Agriculture Officer	Ministry of Agriculture	
19	Elvis Gono	Manager	Radio Kakata	06407123
20	George Gaykpuah	Reporter	Radio Kakata	06655684

Montserrado County Participants

1	Martha Summerville	M & E	Ministry of Planning & Economic Aff.	06551842
2.	Benedict Nyae	Gender Coordinator	Ministry of Gender & Development	
3.	Siaffa Menyei	Representative	Transport Union	
5.	Patrick Wolo	Driver	FFI	
6.	John Davis	ECH Coordinator	Ministry of Health & Social Welfare	06520328
7.	Wata Siryon	LMA Representative	Liberia Marketing Association (LMA)	
8.	Shadrick Kerwillen	Youth Representative	Youth Group	
9.	Titith Clark	Environmental Inspector	Environmental Protection Agency	
10	Tetee Diggs	Rural Women Representative	Rural Women Structure	
11	William Gibson	Representative	Local NGO	
12	Sam Leamah	Representative	Pit sawyers Association	
13	Albert Michell	Representative	Forestry Development Authority	
14	Earla Neblett	Representative	Action Against Climate Change	
15	Uriah Goll	Representative	FFI	
16	Beatrice B. K. Duana	Representative	Ministry of Health & Social Welfare	06514943
17	Rebecca Benson	Development Superintendent	Ministry of Internal Affairs	
18	Mulbah Bryant	County Agriculture Officer	Ministry of Agriculture	
19	Necus Andrew	ELBC Reporter	Radio ELBC	06849173
20	Shadrick Kerl	County Education Officer	Ministry of Education	06817908

List of Facilitators

1.	Benjamin S. Karmorh	UNFCCC Focal Point/EPA Representative	Environmental Protection Agency of Liberia (EPA)	06518928
2.	Kumeh S. Assaf	Climate Change Adaptation Specialist	EPA	06381644
3.	Ernest Massaquoi	FDA Representative	Forestry Development Authority	06513734
4.	Jefferson Dahn	Logistician	EPA	06942794
5.	H. Zayzay	Rapporteur	Ministry of Gender and Development	06454659
6.	Bernice Paye	Adm. Coordinator Climate Change Secretariat	Ministry of State	06452654
7.	Earla Neblett	Media Representative	Media	06812701
8.	Peter Mulbah	CSO Rep./REDD Secretariat	Skills and Agricultural Development Services (SADS)	06545758
9.	John Jeh	Rapporteur/UNDP	EPA	06520212
10.	Moses Massa	Head/ Energy & Env. Unit	UNDP Monrovia	06558574
11.	Emmanuel Roberts	Finance Assistant UNDP	UNDP	06493759
12.	Morrison Chelleh	DRR Assistant UNDP	UNDP	
13.	Andrew Dorlea	Account Officer	FDA	

Annex 6: Consultation meeting on REDD with civil society organisations, July 22, 2010

No,	NAMES	ORGANIZATIONS	PHONE NUMBERS
1	Saki T. Golafale	WOCYMES	06809062
2	Morris Y. Wilson	WOCYMES	06404853
3	Kula Jackson	Environmental NGO Coalition	06556411
4	Lydia Williams	FCI	06531377
5	Euphemia Kamasa	DEHSAN	06666056
6	Jaybee D. Brown	DEHSAN	06540713
7	Dominic T. Johns	Youth Focus Center	06522229
8	Silas Siakor	SDI	06641355
9	James T. Otto	SDI	06921660
10	Jonathan Yiah	SDI	06426271
11	Melvin Conteh	Behold Liberia Inc	06606802
12	J. Festus Bundor	SHIELD Inc	06553547
13	Daniel Johnson	SHIELD Inc	06666255
14	Mr. William Jones	Making Enterprises	
15	Samuel Gotomo	Making Enterprises	06520767
16	Maima Fahnbulleh	MACODA	06449468
17	Mohammed Getaweh	MACODA	04900497
18	John Kollie	LMI	06573080
19	Boyannah The	LMI	06679225
20	Archie Baaz	CENTAL	06531733
21	Renee Gibson	RICCE	06470025
22	John Gboke Harris	UL	06408284
23	Sam Richard	UL	06472877
24	Abraham Z. Kia	Traditional Council	06519290
25	Moses Yeimadeh	Traditional Council	076130077
26	Nathaniel Z. Tarr	Traditional Council	06478100
27	Korto Sorsor	Traditional Council	06374711
28	Chief Momo Kiazolu	Traditional Council	06524916
29	Sam Zoegar	SCODES	06737407
30	Maxwell Grisgby	FLY	06550858
31	Rev. Caleb Dormah	ESI	
32	Alex Lansana	ESI	
33	Tommy N. Teah	ERADRO	06381644
34	Joseph Urey Jr.	LICER	06728874
35	Kumeh S. Assaf	EPA/RTWG Secretariat	06381644
36	Borwen Sayon	CI	06620712

37	Edward Harmon	TUFIE	06519857
38	Melvin Pawa	YFC	06983730
39	James Yougie	Office of Senator Siakor	06565827
40	Amos Paye	FACE	06405575
41	Michael E. Taire	SADS	06520110
42	John Sayhor	ERADRO	077218497
43	Ian Jackson	PRESS	077066780
44	Joseph Kennedy	AACC	06697038
45	Yurfie B. Shaikalee	AACC	06937552
46	Shadrach Kawilliam	FLY	06564805
47	Urias	FFI	06434164
48	Dr. Nou Ndam	FFI	0880541468

Annex 7. CONFERENCE REPORT: National Stakeholders Conference Sharing Lessons Learnt/best practices on REDD Development in Liberia

- Date: August 10, 2010
- Venue: P. A Ribs house, airfield, Lakpazee, Monrovia, Liberia
- Organizer: organized by REDD technical working group, supported by Fauna and Flora International and funded by NORAD
- Prepared by: Pindarous W.T. Allison national consultant-UNDP, conference facilitator
- Submitted to: dr. Nouhou Ndham, technical advisor, Fauna & Flora International
- Date of submission: august 13, 2010
- Definition of acronyms:

FFI---Fauna and Flora International

CI—Conservation International

IUCN— International Union of Nature Conservation

USAID/ARD—United States Aid for International Development

MOA—Ministry of Agriculture

MOE—Ministry of Education

MOPEA—Ministry of Planning and Economic Affairs

MIA—Ministry of Internal Affairs

UL—University of Liberia

EU—European Union

REDD—Reduce Emmission through Deforestation and Degradation

CSO—Civil Society Organizations

CBO—Community Based Organizations

FDA—Forestry Development Authority

MRV—Monitoring, Reporting and Verification

RSPO—Roundtable Sustainable Palm Oil

GHG—Green House Gasses

CC—Climate Change

NCCSC—National Climate Change Secretariat

LCE—Low Carbon Economy

SFM— Sustainable Forest Management

CENTAL—Center for Transparency and Accountability

SDI—Sustainable Development Institute

UNDP—United Nations Development Program

FLEGT— Forest Law Enforcement and Governance & Trade

NCCMA—National Climate Change Management Agreement

VPA— Voluntary Programme Agreement

EIA— Environmental Impact Assessment

INGO—International Non-Governmental Organizations

LNGO—Liberia Non-Governmental Organizations

FOREWORD

The world is today faced with a new challenge called Climate Change; it is a challenge that is seen and felt in and around us. The ozone layers are getting wearied; pollution due to emission of gasses in the atmosphere is startling, large consumption of natural resources inclusive of the oil and forest due to technology, production and construction is proving risky; these are the challenges that we must face and overcome. It requires our collective effort and urgent response to save for ourselves and the future generation a healthy planet. These efforts demand above all the wise consumption of resources and changes in our attitude, behavior, production, consumption practices, technology, etc.

In an attempt to combat this growing threat, many and various initiatives aimed at cleaning and mitigating emission and securing a healthy planet are being undertaken and supported by Countries, multi and bilateral institutions, regional bodies, experts and other organizations with specific program focus.

Here in Liberia, many of such initiatives are being implemented through and with support from international partners and the host government. A technical Working Group led by Fauna and Flora International (FFI) with support from NORAD has been engaged with local communities in executing programs supportive of the REDD+ initiative.

REDD is: Reduction for Emission of gasses to the atmosphere due to the human activities through Deforestation and forest Degradation (REDD); it is a new approach which involves better management of forest areas and opportunities for the livelihood programs and other kinds of benefits to the country and its forest dependant people. Liberia as a nation has been engaged with the REDD initiative since 2008.

This document is a report of a one day Stakeholders Conference held with representatives of government line ministries, Civil Society Organizations, Local and forest dependent Communities, international Non-Governmental Organizations, development partners, United Nations bodies resident in the Country, media institutions, institutions of higher learning, traditional leaders, and other guests with expertise and programs on similar subject, on Tuesday, August 10, 2010. The objective of the Conference was to share lessons learnt by the Technical Working Group during the implementation of their pilot projects in local Communities. It is also hoped that the lessons learnt will give room to a

Platform that will help to inform and guide the strategies for future REDD activities.

The report contains a paraphrase and sometimes verbatim contributions made by participants to the discussion of the conference. There is an annex of the different presentations, Communique'/Resolution carved by the body, names and signatures of the participants, resource materials distributed to participants and that of pictorials.

National Stakeholders Conference: Sharing Lessons Learnt/best practices on REDD development in Liberia

Organized by: REDD TECHNICAL WORKING GROUP

Supported by Fauna and Flora International and funded by NORAD

AUGUST 10, 2010; P.A's Rib House; Monrovia, Liberia

Introduction

A one day National Stakeholders' Conference was held by the Technical Working Group of the REDD initiative at the P. A Ribs House on Tuesday, August 10, 2010. It was attended by 120 participants from Government of Liberia, International and national NGOs, University of Liberia and other high institutions of learning, Forestry Development Authority (FDA), private sector in the timber industry, civil society organizations, Community Based Organizations(CBOs), Traditional Councils Leaders and forest dependent communities of Liberia.

The Conference covered various thematic areas including, Policy options (low carbon green economy and risks involved in REDD), Consultation and participation (lessons from the field and capacity needs assessment to CSOs/CBOs), Economic development and Resources Tenure

security, Oil palm best practices, right and community forestry, economic development corridors and poverty reduction strategy; Benefit sharing (IUCN global best practices on Benefit Sharing for REDD+ National Standards, voluntary Partnership Agreement, Local Governance structures), Monitoring, Reporting and verifications (training of FDA and communities) and experience sharing of training in Ghana.

Background

Fauna and Flora International (FFI) is a local based international organization that has been operating in Liberia since 1997. FFI itself was founded in 1936. It has six projects running in Liberia. NORAD project main goal is to support the development of a pro-poor REDD project by the government of Liberia. The project runs in two phases, and today, the day of the workshop, marks the end of phase one and tomorrow is the start of phase two. Mission statement of FFI is "sustainability of biodiversity by people living closest to it."

Reduction for Emission of gasses to the atmosphere due to the human activities through Deforestation and forest Degradation (REDD) is a new approach which involves better management of forest areas and opportunities for the livelihood programs and other kinds of benefits to the country and its forest dependant people. Liberia as a nation has been engaged with the REDD initiative since 2008.

Objective

The objective of the dialogue is in two folds: First, it aims to share the lessons learnt from the pilot projects being implemented since 2008 by the Technical Working Group under the REDD initiative. Secondly, it is hoped that the dialogue will help to empower the participants to establish a framework that will inform the strategy to be derived for the REDD activities.

Methodology

The conference was conducted in four phases: first an opening ceremony with remarks from major stakeholders, secondly, working sessions inclusive of presentations and general discussions by the participants; thirdly, Closing Remarks, and lastly, drafting of a joint Communique' to constitute a resolution by the body. Every session entailed presentations from various speakers on different REDD related topics. Some of the speakers were members of the technical working group while others were heads of institutions involved in programs linked with REDD in other Communities in the Country.

In the second phase, all presenters make their presentations followed by a panel discussion coordinated by a moderator under the supervision of a Conference Facilitator. The moderator's role is to tease out talking points drawn from their presentations, during the discussion; the facilitator is to gather three lessons learnt from the session. These lessons then become condiments to be factored in the report and Communique' for the occasion. The third phase entails closing remarks from selected representatives of the institutions participating in the conference while the fourth and last phase is entirely for drafting of a joint communique' to constitute a resolution of the body.

Duration

The conference lasted for a day. It started at 9am and ended 7pm (10hrs). There was an hours' break provided (1 to 2pm). All presenters were given 10 minutes each, followed by a 20 minutes general discussion. Some sessions had 2 presentations while others had four. Hence, the maximum time for a session was one hour. There were five sessions in all and a total of fourteen presentation.

Implementers

The conference was technically hosted by Fauna and Flora International in collaboration with Conservation International; it was practically coordinated by a facilitator, supported by two repertoires.

Target beneficiaries

The beneficiaries of the conference are classified in to two groups: 120 participants of the conference inclusive of the host agencies, and the larger body of the Liberian people, especially those living close to the forest or forest dependents.

Outcome

The conference benefitted the following outcomes:

- 15 lessons learnt and documented;
- 120 participants capacity built on the activities of REDD;
- a communiqué' drafted and signed by all participants;

PHASE I: OPENING CEREMONY

- ❖ The opening ceremony entailed the following:
- ❖ moment of silence
- ❖ welcome statement and overview of the occasion
- ❖ special statements from major stakeholders invited to the program.
- ❖ launch of the conference;

MOMENT OF SILENCE

A moment of silence was observed by the participants as alternative to prayer.

Welcome remarks by Mr. Moses Wogbeh

Mr. Moses Wogbeh welcomed the participants and expressed his hope for a fruitful and interactive discussion. he asked the participants to freely express their views, concerns and lessons learnt on the many issues to be deliberated. He concluded by defining REDD and stated that Liberia has been engaged with REDD since 2008; "today's workshop is to share lessons learned so far", he added.

Special Statements

Special statements were made by representatives of institutions invited to the program and some by persons and organizations that have been affiliating and or collaborating with the REDD initiatives. Below are the statements by institutions:

FFI-represented by Jane Dunlop , thanked the participants for an impressive turn out and gave an overview of the mission statement of FFI: "Sustainability of biodiversity by people living closest to it". She added that FFI has been working in Liberia since 1997. It has six projects running in Liberia. NORAD project main goal is to support the development of a pro-poor REDD project by the government of Liberia. The project runs in two phases, and today marks the end of phase one and tomorrow is the start of phase two.

CI-represented by Jessica Donovan Allen welcomed every one and informed the gathering that CI has been a member of the technical working group since its inception in 2007, and looks forward to sharing lessons learned.

IUCN-represented by Chris Odoom welcomed everyone and explained that IUNC has three projects operating in Liberia; Livelihood, REDD (Poverty and governance issues surrounding REDD) and growing forest partnership (legal framework for chain sawing and capacity building for forestry in Liberia).

World Bank-represented by Mr. Lowe, expressed his impression about the level of turn-out. Talked about Liberia presentation of an R-PIN and subsequent acceptance into the FCPF. He said that the challenge is to move from the rhetoric and theory to actual implementation. It is important that all of the activities of the international NGOs need to be brought under the umbrella of government.

UNDP- represented by ---- stated that UNDP has several programs to support REDD in Liberia. "UNDP is in the process of developing a long-term program to provide a legal framework for land tenure, land rights, and community livelihood".

EU- represented by ----- indicated that EU will be more involved with environmental issues from now on. "This meeting is a good point to start contacting those involved in the Environment". He added also that there is an European Environmental Fund (2.8million Euros) in the year 2012 that is under a governance program. He further said that the meeting was for him a fact finding one to access the environmental problems faced by Liberia.

USAID/ARD- represented by stated that his institution is an actual collaborator in the natural resource/forestry area. Their programs cover resource management and the associated rights of communities. He also said that they are developing a five years plan.

Timber Industry-represented by --- admonished the gathering that REDD is something we should all look at and be careful with. It is a market based initiative. "We must be careful with the difference between deforestation and forest degradation. Liberia has always practiced SFM. Mistakes are being made that must be avoided. It is important to note that REDD does not mean no to logging. With the level of unemployment in the country, we must know and understand that we can't do away with logging. At the current rate, on 4% of the forest is been used at any one time with in the 25 years circle".

Traditional Leader (Paramount Chief) and Community Resident from Sinoe County –Mother ___ explained that after the first meeting, there was another meeting held with the community by the Traditional leaders themselves; the community in response said that the park was not benefitting them. She then urged that the consultation must go to the people on the ground for the way forward and not assume conclusion by the talk held with only one person. "The discussion will only be concluded if the consultation comes to us, and not when we come to Monrovia. In conclusion the forest management issues must not be concluded in Monrovia, otherwise it will result to confusion".

AACC- represented by ___ informed the body that their organization has had two workshops on REDD; he added that lesson learnt from the workshops shows that the traditional people were uncomfortable with decisions be taken to them rather than discussing with them and get the decision from them.

EPA-represented by Ben Karmoh explained that Liberia became a party to the CCC in 2003. "NAPA three priorities are coastal defense, integrated farming, and early warning system. It is important for us to engage in activities that provides means of GHG stabilization. The Forestry sector provides Liberia with the biggest opportunity. REDD provides additional opportunity, but it is not against forestry. The additional opportunities for funding are very important for Liberia as a post-conflict country".

MoA-represented by Deputy Minister --- stressed that the process of sharing knowledge that will cause shortage of food in the south-east; REDD could provide a window of opportunity.

MoPEA-represented by --- stated that the ministry of planning is happy to be engaged as the development plans of Liberia are being made with the plan of reducing GHG. "Liberia plans to be a middle income country by the year 2030; hence we must all start thinking about adding value to the forestry sector. We must look at this in a holistic way so that alternatives are not overlooked. We must look at other usage of forest such as the development of agriculture, so that agriculture is not in itself damaging to the environment. **"We must be innovative during these discussions."**

MIA- represented by Assistant Minister Witherspoon stressed that the Ministry of Internal Affairs has always been open to discussions that aim to make better the lives of the citizens of Liberia.

Launch of the Conference by Hon. Neyor

Subsequent to the special statements was the launch of the program which was done by Hon. Christopher Neyor, Advisor to the President on Energy. Hon. Neyor began by highlighting the importance of Norway to Liberia REDD Drive and even read excerpts from a letter from Pres. Sirleaf to the Norwegian President. The letter presented the following:

- 1. Progress being made so far in the development of the REDD project**
- 2. Reform of community forestry and land's right law**
- 3. Development of a low-carbon economy plan**
- 4. Setting up of a National Climate Change Secretariat**

"The above points from the president letter stresses the importance of today's gathering. While it is an open secret that GHG gases are the main causes of climate change as spelled out in the IPCC various reports, it is important to note that 20% of global GHG gases are caused from deforestation. There is however the need for interim funding until the funding from REDD are current; to this end, Norway is a leader among annex 1 countries in funding nations keeping their forests".

The Main points being discussed at negotiations about REDD include framework for financing and MRVs options. REDD is not only forestry, but agriculture has an important role to play, as spelled out in the Low Carbon Document. There is therefore a need for a more inclusive participation of the

Ministry of Agriculture. The importance of multi-stakeholders participation is very important for a successful implementation of REDD; in support of that, the Paramount Chief from Sinoe County will be attending the next climate change talks in Cancun, Mexico". He concluded by officially declaring the Conference launched.

PHASE II: WORKING SESSION

As stated above, phase II comprised of working sessions inclusive of presentations under different topics supportive of the general theme of the session. Below are the presentations and key points gathered from the presentations:

Session one- Policy Options

Jessica Donovan Allen- Economic Analysis for low Carbon Economy

LCE was a cost-benefit analysis document, intended as a policy tool and proposes a comprehensive solution across multiple sectors. The document should provide a framework for REDD moving forward;

The document provides a 25 year low carbon development strategy. At \$5 a ton it provides 55 million of income;

Challenges will include revenue lost of about \$22 million/yr and \$5 million a year for management cost. Program is challenging and required a robust governance to ensure that the poor benefits.

Dr. Nouhou Ndham- Risk Analysis

REDD involve several risk to include:

- Biodiversity and conservation
- Local land tenure
- Stakeholder challenges
- There is a possibility of loss of key animals and plants

Questions for discussion

What experience does Liberia have in Inter-sectoral Planning?

Revenue Sharing: What example do we have?

Are there negative examples to consider/learn?

What are major government's plans to coordinate with? How is outreach and consultation done?

General Discussion

Peter Lowe- Liberia must embrace green logging.

Mr. Woods- market for REDD as of 2006 in the EU was 30 billion dollars. The policy has not looked at the demand but only at the supply. We must look more closely at the market. More prominence needs to be given to the management of carbon credit from Liberia. There is a need for the establishment of a carbon credit marketing authority in Liberia. Carbon Trading is a big enterprise and needs more attention. On benefit sharing mechanism, it is already in the community forestry law and need be looked at closely.

Timber Industry representative- what are our partners doing to help Liberia since we put off 30% of our forest down, what is been done by foreign partners to make that 30% a reality.

Audience- how will the community be factored in the REDD planning, taking into consideration the example of Firestone where the plantation just lock communities that refuse to be relocated. How can communities be a part of the decision making process?

Meco- Agriculture is a part of the Multi-stakeholder process and recognizes the major role it has to play

Mr. Wogbeh- there is a need for a keen look at the implementation of the 25 yrs rotational period cycle as spelled out in the SFM document.

Mr. Neyor- there has been fragmented governance as it relate to issues relating to climate change, which has resulted to problem in coordination. There is a need for a coordinating agency that will provide a single framework for policy issues.

LESSONS LEARNT

30% OF Liberia's forest is reserved for conservation purpose

Agriculture plays a major role in the forest management framework;

There is a need for a coordinating agency that will provide a single frame work for policy issues; inter-sectorial coordination;

Session Two- Consultation and Participation

S. Urias Goll (Consultation Mechanism)

There is a huge knowledge gap among both local communities and intellectuals; need to double on communication strategy and outreach.

Kumeh Assaf (Consultation and Participation)

We engage in C&P because it is the only way to move forward. For the REDD process it is also a guideline of the World Bank. The consultation process is currently on-going and yielding positive feed backs.

Jane Dunlop- Capacity Needs Assesement

FFI will provide training across all sectors of society; general and specific.

Yurfie shakailey- Engaging CSOs on REDD Initiative

There is a need for increased Liberian civil society participation at international events on issues relating to REDD and climate change in general. There is no free land in Liberia.

Questions for discussion:

Who has power over what? What influences do they bring to the process?

Who represents who in the giving of free, prior consent?

Do we have a way of proving that the two way dialogue is effective?

Is anyone left out in this consultation and participation process and the training opportunities that will come?

General Discussion

Mr. Woods- Mark Foster claimed that he wanted to do a research on the carbon content of the forest. We requested a written contract with him and found out that his self written contract was not worth accepting

Mr. Peal- noted the absence of the ministry of education and any higher institution of learning.

Mr. Wogbeh- sought clarification on Presenter Urias Gull referred to as "poor and marginalized group".

Sackie (UL) - government has the greatest power, but the issue of good governance has robbed us of various opportunities. REDD must be continuous.

CENTAL- consultation with the general public and CSO is where the real power lies. We must not forget about the issues of historical responsibilities.

UNDP- concept of power is complex. Therefore we should look at the inter-linkages between communities and national government.

CSO- power is with the people because they vest the power in the hands of the leaders. The interest of the people should be taken into consideration when policies are being drafted in Monrovia.

Hon. Neyor- the constitution clearly states that power is inherent in the people. This government understands that elections are not necessarily the end of consultation. The policy of the government must derive from the person; that is why I agree with the position of the Paramount Chief from Sinoe County.

LESSONS LEARNT

- ❖ Power indeed rests with the people; this is backed by the Liberian constitution;
- ❖ Institutions of learning are critical to the REDD initiation and needs to be actively involved
- ❖ Marginalized people are those affected by the decisions and initiatives of REDD and must not be left out in the consultation, capacity building and decision making process;

Session Three- Economic Development and Resource Tenure Security

Jane Dunlop (Oil Palm Development)

There is a huge potential for oil palm production, but there is always the danger of biodiversity and ecosystem loss if the necessary MRV mechanisms are not put into place. All the companies wanting concession in Liberia are RSPO members, which presents an opportunity for the implementation of sustainable practices in Liberia.

Proxy for Allen Turner (Lessons Learned from Land Rights and Community Forestry Program (LRCFP) in Nimba)

USAID/ARD program in Nimba County is about forest and the people. This is about lessons being learned. It is through the participation of the people that exist along/on the forest that policies and other decisions will be effective.

Hon. Sebastian Muah (Economic Growth Corridors)

Development must be measured and targeted. Laws and policies must be made to address a particular need, and not just on the basis of wanting to do something. There must be fiscal and financial discipline for any policy to be successful. The focus of development corridor is the people and it addresses demography, geography and economy; it transcends administrative hurdles.

Questions for discussion

Property/ ownership rights (customary + statutory

Finding the right balance and opportunity cost

- a. **Economic Development and Forest Protection**
- b. **Benefits and risks**

General Discussion

Mr. Wogbeh- the fact that the oil palm plantation is closed to Sapo is troubling.

FDA- there should be a look at the development of the oil palm plantation around forested areas and especially the Sapo National Park.

Audience-there should be a keen look at the concession agreements.

Timber- the development of oil palm plantation around the Sapo National park is troubling and should be over looked

Sackie- political intervention in REDD should be looked at critically. Politics has a way of shifting things due to the interest of a government; REDD must not be left with such condition.

Green Advocate- there must be a harmonization between the customary and statutory laws of Liberia on land laws.

SDI- was the issue of free, prior and informed consent applied in the case of Sam Dalby?

Oil Palm Association- there is a need for people to broaden their perspective on issues surrounding oil palm and not only look at it in a negative light.

Anya Vohiri- there should be a closer look at the laws creating the EPA and get a closer understanding of the role of the EPA. All agreements must be evaluated through them.

Assistant Minister Isaac Jackson- people should be more optimistic than being critical and pessimistic. The Law Reform Commission is trying to harmonize the customary and statutory laws.

Minister Muah- the issue of protected areas and forest are taken into consideration when looking at development.

LESSONS LEARNT

- ❖ OIL Palm concession in Liberia are RSPO compliant, this must remain the policy;
- ❖ Protected areas and forest should be considered in development plans;
- ❖ There is a need for harmony between Customary and Statutory laws in the acquisition of land;

Session four- Benefit Sharing and Governance

Francis K. Odoom (IUCN global best practices in REDD+)

Benefit sharing of REDD is about the agreement between stakeholders on distribution of the monetary benefits resulting from REDD. It provides legitimacy and support both nationally and internationally for REDD.

Stephanie Altman (FLEGT and REDD: Cross cutting issues and Synergies)

VPA and REDD are complementary, but requires some clarification in some areas.

Letla Mosenene (Community benefit sharing trust and CCB standards)

The process was inclusive and provides a window of opportunity.

Mr. Neyor (National Climate Change Management Arrangement)

The establishment of the NCCS is because of the need of a singular body to coordinate climate change issues and policies. There is a need for increase capacity building among Liberians; this can also be done through participation in international training events.

Questions for discussion:

Ownership of the Carbon

- a. Forest and land tenure security

Piloting of BS scheme to inform REDD implementation

- a. Fair and transparent procedures
- b. Potential use of NCBST for REDD and other forest benefits

Exploration of relationship between VPA and REDD

- a. Social and environmental standards
- b. VPA legal standards

Coordination of climate change issues and policies under the NCCSC

Need to build capacity for emerging CC issues including global warming

General Discussion

Mr. Wogbeh- there is a need for consultation in every sector of Forestry; benefit sharing should be looked at closely. Currently the community benefits 30% , that came about from the national consultation on benefit sharing.

MIA- there is a need for a unified benefit sharing mechanism across sectors.

NGO Coalition- who benefits from carbon credits incurred from plantation?

IUCN- can tenants benefit from trees planted on farm land.

Sinoe- will carbon credits go to community or company?

Mr. Neyor- it is necessary for a safe guard that brings the involvement of everyone to prevent the arising of conflict resulting from issues related to finance.

Audience- how will the issue of the tenure-ship of indigent be address?

Female (Sinoe gender ministry)- benefit sharing should not be limited to giving money, but should also include training opportunities to build the capacity of the local community on the full details of REDD.

Sinoe County- governments should make sure that whatever social benefits are implemented (bridges) should be genuine.

Letla- financial benefit is only a component of benefit sharing, it also include the social aspects.

LESSONS LEARNT

- ❖ Capacity building is critical, especially for local communities; financial benefit is only a component of benefit sharing, it also includes the social aspects such as capacity building of the local community residents.
- ❖ Consultations at every sector of forestry should consider benefit sharing scheme; unified benefit sharing scheme across sectors;
- ❖ Safe guard mechanisms to prevent against conflict on finances arising from benefits is necessary;

Session Five-Monitoring, Reporting and Verification

Sean Griffins (Measuring, Reporting and Verification)

A credible and Transparent MRV system is crucial for successful REDD implementation. There is also the need for increase community participation and an institution specifically set up to MRV.

Gayflor Korkor and Edison Manneh (carbon training in Ghana)

Workshop was a starting point.

Questions for discussion:

Integrating community participation into the MRV system.

a. How to initiate and sustain this process

b. Initial thoughts, concerns, and feedback

Ownership of MRV system

a. How do you balance external consultation with Liberia ownership?

How do you transfer this capacity to other institutions?

General Discussion:

NGO Coalition- how can the concerns of the local community in the location of oil palm and other plantations be more participatory and not only Monrovia based?

EPA- an EIA is done before any such project is done.

Audience- are the communities being trained for issues of sustainability and long term data collection.

Audience- have indicators and measurement tools being established as yet?

Response: there is the possibility of a single or dual system depending on the needs of the country.

MoA- MoA should be included in future trainings.

LESSONS LEARNT

- ❖ A credible and Transparent MRV system is crucial for successful REDD implementation.
- ❖ EIA is done before any project is implemented;
- ❖ Indicators and measurement tools for the REDD initiative is welcomed;

PHASE III-Closing Remarks

After phase II which comprised of working sessions, came Phase III which is the closure of the conference. To this effect, three institutions were given time to give their closing and parting statements. FFI was selected to represent and make remake on behalf of all international NGOs, Making Enterprise was selected for all local NGOs, EU was selected for all donors while Ministry of Internal Affairs closed the conference on behalf of the government. Below are their statements:

INGO (FFI)- forests are important only when they are standing. Thanks for the time and the critical interest.

LNGO (Making Enterprise) - thanks for the partnership and we hope for more collaboration.

Donors (EU) - the meeting was positive and helps donors to understand the needs of the Country.

MIA (GOL)- thanks to all for this conference and to all of you who bore the patience strains in the process.

PHASE IV-Drafting of Joint Communiqué'

Phase IV was about drafting a joint communiqué to constitute the Final Resolution of the body; said Communiqué' was promised to be shared with the public through the media (print and electronic). The drafting of the resolution took more than an hour and was finally concluded at about 6:45pm.

Payment of participants took another 45 minutes; the day officially concluded at 7:30pm.

Annex 8: RPP Consultation and Participation Regional Workshops –

Section 1: Gbarnga, Bong County May 20 - 21, 2010 (and refer to Annex 5 for participant lists and to supporting document (separate to the R-PP and annexes) entitled 'RPP Consultation and Participation Regional Workshop Report')

1.0 INTRODUCTION

1.1 OPENING STATEMENT - THE SUPERINTENDENT OF BONG COUNTRY

Esther Wennah, Special Assistant of the Superintendent of Bong County speaking on behalf of Superintendent Hon. Ranney B. Jackson welcomed all to the city of Gbarnga and pointed out that the Superintendent would have loved to be at the workshop, but due to some pressing Government assignments, he could not be present. She iterated that the superintendent attaches great importance to the issues of climate change, emphasized the Superintendent desire to have the issue of REDD explained well to the participants and urged all to take the workshop seriously so as to gain some knowledge to take back to people in their communities.

1.2 MOSES MASSAH – PROGRAM DIRECTOR, ENERGY AND ENVIRONMENT UNIT, UNDP

Mr. Massah, Programme Manager of the UNDP Energy & Environment extended greetings on behalf of the Senior Management of UNDP. He pointed out that the UNDP is very pleased to be partnering with the Government of Liberia and the World Bank (FCPF) in addressing climate change in Liberia. He emphasized the fact that climate change requires partnership and that is why the UN-REDD was happy to partner with the World Bank, Forestry Development Authority (**FDA**) the Environmental Protection Agency (**EPA**) and the REDD Technical Working Group to come together to address climate change through mechanisms such as REDD+. He pointed out that climate change is no more an environmental problem but a developmental problem; it has the potential to affect our health and upset our developmental plans. He stressed that the workshop was called so that we all can dialogue and find ways to tackle these challenges.

Mr. Massah thanked participants for coming and highlighted his expectation that the dialogue will be interactive. In conclusion, he urged the participants to take back what they will learned from the workshop and pass on the information to the people they represent. He concluded on the benefits of conservation, stressing that REDD had the potential to deliver social-economic benefits and that the workshop was called to explain some of these things to them and to get their inputs.

1.3 ERNEST MASSAQUOI – MANAGER, GENERAL SERVICES, FDA

Mr. Massaquoi indicated that he will be playing a dual role as a participant and a representative of the management of FDA. He thanked all for taking up their time to be part of the workshop. He expressed that the Managing Director is not in the country as he has traveled to Indonesia on Government's business. He further iterated that the FDA attaches a lot of importance to the issue of climate change and REDD, as Liberia is a Rainforest Nation. He stressed that the role of FDA is to sustainably manage the forest using the 3C Policy of the New Forest Reform Law and not to deplete the forest and called on participants to invite their people to join FDA efforts.

He also informed the participants that the FDA also serves on the REDD Technical Working Group as chair of the group. He concluded by welcoming all and urged the participants to reach out to their constituencies and explain to them the meaning of climate change and REDD.

1.4 BENJAMIN KARMORH, FOCAL POINT FOR CLIMATE CHANGE, REPUBLIC OF LIBERIA

Speaking on behalf of the EPA, Mr. Karmorh in his remarks expressed that the EPA is very happy to partner with the UNDP, World Bank, FDA and participants from the counties to dialogue on the issue of climate change and REDD+. Climate change he said has been identified to be a major threat to the actualization of the Millennium Development Goals (MDGs) and the Poverty Reduction Strategy (PRS) of the Government of Liberia. He said that although Liberia's contribution to Green House Gas

(GHG) emission is insignificant in comparison to other countries but that the Country is still vulnerable to the effects of climate change as a Least Developing Country.

He said that the Country has been participating in the various global climate change negotiations and sees the need to reduce GHG emissions and address climate change. He pointed out that the Liberia National Adaptation Program of Action (NAPA) has been developed and this document explains how we can tackle climate change in Liberia. He expressed happiness to see County Development Superintendents participating in the workshop.

Mr. Karmorh noted that Liberia has the largest block of forest in the West African Region, he further said that about 45% of our land is still forested and that the International Community was urging tropical forest countries to conserve their forest and through this, they can be compensated. This project, according to the speaker was about reducing emissions of GHGs from deforestation and forest degradation, commonly referred to as REDD. He reminded all that the forest is major sink for GHGs and informed participants that discussions during the workshop will center on the management of our forest to mitigate climate change. He promised that the two-day forum will discuss climate change and how we can reduce deforestation and use the forest to reduce GHGs like carbon, in the atmosphere. He closed by registering regrets about the absence of the Acting Managing Director of the EPA.

2.0 OVERVIEW OF THE WORKSHOP

In presenting the overview of the workshop, Mr. Robert commenced by urging participants to take back what they will learn from the workshop to their communities and stakeholder groups from which they came. He indicated that the workshop is the collaborative effort of the UNDP and the Consultation and Participation Task force of the REDD Technical Working Group (RTWG). Mr. Roberts reminded participants that the TWG is a group, set up by Government of Liberia (GoL) and made up of different stakeholders including non-governmental local and international organizations, civil society and GoL Ministries and Agencies. He informed participants that the RTWG is chaired by the FDA and Co-chaired by the EPA with support from the Forest Carbon Partnership Facility of the World Bank and other development partners.

The regional workshop brought together about 120 participants from five Counties. The five participating Counties were Bong, Lofa, Rivercess, Grand Bassa and Nimba Counties.

2.1 KEY OBJECTIVES OF CONSULTATION AND PARTICIPATION (C&P)

The main objectives of the workshop is to conduct nation-wide consultations on the issues of REDD+ and to get the consent, input and feedback of forest-dependent people and various stakeholders on the likely social-economic and environmental consequences of the REDD+ initiatives in their localities and how these concerns can be addressed.

2.2 SPECIFIC OBJECTIVES OF C&P

- 2.2.1 Establishment of a channel through which impacted communities can access information and participate in the design and implementation of REDD+ activities;
- 2.2.2 Improve the quality of decision-making about REDD+ processes by giving voice to and capturing the experiences of civil society organizations, forest-dependent peoples and local communities;
- 2.2.3 Encourage the development of regulatory frameworks that are socially inclusive, transparent and reportable;
- 2.2.4 Strive towards equitable outcomes of REDD+ policies and activities, and increase the chances that forest-dependent peoples benefit from the revenues from REDD;
- 2.2.5 Support improvements in forest governance and stewardship

2.3 PARTICIPANTS IN THE C&P PROCESS

During the stakeholders analysis, it was decided that those invited to the regional workshops would be actors whose activities drive deforestation and forest degradation. It was also agreed to include individuals and groups who through their programs and activities, REDD+ could be enhanced and managed; participating sectors therefore included representatives of the Ministries of Agriculture, Internal Affairs, Health and Social Welfare, Education, Gender and Development, Local Government Authorities, Rural Women Structure, civil society organizations, Forestry Development Authority, Environmental Protection Agency, media institutions, market women groups (traders in non-timber forest products- NTFPs), youth groups, traditional leaders, pit sawyers, charcoal producers, transport unions and teachers union.

Presentations

- 1. The Climate Change Phenomenon – Moses Massah (UNDP)**
- 2. Overview of Climate Change – Prof. Benjamin Karmoh**
- 3. Climate Change Mitigation and Adaptation – Yurfee Shaikellee**
- 4. Reducing Emission from Deforestation and Forest Degradation (REDD) – Kumeh S. Assaf**
- 5. Stakeholders Concerns and Expectations about REDD+ in Liberia – Peter Mulbah**

Section 2: - Tubmanburg Workshop, Bomi County, June 17 - 18, 2010

1.0 INTRODUCTION

1.2 OPENING STATEMENT - THE SUPERINTENDENT OF BOMI COUNTY

The County Development Officer (CDO) of Bomi County welcomed all to the workshop in the Blue Lake City of Tubmanburg, on behalf of the Superintendent. He expressed the Superintendent's desire to be at the workshop but for pressing government matters which could not afford him the opportunity. He further urged the participants to fully participate and be able to take back to their people what it takes to address climate change.

1.2 UNDP – James Murombedz, Chief Technical Advisor, EEU

Mr. James Murombedz expressed honor to be at the workshop and to be speaking on behalf of UNDP. It is now agreed by all he said, that global temperature is raising and this is resulting in climate change. This, he said will have effect on the storm and on sea level causing increase impacts on food and water security and on vector diseases, including malaria, etc. He further explained that GHGs in the atmosphere will cause global warming, evidence show that these gases are affecting the basis of our livelihood. Manufacturing industries, burning of charcoal, agriculture and the use of vehicles, are contributing to the GHG emissions. Developing Countries are also contributing to the problem by cutting down trees. So, everyone is contributing to global warming, even the rearing of poultry and cattle contribute 18% of CO₂ and the transport sector contribute 17%.

According to Mr. Murombedz the causes of global warming are many; chief among them are the emissions of carbon from burning of fossil fuels into the atmosphere; greenhouse gases such as carbon dioxide and methane are largely the result of anthropogenic activities. He said that evidence from all continents of the world shows that many natural systems are being affected by climate change, due to the abundance of these gases in the atmosphere.

He concluded by promising participants that the workshop will help us find responses to present climate change challenges. He prayed participants will come up with solutions that will support national government to adopt mitigation activities to improve industries, agriculture and transportation, so as to reduce the amount of gases into the atmosphere. We all are contributing to global warming in various degrees and we all have the power to address the issue of climate change, he concluded.

1.3 FDA – Ernest Massaquoi, General Services Manager,

Speaking on behalf of the Managing Director of the Forestry Development Authority, Mr. Massaquoi welcomed all to the workshop and said that FDA is responsible for the forest; therefore he wanted to inform them of certain things that will damage the forest, and later on will affect farming.

He said that report have it that heavy rain is causing people to not be able to burn their farms. This, he said was because of the damage we have been causing to the forest. The workshop he said was to help people understand other importance of the forest besides providing charcoal, fuel wood, timber and bush meat. He said that the experts that World Bank brought from the FDA, EPA, UNDP and the Civil Society to the workshop will over the two days explain more about what the destruction of the forest can cause and what benefits can be gained by taken care of the forest. He concluded by urging participants to listen and participate actively to each presentation.

1.4 EPA – Benjamin Karmorh Jr. Climate Change Focal Point,

Mr. Karmorh on behalf of the Acting Executive Director of the EPA said that the Director would have loved to be at the workshop discussing climate change and REDD+. He said that there is a slight change in the temperature in Liberia and that Liberia was getting hotter and this was affecting agriculture and health care in the Country.

According to him, Liberia was not the one causing the problem of the warming of the atmosphere, but the bigger, more advanced countries. He said that the purpose of the workshop was to discuss who and what was causing the problem. He reminded participants that although we were not the real cause of the problem, Liberia could be a part of the solution and we could all find ways and measures that we can implore to address climate change. He said that Liberia has a big forest and can contribute to addressing climate change, by leaving the forest to capture and store carbon from the atmosphere. He said that under REDD, the Country would be paid for keeping her forest. He said that the purpose of the workshop which had taken the group to other Counties was to carry out stakeholders' consultations, to explain to people about REDD+ and what it will mean to forest dependent people and how benefits from any REDD+ project will be shared with them.

1.5 FFI – Nouhou Ndam, Chief Technical Advisor

Dr. Ndam said that FFI is an organization working for and using plants and animals for the benefit of people. He said that the role of FFI was to advice FDA and EPA which is responsible to manage the plants, animals and the forest that we have. He reminded participants that the workshop was to discuss the changes in the temperature and that the big countries were doing part of the damage while we the small countries were also doing our part.

He said that there were discussion at high level involving heads of states and big, big people at international level and that in Liberia, there were discussion at the regional level and at level of county superintendents. He said that the workshop was being held to take the same messages to the grassroots level, to tell people what is happening at the international and national levels about climate change and REDD, and for the people to speak about their own experiences and how they want to participation in all the proposed measures to address climate change. He concluded by encouraging participants to say what they wanted to say and tell how climate change is affecting them.

2.0 Overview of the Workshop

In giving an overview of the workshop Mr. Emmanuel Roberts of UNDP said that as previous speakers have talked about the purpose of the workshop, he will only add that the workshop is been organized by the UNDP and the REDD Technical Working Group (RTWG) with funding support from the Forest Carbon Partnership Facility of the World Bank. He said that the RTWG is composed of various institutions including Ministries and Agencies of Government, Civil Society Organizations and our development partners. He concluded by thanking all for coming to the workshop and appealed to participants to feel free to ask questions and express themselves.

2.1 KEY OBJECTIVES OF CONSULTATION AND PARTICIPATION (C&P)

The main objectives of the workshop is to conduct nation-wide consultations on the issues of REDD+ and to get the consent, input and feedback of forest-dependent people and various stakeholders on the likely social-economic and environmental consequences of the REDD+ initiatives in their localities and how these concerns can be addressed.

2.4 SPECIFIC OBJECTIVES OF C&P

- 2.4.1 Establishment of a channel through which impacted communities can access information and participate in the design and implementation of REDD+ activities;
- 2.4.2 Improve the quality of decision-making about REDD+ processes by giving voice to and capturing the experiences of civil society organizations, forest-dependent peoples and local communities;
- 2.4.3 Encourage the development of regulatory frameworks that are socially inclusive, transparent and reportable;
- 2.4.4 Strive towards equitable outcomes of REDD+ policies and activities, and increase the chances that forest-dependent peoples benefit from the revenues from REDD;
- 2.4.5 Support improvements in forest governance and stewardship

2.5 PARTICIPANTS IN THE C&P PROCESS

During the stakeholders' analysis, it was decided that those invited to the regional workshops would be actors whose activities drive deforestation and forest degradation. It was also agreed to include individuals and groups who through their programs and activities, REDD+ could be enhanced and managed; participating sectors therefore included representatives of the Ministry of Health and Social Welfare, Ministry of Education, Ministry of Internal Affairs, Ministry of Agriculture, Radio Stations Managers, County Development Officers, Gender Officers, Forestry Development Authority, Environmental Protection Agency, Youth Representatives, Pit Sawyers Representatives, Transport Union Representative, Marketing Association, Teachers Association, Traditional Council, Religious Council, Logging Association, Rural Women Representatives, Local NGO Representatives, and Charcoal Producers Representatives.

PRESENTATIONS

- 1. The Climate Change Phenomenon – Moses Massah (UNDP)
- 2. Overview of Climate Change – Prof. Benjamin Karmoh
- 3. Climate Change Mitigation and Adaptation – Yurfee Shaikellee
- 4. Reducing Emission from Deforestation and Forest Degradation (REDD) – Kumeh S. Assaf
- 5. Stakeholders Concerns and Expectations about REDD+ in Liberia – Peter Mulbah
- 6. Q & A on REDD – Kumeh S. Assaf
- 7. Stakeholders Concerns and Expectations - Moderated by a volunteer from the stakeholders/Moses Massa

PARTICIPANT EXPECTATIONS

Margibi Representative – to have a clear understanding about climate change and how we can stop it, to share with others the knowledge we gain from here.

Gbarpolu, Rural Women – to know how to implement climate change activities / address climate change

Margibi – to get total involvement of everybody in climate change

Gbarpolu – that I should receive resource materials at the end of the workshop.

Margibi – to understand the benefit of forest preservation and REDD+

County Development Office, Gbarpolu – that after here we can be facilitators and implement what we learned here through knowledge transfer.

Judicial Council Gbarpolu – that all parties here from the counties will be able to understand their role in climate change, and that the government will take quick action in addressing climate change through keeping the forest or other ways.

Rural women – I want to know the role and responsibility of FDA in addressing climate change, since they are the same people that give out the forest for logging and we get nothing from the companies. I hope you will tell us how we can get some benefit from logging companies and people that use our forest.

MOGD, Bomi, - to gain knowledge on measures to preserve our forest

Cape Mount – to know what we can do to prevent climate change in Liberia

Cape Mount, MoGD – to gain knowledge to transfer to the community on climate change

Moderator - Stick to the ground rules and simplify our English for the understanding of everybody

Annex 9: Lessons learned from FFI-CSOs first workshop / discussion on REDD+ (22nd July 2010)

- 1) The close to 60 participating NGOs were grateful to FFI for initiating a pro-poor REDD dialogue with civil Society Organization (CSOs) and wished such meeting should be regular.
- 2) They outlined that that they are above 100 members and not all were invited. They promised to informed other members during the their next coalition meeting but they too will be invited I the subsequent meetings.
- 3) They promised to gather soon thereafter to select candidates to represent them during REDD TWG meetings.
- 4) They seems to welcome REDD for development but questioned REDD driven by the carbon market.
- 5) CSOs seem to be recommending Liberia to go for REDD support through donor partnership and through Market. The Brazil-Norway bilateral copporation and Indonesia –Norway cooperation were cited as example for Liberia to follow. The recent bad news with carbon buyer from UK was cited as a bad example and a call was made for Liberia to be cautious.
- 6) Risk associated with REDD included land grabbing and recommendation was made to work with land commission to address the issue.
- 7) Benefit sharing was another concern. Appeal was made for 75% of revenue from REDD be spend in developing Rural areas to improve the living condition of the forest dependent communities.
- 8) Concern was raised about lack of visibility of tangible support of partners to GoL and “what to show” after 12 years of FFI in Sapo National Park was used as illustration.
- 9) Non participatory approach reported to be often led by partners was condemned and CI was used as and example when they flew their executives to Monrovia to force FDA and GoL to agree to set aside 30% of the Liberia forest for conservation and never follow up such commitment with financial and technical support .
- 10) CSOs complained about lack of their representation during international REDD conferences and lack of feed-back to their coalition members.
- 11) CSOs feel that current REDD approach is supporting industrial countries who are polluting and not helping the climate.
- 12) Liberia capacity should be belt for better understanding of REDD++ issues.
- 13) Developing countries should set the agenda and not the powerful world leaders. The example of Copenhagen was cited when Africa was close to an agreement when Barack Obama arrived with a draft resolution in his pocked and this blocked the discussion
- 14) REDD should demonstrate good governance, transparency and accountability
- 15) The presence of certain people in the REDD drive who performed porly in the past raised doubt of success.
- 16) Need to really understand what REDD fully means

- 17) They expect REDD program to address issues of awareness, gender, youth, health, community marginalization, mitigation and adaptation to climate change.
- 18) EPA was questions on its adaptation and mitigation initiatives in Liberia
- 19) Efficiency of Government representations at international conferences was questions as most do not understand REDD or Climate change.
- 20) Complain was made about lack of full participation of communities in R-PP
- 21) FDA was accused for poor law enforcement
- 22) Traditional council called for respect of customary rights and voiced "there is no free land in rural Liberia".
- 23) Dialogues with drivers of deforestations should be through various means including town hall meeting, focus group discussion (with chainsaw operators, charcoal producers youth, women, men), dialogue meeting (with elders & chiefs).
- 24) REDD project managers were advised to listen to communities, assess their needs, and help build their capacity to make informed decisions.
- 25) Some capacity needs outlined included training in alternative livelihood, forest mangement, NTFP harvest and management of REDD revenues.
- 26) Miss-management of county development fund and money from mining was a growing concerns and suggestion was made for the establishment of the REDD trust fund, however this suggestion was highly challenged by other member as not been realistic at the community level. The consensus was that there should be a secure mechanism to channel and manage fund from REDD revenue to benefit rural development and the local communities.
- 27) Pro-poor REDD to support GoL policies like PRS, FPS and low carbon economy
- 28) REDD should be:
 - a. complementary to CRL and SESA
 - b. different from iron ore mining and timber logging
 - c. link to strengthen the 3C approach of FDA
- 29) Need to training senior technicians to support REDD program
- 30) Vulnerable countries governments need to push for emission cuts and let issues like REDD to be on the sideline
- 31) Awareness to include flyers, banners, bill boards and radios in vernacular and Liberian English). Message should be clear and unambiguous.
- 32) Oil palm companies are making good use of Liberians ignorance as forests are been cleared for not only oil palm benefit unfairly shared but the stealing of resulting carbon revenue from Liberian citizens

Recommendations for FFI actions

- a) Multiply dialogue FFI-CSO on REDD to keep capturing issues as they emerge.
- b) Try to address the issues raised above as much as FFI can, especially, consultation, awareness, capacity assessment, capacity building , land tenure, and benefit sharing

- c) Design a proactive approach to widely disseminate FFI outcomes from 12 years support to Liberia and keep such momentum. May be target end of year event when Senior FFI visit Liberia
- d) Strategize our cooperation with partners, especially those with potential wrong label from CSOs perspective and keep sharing FFI participatory ideology with CSOs
- e) Help CSOs and GoL to understand and master best practices associated with oil palm development for future negotiation with oil palm companies
- f) Work through a structured CSOs to get representation to international conferences and REDD TWG meetings.
- g) Brainstorm on FFI future role if Liberia opts for Norway bilateral collaboration for REDD fund
- h) Test the capacity of CSOs to be transparent, accountable in selecting CSOs representative that FFI could support under REDD programme.

Annex 10. Report of the Nation- wide Readiness Preparation Proposal Validation Workshop

**Held at the Booker T. Washington Institute
Kakata, Margibi County**

January 13-14, 2011

The workshop started with an opening prayer by a volunteer and later follows by the opening ceremony

The opening ceremony was grace by several government officials, county authorities, and international partners including the United Mission in Liberia sector representative.

Hon. John Buway, Development Superintendent of Margibi County, give the Welcomed remark and extended regret on behalf of the County Superintendent Proper for his absence. He further emphasizes the reasons behind supporting climate change initiatives and the importance to protect the forest as a drive to a sustainable management system. He further noted that unless everyone are informed and involved both local and national, any efforts in promoting climate change, REDD+ and Global warming will be worthless. He therefore calls upon all participants to listen attentively in order to take home the proper information to their respective communities. Hon.XXX informed his fellow colleagues about the vast resources that Liberia possesses as well as the need for everyone to come together and discuss the way forward on Global environment challenges. "Most of the environmental problems are as a result of Industrialized Countries, but due to the cross cutting nature of the environment, the effects of these degradation will be felt by us in Liberia," he noted. On behalf of the Superintendent, he extended his thanks to the organizers and appraised the communities for participating.

Mr. Benjamin Karmorh, on behalf of the EPA Executive Director, Madame Vohiri, elaborated that over the years we have been talking on how to keep the forest and properly manage it and noted that Liberia is participating in international discussions to see how best it can keep its forest. He mentioned how the FDA and World Bank are helping to create the proper management framework for protecting the forest in order to prevent the impact of Climate Change. He also described the importance of the forest and noted that Liberia has to inform the World Bank how it intends to manage the forest by "demonstration projects" which are aimed at helping the local communities.

Urias Goll: National Oil Company of Liberia.

Mr. Goll, representing Hon. Christopher Neyor, expressed regret for his absence and inform that the essence of the workshop was to ensure that the views, comments, suggestions and aspiration of the communities and all relevant stakeholders were captured in the R-PP. He also described how the entire R-PP has been a long way success that represents the views and interests of all stakeholders involved.

Mrs. Tawah B. Flomo, UNMIL representative in Kakata office expressed thanks and appreciation to all communities for participating. She also informed that it is UNMIL mandate to sustain peace and ensure development, which is why it was important for the UN representation. Finally, she noted that it has been realized that the top to bottom approach is very important and therefore encourage everyone to participate and expressed UNMIL willingness to provide support when needed.

After remarks by various speakers, Mr. Moses Wogbeh, Managing Director of FDA, made a special presentation (*on file based upon request*) summarizing the entire R-PP and listed the expected outcomes and achievements so far as well as shortlisted the challenges encountered during the development of the R-PP. His statement gave a snapshot at the entire process and paved the way for the following technical presentations on each of the components. This was to allow participants get a brief of what has been done and how their contributions were reflected in the document.

Following Mr. Wogbeh speech, there were three presenters who made technical presentations on the entire R-PP to allow participants understand where exactly their suggestions and interests have been captured within the document and also to show whether specific concerns were left out during the synthesis of the document.

1. Component 1: Assaf Kumeh-(presentation on file upon request)

Mr. Assaf made three presentations and informed that component one was divided into three sub-components. His first showcased the National Readiness Management Arrangement and described how various management structures are in place but stressed the need to still develop new ones. He also noted that some of the structures were created during the R-PP development phases while the others were already in existence and provided support to REDD+ development in Liberia.

His second presentation gave a snapshot at the entire Information Sharing and Early Dialogue exercise, which was carried out in all the regions within the landscape of Liberia. He mentioned also that the Voluntary Partnership Process (VPA) was another mechanism used to share information with stakeholders. Later he reiterated the issues discussed during the regional workshops held across the countries and some of the suggestions and concerns that were put forward by local communities. Finally he ended the presentation on the sub-component with a shortlist of potential risk expected during REDD+ development.

Mr. Assaf final presentation focused on the Consultation and Participation plan, which, as he mentioned, should adhere to the World Bank safeguard standards. He noted that the C&P plan was being developed to describe how communities and other stakeholder will be effectively and actively engaged during the implementation of the R-PP. Later he described some of the lessons learnt so far and expressed appreciation to all those who participated in the regional workshops.

Questions, Comments and Suggestions:

- **Mulbah Harris (Nimba)** raised a concern that since the last workshop the teams are not meeting therefore what plans is available to established teams at the county level?
- **Mr. Assaf responded** that there is a need for resources in maintaining the teams and therefore the 3.6 million R-PP implementation fund will be available to take care of all these problems. He also noted that World Bank 200,000 was actually used in preparing the document. However, he informed that there exist County Forest Forum which included CFDC and other local structures that could be used for REDD.
- **Eddie Gbatu (Nimba Count** expressed fear about the various concessions negotiations and agreements that were occurring the forestry sector and wanted to know whether the National Government is apart of the national readiness awareness.
- **Assaf responded** “Yes!, the government is on board, but the government has immediate priorities-for the forest.” However he mentioned that sustainable forest management policies are being practiced and put in place guarantees sustainable forest use but expressed the need to stop practices such as charcoal production, which has a tendency to cause degradation.

2. Component 2: Peter Lowe (presented available upon request)

Mr. Lowe presented on the REDD+ Strategy Options and described the percentage of Land use in Liberia. He also mentioned how the National Agriculture Policy was used extensively in establishing three major provisions that were useful for REDD+ development in Liberia.

Later Mr. Low listed the Drivers of Deforestation and described the strategy options for deforestation in Liberia.

Questions, Comments and Suggestions:

- **Zoe Ross-(BOMI County)** Was confused of the Strategy that will be put into place inquiring that if a forest is to be protected, and a farmer has a farm in the forest, what will happen to his farm? Will he be paid for it?
- **Peter Lowe** responded that it depends on whose land it is. If it is concession out, the investment company will deal with the issue. Otherwise, if it is a proposed or current Protected Area, then FDA will deal with the issue under the laws. He further added that when Ministry of Agriculture seeks to address these issues, there should be options such as low land farming assistances.-
- **Mr. Assaf** also buttressed that World Bank will not support involuntary removal from lands and forest especially if the government does not own that land rather consultations should

be carried out and possible resettlement packages be established and distributed. WB will constantly monitor such process.

- **James (UNDP)** asked “How can REDD+ be used to make people lives and forest more secure?”
- **Peter Mulbah** responded that the R-PP is a working tool which, when properly utilized should be used to guarantee the security of communities to the forest. He mentioned that other tools such as Community Rights Law, Benefit Sharing Mechanisms (trust Fund) are also used to guarantee security for communities. He finally noted that although problems will arise but the government and its partners are prepared to used lessons learnt to put into place best practice for the realization of this R-PP plan to safe guard the forest for carbon sequestration.
- **Elis Somah-(Gbarpolu County)** agreed to the drivers of deforestation listed in Mr. Lowe’s presentation but noticed that the effects of mining were not captured. He therefore proposed that mining should be named as a primary driver as in the case of diamond mining in Waysua where there is a total depletion of the forest and soil all as a result of diamond mining.
- **Ma-Lao Okai (Bomi County)** noted the suffering of the community dwellers after exploitation of the forest and minerals, which result into community livelihoods being changed. She was very concerned of the **Benefit Sharing mechanisms** and stressed that communication should start from “**bottom-to-top approach**” which allows local people to benefit. Finally she flagged the need to ensure **transparency and good governance**.

3. Components 4 & 6: Nhou Ndam-FFI (presentation available upon request.)

Presenting on the MRV, Dr. Ndam described the purpose, mentioned the activities, listed the methods, and describe the work plan. He finally concluded with the M&E Framework and listed some indicators that will be used to monitor the implementation of the R-PP.

Questions, Comments and Suggestions:

- Dr. Ndam Reemphasized the issue of mining as a driver of deforestation and noted that it was included during the Information Sharing and Early Dialogue exercise. However, Mr. Lowe said that omission of mining as a driver was not an oversight but a deliberate one. He noted that The Economic Analysis for a Low Carbon Economy listed mining as area least concerned in the carbon sequestration process because of its footprint. Therefore, in terms of carbon emission, it is not as significant-but was looking forward to including it as a driver.
- **Zinnah (Margibi County)** buttressed the idea of mining effect to farm lands and forest. He also agreed that Shifting Cultivation and Charcoal are also causes of Deforestation therefore, he recommended that, river system be used in irrigation to promote food cultivation
- **Calvin Kollie- (Bong County)** asked, “What are the alternative to some of the causes of Drivers of deforestation? What are the incentives?”
- **Peter Lowe** responded that it was important to conduct Cost Benefit Analysis but noted that for now it is an option
- **Oretha Toe (Rivercess County)** asked whether the Liberian Government was able to provide alternative (such as Hydro power) to charcoal, motor bike, generator, etc?
- **Peter Mulbah** responded that this is the reason for this gathering to explore options. He noted that there was a need to included these concerns in the proposal and learn from other countries on how to implement the REDD process.
- **Dr. Ndam** further buttressed that there is also a need to develop strategies, which was the essence of the pilot project.
- **Ma-Lao Okai (Bomi County)** noted the issue of capacity building in Farming techniques and asked what was be done to assist farmers return to low land farming practice?
- **Peter Lowe responded** that MOA needs to strengthen its agricultural services in capacity building but also noted that MOA is looking at the need to practise irrigated swamp rice, conservation agriculture, and fertilizer to help in the sustainable practice of food provision.
- **Martin Bryant (Grand Bassa County)** proposed that there should be strategies to govern logging companies to prevent the massive destruction of the forest such as using helicopter to extract logs. She also suggested that there is a need for proper consultation and participation of pit sawyers. In order to achieve this, she proposed massive national awareness for the participation of rural people.

- **Ma-Lao Okai (Bomi County)** Expressed the willingness of rural women in carrying out the awareness-but there is a need to provide resources during the campaign.
- **Mr. Mulbah A. Harris**, County Development Officer of Nimba County noted that there is a need for early warning signs in the forms of brochures-so as to help in the prevention of deforestation.
- **Anthony Kollie (Margibi-EPA)** suggested that regulations be established to persecute those who fail to apply the rules.
- **Daniel Benson (Liberia Marketing Association)** asked whether the WB money is a grant or a loan?
- **Peter Lowe** responded that it is grant from contributing money from World Bank countries.
- **Assaf** also added that the money will be released based on performance of the country
- **Kaymah Richardson** asked whether the carbon will be captured in all forest or Protected Areas?
- **Dr. Ndam** responded that it is not just PAs. He further noted that it was due to this reason the consultations at county level was being carried out to map these areas, determining the ownerships,(by FDA) and effectively monitor them.
- **Edward-Mogomery (M&E Officer Bomi County)** asked if the team will wait until the Money comes before acting?
- **Oretha Toe (Bomi County)** asked, "What is FDA doing on protecting the biodiversity?"
- **Bropleh** responded that it is illegal to hunt except for eating. "FDA alone cannot serve as policeman; you are encouraged to also serve as policemen to implement the Law," he stressed.

Following all the comments and suggestions, there were final closing remarks.

Mrs. Oretha Toe on behalf of Community representative expressed thanks for the knowledge received and the fact that women have been involved in decision making in the Country was a wonderful beginning in ensuring mainstreaming gender issues in national policy planning and development. "We are grateful that we are now partners with men and hope this collaboration will continue," she concludes.

Mrs. Esther J. S. Clarke on behalf of Rural Women Network said that she was happy that the rural women have been involved since the beginning of this program and she hoped that the work would be continued.

Chritan Cooper on behalf of Civil Societies representatives expressed his thanks to the organizers, for the program and for taking time to reach the people at the bottom. He noted that in the past, decisions have been made from top to bottom.

Mr. Mulbah A. Harris on behalf of all County Development Officers noted that they were happy that the CDOs have been actively involved from the beginning to the end. He thanked the organizers and assured them that the CDOs will work with RTWG to make this program a success and want to highlight the need to keep in touch.

James Murombedzi (UNDP) on behalf of international partners thanks the organizers and Government of Liberia for organizing the workshop and noted that it is quite cleared that Liberia forest is important and significant that we have prepared an inclusive R-PP. He further stressed that the process was very participatory. Finally, he thanked the WB for making it possible and providing funds.

Bernard Bropleh (FDA) Thanked to God for the safe arrival of everybody and hoped they return to their respective communities safely.

Validation Workshop attendance listing

No	Name	County	Institution/ organization	Position	Contact
1	Lanfee Fofana	Gbarpolu County	Liberia Marketing Association	Member	06381460
2	Alvin Kanneh	Gbarpolu County	Federation of Liberian Youth	Coordinator	0880422098
3	Bai Roberts	Gbarpolu County	Youth action for productivity and Agricultural	Field Officer	06584255
4	Ellis M. W. Samah	Gbarpolu County	Ministry of Planning and Economic Affairs	County Development Officer	06216219
5	Fatu Nyen	Gbarpolu County	Rural women Network	Coordinator	0880706838
6	T. Calvin Kollie	Bong County	Ministry of Planning and Economic Affairs	County Development Officer	06987748
7	Esther J. S. Clarke	Bong County	Rural Women Network	President	06296149
8	Alfred Fofana	Bong County	Federation of Liberian Youth	Member	06364493
9	Ma- Hawa Yarkpazuo	Bong County	Liberia Marketing Association	Member	
10	William G. Teage	Bong County	Community Development for the Elderly	Director	06552770
11	Sophie T. Gray	Grand Kru County	Rural Women Network	President	077128899
12	Esther Nyan	Grand Kru County	Liberia Marketing Association	Chairlady	077828765
13	Gabriel Nimely	Grand Kru County	Justice of Peace Commission	Monitor	077051556
14	Osusma Jarbetta	Grand Kru County	LIGIS	Field Officer	
15	Isaac Suadual	Grand Kru County	Federation of Liberia Youth	Chairman	0778301355
16	Salome Quelmai	River Gee County	Liberia Marketing Association	Secretary	
17	Ezekiel N. Kollie	River Gee County	Federation of Liberia Youth	Co- Chairman	06016340
18	Tonnia B. Dukuly	River Gee County	Vision in Action	Secretary	06681031
19	Janjay Cooper	River Gee County	County Development Office	Field monitor	077065800
20	Madia Zeon	River Gee County	Rural Women Network	Member	06685731
21	Daniel L. S. Benson	Margibi County	Liberia Marketing Association	Asst. Superintendent	06751459
22	Albert G. Tanwreh	Margibi County	Federation of Liberia Youth	Member	077260076
23	Athony S. Kollie	Margibi County	Charcoal Producer Association	Member	06454519
24	Samuel K. Zinnah	Margibi County	Bong County Forest Forum	Member	06315296
25	James A. Jaber	Margibi County	Ministry of Planning and Economic	County Development	06516220

			Affairs	Officer	
26	Isaac D. Toe	River Cess County	Children Smile	Supervisor	06444508
27	George P. Gbargee	River Cess County	Federation of Liberia Youth	Resources Officer	06780195
28	Oretha Toe	River Cess County	Liberia Marketing Association	Superintendent	
29	Mary Tally	River Cess County	Community Forestry Development Committee	Member	
30	Samuel Dan	River Cess County	Community Forestry Development Committee	Member	
31	Mala Okai	Bomi County	Liberia Marketing Association	Supritendent	06812862
32	Zoe Kumba Ross	Bomi County	Rural Women network	Secretary	06650622
33	Edward Montgomery	Bomi County	Ministry of Planning and Economic Affairs	M& E Assistant	06761198
34	Onesimus S. Sackie	Bomi County	Ministry of Planning and Economic Affairs	Senior M& E Officer	0880422477
35	Kemah Richardson	Bomi County	LEYA	Field Inspector	06359726
36	Laurine Harlebeh	Lofa County	Lofa Youth for Development	Coordinator	06572582
37	Josephine Tokpah	Lofa County	Rural Women Network	Secretary	076218868
38	Ma- Yamah Kelleh	Lofa County	Liberia Marketing Association	Member	077347140
39	Beatrice Sumo	Lofa County	Rural Women Network	Member	077815329
40	D. Mulbah Parkek	Lofa County	Cooperative Development Agency	County Supervisor	077358718
41	Matthew Z. Bryant	Grand Bassa County	Federation of Liberian Youth	Finance coordinator	06678646
42	Samuel W. Cooper	Grand Bassa County	Ministry of Planning and Economic Affairs	Senior M& E Officer	06568653
43	Oretha Menden	Grand Bassa County	Rural Women Network	Member	06537092
44	Sarah Gbenzongar	Grand Bassa County	Community Forestry Development Committee	Member	06221376
45	Josiah Johnson	Grand Bassa County	Buchanan Fisherman Association	Secretary	06642761
46	Mulbah A. Harris	Nimba County	Ministry of Planning and Economic Affairs	County Development Officer	06510142
47	Eddie Gbatu	Nimba County	Federation of Liberian Youth	Coordinator	06648780
48	Marie Gbatu	Nimba County	Liberia Marketing Association	Asst. Superintendent	
49	Chritan Cooper	Nimba County	Concern Women	Member	06321849
50	Darlington Bundeh	Nimba County	IVA	Member	06907396

51	Ruth Sharty	Grand Gedeh County	Rural Women network	Member	06277966
52	Oretha Targblor	Grand Gedeh County	Liberia Marketing Association	Coordinator	06128779
53	Franklin W. Blaye	Grand Gedeh County	County Forest Forum	Administrator	06975244
54	Amos Wulu	Grand Gedeh County	Federation of Liberian Youth	Secretary	077849444
55	Bryant J. Slah	Grand Gedeh County	Ministry of Planning and Economic Affairs	County Development Officer	06910420
56	Thomas B. Massaquoi	Grand Cape Mount County	Federation of Liberian Youth	Coordinator	06826672
57	Zoe Soni	Grand Cape Mount County	Rural Women network	Secretary	06902035
58	Fambulleh Karmol	Grand Cape Mount County	Commissioner Office	Staff	077845809
59	Mustapha Fofana	Grand Cape Mount County	Piso Conservation Forum	Member	06759915
60	James Warity	Grand Cape Mount County	Liberia Agency for Community Empowerment	Field Officer	05892667
61	Samuel Idrissa	Sinoe County	Federation of Liberian Youth	Secretary	06967941
62	Marie Moore	Sinoe County	Rural Women Network	Member	06880344
63	Esther Zubah	Sinoe County	Liberia Marketing Association	Member	
64	Isaac David	Sinoe County	FOCUS	Field Office	06552077
65	Monah Harris	Sinoe County	Community Forestry Development Committee	Member	
66	Margret Tumah	Maryland County	Rural Women Network	Secretary	06673625
67	Dorris Hayflort	Maryland County	Liberia Marketing Association	Treasure	06260974
68	Felix Sic	Maryland County	Superintendent Office	M& E Officer	06522583
69	Amos Stephen	Maryland County	Maryland Youth Association	Coordinator	
70	Annie Murray	Maryland County	PUSH	Information Officer	
71	Earlla Neblett	Montserrado County	Rural Communication Incorporation	Journalist	06801270
72	Jojo Mulbah	Montserrado County	Ministry of Youth & Sports	Coordinator	076653740
74	Fayiah Taylor	Montserrado County	Liberia Marketing Association	Secretary	06647919
74	Flomo Deddeh	Montserrado County	Rural Women Network	Member	
75	Zinnah Mulbah	Montserrado County	Environmental Protection Agency	Staff	0880628168
76	Benjamin S. karmorh	Montserrado County	Environmental Protection Agency	Climate Change Focal Point	06518928
77	Borwen Sayon	Montserrado County	Conservation International	Staff	06620712
78	Hon. Moses	Montserrado	Forestry	Managing	06513994

	Wogbeh	County	Development Agency	Director	
79	Urias Goll	Montserrado County	National Oil Company of Liberia	Environmental Economist	06434164
80	Peter Lowe	Montserrado County	World Bank	FDA Adviser	06937144
81	Dr. Nhoun NDam	Montserrado County	Fauna and Flora International	REDD Focal point	06765087
82	Sylvester Burges	Montserrado County	Liberia Broadcasting Cooperation	Press	
83	Bernald Borpleh	Montserrado County	Forestry Development Agency	Controller	06617023
84	Jamesetta Sterwart	Montserrado County	Forestry Development Agency	Cashier	
85	Tawah B. Flomo	Margibi County	UNMIL	Field Officer	
86	Ernest Massaquoi	Montserrado County	Forestry Development Agency	General Services Manager	06513734
87	Kumeh Assaf	Montserrado County	UNDP	Climate Change Specialist	06381644
88	Peter G. Mulbah	Montserrado County	SADS/ REDD Secretary	Executive Director	06545758
89	Bernice Paye	Montserrado County	NCCS	Administrative Coordinator	06452654
90	Jonathan Davies	Montserrado County	Environmental Protection Agency	Manager	
91	James Murombedzi	Montserrado County	UNDP	Technical Adviser	06471764
92	Jeffeson Dan	Montserrado County	Environmental Protection Agency	Staff	06942794

Annex 2a: Assessment of Land Use, Forest Law, Policy and Governance

Please present any relevant additional material not included in the body of the R-PP (component 2a).

Annex 11: Forest Cover in Liberia (2004)

State of the forest cover in Liberia – Forest information critical to decision making
Nicolas BAYOL – Jean-François CHEVALIER

Class	Surface area (ha)	%
1 Urban area	46 047	0,5%
2.1 Predominant rural agricultural domain	436 747	4,6%
2.2 Agricultural area with small forest presence	3 042 091	31,7%
2.3 Mixed agricultural and forest area	1 317 873	13,7%
3.1 Agriculture degraded forest	949 615	9,9%
3.2 Open dense forest	1 013 993	10,6%
3.3 Closed dense forest	2 424 078	25,3%
5 Free water	7 649	0,1%
6 Savanna or bare soil	13 312	0,1%
7 Littoral ecosystem complex	161 390	1,7%
8 Agro-industrial plantation	178 294	1,9%
Total	9 591 088	100,0%

CLASSIFICATION

2.1 - Predominant rural agricultural domain	The tree is still present in the agricultural landscape: to be found singly, under the form of small forest clusters or along waterways and streams, but agriculture is present all over.
2.2 - Agricultural Area with Small Forest Presence:	Presence of original forest more marked, small residual forest massifs appear alongside agricultural areas and cover 10 to 20% of the surface area. The remaining forest surfaces are subjected to agricultural pressure and shrink every year.
2.3 - Mixed Agricultural and Forest Area:	Forest covers 20 to 50% of the surface, but agricultural dynamics is already taking over the forest. An agriculture/forest equilibrium can still be found although with great difficulty without external assistance.
3.1 - Agriculture degraded forest,	Partly occupied, with signs of human occupation. In some cases, the 3.1 Class has also been subjected to recent forest logging.
3.2 - Open dense forest	This class covers all the forests presenting evidence of harvesting
3.3 - Closed dense forest:	Not disturbed by recent logging activities. This class also covers old-logged forests.

Annex 2b: REDD-plus Strategy Options

Annex 12. Strategy Options for REDD – Appendix on detailed activities

FORESTRY SECTOR

1. **Raising commercial logging standards** – by improving the technical capacity of all actors in the commercial forestry sector (especially forestry field managers) through outreach and training with demonstrations in:

At Forest Management Unit Level
<ul style="list-style-type: none"> • Pre-harvesting inventory assessment to position and categorise by tree values as well as volumes; • Pre-harvest extraction planning involving calculating tree extraction costs, including skidding trails, bridges and roads; • Assessing the potential returns from harvesting an FMU and the costs involved in felling and extraction to landing; • Identification and mitigation of possible collateral damage to site, water courses and remaining trees; • Planning and implementation of directional felling • Site closure after logging completion, including trail blocking and reparation of disrupted streams;
At Forest Level
<ul style="list-style-type: none"> • Preparation of management plans for entire forests over the felling cycle, including long term planning of major access routes and bridges, harvests, production forecasts and financial viability; • Ensuring that non-operational FMUs are protected from unplanned activities

2. **Reduce the area footprint of commercial logging** - by supporting FDA policy decision-making with studies and socio-economic analysis of the implications of capping commercial forestry :

<ul style="list-style-type: none"> • Study will update the DTIS (Diagnostic Trade Integration Study) • Study will assess full opportunity costs of various levels of “not-logging” in terms of government revenues, community and social benefits, employment and value-added;
--

3. **Regulating and managing chainsaw logging** - by improving the technical capacity of all actors in chainsaw logging through outreach and training (of trainers, and peer-to-peer) in:

<ul style="list-style-type: none"> • Compliance with the new permit system; • Safety and welfare at work in the forest • Selection of trees for markets • Directional felling and minimization of site damage • Conversion, recovery techniques and minimization of waste • Machine and tool maintenance • Opportunities to progress towards formal employment

4. **Integrating of Conservation and Protected Areas** into REDD and acceleration of the timeline by supporting FDA through:

- Review of all pilot REDD and CDM forestry schemes and proposals in Liberia, especially that for the Gola proposed protected area;
- Develop a draft protocol under which Liberia would offer carbon investment opportunities in protected areas;
- Assist government to host an international “expo” to launch protected Liberia’s areas to international players, brokers and investors;
- Assist government to host a donors’ conference to lever funding for the creation of further protected areas;

AGRICULTURAL SECTOR

1. **Transform shifting cultivation into permanent or semi-permanent agriculture to reduce land use and forest degradation** by supporting the Ministry of Agriculture (MoA) and subsistence farmers, especially within proposed protected areas, through outreach and training (of trainers, and peer-to-peer) to:

- Switch away from upland rice cultivation to irrigated lowland (“swamp”) production,
- Expand fertilizer use in Liberia among selected model subsistence farmers with targeted free distribution in exchange for prolonged cultivation and fallow cycles;
- Select appropriate crops and rotation;
- Scale up existing pilot introductions of Conservation Agriculture (CA) as a means to increasing productivity without inorganic fertilizers, and prolong land occupation before resting for fallow.

2. **Ensure that tree crop plantation and permanent agriculture development is located on degraded forest lands** by supporting the MoA, FDA and agricultural concession holders to:

- Conduct a national dialogue to reach consensus on land use planning within concession areas, taking account of forest quality and carbon balance implications of development;
- Conduct a review of all existing and pipeline agricultural concessions to implement the recommendations of the national dialogue;
- Assist government to develop a legal framework to facilitate swapping of degraded forest for high value areas in order to minimize the impacts of deforestation

ENERGY SECTOR

1. **Regulate and manage wood fuel energy** by supporting the MLME and FDA with technical consultancy services to:

Carry out peri-urban planning of wood energy supply and demand for Monrovia (based on FAO WISDOM methodology);

Identify and prepare an appropriate licensing and permit system for charcoal

used in Monrovia;

- Undertake a technical review and develop feasible options for utilization of bi-products of primary forest log breakdown as fuel stock substitute for fossil fuels in power generation

2. Introduce more efficient kilns and cooking stoves by supporting MLME and local NGOs through :

- Acquire and test demonstration cooking stoves from other countries;
- Develop production options for the local market

Annex 2c: REDD-plus Implementation Framework

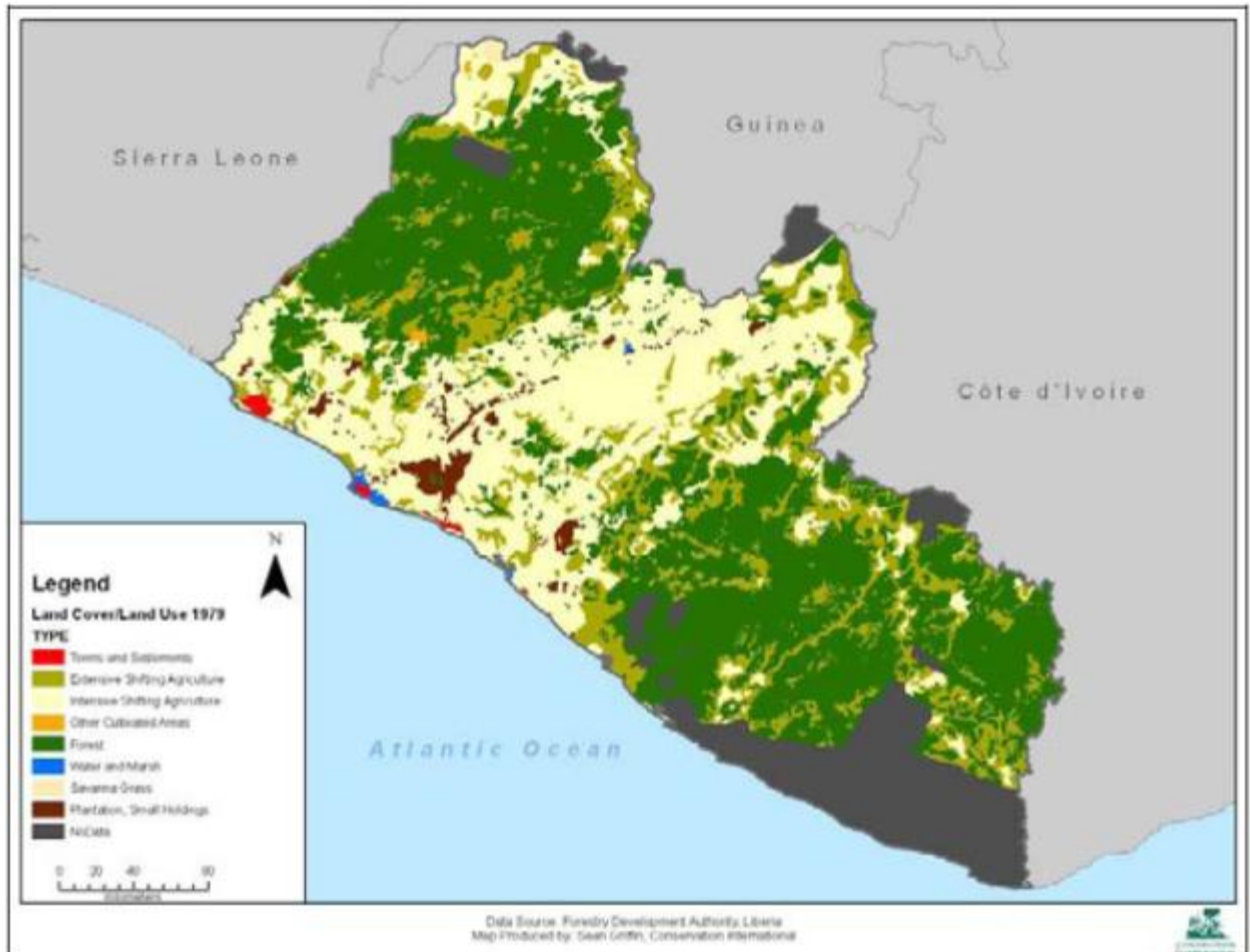
Annex 2d: Social and Environmental Impact during Readiness Preparation and REDD-plus Implementation

Annex 3: Develop a Reference Level

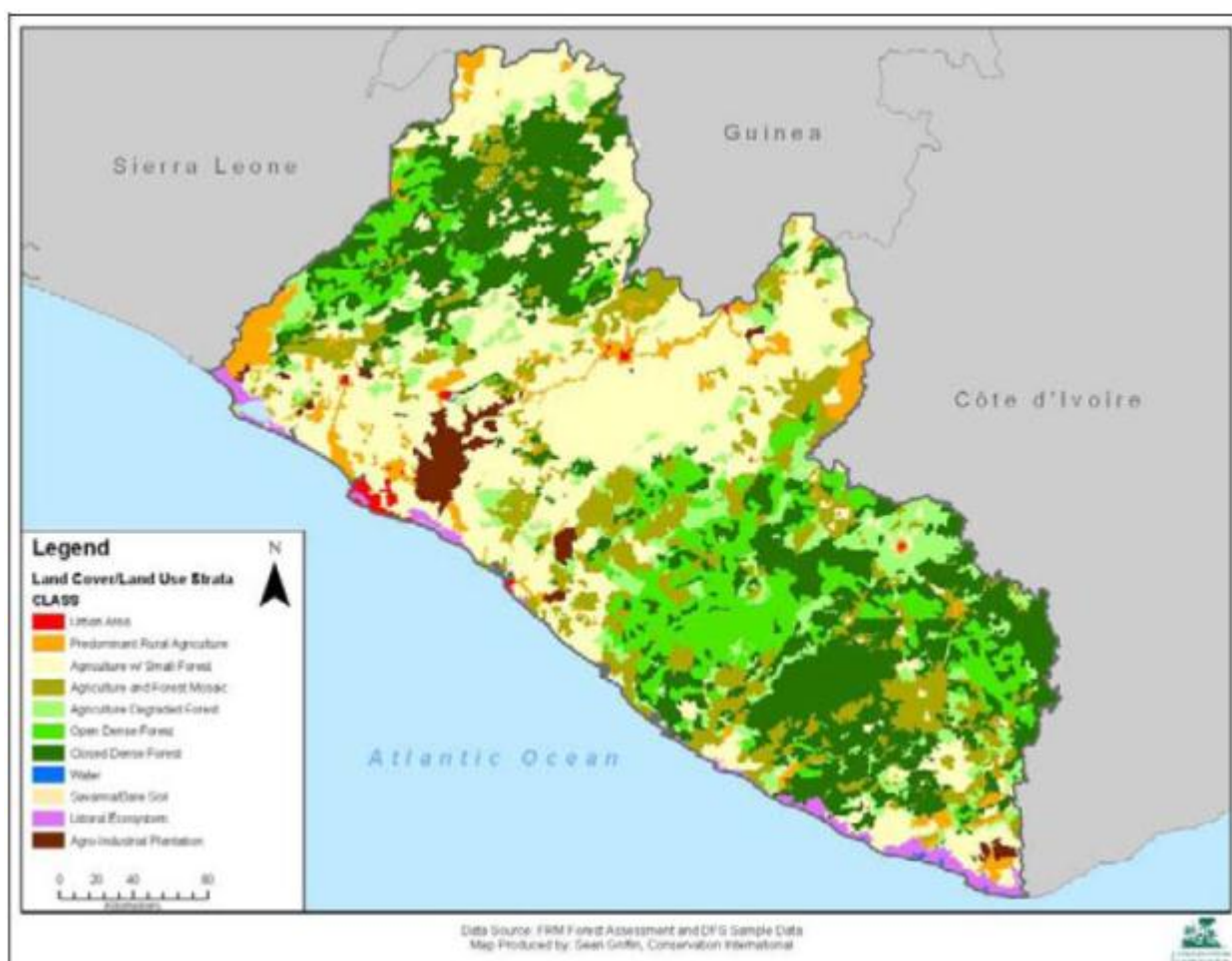
Annex 4: Design a Monitoring System

Please present the early ideas or draft input to ToR for work to be carried out.

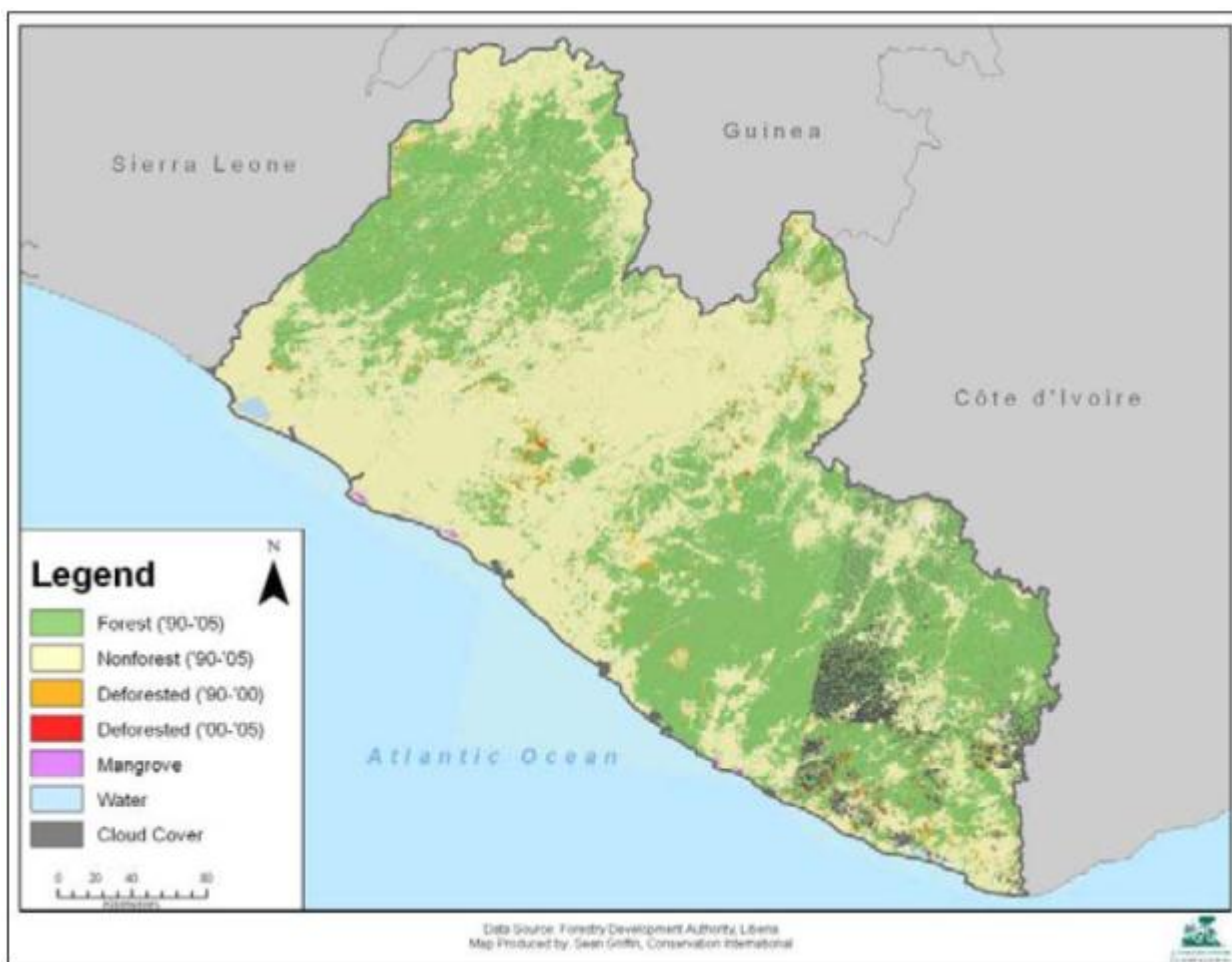
Annex 13: a) Forest cover map by “Project Forest Liberia”, from 1979 aerial photos



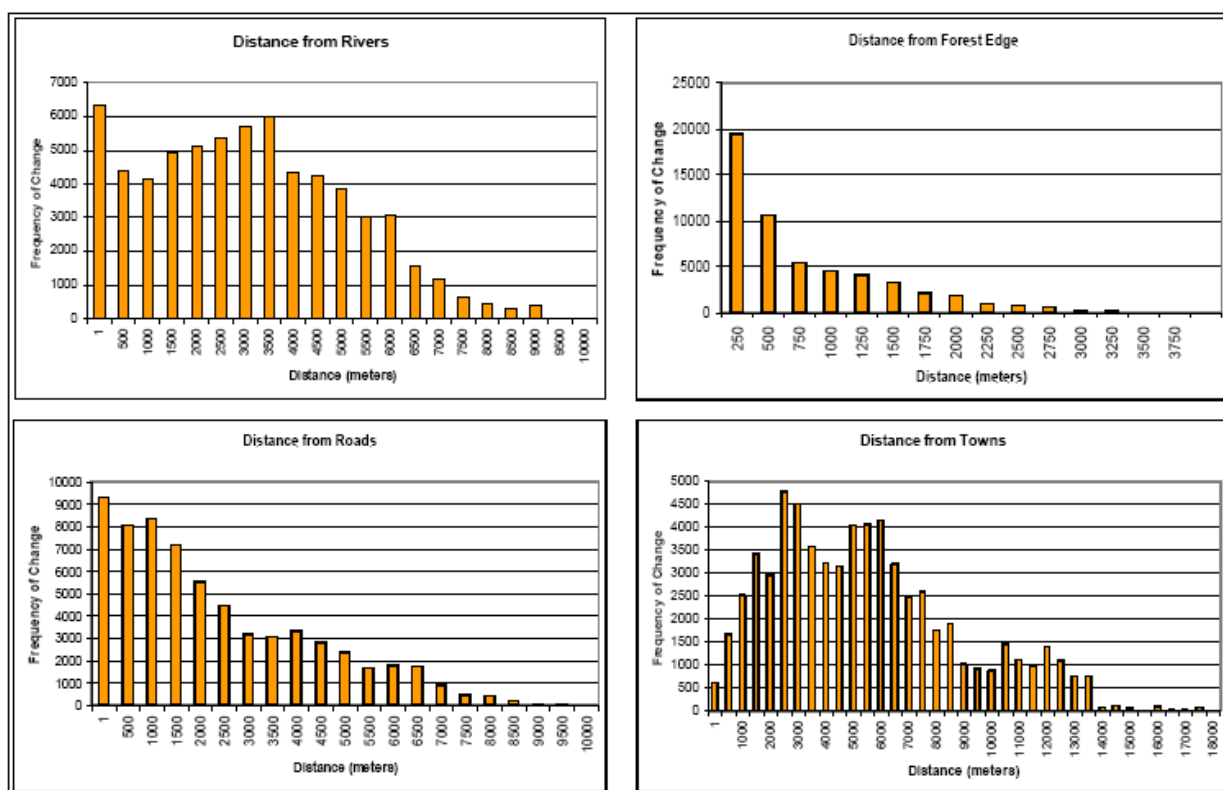
Annex 14: Forest cover map developed by FRM from 2004 Landsat imagery interpretation



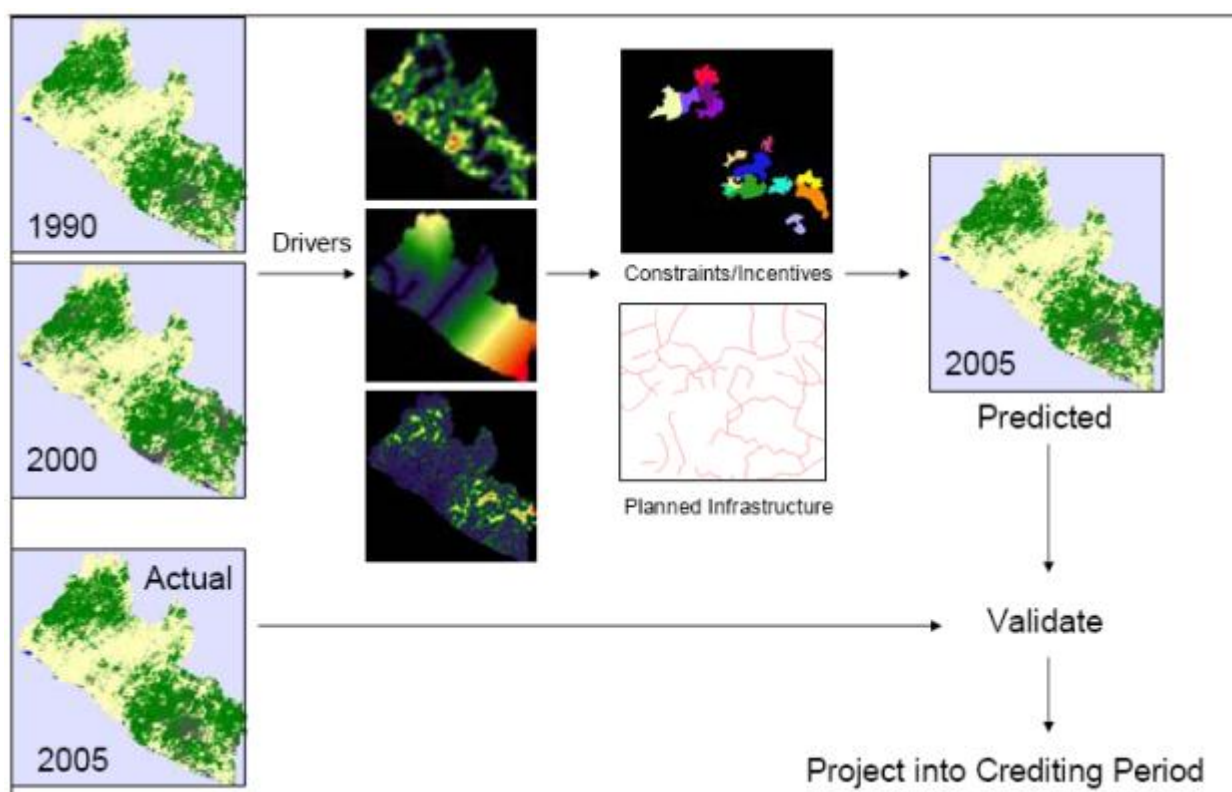
Annex 15: Forest cover change map developed by Conservation International from circa 1990, 2000 2005 and Landsat image classification



Annex 16. Predominant driver of deforestation in Liberia



Annex 17. Process flow-chart of Idrisi Land Change Modeler



Annex 5: Schedule and Budget

Annex 6: Design a Program Monitoring and Evaluation Framework

[end]