GOVERNMENT OF THE
REPUBLIC OF LIBERIA

STRATEGIC ENVIRONMENTAL AND SOCIAL ASSESSMENT FOR THE REDD-READINESS PREPARATION ACTIVITIES OF THE LIBERIAN ENVIRONMENTAL PROTECTION AGENCY

FINAL ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

SEPTEMBER 2016

CONSULTANCY SERVICES PROVIDED BY:

TETRA TECH

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ACRONYMS

CBO	Community-Based Organization
CFMA	Community Forest Management Agreement
CPA	Conservation Priority Areas
CRL	Community Rights Law
CSO	Civil Society Organization
E&S	Environmental and Social
EA	Environmental Assessment
EHS	Environment, Health and Safety
EMF	Environmental Management Framework
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
EPML	Environmental Protection and Management Law
ER	Environmental Review
ESC	Environmental Safeguard Coordinator
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguards
EU	European Union
FDA	Forestry Development Authority
FGRM	Feedback and Grievance Redress Mechanism
FMC	Forest Management Contract
FONSI	Finding of No Significant Impact
FPIC	Free, Prior, and Informed Consent
FSC	Forest Stewardship Council
GHG	Greenhouse Gas
GoL	Government of the Republic of Liberia
HCS	High Carbon Stock
HCV	High Conservation Value
IPM	Integrated Pest Management
IPMP	Integrated Pest Management Plan
ITT	Interagency Task Team
LFSP	Liberia Forest Sector Project
MoA	Ministry of Agriculture
MRV	Monitoring, Reporting and Verification
NCCS	National Climate Change Secretariat

NCCSC	National Climate Change Steering Committee
NGO	Nongovernmental Organization
NI	National Interpretation (of HCV Principles)
NTFP	Non-Timber Forest Product
OP	Operational Policy
P&C	Principles and Criteria
PA	Protected Area
PAN	Protected Area Network
PCB	Polychlorinated Biphenyls
PCR	Physical Cultural Resources
PMP	Pest Management Plan
POP	Persistent Organic Pollutants
P-PA	Production-Protection Agreements
PPA	Proposed Protected Area
RAP	Resettlement Action Plan
REDD+	Reduced Emissions from Deforestation and Forest Degradation
RIU	REDD+ Implementation Unit
RPF	Resettlement Process Framework
R-PP	Readiness Preparation Proposal
RSPO	Roundtable on Sustainable Palm Oil
RTWG	REDD Technical Working Group
SESA	Strategic Environmental and Social Assessment
SO	Strategy Options
SSC	Social Safeguard Coordinator
SWG	Safeguards Working Group
ToR	Terms of Reference
TSC	Timber Sale Contract
VPA	Voluntary Partnership Agreement
WB	World Bank
WHO	World Health Organization

1.0 INTRODUCTION

This Environmental and Social Management Framework (ESMF) has been prepared to support the Government the Republic of Liberia (GoL) to implement its Reduced Emissions from Deforestation and Forest Degradation (REDD+) Strategy. The REDD+ Strategy comprises five priorities and related strategic options, and the ESMF outlines the basic principles, guidelines, and procedures that should be used to screen for, manage, and mitigate potential environmental and social impacts arising from implementation of these strategy options.

An ESMF is a framework, and can only address management issues on a broad scale. As the location and extent of projects to be implemented under REDD+ are not yet known, the ESMF cannot be more specific. Detailed and focused management requirements to address environmental and social issues arising from specific and individual actions and projects to implement REDD+ will need to be dealt with under an Environmental and Social Management Plan (ESMP). Preparation of the ESMP would follow Environmental and Social Impact Assessments (ESIAs) or other activities designed to provide social and environmental safeguards to mitigate potential impacts of project or activity implementation. The ESMF, however, provides the framework and guidance to apply such processes.

1.1 PURPOSE AND SCOPE

An ESMF provides guidance on meeting World Bank (WB) Operational Policy (OP) requirements related to environmental and social performance when a project consists of a program (here, the REDD+ Strategy) and/or series of sub-projects (here, interventions that implement the strategy),[1] and the impacts cannot be determined until these sub-project details have been further identified and defined. The ESMF therefore sets out the principles, rules, guidelines, and procedures to:

- Assess the environmental and social impacts of such sub-projects.
- Ensure that adverse impacts can be reduced, mitigated, and/or offset and positive ones enhanced, and that provisions will be made for estimating and budgeting the costs of such measures.
- Provide information on the agencies responsible for addressing sub-project impacts and the training and capacity building needed to implement the ESMF provisions.

A WB ESMF typically includes key sections reflecting the relevant WB Safeguards contained in its OPs. This typically includes:

- An **Environmental Management Framework (EMF)** to provide the overall approach to address potential environmental and social risks associated with interventions through the environmental assessment (EA) process (OP4.01), which includes measures to ensure compliance with WB Safeguards as outlined in its other OPs;
- A **Resettlement Process Framework (RPF)** to address involuntary resettlement resulting from interventions (WB OP4.12);
- A **Stakeholder Engagement and Dispute Resolution Framework** to address and manage conflicts arising from interventions;
- An **Indigenous People's Planning Framework** specifically to address potential effects on indigenous people (not applicable to this REDD+ Strategy);
- **Pest Management Procedures** to address potential impacts of insecticide and pesticide applications associated with interventions (OP4.09); and

[1] Such activities fall under the category of "Special Project Types" as specified in WB OP4.01, for which the coordinating entity or implementing institution carries out appropriate EA according to country requirements and the requirements of OP4.01. The Bank appraises, and if necessary, includes in the loan components to strengthen the capabilities of the coordinating entity or the implementing institution to (a) screen subprojects, (b) obtain the necessary expertise to carry out EA, (c) review all findings and results of EA for individual subprojects, (d) ensure implementation of mitigation measures (including, where applicable, an EMP), and (e) monitor environmental conditions during project implementation.

- **Physical cultural resources "chance find" procedures** to outline measures to protect cultural resources from potentially adverse effects by the intervention (OP4.11).

For this ESMF, four of the six above are covered, the exceptions being the Stakeholder Engagement and Dispute Resolution Framework, and the Indigenous People's Planning Framework. The Stakeholder Engagement and Dispute Resolution Framework is under development under a separate Feedback and Grievance Redress Mechanism development contract. It is assumed that once developed, the feedback and grievance redress procedures will be integrated into the ESMF. An Indigenous People's Planning Framework is not included since there are no populations in Liberia that meet the WB criteria for indigenous people.

While WB approval of the ESMF will meet due diligence requirements at the REDD+ Strategy development stage, it does not eliminate the subsequent requirement for a (site-specific) EA/Environmental Management Plan (EMP) and Resettlement Action Plan (RAP) as specific interventions are developed. It does, however:

- Defer preparation and approval of project EA/EMP and RAP to a later time (during implementation).
- Delegate responsibility for approval of sub-project EA/EMP to Implementing Agencies.
- Establish agreed rules and procedures to be followed in preparing, approving, implementing, and monitoring subprojects EA/EMPs and RAP.

1.2 STEPS IN THE SESA PROCESS

The Strategic Environmental and Social Assessment (SESA) is used to integrate social and environmental considerations into a policy or program, in a manner consistent with applicable environmental laws and regulations and the WB's environmental and social safeguard policies.

The SESA process incorporates environmental and social considerations during formulation of the REDD+ Strategy. Figure 1.1 outlines this process, and involves the following steps.

1.2.1 Inception

As required by WB guidance, a preparatory phase during which a work plan was developed and validated preceded the main SESA activities. The work plan set out the process by which the various diagnostic tasks and consultations would be delivered, as well as how the criteria for assessing the REDD+ strategy would be developed and applied. It included:

- Definition of the purpose, scale, and broad approach to be adopted in the SESA process, and its anticipated outputs and outcomes;
- The nature and method to conduct the diagnostic studies;
- Identification of potential case study sites as well as locations for validation workshops (community, regional and national); and
- An analysis of the stakeholders and proposed engagement process.

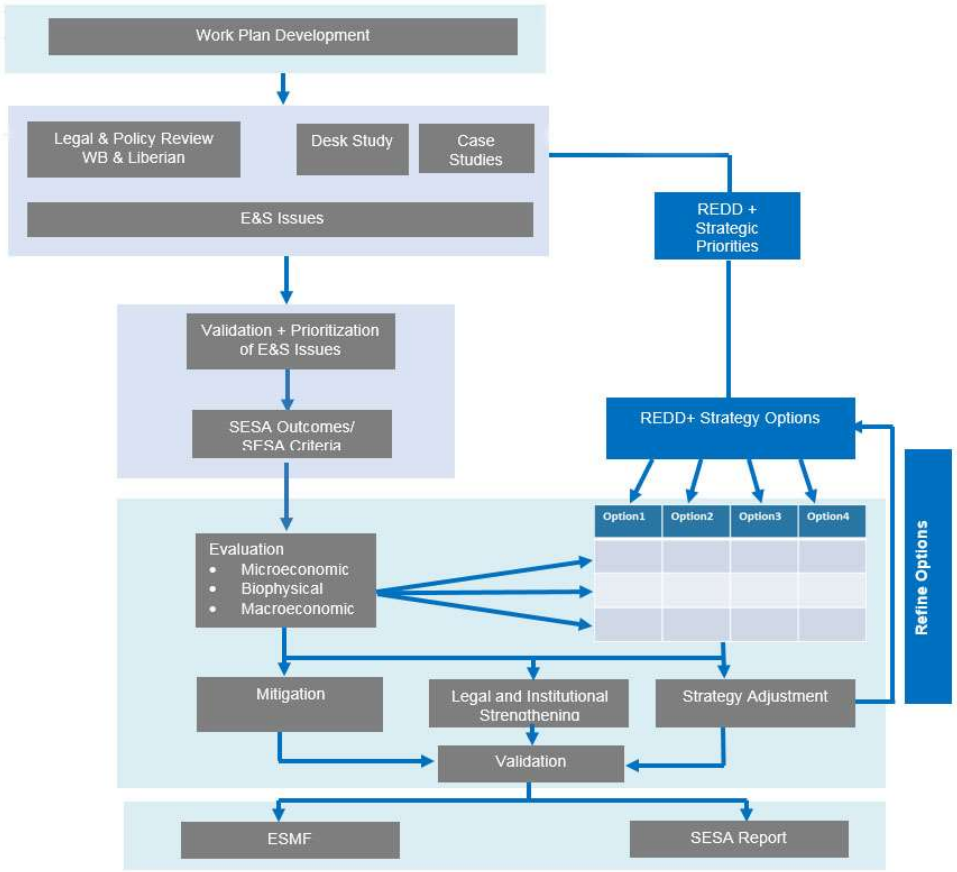
The work plan was presented at a National Validation Workshop, after which it was finalized.

Activities for this phase took place from July through August 2014, incorporating the National Validation Workshop, which took place on July 21–22, 2014. The outputs are presented in full in the SESA Inception Report (September 2014) and reflected in the process outlined below. After the Ebola outbreak, the work was placed on hold. It recommenced in March 2015.

Figure 1.1: SESA Process Flow

Phase	Report	Consultation Activity
Inception	Inception Report	National Validation Workshop
Step 1: Situation Analysis	Scoping Report	Local case studies Key informant interviews (KIIs)
Step 2: Prioritization of Issues	Priority Report	Local, regional, institutional, and national workshops
Step 3: Assessment & Draft ESMF	Draft ESMF	Regional and national workshops
Step 4: Reporting	SESA ESMF	

Consultation Activity



1.2.2 Step 1: Situational Analysis

In Step 1, the SESA identified the range of environmental and social (E&S) issues that REDD+ interventions may be affect—ahead of their prioritization in Step 2. Key activities comprised:

- Desk-based data collation and analyses and key informant interviews were conducted to identify both E&S drivers of deforestation and E&S features and attributes which could be impacted (positively or negatively) by REDD+ interventions.
- Spatial datasets were sourced that best inform the above and key geographic information system (GIS) layers were created, which identified important E&S features including hotspots, and highlighted potential conflicts between different land uses.
- Field case studies were targeted to refine the above, notably to address gaps in existing knowledge and gain in-depth understanding of sensitivities to E&S impacts from the different REDD+ interventions, under different local contexts in Liberia. Six case study sites were selected around the country, which combined, represented the range of E&S issues likely to be affected by REDD+. The land uses within the case study areas included protected areas (PAs), mining and agricultural concessions, commercial forestry, shifting cultivation, and charcoal production. Section 2.2 summarizes the sites and their characteristics, and Section 2.3 presents findings of the case studies.
- A legal and policy review determined the standards that could apply to the E&S performance of the REDD+ strategy, and required for consideration when identifying the REDD+ E&S issues. The review covered both Liberian national requirements and WB Safeguards[2] as outlined under various WB OPs. Section 4 provides a summary of the policy and legal review.
- Thematic studies and analyses of outputs of the above derived a long list of potential E&S issues that relate to REDD+.

Activities related to this phase took place from March–September 2015 and the results are presented in full the SESA Scoping Report (October 2015) with a summary provided in Section 2 of this report.

1.2.3 Step 2: E&S Prioritization of Issues

In Step 2, the SESA focused on validation, and then prioritization, of E&S issues identified in Step 1, with a particular emphasis on findings derived from the case studies. Key activities in Step 2 comprised:

- Workshops convened in six different communities with similar profiles to those where the case studies were conducted, with representative of the communities studied also in attendance. This broadened the participation of communities in the identification of E&S issues and enabled validation/expansion of the findings through providing opportunities for community feedback on those of the case studies. It also enabled a degree of triangulation. Once issues were validated, workshop attendees were asked to rank the issues in terms of priorities. Community groups were divided by gender to solicit a diversity of views and provide a secure environment for women to express their opinions. Issues were ranked and recorded within each group and used to analyze differences in priorities across gender and regions.
- Similar workshops were held at the regional level to further validate and refine the prioritization and to determine if the community-level findings were relevant at the regional level. Here too, ranking exercises and group discussions were used to generate E&S issues and priorities.
- The E&S priorities were then further refined and validated at institutional and national workshops held in Monrovia in February 2016.

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[2] The World Bank Safeguard policies must be adhered to for any funds sourced directly from the World Bank. This would include any budget originating from the Norwegian government or other donors funneled through a World Bank mechanism. However, it should be noted that funds that do not have an affiliation with the World Bank, are not required to adhere to World Bank Safeguard policies.

- Based on the analyses and validation, priority issues were synthesized into 24 SESA outcomes that stakeholders indicated should be achieved when implementing REDD+. These issues were allocated to one of three categories: microeconomic, biophysical, and macroeconomic. This list of 24 validated priority outcomes comprised the criteria against which the REDD+ strategy options would be evaluated.

Step 2 activities took place from October 2015 through February 2016 and are documented in the SESA Priorities Report (April 2016) and presented in summary in Section 3of this report.

1.2.4 Step 3: Assessment

In Step 3, the SESA outcomes, as derived from the priority issues, were used as criteria to assess the E&S performance of the proposed strategy options. Specifically, the impact (negative or positive) each proposed strategy option would have on achieving each of the SESA outcomes, was evaluated.

Where significant adverse environmental or social impacts were predicted, and could not be subsequently addressed at intervention planning and implementation stages, recommendations for modifications to the draft strategy (LTS, 2016b) were made (see Attachment 1). Such modifications related both to the nature and wording of the strategy options as well as to institutional and legal measures required to ensure the associated proposed E&S safeguards can be achieved in practice. This resulted in adjustments being incorporated into a revised strategy (LTS, 2016e).

A second evaluation, this time of the revised strategy, identified improved E&S performance and highlighted those outstanding modifications that will need to be addressed as it is further developed (see Attachment 1).

Where potential for significant adverse E&S impacts were predicted but could be addressed through established management measures at the project level, "mitigation" requirement were identified for inclusion in the ESMF. This should ensure such measures are considered appropriate as each intervention is subsequently planned, developed, screened for, and—if necessary, subject to the EIA process—implemented.

1.2.5 Step 4: Reporting

A report documenting the SESA process and its outcomes (this document) was prepared. In accordance with WB OP4.01 and REDD SESA guidance, the ESMF was prepared to set out the process for management of E&S impacts for interventions implemented under REDD+, but where their details, specific impacts, and associated mitigation and management measures cannot yet be fully determined (including the—as yet unidentified—REDD+ investments and interventions). The ESMF documents the necessary procedures to identify, assess, and manage the E&S impacts once such details are more fully defined. Notably, it ensures that both WB and Liberian processes with respect to environmental safeguarding (including the WB EA and Liberian EIA processes), are followed. This includes specific procedures to be followed in the event of involuntary resettlement, pesticide use, and chance finds, as well as general conditions for inclusion in contractor agreements. The ESMF also ensures that the "mitigation measures" required to address E&S considerations for specific strategy priorities and options, as identified through the SESA, are incorporated in those assessment and management processes.

As several proposed strategy adjustments and the requirement for legal and institutional strengthening that emerged from the SESA remain outstanding, these have been added to the ESMF to be addressed in refinements of the strategy as it is further developed.

The ESMF document is a standalone report intended as a guideline by those responsible for implementing the REDD+ interventions.

1.3 Relationship between ESMF, the Liberia REDD+ Strategy, and its SESA

The Liberia **REDD+ Strategy** (produced as part of the Forest Carbon Partnership Facility *Readiness Phase* of the REDD+ process) establishes, under five different priority areas, a set of Strategy Options (SOs) through which the country will achieve a reduction in emissions from forest loss and

degradation. The Strategy identifies a "Roadmap" to implement the Strategy. The Roadmap anticipates that the Strategy will be delivered through a set of interventions, most of which are already planned or funded (through bilateral and multilateral donors)—notably under the Liberia Forest Sector Project (LFSP), the Voluntary Partnership Agreement (VPA) and various measures for forest conservation in PAs, commercial concessions, and community forests—and led by nongovernmental organizations (NGOs). Although the strategy outlines the broad nature of such potential interventions, it has not defined details, which will be determined during the *Transformation Phase* of the REDD+ process. This process involves piloting of intervention types and strengthening associated policies and institutions.

The REDD+ *Readiness Phase* also requires that a **Strategic Environmental and Social Assessment (SESA)** be undertaken concurrently with the REDD+ Strategy development to inform its development. The SESA ensures the identification and consideration of relevant E&S priorities (SESA outcomes) as the strategy is developed. Such an approach should minimize potential for adverse performance against desired outcomes, and maximize opportunities for positive performance against these outcomes when interventions arising from the strategy are developed and implemented. The SESA process, and supporting information used to inform the evaluation of the evolving strategy, is documented in the SESA Report.

Key outputs of the SESA process are:

- A list of proposed **Strategy Adjustments.** These relate to areas where, without modification, the strategy options could promote interventions that give rise to significant adverse environmental or social impact (or fail to harness available opportunities to enhance performance in these areas). These impacts may be challenging to address at the intervention planning and implementation stages. Because of this, it is important to fully consider these adjustments prior to finalization of the strategy to prevent strategy options that will result in activities that perform poorly in subsequent EIAs to be carried forward.
- **Institutional and legal measures.** These measures focus on building **institutional capacity** for implementation, or address **legal gaps** that exist in the current framework but are required to ensure the SESA outcomes are achieved. Capacity interventions focus on developing the technical and logistical expertise to implement the strategy and may also take into account realistic time frames for their implementation in light of current capacity constraints, including budgetary constraints or limitations. Legal interventions include the development of legal mechanisms that are needed to implement the strategy. These may include regulations, national standards, or even coordinating committees necessary to realize REDD+ SESA outcomes. The REDD+ Strategy currently does not address these issues, but they will be critical for the effective implementation of REDD+. These will be essential to underpin E&S performance of the REDD+ Strategy including successful application of identified mitigation. Accordingly, these should be incorporated directly into the strategy, or plans to consider these issues incorporated into the transformation stage.
- Proposed **Mitigation Measures.** These are the most important measures to consider for the ESMF. These measures relate to performance areas where, without specific measures, interventions (or projects) implemented under the strategy could give rise to adverse impacts. However, these can be addressed through established measures (e.g., siting considerations, the development of ESMPs, pest management plans, etc.). These mitigation measures can be developed as each intervention is planned and implemented. While such measures do not require any modification to the strategy options, they were identified in the SESA to ensure they are considered as appropriate as each intervention to which they relate is developed, screened for an EIA, and if necessary, subject to the EIA process. These are presented in Section 4 and their consideration helped to define the scope of this ESMF.

An **ESMF** is required under WB4.01 for the REDD+ Strategy since implementation of the strategy will involve multiple sub-projects (interventions) for which the specific impacts and associated mitigation and management measures cannot yet be fully determined. The ESMF sets out the

procedures to be followed for identifying, assessing, and managing the E&S impacts once such details are more fully defined. It ensures that both WB and Liberian processes with respect to environmental safeguarding (including the WB EA and Liberian EIA processes) are followed. It also ensures that "mitigation" measures (required to address E&S considerations for specific strategy priorities and options, as identified through the SESA) are incorporated in those assessment processes. As noted above, the proposed mitigation measures identified through the SESA's impact assessment of the REDD+ Strategy provide the basis for the scope of the ESMF.

1.4 INFORMATION COLLECTION

1.4.1 Stakeholder Consultation

The content of a draft ESMF was developed in May 2016. To verify and finalize the document, stakeholders were consulted in six regions of the country. Participants in these consultations included district and county officials, traditional leaders, women groups, and other stakeholders. In addition, numerous meetings with key stakeholders in the conservation community, private sector, and civil society were held in May and June 2016. Results from these consultations informed the final version of the ESMF and a report on these proceedings is found in Attachment 2.

1.4.2 Baseline information and other sources of information

Several key documents provided valuable information and analysis toward development of this ESMF. These include:

- National Strategy for REDD+ in Liberia – text prepared for consultations with partners (GoL, 2016a)
- Updated REDD+ Strategy Options (LTS, 2016e)
- Draft Liberia REDD+ Strategy Options Report (LTS, 2016b)
- Draft Land Use and Forest Cover Analysis (LTS, 2016c)
- Draft Cost Benefit Analysis for REDD+ Strategy Options (LTS, 2016a)
- ESMF for the Liberia Forest Sector Project (GoL, 2016b)
- SESA Priorities Report (Tetra Tech, 2016)
- Strategic Environmental and Social Assessments for REDD+. A guidance document developed for the Bank Information Center (Donaldson and Lichensten, undated)
- Strategic Environmental Assessment in the World Bank, a report developed for the World Bank (World Bank, 2012a)

1.5 ORGANIZATION OF THE REPORT

This ESMF includes the following information:

- A summary description of the **indicative REDD+ strategy option(s)**, its main E&S considerations, and the various risks involved in its implementation;
- An outline of the **legislative, regulatory, and policy regime** (in relation to forest resources management, land use, community customary rights, etc.) within which the strategy will be implemented, that draws from the information from the Draft REDD+ Strategy to be provided by the REDD+ Technical Working Group;
- Reference to the **potential future impacts**, both positive and negative, derived from the project(s), activity (-ies), or policy(-ies)/regulation(s) associated with the implementation of the REDD+ strategy options, and the geographic/spatial distribution of these impacts;
- Identification of the mitigation measures that will be triggered to address residual measures that have not been taken into account in the REDD+ Strategy;
- A description of the arrangements for implementing the specific project(s), activity(-ies), or policy(-ies)/regulation(s) with a focus on the procedures for (i) screening and assessing site-specific E&S impacts; (ii) preparing time-bound action plans for reducing, mitigating, and/or

offsetting any adverse impacts; and (iii) monitoring implementation of the action plans, including arrangements for public participation in such monitoring;

- A brief analysis of the particular institutional needs within the REDD+ implementation framework for application of the ESMF;
- A brief outline of recommended capacity-building actions for the entities responsible for implementing the ESMF;
- A description of the requirements of applicable World Bank Safeguard policies; and
- An outline of the budget for implementing the ESMF.

2.0 STRATEGY OPTIONS

2.1 STRATEGY OPTIONS

The June 2016 version of the REDD+ Strategy Options identifies five Strategic Priorities with several Strategy Options under each priority. These are presented in Table 2.1 below. This chapter presents a brief description of each of the strategy options, the available details and outlines the main social and environmental considerations and potential risks that may attend their implementation.

Table 2.1: REDD+ Strategic Priorities and Strategy Options

Priority 1. Reduce forest loss from pitsawing, charcoal production and shifting agriculture.	
1.1	Reduce impact of pitsawing (chainsaw logging) on forest through better regulation, improved efficiency and developing alternatives.
1.2	Reduce impact of charcoal industry on forest through better regulation, improved efficiency and the development of alternatives energy sources.
1.3	Reduce expansion of shifting agriculture in forest areas by promoting permanent food & cash crops in non-forest areas & through conservation agriculture.
1.4	Locate services and new infrastructure development beyond a 3km buffer from areas of dense forest and Protected Areas (including proposed PAs).
1.5	Integrate hunting, artisanal mining and forest restoration into community-led livelihood and sustainable forest management practices.
Priority 2. Reduce impact of logging in Forest Management Contract and Community Forest Management Agreement areas.	
2.1	Ensure that all industrial logging is practiced to high conservation standards in keeping with national regulations and international standards.
2.2	Conserve and maintain areas of highest conservation value within commercial forestry concessions, such as important wildlife corridors.
2.3	Review Timber Sales Contracts to ensure compliance with forestry laws and EIA standards and establish a strong presumption against further TSC contracts on dense forest and within 5km of Protected Areas.
2.4	Prevent unregulated pitsawing and charcoal production within forestry concessions.
2.5	Manage commercial forestry in community forests larger than 1,000 ha. to achieve sustainable logging standards as apply to FMCs.
Priority 3. Complete and manage a network of Protected Areas	
3.1	Complete the Protected Areas Network and strengthen management to prevent forest degradation.
3.2	Expand the Protected Areas Network to conserve 30% of forest land.
3.3	Reduce pressure on PAs from surrounding communities (using priority 1 measures).
3.4	Develop and implement land use plans at landscape scale, to integrate production and conservation.
Priority 4. Prevent or offset clearance of high carbon stock and high conservation value forest in agricultural and mining concessions.	
4.1	Conserve HCV-HCS forest within agricultural. concession areas, including developing & implementing a policy for the sustainable management of these conserved areas (using Priority 1 measures)
4.2	Apply policy of conserving HCS-HCV forest to all agricultural concessions, including private and community-owned farms larger than 1,000 ha.
4.3	Ensure that mining result in zero-net deforestation, through mechanisms such as biodiversity offsets.
4.4	Locate future large-scale agriculture and mining concessions in less dense and non-forest areas.
Priority 5. Fair and sustainable benefits from REDD+	
5.1	Define carbon rights and develop policies and regulations for upholding these.
5.2	Establish benefit sharing mechanisms for REDD+, in harmony with those operating in the forestry, mining, agriculture and other relevant sectors.
5.3	Operate a robust monitoring, reporting and verification system for demonstrating reductions in emissions achieved through REDD+ policies.

Source: LTS REDD+ Strategy Team (June 2016)

2.1.1 Strategy Options under Priority 1

Priority 1 focuses on the reduction of emissions from deforestation and degradation by supporting communities to sustainably use forest resources (see Table 2.1 above) with specific attention to pit sawing (Option 1.1), charcoal production (Option 1.2), shifting agriculture (Option 1.3), and hunting and mining regulations (Option 1.5). While most of these actions focus on diversifying livelihood options of rural Liberians, Option 1.4 focuses on shifting infrastructure development away from dense forest areas since road-building has been identified as a vector contributing to deforestation from in-migration facilitated by such developments.

The options presented under this priority stem from recognition that shifting cultivation, charcoaling (often a by-product of shifting cultivation) artisanal mining, and chainsaw logging contribute to deforestation in Liberia. A rough estimate based on proximity to existing settlements and roads and assuming forests are most vulnerable to deforestation and degradation in these areas, suggests that up to 70% of Liberia's forests face their greatest threats from local people. That said, the majority of Liberian rural dwellers are dependent on shifting cultivation for their food security and livelihoods. Further, urban dwellers are dependent on charcoal for their primary energy source, and timber from chainsaw logging provides the vast majority of construction and furniture timbers for the domestic market.

2.1.2 Strategy Options under Priority 2

Priority 2 attempts to reduce the impact of logging in Forest Management Contract and Community Forest Management Agreement areas. Currently, approximately 24% of the total forest area and 29% of forests with canopy cover of more than 80% are currently classified as commercial forests and identified for Forest Management Contract (FMC) management. The Liberia REDD+ Strategy Options Draft Report (LTS, 2016a) points out that there is "a well-developed policy and regulation in place for sustainable forestry but very little practical implementation", while recognizing that implementation is being strengthened with European Union (EU) support for the Voluntary Partnership Agreement (VPA) process.

Options under this priority focus on implementation of "high conservation standards" for commercial logging and conserving areas of High Conservation Value (HCV) within these areas. However, it is not clear if this will require additional regulatory development or if the REDD+ Strategy should merely seek implementation of existing legislation. For example, Option 2.1 may imply the introduction of a Forest Stewardship Council (FSC) standard, or similar. However, at this point, that standard has not been defined for Liberia, and so would currently require only adherence to existing law. Similarly, Option 2.2 suggests that HCV forests should be protected within logging concession areas, and while a HCV standard has been drafted, it has not been approved, nor is it clear if this would require additional regulation, or only enforcement of existing conservation and Environmental Protection Agency (EPA) legislation and policy.

2.1.3 Strategy Options under Priority 3

Priority 3 aims to conserve forest carbon stocks through the completion and management of a network of Protected Areas (PA) that would cover 30% of the forest area of the country. Proposed Protected Areas (PPA) currently cover about 18% of the Liberia's closed dense forest (>80% forest cover), leaving another 12–13% to be identified and included in the Protected Area Network (PAN) to meet this objective. While proposing this ambitious strategy, the REDD+ Strategy Team notes that the policy and regulatory framework for implementing the PAN and enforcing conservation measures is in place but is poorly implemented. This is not an insignificant capacity consideration given the current area covered by the PAN is approximately 3% of Liberia's forest area (Rothe et al., 2015). Accordingly, strengthening management capacity is an explicit part of the strategy options (Option 3.1).

The proposed options under this priority include expansion of the PAN through inclusion of PPA (Option 3.1) along with other areas of conservation importance which have not as yet been defined in the Strategy Option (Option 3.2). Perhaps in recognition of rural Liberian's dependence on some of these PPAs and other areas of conservation value, this priority includes the livelihood options under Priority 1 as complementary measures (Option 3.3). Importantly, Option 3.4 promotes a landscape level approach to conservation management, though further consideration is required as to how the landscapes are defined to take account of biodiversity values rather than for example being based on administrative units or commercial land use zones.

2.1.4 Strategy Options under Priority 4

Priority 4 aims to reduce emissions from deforestation by protecting high carbon stock and high conservation value forest in agricultural and mining concessions. Large agricultural concessions (primarily rubber and palm oil) cover 13% of the national land area and many of the areas included in

the concession area. Specifically, the Liberia REDD+ Strategy Options Draft Report (LTS, 2016a) estimates that concessions cover 12% of Liberia's forests and 10% of its dense forests (>80% canopy cover). The same report notes that deforestation from palm oil plantations (and permitted under the existing concession agreements) could result in the clearance of 5% of the total national forested area.

The strategy options cover a wide range of activities that would affect agricultural, mining and, and other concessions. Option 4.1 implies a requirement agricultural concession areas to uphold Roundtable on Sustainable Palm Oil (RSPO) or equivalent standards on clearing HCV/High Carbon Stock (HCS) forests. Currently all oil palm concessionaires subscribe to the RSPO standards, but requiring companies to uphold these standards might require legislative action. Option 4.2 applies conservation policies to all agricultural concessions and to private farms over 1,000 hectares. Option 4.3 addresses conservation offsets in mining concessions and Option 4.4 limits future concessions to less dense forest areas (<80% canopy cover).

2.1.5 Strategy Options under Priority 5

In recognition of the steps that Liberia has taken to establish a natural resource management that is both sustainable and equitable, the REDD+ strategy also includes a priority strategy and related options to promote the fair, equitable and sustainable distribution REDD+ benefits. This includes defining rights and drafting policies and regulations to uphold those rights (Option 5.1); the establishment of benefit sharing mechanisms that complement or are in harmony with existing mechanisms in other sectors (Option 5.2); and the development of a monitoring, reporting and verification system (MRV) to demonstrate reductions in emissions as a result of REDD+ activities (Option 5.3).

2.2 Social and Environmental Considerations

A key step in the SESA process was to identify and prioritize environmental and social issues (determined through desk study, case studies, analyses, multiple stakeholder meetings and validation processes) to determine and agree a set of SESA outcomes which then comprised the criteria against which the performance (positive or negative) of the REDD+ strategy could subsequently be assessed. The priority outcomes, and issues which informed their formulation (as synthesized from the suite of studies on stakeholder engagements), were considered in three categories: microeconomic, biophysical and macroeconomic and are summarized in Table 2.2 below. The methodology and further details of the prioritization exercise are presented in the SESA Prioritization Report (Tetra Tech, April 2016).

Table 2.2: Summary of Outcomes and Related Issues

SESA Outcome/ Assessment Criteria	Issues That Informed Outcome/Criteria Development
MICROECONOMIC	
Livelihoods	
1. Dependency on shifting cultivation reduced	• Shifting cultivation is the primary livelihood activity of the majority of rural population but rarely provides for more than subsistence livelihoods. • Where available, primary forest sites are preferred for shifting cultivation because of fertility and the possibility of undertaking other livelihood activities while working in the forest (NTFP collections, hunting, fishing, etc.). • Shifting cultivation in primary forest sites often establishes customary ownership rights. • Alternative, sustainable livelihood options are restricted by poor infrastructure, limited expertise, costs of inputs, access to markets and longstanding cultural practices.
2. Livelihoods diversified	• There are few evidence-based sustainable alternatives to shifting cultivation as a primary livelihood option. • Adoption of sustainable alternatives is limited by access to inputs, lack of expertise, poor markets, value chains, and infrastructure. • Permanent agriculture is limited by poor soils, limited inputs, and lack of expertise at local and institutional levels. • Diversification of land uses (e.g., tree crops) may lead to increased pressure on the land base for food production. • Many livelihood options are available only to local elites with large land holdings (e.g., tree crops). • Bushmeat is primary source of protein for rural dwellers; large-scale development of options are inaccessible to most communities and individuals. • Demand for bushmeat in urban communities is a main driver for commercial hunting. • Reducing demand for charcoal will have a negative impact on those that rely on the charcoal supply chain for income, particular if there are no viable sustainable alternatives.
3. Forest management improved through community forestry	• Community Forestry Management Areas (CFMAs) take time to develop and there is limited expertise and experience in their development. • The requirements under the existing legal framework for chainsaw logging are extremely difficult to implement and enforce. • Chainsaw logging is extremely inefficient (~30% of the value of the resource is realized) but portable sawmills and other technologies are not available. • Timber extraction by chainsaw loggers provides immediate benefits to individuals and communities. • Contractual requirement for timber concession holders to add value to logs is not enforced. • Tree crop economic benefits are generated only in the long term. • NTFP markets are currently limited for people located in remote regions (bushmeat and charcoal excepted).
Land	
4. Increased land security	• Those with deeded land have more land security than those with customary ownership. • Vulnerable groups have limited access to and use of land. • CFMAs are currently the only means to recognize customary rights to forests and the process is complicated. • Concessions overlap with customary land claims. • Proposed PAs overlap with customary land claims. • Land Rights Bill could strengthen community claims to land. • Designation of PAs and PPAs did not follow Free Prior and Informed Consent (FPIC) requirements. • Capacity to institute and administer land reform is limited.

SESA Outcome/ Assessment Criteria	Issues That Informed Outcome/Criteria Development
5. Adequate access to land for livelihoods	• Population growth is leading to increasing pressure and encroachment into, and unsustainable use of new forest areas; this contributes to forest degradation and threatens the ability of forests to provide subsistence benefit to local communities in the future. • In-migration around concession areas by people seeking work, compounds land pressure. • Land available for shifting cultivation outside of PAs and commercial concession is limited. • Further allocation of land to commercial concessions Forest Management Contracts (FMCs), TSCs, agricultural and mining concessions, and PAs will exacerbate land pressure. • Land grabbing is more prevalent in areas of higher population density. • REDD+ options may be regarded as concession-type arrangements by communities.
6. Reduced conflict over land	• Concessions and communities often conflict over land use, access to land, benefits and absence or limited nature of consultations. • Communities and government have conflicted over the establishment of PAs. • Conflict often occurs between communities and in-migrants who are seeking employment from concessions, or seeking access to the forests for bushmeat.
7. Land rights are maintained	• Concession agreements and conveyed rights are protected by legislation and approved by the legislature; changes to those rights may require (or result in) legal action. • Carbon sequestration may impose restrictions on land owners that may require compensation.
Governance	
8. Local leaders have skills to represent constituents	• Community leaders' and organizations' knowledge, access to information, and ability to represent their constituent's interests is limited, particularly for women and the most vulnerable. • Decisions are imposed on communities that are politically and economically isolated and this can lead to conflict.
9. Equitable, functioning benefit-sharing in place	• Distrust of the government is high. • National Benefit-sharing Trust Mechanism has not worked effectively or as designed. • Social agreements and negotiation thereof are driven by government and companies using templates and there are few opportunities for communities to engage on an equitable basis because of lack of skills and knowledge. • Community perceptions and expectations of concessionaires' role in community development is high.
10. Law enforcement increased	• Government agencies lack the skills, knowledge and logistic support to enforce existing laws.
11. Credible grievance redress mechanisms in place	• There are limited formal grievance redress mechanisms in place for communities.

SESA Outcome/ Assessment Criteria	Issues That Informed Outcome/Criteria Development
BIOPHYSICAL	
Climate Change	
12. Emission reduced and carbon sequestered	• While Liberia's forests are major sequesters of carbon, this storage capacity is threatened by a range of land uses that result in forest loss. • To date the main such activity has been shifting agriculture and the associated use of wood based fuels with the majority of carbon emissions (approximately 70%) in Liberia are currently being associated with traditional fuels such as firewood and charcoal. • While all companies with established oil palm concessions have signed up to Roundtable for Sustainable Palm Oil (RSPO), their standards with respect to climate change are not mandatory and may not provide adequate safeguarding of high carbon stock (HCS) and/or be appropriate for REDD+. • There is no legal basis for adoption and regulation of RSPO. • There are no sector standards applicable to conservation of HCS (voluntarily or required by law) adopted by other commercial agricultural activities notably rubber plantations and private farms nor for the forestry or mining sectors. • While stakeholder preference is to focus on retaining rather than creating new areas of HCS this preference may be driven by biodiversity concerns and it is not clear which would deliver a Bette outcome in relation to carbon stock. • Stakeholders expressed a desire to promote extension of forests into degraded areas. • Mangroves sequester significant amounts of carbon and are also under threat from human uses. • While currently at low levels animal husbandry is a measurable contributor to GHG emissions.
13. Resilient landscapes and livelihoods	• Data relating to climate change vulnerability are limited and/or unavailable. • National policy recognizes Liberia's vulnerability to climate change and the need to develop its ability to adapt, and develop resilience, to climate change. • REDD+ measures aimed at diversifying livelihoods should take into account climate change resilient landscapes and land uses, including crops and varieties as well as types of livestock and their successful integration in the site-specific agroforestry systems. • Mangroves play an important function in protection of coastal areas from flooding, storm surges and coastal erosion arising from climate change.
Biodiversity	
14. Conservation of natural habitats	• Much of Liberia is likely to qualify as natural habitat, as defined under WB OP4.04, and significant areas will also qualify as critical natural habitat. Such sites will occur both inside and outside of protected areas. While the majority of critical natural habitats are likely to be in forests they may also occur outside of them notably in wetlands. • All SOs and interventions aimed at conserving biodiversity should include specific consideration of natural and critical natural habitat. • All interventions should be screened for their potential to affect critical habitats and if they do should ensure that there is no conversion of such habitat; Special attention may be needed for development outside of forest for example siting of new infrastructure and agricultural activity notably those that may be located within or close to swamps or wetlands. • Owing to the spatial extent of natural habitat within Liberia it is likely that most intervention that have potential to affect such areas and will therefore be subject to the conditions to demonstrate there are no feasible, sustainable alternatives to achieve the project's substantial overall net benefits; and ensure acceptable mitigation measures are in place. • Many of the REDD+ interventions that support conservation of forests have the potential to enhance the protection of critical natural habitat. The degree to which this occurs will however be dependent on the intervention locations. There should be a preference for selecting intervention sites that promote such outcomes.

SESA Outcome/ Assessment Criteria	Issues That Informed Outcome/Criteria Development
15. Conservation through a landscape approach	• Conservation through establishment of PAs has to date proved challenging. • Many communities are adamant that ownership of the forests proposed for protection need to be clarified prior to creation of the protected areas and the ownership of the forests proposed for protection may be contested by communities. • There is lack of capacity to effectively manage areas that have been gazette. • Even if implemented, the current proposed PAN will not deliver Liberia's 30% forest protection commitment. • Areas outside the current PAN contain important biodiversity and features including those necessary for the functioning of the PANs and the species they support. These features occur both inside and outside of forests. Degraded forests and those of low carbon value may often provide important habitat for flora and fauna and, under appropriate conditions (natural regeneration, enrichment planting), can regenerate to native forest. • A landscape approach that takes account of ecosystem mosaics at different spatial scales and creates an integrated and consistent approach to conservation within such specific landscapes is likely to best deliver conservation outcomes in the Liberian context. • Such a landscape approach and may be easier to implement than an approach that relies entirely on PAs as it does not require strict protection of all areas and has potential to capitalize on opportunities (offered by the package of conservation measures (notably areas of high conservation value (HCV)[3] set asides, offsets, sustainably managed FMCs and CFMAs, and conservation agreements) together with PAs. • Such a landscape approach needs to be informed by a systematic national categorization of landscape conservation and a mechanism areas, and requires establishment and management of a model for implementation of such an approach that involves private, government, and nongovernmental organization (NGO) sectors.
16. Reduce biodiversity loss from shifting cultivation & other community exploitation of forest resources	• Shifting agriculture is a major driver of forest and related biodiversity loss. • There are few examples of successful agricultural intensification and small enterprise development. A better understanding of the limitations and what may work in practice is necessary as a first step in developing related strategies. • A consistent and integrated approach to consolidating and analyzing the results of both experience to dates and any future pilots, including those implemented under REDD+ is essential. • Addressing bushmeat hunting (in the short term) is likely to be most effective through a combination of enforcement of hunting laws prohibiting protected species, and permitting sustainable hunting of other (non-protected) species. This would need to be support by incentive for which there is currently little evidence of what ma works and therefore requires further study. • In the longer term, effort should also focus on the demand side originating from urban areas. • Interventions related to charcoal production need to focus on the demand side notably through increasing efficiency and alternative energy sources for urban populations. • Chainsaw logging is very inefficient but provides domestic timber demand. In the absence of sustainable alternatives, improving efficiency and regulating the sector should be considered as interventions. • Mangroves are a priority for protection due to their conservation importance and exploitation for community uses. • All the above need to be complemented by alternative, sustainable livelihood options and face the same challenges as described for shifting cultivation above.

[3] HCV is a designation used to describe those forests that meet criteria defined by the Forest Stewardship Council's Principles and Criteria of Forest Stewardship. It has also been adopted by other sectors (notably palm oil), and by banks and other investors.

SESA Outcome/ Assessment Criteria	Issues That Informed Outcome/Criteria Development
17. Reduce biodiversity loss from commercial activities	• While FMCs and commercial CFMAs should be managed sustainably in practice this is not happening; in addition, the assumption that a 25 year rotation is sustainable (in FMCs) is not proven. Further such measures may not be sufficient to adequately safeguard biodiversity. • Although covering a small area TSCs are not subject to measure to conserve biodiversity that may be present within them, which is therefore vulnerable to loss. • All companies with established oil palm concessions have signed up to RSPO and are thus required to identify and set aside HCV areas (which includes under HCV1–4 those of biodiversity value). However: 1. There is no legal basis for adoption and regulation of RSPO; 2. There are no measures to protect areas set aside under RSPO from other community uses; and 3. There are no measures within RSPO to avoid leakage of activities that would otherwise occur within the concession or its set asides to other areas of biodiversity importance. • There are no sector standards applicable to conservation of biodiversity (voluntary or required by law) for other commercial agricultural activities notably rubber plantations and private farms and uncertainty as to how RSPO may apply to palm oil growers. • The requirement for offsets for mining activities (understood but not confirmed to be in the draft mining act) offers potential opportunity for biodiversity conservation but requires support to develop a national scheme and standards to ensure this is achieved in practice • Conservation Agreement and P-PAs associated with commercial activities may have potential in addressing some of the above.
Water & Soils	
18. Water quality maintained	• Forests play a critical role in maintaining Liberia's water resources, which in turn provide a range of ecosystems service to communities and biodiversity. • There is limited information on hydrology and wetlands. • Proposals for agricultural intensification and lowland rice cultivation could threaten water quality and availability. • Any use of pesticides should take account of World Bank (WB) Operational Policy (OP) 4.09 that requires the adoption of integrated pest management practices that promotes biological control in favor of synthetic chemical methods.
19. Soil quality maintained	• Most of Liberia has soils with low chemical fertility growth. • Tree cover performs an important function in soil conservation including their fertility, erosion and carbon storage potential. • The slash and burn agricultural system is thus dependent on the short term fertility provide by that technique. • Further research is require to establish the condition under which soil fertility can be maintained under other more sedentary small-scale agricultural regimes that can support livelihoods and cash crops.
MACROECONOMIC	
Revenues	
20. Increased sustainable revenue from forests	• Commercial timber development under FMCs/TSCs/CFMAs/other concessions provides important source of national revenue and foreign exchange. • REDD+ support is limited and unknown and may not be sufficient to set up a self-sustaining system.
Goods and Services (Domestic Demand)	
21. Adequate supply of energy for urban population	• Urban Liberians are reliant on charcoal as a major energy source with few viable, sustainable alternatives. • Capacity to manage charcoal is limited. • Knowledge and availability of efficient charcoal production technology is limited.

SESA Outcome/ Assessment Criteria	Issues That Informed Outcome/Criteria Development
22. Sustainable domestic timber supply	• There is a large and growing demand for domestic timber that is currently met almost exclusively from chainsaw logging. • Value-added processing is extremely limited and has not been developed as planned.
23. Land is available for commercial development	• Liberia's economic development strategy includes commercial development of its land and natural resources in diverse and competing sectors. • There is limited understanding of REDD+ even within the forestry sector which may be necessary to shift land use patterns.
Employment	
24. Jobs for unskilled laborers	• Commercial timber development under FMCs/TSCs/CFMAs/other concessions provide jobs. • A large number of unskilled forestry workers are dependent on commercial and ancillary activities for their livelihoods. • Educational opportunities (particularly vocational skill development) are limited for skills development.

3.0 E&S LEGAL AND INSTITUTIONAL FRAMEWORK

3.1 LIBERIAN REQUIREMENTS

The Act Adopting the Environmental Protection and Management Law of the Republic of Liberia, approved in late 2002, (GoL, 2003) and hereafter referred to as the Environment Protection and Management Law (EPML) is the principal piece of overarching legislation covering environmental protection and management in Liberia. It provides the legal framework for the sustainable development, management and protection of the environment by the EPA in partnership with relevant ministries, autonomous agencies and organizations. Full details of the Liberia environmental and social legal and policy framework relevant to REDD+ are provided in the SESA Report. Aspects related to the management of such issues through the EIA process and most relevant to the ESMF are outlined below.

3.1.1 Environmental Impact Assessment (EIA)

Part III of the EPML covers provisions for environmental impact assessment. Annex 1 of the EPML includes a list of projects and activities which require an environment impact assessment license or permit prior to implementation. Table 3.1 presents a list of projects that could be undertaken under the REDD+ Strategy that fall within Annex 1 and could thus potentially trigger the requirement for an EIA license or permit.

Table 3.1: Selected Annex 1 Projects/Activities Relevant to REDD Strategy

Sector	Types of Projects/Activities
Agriculture	• Cultivating natural and semi-natural not less than 50ha • Water management projects for agriculture (drainage, irrigation) • Large scale mono-culture (cash and food crops) • Pest control projects (tsetse, army worm, locusts, rodents, weeds, etc.) • Fertilizer and nutrient management • Introduction of new breeds of crops
Livestock and range management	• Introduction of new breeds of livestock • Introduction of improved forage species • Fencing
Forestry Activities	• Forest plantation and afforestation and introduction of new species
Fisheries	• Medium to large scale fisheries • Artificial fisheries (aqua-culture for fish, algae, crustaceans, shrimps, lobster or crabs)
Wildlife	• Creation of national parks and game reserves
Land reclamation and land development	• Rehabilitation of degraded lands
Multi-sectoral Projects	• Agro-forestry – Dispersed field-tree inter-cropping – Alley cropping – Living fences and other linear planting – Windbreak/shelter belts • Integrated conservation and development programs e.g., protected areas • Integrated Pest Management (e.g., IPM) • Diverse construction—storage building, tree nurseries, facilities for ecotourism and field research in protected areas, enclosed latrines, small enterprise, logging mills, manufacturing furniture carpentry shop, access road, well digging, etc. • River basin development and watershed management projects
Urban and Rural Development	• Infrastructure (rural and urban)
Policies and Programs	• Decisions of policies and programs and legislative acts on environment and development • Decisions to change designated status • Technical assistance • Urban and rural land use development plans (e.g., master plans, etc.)

It should be noted that Annex 1 requires policies and programs to apply for an EPA license. However, the process described in the EPML focuses on the process for projects or activities. As a result, there is currently no legislated process by which policies, regulations or legislation (all of which will be required to fully implement the REDD+ Strategy) are vetted for their environmental and social impacts.

3.1.2 Notice of Intent and Screening (Project Brief)

Prior to commencement of activities listed in Annex 1 of the EPML a Notice of Intent must be submitted to the EPA and a screening exercise undertaken to determine whether the project is exempt from an EIA study or, if not, which of two levels of such study are required to obtain the necessary permit. These comprise:

- An Environmental Review (ER) if a project may have a significant impact on the environment but this is uncertain. This is undertaken to determine if a full EIA is required; and
- A full EIA if a project is likely to have significant impacts on the environment.

A project is exempt from such studies either if the screening identifies there is minimal potential for significant impacts, or if adequate mitigation measures are identified in the screening to address any impact; in the latter case a Finding of No Significant Impact (FONSI) is made and the associated certificate of approval is issued. The certificate of approval may in some instance require public consultations prior to issuance.

The Notice of Intent and Project Brief (which is submitted to inform the screening) can both be completed by the Project proponent[4]. This informs the screening decisions which is made by the EPA.

3.1.3 Environmental Review and EIA

If potential for significant impacts are identified at screening then depending on the outcome of hat exercise either an Environmental Review or ESIA procedures will be followed. In the case of the ESIA a Scoping Report, which includes the proposed Terms of Reference (ToR) for the EIA, must be submitted to and approved by the EPA before that study can be progresses. There is a requirement for public consultation during both the Scoping Study and full EIA. There may also be a requirement for a degree of consultation during preparation of the environmental review. A summary of these steps presented in Figure 3.1.

The EPA, Line Ministry, and relevant agencies review the Environmental Review or EIA Report. Public consultation is also required and, if deemed necessary, a public hearing may be undertaken prior to the EPA providing a decision on whether to grant approval and issue an EIA license or permit to enable the project to proceed.

3.2 World Bank Requirements

Projects financed by the WB are required to comply with its safeguard policies. Table 3.2 outlines the broad objectives of the Bank's safeguards policies that are potentially relevant to implementation of the Liberian REDD+ Strategy. The general conditions under which they may apply is also presented.

[4] Although not specified in the EPML, the EPA has recently introduced a simple screening template which in some instance can be used rather than the Project Brief to request a screening decision. These forms need to be signed by a registered evaluator.

Figure 3.1: Liberian EIA process

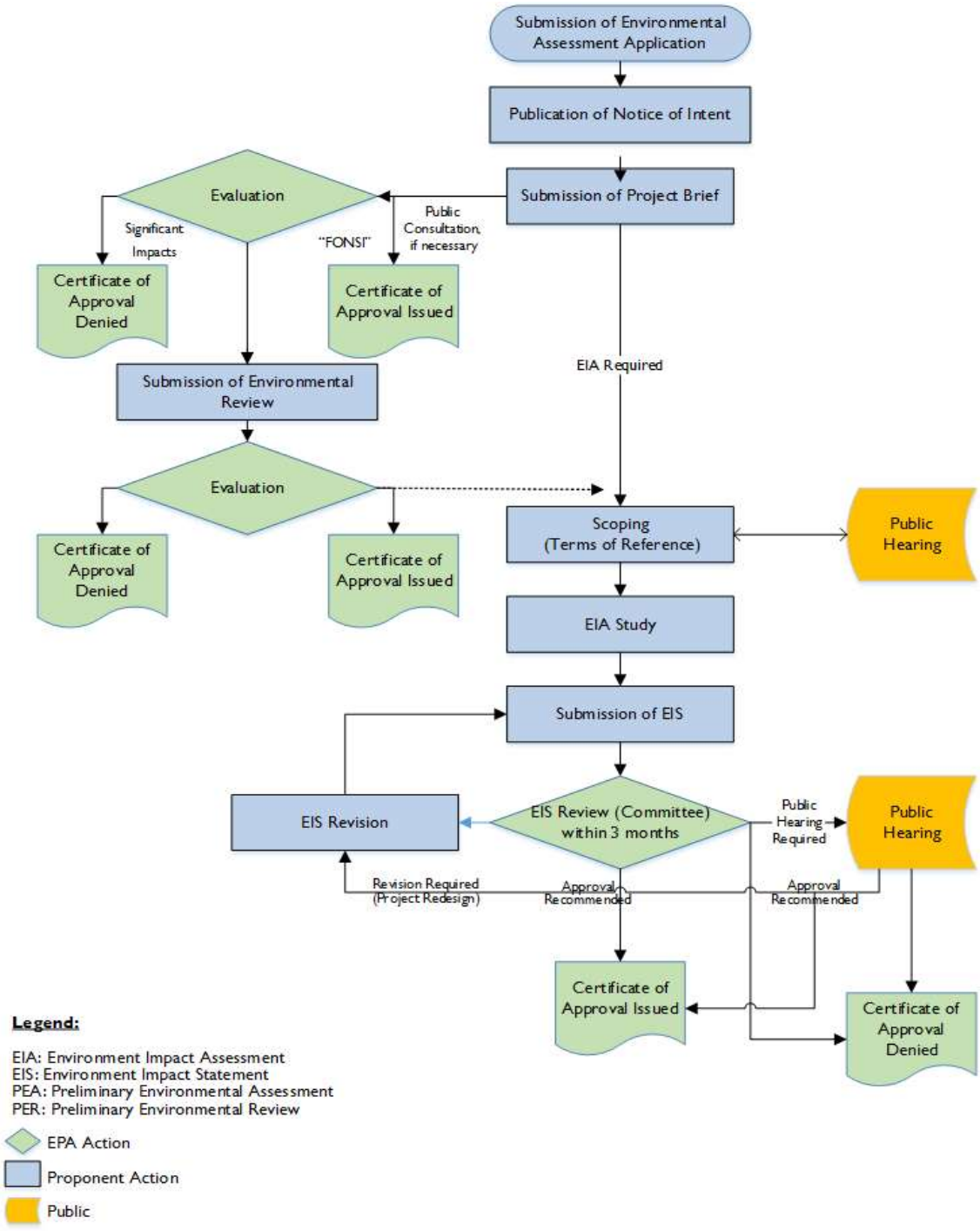

Table 3.2: Summary of World Bank's Safeguards Policies

Policy	Objective	Trigger for the Policy
OP/BP 4.01 Environmental Assessment	The objective of this policy is to ensure that Bank- financed projects are environmentally and socially sound and sustainable, and that decision-making is improved through appropriate analysis of actions and of their likely environmental and social impacts. This policy is triggered if a project is likely to have potential (adverse) environmental or social risks and impacts on its area of influence. OP 4.01 covers impacts on the natural environment (air, water and land); human health and safety; physical cultural resources; and trans boundary and global environment concerns.	Depending on the project, and nature of impacts a range of instruments can be used: EIA, environmental audit, hazard or risk assessment, EMP, ESMF. When a project is likely to have sectoral or regional impacts, sectoral or regional EA is required. The Borrower is responsible for carrying out the ESIA. For projects involving subprojects, identified and developed over the course of the project period, during the preparation of each proposed subproject, the project coordinating entity or implementing institution carries out appropriate EA according to country requirements and those of OP4.01 See also Table 3.2 below on Categorization of projects and the nature of EA required for each category
OP/BP 4.04 Natural Habitats	Natural habitats are land and water areas where most of the original native plant and animal species are still present and may occur both insider and outside of forests. Natural habitats comprise many types of terrestrial, freshwater, coastal, and marine ecosystems. They include areas lightly modified by human activities, but retaining their ecological functions and most native species. Critical natural habitats include: • Existing and proposed protected areas area; protected by traditional local communities (e.g., sacred groves), and sites that maintain conditions vital for the viability of these protected areas ; and or • Sites identified by authoritative source or recognized by tradition al local communities; high suitability for bio-diversity conservation; support critical for rare, vulnerable, migratory, or endangered species. Both natural and critical natural habitats can occur inside and outside of forests The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. If the EA indicates that a project would significantly convert or degrade natural habitats, the project must include mitigation measures acceptable to the Bank. This bank policy prohibits financing for developments that would significantly convert or degrade critical natural habitats.	This policy is triggered by any project with the potential to cause significant conversion (loss) or degradation of natural habitats or critical natural habitats, whether directly (through construction) or indirectly (through human activities induced by the project).

Policy	Objective	Trigger for the Policy
OP/BP 4.36 Forests	The objective of this policy is to assist borrowers to harness the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development and protect the vital local and global environmental services and values of forests. Where forest restoration and plantation development are necessary to meet these objectives, the Bank assists borrowers with forest restoration activities that maintain or enhance biodiversity and ecosystem functionality. The Bank assists borrowers with the establishment of environmentally appropriate, socially beneficial and economically viable forest plantations to help meet growing demands for forest goods and services. Under this policy There is a presumption against creation of plantations, within natural forest habitats and commercial harvesting can only be undertaken outside of critical natural habitat. Community based subsistence (i.e., non-commercial) harvesting may be allowed in category VI Protected Areas (which is considered under OP4.36 as critical natural habitat) where joint or community management activities form an integral part of the management plan In general preference should be given to small scale community managed approaches where they best harness potential to forests to reduce poverty in a sustainable manner. Where this is the case it should consider the extent to which communities use trees, the institutional policy and management issues related to full participation and benefit sharing including by the poor and vulnerable Proposals that involve use of forest resources or services should include an evaluation of new markets for non-timber forest products	This policy is triggered whenever any Bank-financed investment project (i) has the potential to have impacts on the health and quality of forests or the rights and welfare of people and their level of dependence upon or interaction with forests; or (ii) aims to bring about changes in the management, protection or utilization of natural forests or plantations
OP 4.09 Pest Management	The objective of this policy is to (i) promote the use of biological or environmental control and reduce reliance on synthetic chemical pesticides; and (ii) strengthen the capacity of the country's regulatory framework and institutions to promote and support safe, effective and environmentally sound pest management. More specifically it aims to (a) ascertain that pest management activities in Bank-financed operations are based on integrated approaches; (b) ensure that health and environmental hazards associated with pest management, especially the use of pesticides are minimized and can be properly managed by the user; (c) as necessary, support policy reform and institutional capacity development to enhance implementation of IPM-based approaches and regulate and monitor the distribution and use of pesticides. Pesticides in WHO Classes IA and IB may not be procured for Bank supported projects.	Policy is triggered if : (i) procurement of pesticides or pesticide application equipment is envisaged (ii) the project may affect pest management in a way that harm could be done, even if it is not envisaged to procure pesticides e.g., if it may: lead to substantially increased pesticide use and subsequent increase in health and environmental risk; (ii) maintain or expand present pest management practices that are unsustainable, not based on an IPM approach, and/or pose significant health or environmental risks.
OP/BP 4.11 Physical Cultural Resources	The objective of this policy is to assist countries to avoid or mitigate adverse impacts of development projects on physical cultural resources, where "physical cultural resources" are defined as movable or immovable objects, sites, structures, groups of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. They may be located in urban or rural settings, and may be above ground, underground, or underwater. The cultural interest may be at the local, provincial or national level, or within the international community.	(a) any project involving significant excavations, demolition, movement of earth, flooding, or other environmental changes; and (b) any project located in, or in the vicinity of, a physical cultural resources site recognized by the borrower or (c) is designed to support management of physical cultural resources It then requires the project proponent to identify measures to avoid or mitigate for removal alteration or damage to such features

Policy	Objective	Trigger for the Policy
OP/BP 4.12 Involuntary Resettlement	The objective of this policy is to (i) avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs; (ii) assist displaced persons in improving their former living standards, income earning capacity, and production levels, or at least in restoring them; (iii) encourage community participation in planning and implementing resettlement; and (iv) provide assistance to affected people regardless of the legality of land tenure.	This policy covers not only physical relocation, but any loss of land or other assets resulting in: (i) relocation or loss of shelter; (ii) loss of assets or access to assets; (iii) loss of income sources or means of livelihood, whether or not the affected people must move to another location. This policy also applies to the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons
The WB Group Environment, Health and Safety (EHS) Guidelines	The General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors. The guidelines include; • Air Emissions and Ambient Air Quality • Energy Conservation • Wastewater and Ambient Water Quality • Water Conservation • Hazardous Materials Management • Waste Management • Noise • Contaminated Land • Occupational Health and Safety Guidelines • Community Health and Safety • Construction and Decommissioning	These guidelines should I be followed during the preparation of mitigation measures. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are expected to achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, a full and detailed justification for any proposed alternatives is needed as part of the site-specific environmental assessment. This justification should demonstrate that the choice for any alternate performance levels is protective of human health and the environment.

3.2.1 Environmental Assessment (OP4.01)

This policy requires projects proposed for WB financing to conduct an EA (if appropriate) to ensure that they are environmentally and socially sound and sustainable, and to enable their performance i to inform decision making.

The breadth, depth, and type of analysis undertaken in the EA will depend on the nature, scale, and potential environmental and social impact of the proposed project. This is in turn influenced by both the scale and nature and activities associated with the project (e.g., land required, resources consumed, emissions and discharges) and the nature and sensitivity of features potential affected by it. Such potentially affected features include: natural environment (biodiversity, air, water, land); human health and safety; communities (including those affected by involuntary resettlement,).

For projects funded by the WB, the WB requires environmental and social screening of each project to determine the appropriate extent and type of environmental and social assessment needed. This screening process classifies projects into one of three categories (A, B, C) as specified in Table 3.3, based on the criteria outlined above

Table 3.3: World Bank EA Screening Categories

Category "A"	An EIA is always required for projects that are in this category. There is potential for impacts to be expected to be 'adverse, irreversible and diverse. Activities may involve pollutant discharges large enough to cause degradation of air, water, or soil; large-scale physical disturbance of the site or surroundings; extraction, consumption or conversion of substantial amounts of forests and other natural resources; conversion of critical habit or significant areas of natural habitat , measurable modification of hydrological cycles; use of hazardous materials in more than incidental quantities; involuntary displacement of people and other significant social disturbances. Details on the content of the EA report for Category A projects are provided in OP4.01 Annex B.
Category "B"	This category and related provisions applies when the project's adverse environmental impacts on human populations or environmentally important areas (including wetlands, forests, grasslands, and other natural habitats) are less adverse than those of Category A projects. Impacts are site specific; few, if any, of the impacts are irreversible; and in most cases, mitigation measures can be designed more readily than for Category A subprojects. The scope of environmental assessment for a Category B project may vary from project to project, but it is narrower than that of a Category A project. It examines the project's potential negative and positive environmental impacts, and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. In some cases of Category B project, only a management plan may be required
Category "C"	This category applies if the project is likely to have minimal or no adverse environmental impacts. Beyond screening, no further environmental assessment action is required for a Category C project.

4.0 OVERVIEW OF POTENTIAL FUTURE IMPACTS

4.1 METHODOLOGY

In order to determine the potential social and environmental impacts of the Strategy Options (SO), each of the SO has been assessed against the SESA Outcomes presented above in Table 2.2 which were identified through extensive stakeholder consultations, desk studies and research. From this analysis, potential social and environmental impacts (both positive and negative) for each of the Strategy Options under each of the five Strategic Priority areas are identified and described in the section below.

Where the REDD+ Strategy options resulted in negative performance against the SESA outcomes, recommendations have been made to improve such performance. These improvements, or modifications along with summary descriptions of the potential impacts are presented in Attachment 3. These modifications fall into one of three categories as follows:

1. **Strategy Adjustments**: These relate to areas where, without modification, the SO could promote interventions that give rise to significant adverse environmental or social impacts. These may be challenging to subsequently address at the intervention, planning and implementation stages without revisions to the SO themselves. For this reason, it is recommended that these adjustments be fully considered prior to finalization of the REDD+ Strategy to strengthen or clarify the Strategy Option moving forward.

   It is important to note that the draft ESMF included an assessment of the potential impacts of the strategy options and presents a number of modifications to address impacts and strengthen the overall strategy. Some of these have been taken into consideration by the REDD+ Strategy Team and were incorporated into the July 2016 version of the REDD+ Strategy. These recommendations and whether or not they were incorporated into that draft, are presented in Attachment 1.

2. **Institutional and legal measures.** These measures focus on building **institutional capacity** for implementation, or address **legal gaps** that exist in the current framework but are required to ensure the SESA outcome are achieved. Capacity interventions focus on developing the technical and logistical expertise to implement the strategy and may also take into account realistic time frames for their implementation in light of current capacity constraints, including budgetary constraints or limitations. Legal interventions include the development of legal mechanisms that are needed to implement the strategy. These may include regulations, national standards, or even coordinating committees that may be necessary to realize REDD+ SESA Outcomes. The REDD+ Strategy currently does not address these issues, but these will be critical for the effective implementation of REDD+. Accordingly, these should be incorporated directly into the Strategy, or should be incorporated into the transformation stage of the REDD+ Strategy Implementation.

3. **Mitigation Measures.** These relate to areas where, without specific measures, interventions implemented under the strategy could either give rise to:

   a. Negative impacts which can be addressed through established measures, (siting considerations etc.) at project implementation; or

   b. Positive impacts but can be enhanced through established measures at project implementation.

   These measures can be developed as each intervention is planned and implemented. While they do not therefore require any modification to the SOs, they were identified in the SESA to ensure that they are included within the ESMF and are thus considered as appropriate through its application and implementing mechanisms (screening, ESIA, ER, etc.) to enable potential impacts to be both identified and managed at the project level. These measures have been critical in developing the scope of this ESMF.

4.2 STRATEGIC PRIORITY 1: IMPACTS

Priority 1 focuses on strategic options to reduce the drivers of deforestation that emanate from communities use of forests and related resources. In recognition that these communities are dependent on the forest for their livelihood activities and that deforestation activities are primarily driven by a lack of sustainable alternatives, the strategic options attempt to provide alternatives and increase the productive use of forest and forest land resources. The five SOs to support this priority are:

1.1 Reduce impact of chainsaw logging through better regulation, improved efficiency, and developing alternatives.

1.2 Reduce impact of charcoal industry on forest through better regulation, improved efficiency, and the development of alternative energy sources.

1.3 Reduce expansion of shifting agriculture in forest areas by promoting permanent food cash crops in non-forest areas and through conservation agriculture.

1.4 Locate services and new infrastructure development beyond a 3-km buffer from areas of dense forest and PAs (including PPAs).

1.5 Integrate hunting, artisanal mining, and forest restoration into community-led livelihood and sustainable forest management practices.

4.2.1 Microeconomic Impacts

Livelihoods (Outcomes 1–3)

Outcome 1: Dependency on Shifting Cultivation Reduced. The capacity to enforce regulations related to chainsaw logging (SO1.1), charcoaling (SO1.2), hunting (SO1.5) and mining (SO1.5) is extremely limited. However, if implemented, these could actually increase the incidence of shifting cultivation if sustainable alternatives are not provided. Similarly, SO1.3 will only have an impact if viable, sustainable alternatives5 are available.

It is unlikely that limiting infrastructure development to areas more than 5 kilometers from a Protected Area (SO1.4) will have a direct impact on shifting cultivation dependency in dense forest areas since the lack of infrastructure and service development will further limit the availability of agricultural and other inputs that may reduce shifting cultivation.

Outcome 2: Livelihoods Diversified. Activities and related policies designed to maintain or enhance HCV(1-4)/HCS forests by providing sustainable alternatives to shifting cultivation (SO1.3), managing chainsaw logging operations and charcoaling (SO1.1 and SO1.2), enforcing hunting and mining regulations (SO1.5) will only be successfully implemented if viable, sustainable livelihood alternatives are available for those displaced by implementation of these options. To date, there is poor evidence that there are viable sustainable alternatives to shifting cultivation for Liberia's rural population.

Outcome 3: Forest Management Improved through Community Forestry. This priority outcome is linked to the growing interest by communities in managing their own forests, and the strong possibility that many of Liberia's forests will be managed by communities in future. If SO1.1, SO1.2, SO1.3 and SO1.5 are linked to community forest management, they could have a positive impact on this outcome. However, the degree of impact will depend on implementation of community forestry—how extensively it is used to manage forest landscapes both by LFSP and others, and what resources are brought to bear on that effort.

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[5] In this context, "viable alternatives" refers to this livelihood activities that provide incentives for people to change livelihood activities and related behaviors and that can be easily adopted. For example, permanent agriculture may be an alternative livelihood, however if the tools, inputs (e.g., seeds, fertilizers, pesticides) expertise (extension services, identification of suitable soils), and markets (in the case of non-subsistence livelihood activities) are not readily available, it cannot be considered a viable alternative.

Land (Outcomes 4–7)

Outcome 4: Increased Land Security. The development of permanent agriculture under SO1.3 could provide incentives to formalize land title, leading to more security of tenure.

Outcome 5: Adequate Access to Land for Livelihoods. No impacts were identified.

Outcome 6: Reduced Conflict over Land. The proposed options will have limited effect on this Outcome. However, enforcement of chainsaw logging regulations (SO1.1) could increase the demand for chainsaw logging in authorized areas such as community forests. This could lead to conflicts between communities and chainsaw loggers over land use, and threaten customary ownership. Alternatively, if the regulation cannot, or is not enforced, chainsaw loggers may opt to exploit less regulated customary lands and merely displace deforestation to these areas.

Outcome 7: Existing Land Rights Are Maintained. The proposed options will have limited effect on this Outcome. However, enforcement of chainsaw logging regulations (SO1.1) could increase the demand for chainsaw logging in authorized areas such as community forests. Depending on how able communities are able to negotiate with chainsaw loggers, regulate their actions, and distribute benefits, conflicts could arise between communities and chainsaw loggers over land use, and threaten customary ownership. Depending on whether the development of permanent agriculture (SO1.3) would require security of land tenure, the development of permanent agriculture could solidify customary claims, or could contribute to land grabbing. Afforestation activities (SO1.5) could provide security of tenure to customary owners or undermine those rights if land grabbing results.

Governance (Outcomes 8–11)

Outcome 8: Local Leaders Have Skills and Information to Represent Constituents. The proposed strategies in their current state do not address local governance issues so it is unclear how, or if, the strategy would affect this outcome.

Outcome 9: Equitable, Functioning Benefit-sharing Mechanisms in Place. Stakeholders raised concerns that charcoaling often benefits middlemen disproportionately. Management of charcoaling under SO1.2 could affect the existing relationships between charcoalers and middlemen dealers, and disrupt existing value chains.

Outcome 10: Law Enforcement Increased. Successful implementation of this strategy would strengthen this objective and larger governance objectives. However, enforcement of regulations related to chainsaw logging (1.1), charcoaling (1.2) hunting (1.5) and mining (1.5) will not be possible unless tremendous and long-term investments are made in capacity building of FDA in both technical and logistical terms. Without this, unenforceable policies and regulations will not only undermine the REDD+ strategy, but will undermine the rule of law.

Outcome 11: Credible Feedback and Grievance Redress Mechanisms in Place. It is not possible to assess the potential impact of the strategy options against this priority outcome as the Feedback and Grievance Redress Mechanism (FGRM) has not yet been developed and is not addressed in the strategy options above.

4.2.2 Biophysical Impacts

Climate Change (Outcomes 12–13)

Outcome 12: Emissions Reduced and Carbon Sequestered. All SOs under Priority 1 have the potential to contribute positively to Outcome 12, either *directly* through restricting or controlling activities (chainsaw logging and charcoal production) that result in forest loss (SO1.1 and SO1.2) or through establishing sustainable levels of hunting and artisanal mining and forest management (SO1.5), or *indirectly* through diverting activities away from forested areas (SO1.3 and SO1.4). However, SOs 1.1, 1.2, and 1.5 will only be achieved if the intervention does not displace such activities to other areas (i.e., through leakage) and the total net loss of biomass (under SO1.1 and 1.2) is less than what would occur in the absence of the intervention.

A focus on reducing levels of extraction by suppressing urban demand is likely to be key to achieving this objective. The promotion of alternative fuel sources and/or increasing burning efficiency through improved stoves as proposed through various measures under SO1.2 will therefore be important.

Similarly, improving the efficiency of chainsaw logging (which is currently understood to be low at approximately 30% [Blackett, Lebbie, & Marfoe, 2009]) and establishing woodlots for timber and fuelwood (highlighted as gap to be considered) for addressing activities under SO1.1 could improve performance in this area.

It is also noted that charcoal comprises only 8.5 percent of the firewood- and charcoal-based energy generation in Liberia (EPA, 2013), which implies that measures to manage firewood harvesting, not currently included in SO1.2, would perform better against Outcome 12 than those addressing charcoal. Similarly, addressing conservation of carbon sequestered in mangroves under SO1.2 would improve performance in this area. Promotion of livestock rearing and the potential use of nitrogen-based fertilizers to increase soil productivity (SO1.3) could contribute to GHG emissions, resulting in negative performance against this outcome as a result of enteric fermentation and emissions of nitrous oxides.

Outcome 13: Resilient Landscapes and Livelihoods. Retention and creation of carbon stock, associated with all SOs under Outcome 12, may contribute to the maintenance of climate-resilient landscapes and thus provide protection from climate-related shocks to food and livelihood. The degree to which this would be achieved, however, will depend on the interventions and their locations. Interventions relating to food and cash crop activities (SO1.3) could have either significant positive or negative impacts on resilience, depending on the choice of crops and seed varieties used. Therefore, it is important that interventions be appropriately designed to optimize the climate-resilient benefits and avoid adverse impacts.

Biodiversity (Outcomes 14–17)

Outcome 14: Conservation of Natural Habitats (WB OP4.04 and 4.36). While all SOs under Priority 1 are likely to promote Outcome 14, their performance could be enhanced by prioritizing interventions under SO1.1, SO1.2, and SO1.5 in areas that may qualify as critical natural habitat. Non-forest areas may qualify under such criteria and could thus be affected through the siting of agricultural activities or new infrastructure under SO1.3 and SO1.4. Particular features of concern are swamps and wetlands that could be targeted for lowland agriculture under SO1.3.

Outcome 15: Conservation through Landscape Approach. While most SOs under Priority 1 are likely to promote retention or creation of forests, results could be more effectively achieved and maximized if locations that support conservation features within a wider biodiversity landscape mosaic (discussed under SO3.4) are prioritized. Promotion of permanent crops (SO1.3) and siting of infrastructure and services in non-forest areas (SO1.4) may impact both directly (siting) and indirectly (due to induced development and land uses) on biodiversity features that are present outside of forests, including those that may qualify as critical natural habitat. Particular features of concern are swamps and wetlands that could be targeted for lowland agriculture.

Outcome 16: Reduce Biodiversity Loss from Shifting Cultivation and Other Community Activities. Most of the SOs could contribute to this outcome, but only if they successfully divert human activity away from forest areas while maintaining the necessary social economic safeguards, including sufficient alternative livelihood options to replace the compounded losses from all the activities listed above. As discussed above, the evidence to date for such changes is limited.

Outcome 17: Reduced Biodiversity Loss from Commercial Activities. None of the interventions under Strategic Priority 1 relate to or have the potential to affect commercial activities, and therefore will have a neutral influence on Outcome 17.

Water and Soils (Outcomes 18–19)

Outcome 18: Water Quality Maintained and **Outcome 19: Soil Quality Maintained.** Promotion of forest retention and establishment of woodlots under SO1.1, SO1.2, and SO1.5 could result in vegetation maintenance, thus safeguarding water and soils through soil stability and productivity and

regulating water flows. The degree of positive outcome will be highly dependent on the location and nature of interventions.

Depending on methods adopted, SO1.3 could involve the use of chemical inputs (fertilizers and pesticides) that could contaminate soils and water, thus resulting in noncompliance with WB OP4.09 and the Stockholm Convention. Activities close to or within wetlands or swamps could also affect their integrity and that of downstream water resources. While the degree of impact for each site where interventions are implemented may be at a small scale, the cumulative effects could be significant. By contrast, conservation agriculture will generally avoid such impacts and positively affect soil quality in areas where it is practiced.

Population growth around new infrastructure, and services as a result of measures under SO1.4, could place pressure on natural resources, notably water and soils.

4.2.3 Macroeconomic Impacts

Revenues (Outcome 20)

Outcome 20: Increased Sustainable Revenue from Forests. Royalties from chainsaw logging are currently limited to US$0.60 regardless of species or dimension (reportedly not regularly collected). It is not clear what reforms are proposed for regulation (SO1.1). If reforms do come in the form of increased taxes, these could serve as disincentives for chainsaw logging; however, failure to enforce such provisions could result in no net difference.

Revenues from charcoal and other alternative sustainable livelihoods (e.g., timber and NTFP), could be collected more systematically, resulting in modest revenues for the government (SO1.2). However, resources would need to be dedicated to this effort. Similarly, successful development of cash crops could positively affect revenues (SO1.3) if efficient systems for tax collection are implemented. However, this is not likely to have a significant impact on the economy in the short term. Finally, electricity generation has the potential to generate income for the government (SO1.2), but this too will only be realized in the long term.

Forest Goods and Services - Domestic Markets (Outcomes 21–23)

Outcome 21: Adequate Supply of Sustainable and Affordable Energy for Urban Population. Currently, charcoal is the main source of energy for the majority of urban dwellers. The development of alternative energy sources has the potential to address this demand, but will take significant time and investment to realize (SO1.2), and will require increases in purchasing power of urban dwellers. More efficient cook stoves could reduce the volume of charcoal utilized in the short term, but incentives to develop and distribute these stoves would need to be developed.

Outcome 22: Sustainable Domestic Timber Supply. Currently, chainsaw loggers are the primary suppliers of the domestic wood market. Changes to the way that chainsaw logging is managed, including enforcement of a regulation limiting chainsaw logging in community forests (currently only nine in the country) and private lands, could result in serious disruptions to the domestic timber supply. However, enforcement in the short term will prove to be a challenge with the current capacity. The development of sustainable alternatives through the development of small or portable sawmills has the potential to address this demand, but significant time and investment are needed to develop these in the interim.

Outcome 23: Land is Available for Commercial Development. No direct impacts were identified.

Employment (Outcome 24)

Outcome 24: Jobs for Unskilled Laborers. Chainsaw logging (1.1), charcoaling (1.2), hunting (1.5), and mining (1.5) provide low skill laborers with livelihoods and income. For example, the Charcoal Union of Liberia has almost 1,000 members and primarily comprises the middlemen and distributors in and around Monrovia (Jones, 2015). The number of chainsaw loggers is unknown and there is no recent data, but older estimates vary widely from just under 4,000 countrywide (FAO, 2010) to 3,500 operating in Rivercess alone (Green Advocates, 2009). Given the increases in deforestation from chainsaw logging, it is likely that this number is significantly higher. Similarly, it is unclear how

many low skill workers are dependent on hunting and mining as their primary employment (SO1.5), but anecdotal information suggests that these numbers are not insignificant. Changes to the way in which these resources are managed could result in the loss of jobs for these workers. This could lead to increased migration to urban areas, or could fuel deforestation if subsistence livelihood options, particularly shifting cultivation, are pursued. The development of alternative, sustainable livelihoods for these workers could replace many of these jobs, but this will require investments in technology as well as training—particularly at the technical training school level that is currently not included in the SO descriptions.

4.3 STRATEGIC PRIORITY 2: IMPACTS

Priority 2 focuses on Strategic Options to manage the drivers of deforestation and forest degradation in forest concessions. While recognizing the contract rights of concessionaires, the REDD+ strategy focuses on conservation objectives within these areas. The five SOs to support this priority are:

2.1. Ensure that all industrial logging is practiced to high conservation standards in keeping with national regulations and international standards.

2.2. Conserve and maintain areas of highest conservation value within commercial forestry concessions, such as important wildlife corridors.

2.3. Review TSCs to ensure compliance with forestry laws and EIA standards and establish a strong presumption against further TSCs on dense forest and within 5 km of Protected Areas.

2.4. Prevent unregulated chainsaw logging and charcoal production within forestry concessions.

2.5. Manage commercial forestry in community forests larger than 1,000 ha to achieve sustainable logging standards as apply to FMCs.

4.3.1 Microeconomic Impacts

Livelihoods (Outcomes 1–3)

Outcome 1: Dependency on Shifting Cultivation Reduced. Activities under SO2.5 support CFMAs to engage in commercial logging, this could have a positive impact on reducing shifting cultivation since benefits from commercial logging could provide alternative, sustainable livelihoods that mitigate the need for shifting cultivation.

SO2.4 focuses on the prevention of chainsaw logging and charcoal production within forestry concessions, activities that are often undertaken by local communities or in-migrants. Enforcement of regulations, if possible, may limit livelihood options for community members from within the forests (e.g., hunting, shifting cultivation, and NTFP collection), and lead to the displacement of these activities ("leakage") to adjacent forest areas. Adoption of HCV or HCS standards that recognize community rights could address and offset this impact.

Outcome 2: Livelihoods Diversified. CFMA engagement in commercial forestry (SO2.5) provides alternative, sustainable livelihoods for communities.

Limiting TSC around PAs (SO2.3) could limit potential livelihood options for communities located around Protected Areas, since TSC could be used to convert forestland to other purposes that support livelihoods and mitigate community dependency on adjacent Protected Areas.

Outcome 3: Forest Management Improved through Community Forestry. The application of FMC standards to forests over 1,000 hectares could improve forest management (SO1.5). However, the requirements for FMCs are designed for large-scale logging on large tracts of land and involve extensive involvement of the FDA—already limited in its capacity to manage the existing FMCs. Regulations that require FMC-compliant standards could significantly limit the potential of communities to engage in smaller-scale commercial logging, and provide disincentives for companies to engage with communities.

Land (Outcomes 4–7)

Outcome 4: Increased Land Security. The recognition of community rights through HCV 5 or HCV 6 could support customary claims to land (SO2.1). Limiting charcoaling and chainsaw logging activities within a concession area (SO2.4) may increase the pressure on land outside of the concession. This is most likely to happen where concessions attract in-migrants seeking economic opportunities.

Outcome 5: Adequate Access to Land for Livelihoods. The recognition of community rights through HCV 5 or HCV 6 could help ensure that communities have adequate access to lands for livelihoods (SO2.1).

Outcome 6: Reduced Conflict over Land. Conflicting claims to land by concessionaires and communities as a result of application of FSC or other standards (SO2.1), could give rise to conflict. Limiting charcoaling and chainsaw logging activities within a concession area (SO2.4) may increase the pressure on land outside of the concession. This is most likely to happen where concessions attract in-migrants seeking economic opportunities.

Outcome 7: Existing Land Rights Are Maintained. The recognition of community rights through HCV 5 or HCV 6 could detract from the land rights of concession holders (SO2.1). Limitations on concession logging rights that exceed legal requirements could infringe on property rights and may be grounds for compensation under contract law.

Governance (Outcomes 8–11)

Outcome 8: Local Leaders have Skills and Information to Represent Constituents. Stakeholder consultations suggest that many community leaders lack the requisite knowledge and skills to adequately represent their constituents in the development of Social Agreements with concessionaires that may be used to regulate chainsaw logging and charcoaling (SO2.4). This suggests that Social Agreements may not adequately address these issues unless community leaders are provided with adequate information and understanding of related issues covered by the Social Agreements. Similarly, Community Forestry Management Bodies may not have the requisite skills to manage forests to FMC standards, or to monitor compliance of logging contractors (SO2.5).

Outcome 9: Equitable, Functioning Benefit-sharing Mechanisms in Place. No direct impacts were identified. However, benefit-sharing schemes will be more equitable and function more effectively if stronger governance is in place through capacity building.

Outcome 10: Law Enforcement Increased. Strategy Option 2.1 emphasizes enforcement of existing legislation. Successful implementation of this strategy would strengthen this objective and larger governance objectives. However, the limited capacity of FDA, EPA, and other agencies to enforce this law suggest the need for significant technical and logistical capacity building. Without this, unenforceable policies and regulations will not only undermine the REDD+ Strategy, but will undermine the rule of law.

Outcome 11: Credible Feedback and Grievance Redress Mechanisms in Place. No direct impacts were identified.

4.3.2 Biophysical Impacts

Climate Change (Outcomes 12–13)

Outcome 12: Emissions Reduced and Carbon Sequestered. The proposed restrictions on chainsaw logging and charcoal generation in FMCs (SO2.4) should similarly promote Outcomes 12 and 13.

The level of potential benefit cannot, however, be established without further details of the specific standards proposed and the measures and mechanism for implementing them. For example:

- Recent evidence indicates that while the FSC P&C includes consideration of carbon sequestration (Principles 6 and 9), certified logging operations may not deliver greater conservation of carbon stock or lower GHG emissions than conventional logging operations (Griscom et al., 2014). Therefore, any SO aimed at reducing the impact of logging in FMCs should ensure that the

standards proposed (and the method of their implementation in Liberia) will actually retain carbon stock.

- Priority 2 includes proposals to enhance law enforcement and harvesting, which should promote achievement of Outcome 12. However, these proposals do not outline the mechanisms for development and implementation of such standards. It is therefore not clear how and if these SOs can be achieved. The ability to apply any new standards retroactively to existing FMCs (24% of total forest) would be key to delivering this outcome.

The degree of positive performance toward Outcome 12 will also depend on whether the areas within the FMCs intended to deliver the HCS standards, and thus carbon sequestration (e.g., set asides, offsets, or areas subject to sustainable harvesting), become vulnerable to other pressures such as unsustainable use by communities (including their expansion from influx of people attracted to commercial areas).

For **TSCs**, although the measures to avoid dense forest (SO 2.3) will reduce the amount of carbon stock loss that may otherwise occur, the clear felling nature of TSC activities will nonetheless lower the total level of carbon sequestered, unless accompanied by an offsetting program. Depending on the standards adopted, SO2.1 may include such measures, although it is unclear if the "high conservation standards" referred to in SO1.2 relate to TSCs or only FMCs and whether they will require offsetting of losses of carbons stock. In the absence of such specificity, it is not possible to assess the climate change impacts of the REDD+ measures addressed at TSCs. Further definition is also required concerning the mechanisms through which the presumption against TSCs in dense forest will be implemented and enforced.

In relation to CFMAs, the rationale for the choice of a threshold of 1,000 ha above which management measures should apply (SO2.5) may not be sufficient to ensure performance against Outcome 12, particularly if a significant number of CFMAs fall below this threshold.

Outcome 13: Resilient Landscapes and Livelihoods. All SOs under Priority 2 may contribute in some instances to maintaining climate-resilient landscapes through retention of forests. However, the degree to which this is achieved will depend on the specific measures adopted (e.g., percentage and location of forest retained).

Biodiversity (Outcomes 14–17)

Outcome 14: Conservation of Natural Habitats (WB OP4.04 and OP4.36). SO2.1 and SO2.2 are likely to promote Outcome 14 in FMCs. However, the degree to which this will be achieved will depend on the specific standards adopted as well as the degree to which interventions can be prioritized in areas that potentially qualify as such habitat.

If SO2.1 and SO2.2 do not apply to TSCs, then SO2.3 does not provide adequate safeguards to comply with WB OP4.04 and OP4.36 that do not support any conversion of critical natural habitat, since SO2.3 only restricts development in "dense forest." Similarly, non-compliance could result from management of CFMAs under SO2.5 that requires only "sustainable logging" rather than setting aside areas of high biodiversity value such as critical natural habitats.

Outcome 15: Conservation through Landscape Approach. SO2.1 and SO2.2 are likely to promote retention of forest biodiversity (through HCV Principle 2/FSC Principle 9 if the HCV standard is adopted) in **FMCs** and thus broadly support Outcome 15. The degree to which this is achieved will depend on:

1. The nature of the specific conservation standards and associated management mechanisms adopted (e.g., "set asides," "offsets," or areas allocated for "sustainable logging") and how these are determined and implemented, including whether they can be legally applied retrospectively to existing concessions, and the associated institutional requirements.
2. The extent to which these mechanisms and the locations in which they will be applied can play a role in conservation within biodiversity landscapes (as discussed under SO3.4). Notably, Priority 2 does not elaborate on the potential for set asides, offsets, or CFMAs as part of the conservation

mosaic within such biodiversity landscape areas, although this gap may be addressed under SO2.2. Yet management at the biodiversity landscape level is a key approach being promoted by certain conservation stakeholders (both generally and specifically within Liberia) to harness the potential of evolving land uses to contribute to conservation outcomes (rather than relying entirely on the PAN). Thus, specific attention is warranted under Priority 2 to achieve Outcome 15.

3. Whether areas under these management mechanisms become vulnerable to other pressures. These pressures will come primarily from unsustainable use by communities, and they could be further exacerbated and expanded as a result of in-migrants seeking work in concession areas. SO2.4 may address pressures from chainsaw logging and charcoal extraction. However, the potential for some form of community agreement (as is proposed for mining and agricultural concessions in Priority 2) should be further expanded upon to enable Outcome 15 to be achieved.
4. Potential for the SOs to result in leakage of activities that threaten landscape ecosystems in other areas.

Similar considerations may apply to conservation of biodiversity in TSCs and CFMAs greater than 1,000 ha. The outcome will depend to some extent on whether the terms "all industrial logging" and "commercial forestry" in SO2.1 and SO2.2 apply only to FMCs or also to TSCs and commercial forestry in CFMAs greater than 1,000 ha:

- If SO2.1 and SO2.2 do not apply to TSCs, then the management measures under SO2.3 that relate to forest cover (but not specifically to biodiversity value) may not provide adequate safeguards to areas of biodiversity importance, particularly where these occur outside of dense forest.
- Similar considerations apply to CFMAs as the management measures under SO2.5 relate to rates of offtake rather than to conservation of areas of biodiversity value.
- A prohibition on TSCs within five kilometers of a PA (SO2.3) may have a positive impact on PA biodiversity since many threats arise from activities associated with commercial logging (in-migration, hunting, and shifting cultivation in and around cleared areas). However, this prohibition would not protect other biodiversity features that contribute to the biodiversity landscape, many of which occur outside of PA.
- The use of a threshold of 1,000 ha above which FMC management measures should apply to CFMAs (SO2.5) may not safeguard biodiversity, particularly if a significant number of CFMAs fall below this threshold. However, ESIA screening is required for any operation over 50 ha, and may, if its effective implementation can be promoted by the strategy, provide adequate consideration of biodiversity impacts.

Outcome 16: Reduce Biodiversity Loss from Shifting Cultivation and Other Community Activities. Although not specifically targeted at shifting agriculture, Priority 2 SOs could result in stronger regulation and controls than may otherwise occur in forest concession areas, and therefore could have a positive impact on this outcome. SO2.4 specifically addresses chainsaw logging and charcoal production. However, the SOs do not address the significant potential for negative impacts arising from:

- Leakage of such activities to other areas of biodiversity importance outside of the concessions, nor the contribution to such impacts due to the influx of people attracted to concession areas in search of employment possibilities; and
- Encroachment into areas set side from forestry by community or other uses.

Outcome 17: Reduced Biodiversity Loss from Commercial Activities. Aa all SOs are targeted at the commercial sector, performance against this outcome is reported above under Outcomes 14–16.

Water and Soils (Outcomes 18–19)

Outcomes 18: Water Quality Maintained and **19: Soil Quality Maintained.** The conservation of areas of high conservation value under SO2.1 and SO2.2 (including if the HCV standard is adopted through HCV 4/FSC Principles 6 and 9) should protect riparian areas and catchments as well as

wetlands that could otherwise be negatively affected through water diversion, pollution, and vegetation clearance with downstream consequences.

Similarly, application of the EIA process (SO2.3) to TSCs should safeguard such features in concession areas, although the threshold of 1,000 ha, above which such measures apply in CFMAs (SO2.4), may not provide sufficient protection to areas of less than 1,000 ha. As discussed above with respect to biodiversity, strengthening the EIA process may provide a more effective safeguard in such instances.

4.3.3 Macroeconomic Impacts

Revenues (Outcome 20)

Outcome 20: Increased Sustainable Revenue from Forests. The introduction of additional regulations (or standards through a contract mechanism) could introduce additional costs to logging, and limit the actual extraction of logs for export (SO2.1 and SO2.2). This could result in reduced revenues from logging concessions.

Limitations on TSCs could also result in diminished revenues that would have been collected from TSC areas, although it is likely that the impact will be quite limited given the limited amount of land currently allocable under the National Forestry Strategy for TSCs within five kilometers of a PPA.

Revenue from commercial logging in CFMAs has the potential to provide revenues to the government. However, the imposition of FMC standards, particularly on smaller-scale operations, could significantly limit the incentives for companies to enter into agreements with communities (SO2.5).

Forest Goods and Services - Domestic Markets (Outcomes 21–23)

Outcome 21: Adequate Supply of Sustainable and Affordable Energy for Urban Population. No impacts were identified.

Outcome 22: Sustainable Domestic Timber Supply. The enforcement of existing regulations that require the development of value-added industry, or future regulations or standards that strengthen the same, could result in the development of additional value-added industry that could positively affect the availability of sustainable timber for the domestic market (SO2.1, SO2.3). However, these are not likely to have an impact in the short term. In addition, these requirements, along with conservation regulations, could further erode profitability of contracts.

Outcome 23: Land is Available for Commercial Development. No impacts were identified.

Employment (Outcome 24)

Outcome 24: Adequate Jobs for Unskilled Laborers. Limitations on TSCs could result in diminished employment opportunities for TSC workers (SO2.3). However, it is likely that the impact will be quite limited given the limited amount of land currently allocable under the National Forestry Strategy for TSCs within five kilometers of a PPA.

4.4 Strategic Priority 3: Impacts

Priority 3 focuses on the completion and management of the Protected Area Network as presented in the Liberia Forestry Strategy of 2007 and identified in 2003, and it prioritizes expansion of that network to cover 30 percent of the forests of Liberia. In recognition of the importance of engaging communities in achieving this objective, Priority 1 SOs are included as part of this overall strategy and presented as one of the four SOs under this priority. The four SOs to support this priority are as follows:

3.1. Complete the Protected Areas Network and strengthen management to prevent forest degradation.

3.2. Expand the Protected Areas Network to conserve 30 percent of forest land.

3.3. Reduce pressure on Protected Areas from surrounding communities (using Priority 1 measures).

3.4. Develop and implement land use plans at the landscape scale to integrate production and conservation.

4.4.1 Microeconomic Impacts

Livelihoods (Outcomes 1–3)

Outcome 1: Dependency on Shifting Cultivation Reduced. Depending on how this strategy is implemented, this policy has the potential to increase shifting cultivation around PAs. The expansion of PAN through PPA and other areas of HCV 1–4 (SO3.1 and SO3.2) could decrease the land available for agriculture (primarily shifting cultivation). For the most part, PAs are remotely located and the availability of inputs to support communities to develop permanent agriculture is limited. Similarly, enforcement of laws on chainsaw logging (SO1.1), charcoaling (SO1.2) hunting (SO1.5), and mining (SO1.5) could further limit livelihood options rendering communities even more dependent on shifting cultivation for their subsistence needs. Importantly, implementation of SO3.1 and SO3.2 could require relocation of communities or individuals from the PAN, which could trigger Involuntary Resettlement Safeguards under WB OP4.12.

Depending on how landscape level plans are developed (SO3.4), this has the potential to positively affect community livelihoods by developing realistic and time bound plans for development of land and resources which could address dependency on shifting cultivation.

Outcome 2: Livelihoods Diversified. Communities located around PAs are, for the most part, remotely located and have little access to inputs for diversifying their livelihoods. In addition, completion and expansion of the PAN (SO3.1 and SO3.2) could further limit their access to forests, NTFP and other forest-based resources that contribute to their livelihoods. Implementation of this policy could render communities more dependent on shifting cultivation. Conservation Agreements have the potential to offset some of these impacts, but there is little evidentiary support to suggest that it will entirely mitigate the impacts of the expansion of PAN. The actual impacts will depend in large part on the ability of the FDA to manage the expanded PAN. Importantly, implementation of SO3.1 and SO3.2 could require relocation of communities or individuals from the PAN which could trigger Involuntary Resettlement Safeguards under WB OP4.12.

Outcome 3: Forest Management Improved through Community Forestry. The expansion of the PAN would leave very little dense forestland for communities to manage under CFMAs. The pressure on these less dense forest areas may be difficult for communities to manage sustainably as they attempt to generate livelihood options from these dense forests while further restricted from chainsaw logging, charcoaling and hunting (SO1.1, SO1.2, and SO1.5).

In addition, the proposed PAN (SO3.1 and SO3.2) by definition does not include community forests. This would limit the opportunities for communities to manage their customarily owned forests as community forests.

Depending on how landscape level plans are developed (SO3.4), this has the potential to positively affect community livelihoods by providing opportunities for community forestry within the larger biodiversity conservation strategy.

Land (Outcomes 4–7)

Outcome 4: Increased Land Security. SO3.1 and SO3.2 will have a negative impact on customary land right holders' security of tenure (both individuals and communities) whose lands are located within the proposed PAN. Importantly, implementation of these SOs could require relocation of communities or individuals from the PAN which could trigger Involuntary Resettlement Safeguards under WB OP4.12.

However, the landscape planning process (SO3.4) does provide opportunities for communities to plan and manage their lands within the larger landscape and so does provide the opportunity to increase land security of customary owners.

Outcome 5: Adequate Access to Land for Livelihoods. The completion and expansion of the PAN (SO3.1 and SO3.2) will limit the availability of land for livelihoods and could trigger Involuntary

Resettlement Safeguards under WB OP4.12. However, the landscape planning process (SO3.4) does provide opportunities for communities to plan and manage their lands within the larger landscape and so does provide the opportunity to increase land security of customary owners.

Outcome 6: Reduced Conflict over Land. Historically, the establishment and enforcement of PA regulations has led to conflict between the government and communities that claim customary ownership rights to the PA. It is likely that the expansion of the PAN would result in conflict with affected communities (SO3.1) with management efforts facing similar challenges (SO3.1).

Further, it is a matter of debate as to whether or not the PPAs for inclusion in the PAN that are identified in the Forestry Strategy were identified in compliance with FPIC principles.

Finally, with more than 110 CFMA applications currently with the FDA, it is likely that at least some of these will overlap with the proposed PAN and add a new dimension to the potential conflict between communities and the State.

The landscape planning approach (SO3.4) provides an opportunity for more substantive engagement between stakeholders in the identification of proposed protected areas and as such, should provide opportunities to manage and mitigate conflict.

Outcome 7: Existing Land Rights Are Maintained. The expansion of the PAN will infringe on customary rights (SO3.1 and SO3.2) and could trigger OP4.12. There is currently no means by which communities can be compensated for the loss of their customary lands; a provision to provide compensation for a PA taking was removed from the draft Land Rights Bill that otherwise recognizes customary rights. The landscape level planning process (SO3.4) provides opportunities to identify and negotiate land rights and so is likely to have a positive impact.

Community lands that are identified as offset areas and included within the PA under SO3.2 could be considered a "takings" of customary land. Under the current draft of the Land Rights Bill, it is reported that the government would not be required to compensate customary owners for land takings associated with the establishment of a PA. However, if offsets areas cannot be considered part of the legislated PAN, then "takings" of community lands for offsets would likely require compensation to communities by concessionaires or the government.

Governance (Outcomes 8–11)

Outcome 8: Local Leaders Have Skills and Information to Represent Constituents. Stakeholder consultations suggest that many community leaders have limited knowledge and skills to adequately represent their constituents in negotiations and FPIC processes. This could lead to adverse impacts to communities despite consultations that will be required to establish the PAN.

Outcome 9: Equitable, Functioning Benefit-sharing Mechanisms in Place. No direct impacts were identified.

Outcome 10: Law Enforcement Increased. Option 3.1 emphasizes enforcement of existing legislation. Successful implementation of this strategy would strengthen this objective and larger governance objectives. However, the limited capacity of FDA and other agencies to enforce this law suggest the need for significant technical and logistical capacity building. Without this, unenforceable policies and regulations will not only undermine the REDD+ Strategy, but will undermine the rule of law.

Outcome 11: Credible Feedback and Grievance Redress Mechanisms in Place. It is not possible to assess the potential impact of the strategy options against this priority outcome since a FGRM has not been proposed. However, it is important that a system is in place to address conflicts prior to the expansion of PA in order to address conflicts that will inevitably arise.

4.4.2 Biophysical Impacts

Climate Change (Outcomes 12–13)

Outcome 12: Emissions Reduced and Carbon Sequestered. All SOs have the potential to contribute positively to this outcome through increasing the percentage of forest and associated

carbon stock that is protected. This will, however, strongly depend on the ability to prevent extraction of biomass (notably firewood, charcoal, and chainsaw logging) that would otherwise occur in PAs through leakage.

Outcome 13: Resilient Landscapes and Livelihoods. SO3.1, SO3.2, and SO3.4 are likely to contribute to maintenance of climate-resilient landscapes through the retention of forests, although the degree to which this is achieved will depend on the location and specific interventions.

Biodiversity (Outcomes 14–17)

Outcome 14: Conservation of Natural Habitat (WB OP4.04 and OP4.36). All SOs under Priority 3 are likely to promote Outcome 14, as most of the PAN (created, expanded, or managed under SO3.1–SO3.3) and other areas that may be subject to other conservation measures (under SO3.4) are likely to comprise natural habitat, and a significant percentage may also constitute critical natural habitat. The protection or adoption of conservation measures in such areas should ensure that there is no conversion or net loss of such habitat, while expansion beyond the currently proposed network (SO3.2) will promote a net gain. However, the degree of positive impact will be influenced by the extent to which new PAs and areas subject to other conservation management measure are prioritized based on critical natural habitat criteria. It will also be influenced by the degree of leakage of activities that threaten biodiversity from such managed areas to other areas of biodiversity value.

Outcome 15: Conservation through Landscape Approach. While the PAN comprises an element important for achieving Outcome 15 (SO3.1 and SO3.2), in isolation, it may not be sufficient to deliver Outcome 15. Outcome 15 is likely to be better achieved through an approach that considers the various components of Liberian landscape units at local regional and national scales and that focuses on retaining the size, structure, and connectivity of such constituent elements.

SO3.4 achieves this to some extent through promotion of land use plan development at the landscape scale. The term ‘landscape’ as here. Is understood to relate to the LFSP “target landscapes” (as opposed to biodiversity landscapes),[6] and do not take account the latest data on biodiversity or ecosystem functioning at different spatial scales and are biased toward areas under threat. Therefore, they may not be the most appropriate mechanism through which to achieve Outcome 15.

While SO3.4 refers to integrating “production and conservation,” the proposed interventions do not specify how opportunities offered by the package of production conservation measures that will be created from emerging commercial and community land uses (e.g., areas of HCV set asides, offsets sustainably managed in FMCs and CFMAs, supported by Conservation Agreements and P-PAs) could achieve such landscape-level conservation outcomes. This, however, is a key approach being promoted by certain conservation stakeholders (both generally and specifically within Liberia) to harness the potential of evolving land uses to contribute to conservation outcomes (rather than relying entirely on the PAN). Without such measures, the biodiversity performance of SO3.4 is likely to be constrained.

Outcome 16: Reduce Biodiversity Loss from Shifting Cultivation and Other Community Activities. All SOs, assuming they successfully achieve controls over community uses, will result in positive impacts on both Outcomes 16 and 17. They do not, however, address the potential negative impacts on these outcomes outside the PAs and other areas managed for conservation (under SO3.4) that may arise from leakage of shifting agriculture and other forest uses from within them to other areas of biodiversity importance.

Outcome 17: Reduce Biodiversity Loss from Commercial Activities. None of the interventions under Priority 3 relate to, or have potential to affect, commercial activities and therefore will have a neutral influence on Outcome 1.

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[6] The LFSP target landscapes are defined as those with HCS and/or are within the proposed PAN, and that are subject to land uses that are drivers of degradation and deforestation (primarily areas subject to commercial concessions and shifting agriculture). They do not therefore necessarily represent biodiversity landscapes.

Water and Soils (Outcomes 18–19)

Outcome 18: Water Quality Maintained and **Outcome 19: Soil Quality Maintained.** Expansion of the PAN and application of conservation measures in other locations should protect riparian areas and catchments as well as wetlands that would otherwise be subject to threat and will therefore promote achievement of Outcomes 18 and 19. It is assumed that land use planning efforts under SO3.4 will integrate water resources and land resource management for an overall positive impact for soils and waters.

4.4.3 Macroeconomic Impacts

Revenues (Outcome 20)

Outcome 20: Increased Sustainable Revenue from Forests. Expansion of the PAN (SO3.1 and SO3.2) could result in the inclusion of areas currently identified as FMCs, TSCs, or even CFMAs. These areas all have the potential to generate revenues sustainably particularly if Priority 2 (see above) is effectively implemented. Conservation of HCS forests could also result in revenues from the sale of carbon credits. However, before Liberia is in a position to sell carbon credits, there are a significant legal and policy reforms that must be undertaken, research and data collection, monitoring and evaluation, documentation, and other actions. Even if all of the criteria are met, the price of carbon remains low and without mandated cap and trade legislation, the demand for carbon credits is likely to remain low. As a result, at this point, sustainable revenues from carbon are merely speculative.

In contrast, landscape level planning (SO3.4) provides opportunities to integrate commercial activities into management of the forest resources along with conservation outcomes. This planning could help planners to determine and balance revenue generation potential and conservation outcomes.

Forest Goods and Services – Domestic Markets (Outcomes 21–23)

Outcome 21: Adequate Supply of Sustainable and Affordable Energy Sources for Urban Population. Effective expansion and management of the PAN could limit the availability of charcoal but there is not enough known about the sector to determine how great this impact could be.

Outcome 22: Sustainable Supply of Domestic Timber. Effective expansion and management of the PAN could limit the availability of timber for domestic consumption but there is not enough known about the sector to determine how great this impact could be.

Outcome 23: Land is Available for Commercial Development. The proposed expansion (SO3.1 and SO3.2) of the PAN may contain land with potential alternative uses as FMCs, CFMAs, and agricultural development. It is not clear what the current demand for land for these purposes is, but it could be adversely affected by the expansion of the PAN. Landscape-level planning could mitigate these negative impacts (SO3.4).

Employment (Outcome 24)

Outcome 24: Jobs for Unskilled Laborers. SO3.1, SO3.2, and SO3.4 as described do not directly affect this priority outcome. However, please refer to SOs under Priority 1 for impacts.

4.5 Strategic Priority 4: Impacts

Priority 4 focuses the drivers of deforestation arising from commercial concessions through offsets and set asides, along with the development of standards that promote conservation objectives. The four SOs to support this priority are as follows:

4.1. Conserve HCV-HCS forest within agricultural concession areas, including developing and implementing a policy for the sustainable management of these conserved areas (using Priority 1 measures).

4.2. Apply policy of conserving HCS-HCV forest to all agricultural concessions, including private and community-owned farms larger than 1,000 ha.

4.3. Ensure that mining results in zero-net deforestation through mechanisms such as biodiversity offsets.

4.4. Locate future large-scale agriculture and mining concessions in less dense and non-forest areas.

4.5.1 Microeconomic Impacts

Livelihoods (Outcomes 1–3)

Outcome 1: Dependency on Shifting Cultivation Reduced. Depending on how this strategy is implemented, all of the SOs have the potential to increase shifting cultivation around concessions, particularly to address food security since set asides (SO4.1, SO4.2, and SO4.4) and offsets (SO4.3) could further limit access to forest areas for livelihood activities and other community uses (including community forestry). This could be offset by compliance with RSPO (Principle 6), but there is nothing to compel concessionaires legally to apply this standard.

Outcome 2: Livelihoods Diversified. Because of the potential to increase shifting cultivation, these SOs may have a negative indirect impact on the diversification of livelihoods.

Outcome 3: Forest Management Improved through Community Forestry. Offsets and new concessions in less dense forests (Options 4.3. and 4.4) could further limit the availability of land for community forestry and other community uses and triggering OP4.12.

Land (Outcomes 4–7)

Outcome 4: Increased Land Security. Although the Wildlife and National Parks Act (1987) requires consultations with communities (§6) the expansion of set aside areas (SO4.1, SO4.2 and SO4.4) could significantly limit community and individual customary rights to land which in concert with the expansion of the PAN (Priority 2) will limit the availability of land for livelihoods including community forestry and triggering OP4.12.

Outcome 5: Adequate Access to Land for Livelihoods. Although the Wildlife and National Parks Act (1987) requires consultations with communities (§6), the expansion of set aside areas (SO4.1, SO4.2, and SO4.4) could significantly limit community and individual customary rights to land which in concert with the expansion of the PAN (Priority 3), and creation of offsets (SO4.3) will limit the availability of land for livelihoods including community forestry and could trigger OP4.12.

Outcome 6: Reduced Conflict over Land. Historically, the allocation of concessions has been met with conflicts between concessionaires, communities and government. Allocating additional land for management as offsets (SO4.3) could trigger additional conflict with communities and other customary users, as would imposing additional restrictions on customary users (SO4.1 and SO4.2)

The expansion of set aside areas (SO4.1, SO4.2) could also limit the availability of land which has the potential to spark conflict between concessionaires, communities and government particularly if land allocated for set asides is customarily owned and managed as may be the case in less dense forest areas (SO4.3).

Outcome 7: Existing Land Rights Are Maintained. Even with adherence to requirements for public consultations in the Public Procurement and Concessions Act,[7] the expansion of set aside areas (SO4.1, SO4.2) could infringe on community and individual customary rights to land which in concert with the expansion of the PAN (Priority 2) will limit the availability of land for livelihoods including community forestry, which could trigger OP4.12.

Similarly, expansion of offsets areas (SO4.3) could infringe on community and individual customary rights to land and could result in less land security for customary land users, limit the availability of land for livelihood activities, and could trigger additional conflict between concessionaires and/or government and communities. Finally, limiting future concessions (SO4.3) to less dense areas could

[7] While there are requirements for public consultations and FPIC prior to finalizing concession areas, this process has not been consistently followed in Liberia (LEITI, 2012).

negatively affect communities with customary land rights in these areas if those rights are not recognized.

Governance (Outcomes 8–11)

Outcome 8: Local Leaders Have Skills and Information to Represent Constituents. Although the RSPO standards would require consultations with affected communities, community leaders may require additional support to adequately represent their community and their concerns.

Outcome 9: Equitable, Functioning Benefit-sharing Mechanisms in Place. The outcome will depend on whether benefit-sharing mechanisms are considered as part of the standard or policy (SO4.1 and SO4.2).

Outcome 10: Law Enforcement Increased. The impact of these strategies on enforcement of existing laws or standards is dependent on whether resources are committed to capacity building and implementation.

Outcome 11: Credible Feedback and Grievance Redress Mechanisms in Place. It is not possible to assess the potential impact of the strategy options against this priority outcome since a FGRM has not been proposed.

4.5.2 Biophysical Impacts

Climate Change (Outcomes 12–13)

Outcome 12: Emissions Reduced and Carbon Sequestered. SO4.1–SO4.4 should generally support positive performance under Outcome 12. The degree of the positive outcome, or indeed whether it becomes negative, will depend on whether HCS set asides or offsets become vulnerable to other pressures such as unsustainable use by communities (e.g., resulting from expansion due to influx of people attracted to commercial areas), and thus highly dependent on the P-PAs being progressed by IDH and included as interventions under SO4.1. The achievement of the outcome will also be influenced by the extent to which leakage of activities that reduce carbon stock can be addressed.

Under SO4.2, there would be no mechanism to prevent loss of carbon stock from farms with less than 1,000 ha, which could result in negative performance against Outcome 12, depending on their number and size. This could be addressed through inclusion of carbon stock considerations in the EIA process (required for farms over 50 ha) and strengthening that process as a regulatory tool for managing such areas.

Outcome 13: Resilient Landscapes and Livelihoods. SO4.1–4.4 may contribute in some instances to maintaining climate-resilient landscapes through conservation or offsetting of areas of HCS and HCV forests. However, the degree to which this is achieved is uncertain as it will depend on the specific measures adopted (e.g., percentage and location of forest retained or created).

Biodiversity (Outcomes 14–17)

Outcome 14. Conservation of Natural Habitats (WB OP4.04 and WB4.36). SO4.1 and SO4.2 (through consideration of HCV 1) should ensure that all natural and specifically critical natural habitats in agricultural concessions and farms greater than 1,000 ha are included in set asides and will therefore promote positive performance against Outcome 14. The degree of positive performance achieved in practice, however, will be influenced by the vulnerability of such set asides to other pressures and viability of applying such measures to farmers. It will also be influenced by the extent to which interventions are selected in areas that qualify as critical natural habitats or that are otherwise important for biodiversity (and adopt a landscape approach that considers critical habitat management units) and can thus contribute to the conservation of such high priority habitats.

Where farms larger than 1,000 ha are located in critical natural habitats, application of SO4.2 may not be sufficient to prevent non-compliance with WB OP4.04 and OP4.36 (which do not support any conversion of such habitat), resulting in negative performance against this outcome.

SO4.3, which involves offsetting (rather than setting aside) HCV 1–4 forest loss from clearance, would result in negative performance against Outcome 14 wherever areas that are proposed for such

clearance comprise critical natural habitats. This arises from the requirement for no conversion of critical forest habitat under WB OP4.04 and OP4.36. Adoption of SO4.3 in areas of critical natural habitat therefore presents a significant risk of negative performance against Outcome 14.

Similarly SO4.4, which only places restriction on mining activities in dense forests, could also result in negative performance against Outcome 14 wherever proposed areas for mining or agriculture are in critical natural habitats outside of dense forest and where there is a presumption against such development under WB OP4.04.

Outcome 15: Conservation through Landscape Approach. SO4.1 is likely to promote retention of forest biodiversity (under HCV 2) through set asides and P-PAs where these concessions comprise oil palm concessions and generally result in positive performance against Outcome 15. This results from the fact that several oil palm concessions have adopted such RSPO standards that the SOs would support. Owing to the lack of specification standards for other sectors, the ability of rubber concessions (SO4.1), farms larger than 1,000 (SO4.2), and commercial mining (SO4.3) to achieve this outcome is uncertain.

Further, the proposed threshold of 1,000 ha to apply to private farms (SO4.2) may result in negative performance against Outcome 15, particularly if a significant number of farms fall below this threshold.

The extent to which SO4.3 could deliver positive performance against Outcome 15 is highly uncertain. This arises from the difficulties (including high costs) in achieving no net loss of biodiversity. This is significantly more challenging to achieve through offsetting than replacement of carbon stock, particularly if the Business and Biodiversity Offset Program (BBOP) standards that have onerous conditions and processes are applied. No such offsets have as yet been established in Liberia.

SO4.4 is likely to result generally in positive performance, although this could be enhanced if the SO stated that the concessions should be located in " non-HCV" rather than in "less dense and non-forest areas," as currently worded.

Factors that will influence performance against this outcome and therefore warrant consideration in refining the strategy and how it is implemented include:

- The extent to which the standards promoted by the strategy, and the locations at which they are applied, can play a role in conservation within biodiversity landscapes (as discussed under SO3.4). Notably, Priority 4 does not elaborate on the potential for set asides or offsets to play a part in the conservation mosaic within biodiversity landscape areas. However, biodiversity landscape-level management is a key approach being promoted for consideration by certain conservation stakeholders (both generally and specifically within Liberia) in order to harness the potential offered by the evolving land uses to contribute to conservation outcomes (rather than relying entirely on the PAN). It thus warrants specific attention under Priority 4 to enable Outcome 15 to be delivered.
- Whether set aside and offsets become vulnerable to other pressures (notably, unsustainable use by communities or increased pressure from in-migrants attracted by commercial activities). The proposals for P-PAs for agricultural concessions under the IDH Program (SO4.1) may address this to some extent. However, no measures are identified to protect set asides within private farms (SO4.2) or mining offsets (SO4.3) from such community uses.
- How the initiatives relating to aggregated offsets referred to under SO4.3 will be implemented across sectors, and in specific geographies. This initiative could, for example, be enhanced though extending aggregation across sectors (e.g., through combination with agricultural set asides addressed under Priority 2).
- Whether or not the design of interventions truly addresses and mitigates threats to forests or merely displaces it to other areas (leakage).

Outcome 16: Reduce Biodiversity Loss from Shifting Cultivation and Other Community Activities. Although not targeted at shifting agriculture or other community uses of forest, Priority 4 SOs could result in some positive impact with respect to these outcomes, if they result in stronger regulation and controls than may otherwise occur within HCV set aside and offsets. This will however be dependent on:

- The potential for the SO to result in leakage of activities that threaten landscape ecosystems in other areas; and
- Whether set asides and offsets become vulnerable to other pressures, notably unsustainable use by communities. The proposals for P-PAs for agricultural concessions under the IDH Program (SO4.1) may address this to some extent. No measures, however, are identified to protect set asides within private farms (SO4.2) or mining offsets (SO 4.3) from such community uses.

Outcome 17: Reduce Biodiversity Loss from Commercial Activities. All SOs are targeted at the commercial sector and the performance against this outcome therefore will be as reported above under Outcomes 14 and 15.

Water and Soils (Outcomes 18–19)

Outcome 18: Water Quality Maintained and **Outcome 19: Soil Quality Maintained.** The conservation of areas of HCV under SO4.1 and SO4.2 should (through protection of HCV 4) protect riparian areas and catchments as well as wetlands that could otherwise be affected through water diversion, pollution, and vegetation clearance with consequences for downstream uses.

4.5.3 Macroeconomic Impacts

Revenues (Outcome 20)

Outcome 20: Increased Sustainable Revenue from Forests. Requirements that concessionaires invest in set asides (SO4.1 and SO4.2) and offsets (SO4.3) could limit revenues available to both concessions and government and could infringe on concessionaire contract rights to commercially develop land for commercial purposes. This is particularly true for existing concessions that have no offset requirements included in their contracts with the government. This could be offset by carbon receipts but at present, this cannot be determined.

Mineral resources may be located in HCV/HCS forests. Limiting development of these areas could result in loss of potential revenues and investments by concessionaires and a significant loss in foreign direct investment (SO4.4). This could be offset by carbon receipts but at present, this cannot be determined.

Forest Goods and Services - Domestic Markets (Outcomes 21–23)

Outcome 21: Adequate Supply of Sustainable and Affordable Energy for Urban Population. Effective expansion and management of set asides and offsets could result in additional charcoaling on forestlands outside of these areas and potentially offset any gains from their creation (SO4.1, SO4.2, and SO4.3) while having no impact on charcoal supply.

Outcome 22: Sustainable Domestic Timber Supply. Currently, chainsaw logging provides the primary supply to the domestic wood market. Expansion and enforcement of set asides and offsets could result in additional chainsaw logging outside of these areas which could threaten less dense forests (SO4.1, SO4.2, and SO4.3) while having no impact on domestic timber supply.

Outcome 23: Land is Available for Commercial Development. Set aside requirements could infringe on concessionaires rights to commercially develop their land for commercial purposes (SO4.1 and SO4.2).

Employment (Outcome 24)

Outcome 24: Adequate Jobs for Unskilled Laborers. The proposed SOs as currently described do not directly affect this priority outcome. However, limitations on concessions could result in the loss of jobs.

4.6 STRATEGIC PRIORITY 5: IMPACTS

Priority 5 focuses on the development of fair and sustainable benefits from REDD+ through the development of policy, equitable benefit-sharing mechanisms, and monitoring progress toward REDD+ objectives. The three SOs to support this priority are:

5.1. Define carbon rights and develop policies and regulations for upholding these;

5.2. Establish benefit-sharing mechanisms for REDD+, in harmony with those operating in the forestry, mining, agriculture, and other relevant sectors;

5.3. Operate a robust monitoring, reporting, and verification system for demonstrating reductions in emissions achieved through REDD+ policies.

4.6.1 Microeconomic Impacts

Livelihoods (Outcomes 1–3)

Outcome 1: Dependency on Shifting Cultivation Reduced. Defining carbon rights and developing benefit-sharing mechanisms (SO5.1 and SO5.2) have the potential to impact communities positively and reduce their dependency on shifting cultivation. However, this will require their active engagement in the development and implementation of the benefit-sharing mechanisms.

Outcome 2: Livelihoods Diversified. Socially and environmentally responsible use of REDD+ benefits could assist communities to diversify their livelihood options (SO5.1 and SO5.2).

Outcome 3: Forest Management Improved through Community Forestry. Carbon rights and benefit-sharing mechanisms that reward community involvement in sustainable forest management could enhance forest productivity under CFMAs (SO5.1 and SO5.2). However, if communities fail to receive benefits for forest management efforts, particularly in CFMAs, this could provide disincentives to communities to manage their forests sustainably. This will be particularly true if communities' access to lands is limited by other REDD+ activities (e.g., PAN expansion [SO2.1, SO2.2], offsets [Option 4.3], and enforcement of current legislation on chainsaw logging [Option 1.1]).

Land (Outcomes 4–7)

Outcome 4: Increased Land Security. As currently written, it is unclear what impacts these options would have on land security. For example, the forest of Liberia, with few exceptions, is considered the property of the government. However, under the National Forestry Reform Law, planted trees belong to the planter (NFRL, 2.1b(ii)), and under the Community Rights Law, forest resources within a community forest are owned by the community (CRL, §2.2a). This raises questions regarding the potential recipients of benefits derived from the forest under REDD+ activities.

If significant rights (SO5.1) and benefits (SO5.2) are realized and those benefits are linked to ownership of land, these benefits could provide significant incentives to formalize land title. This could provide secure land title for individuals and communities, but could also disproportionately favor local elites.

Outcome 5: Adequate Access to Land for Livelihoods. It is possible that rights and benefits accruing to individuals or communities could encourage in-migrants to REDD+ project areas. This could contribute to land insecurity and create additional pressure on the land base.

Outcome 6: Reduced Conflict over Land. Many communities that have received benefits from concessionaires, for example, have had to deal with internal and external conflicts. Benefit-sharing must be perceived as transparent and equitable or there is potential for conflict.

Outcome 7: Existing Land Rights Are Maintained. Carbon is considered a forest resource so communities currently do have rights to carbon and associated benefits under a community forest management agreement. Similarly, if the Land Rights Bill is enacted, customary owners would have some claim to carbon ownership. However, carbon rights and related legislation will need to be developed and could either further legitimize and strengthen those rights, or could reduce them. For

example, if carbon ownership is allocated exclusively to the state, land rights could actually be limited. The passage of the Land Rights Bill would bolster communities' customary claims to carbon rights (LTS, 2016d), but ultimately, the scope of rights will have to be determined through legislation.

Governance (Outcomes 8–11)

Outcome 8: Local Leaders Have Skills and Information to Represent Constituents. Community leaders often have skills or information to adequately represent their constituents. If transparent benefit-sharing mechanisms are not put in place, and capacity building and information provided to leaders, community leaders will fail to equitably represent their constituents (SO5.2).

Outcome 9: Equitable, Functioning Benefit-sharing Mechanisms in Place. The proposed options strive to complement existing benefit-sharing mechanisms (5.2). However, the NBST and County Development Funds received from concessionaires have been riddled with complications in their implementation. For example, the NBST has received funds from concessionaires, but it took several years and the intervention of the FDA before these funds were transferred to the NBST. Further, communities have limited skills to develop proposals to access funds and as a result, little of the money has been actually distributed. Unless those issues are addressed, utilizing existing mechanisms could result in delays and misappropriation of funds.

Outcome 10: Law Enforcement Increased. As noted (Option 5.1), rights must be defined, and policies and regulations developed. Given the limited capacity to enforce and implement many of the existing regulatory frameworks, it is likely that policies will not be implemented unless considerable capacity building is given to responsible agencies.

Outcome 11: Credible Feedback and Grievance Redress Mechanisms in Place. The FDA has contracted a Liberian organization to develop a feedback and grievance redress mechanism which is currently under development. Because the FGRM is under development, it is not possible to assess the potential impact of the strategy options against this priority outcome at this time. However, failure to put in place a credible grievance redress mechanism could result in conflict that could undermine forest management efforts.

4.6.2 Biophysical Impacts

No relevant biophysical impacts were identified for these SOs.

4.6.3 Macroeconomic Impacts

No relevant macroeconomic impacts were identified for these SOs; however, we note that implementation of the SOs above will adversely affect unskilled workers currently employed in hunting, charcoaling, chainsaw logging, and shifting cultivation. These are often the most vulnerable people and are not well represented in the political discourse. If their employment options are further limited by the REDD+ Strategy, they are most likely to engage in activities that will undermine REDD+ activities.

5.0 POTENTIAL TRIGGERS OF WORLD BANK SAFEGUARDS

As identified in the SESA report, a number of strategy options (depending upon how they are implemented) have the potential to trigger World Bank Safeguard Policies. A summary of these potential triggers is presented in Table 5.1 below.

Table 5.1: REDD+ Strategy Options with Potential to Trigger WB Safeguard Policies

Strategy Option(s)	World Bank Safeguard Operational Policy	Comments
All	4.01: Environmental Assessment	Many interventions that may be proposed under most of the strategy options in Strategy Priorities 1–4 have potential to trigger OP4.01 as a result of the environmental and social impacts (both positive and negative) that could arise from their implementation.
1.3	4.04: Natural Habitats	Establishment of agricultural activities, notably low land agriculture, outside of forests could have an impact on areas that that qualify as natural or critical natural habitat, particularly where they are located within or upstream from swamps or wetlands.
1.3	4.09: Pest Management	Establishment of agricultural activities may involve the use of pesticides, which could—in the absence of adequate safeguards—conflict with OP4.09.
1.4	4.04: Natural Habitats	Siting services and new infrastructure outside of forests could have an impact on areas that that qualify as natural or critical natural habitat—either directly through land take to accommodate such facilities or as a result of indirect effects associated with population influx attracted by them.
2.1 and 2.2	4.04: Natural Habitats and 4.36: Forests	While many of the SOs will promote retention of forests (most of which will comprise natural habitat, and in some instances critical natural habitat), the degree to which such habitat is conserved and the degree of compliance with the OPs will be influenced by the siting of interventions. Compliance with this OP will also be influenced by the degree to which offsets and set asides in natural habitat can be protected from community uses that result in conversions; and can control leakage from these areas to other locations that are also qualified as natural habitat.
2.3	4.04: Natural Habitats and 4.36: Forests	SO2.3 (which only limits TSC in “dense forest” and within a 5km buffer around protected areas rather than in areas of biodiversity value [as defined by HCV criteria]) could have an impact on sites that qualify as natural or critical natural habitat within lower density forests that become subject to conversion as a result of TSC activity.
2.5	4.04: Natural Habitats and 4.36: Forests	SO2.5 (which only considers rates of offtake in CFMAs >1000 rather than on retaining areas of biodiversity value [as defined by HCV criteria] and does not have any management measures for CFMA<1000ha) could have an impact on forest areas that qualify as natural or critical natural habitat value. In the case of critical natural habitat, there may also be a conflict with the requirement that commercial harvesting be undertaken outside of critical natural habitat. However, if the CFMA involves community-based subsistence (i.e., non-commercial), harvesting may be allowed in category VI Protected Areas (which is considered under OP4.36 as critical natural habitat) where joint or community management activities form an integral part of the management plan.
4.1 and 4.2	4.04: Natural Habitats and 4.36: Forests	While SO4.1 and SO4.2 are likely to promote conservation of natural and critical natural habitat within palm oil plantations, on the assumption that RSPO standards will be adopted, it is not clear what mechanisms are proposed to be applied to rubber plantations and private and community farms >1000. Without specification of the particular standards to be adopted, there is risk that these may not adequately protect natural and critical natural habitat in such areas.
4.2	4.04: Natural Habitats and 4.36: Forests	SO4.2 does not propose any management measures for farms < 1000 hectares and could thus have an impact on sites that qualify as critical or natural habit within the boundaries of such farms.

Strategy Option(s)	World Bank Safeguard Operational Policy	Comments
4.3	4.04: Natural Habitats and 4.36: Forests	SO4.3 (which proposes to offset rather than set aside HCV areas of forest cleared through mining) could have an impact on areas that that qualify as natural or critical natural habitat areas of lower density forest and are subject to conversion as a result of mining activity.
4.4	4.04: Natural Habitats and 4.36: Forests	SO4.4 (which only considers restrictions on mining and agriculture in dense forests rather than on areas of biodiversity value [as defined by HCV criteria]) could have an impact on areas that that qualify as natural or critical natural habitat areas of lower density forest and are subject to conversion as a result of mining activities.
Several	4.04: Natural Habitats and 4.36: Forests	While many of the SOs will promote retention of forests—which in most cases will comprise natural habitat and in some instances also critical natural habitat—the degree to which such habitat is conserved and the degree of compliance with the OPs will be influenced by the siting of such interventions. This will also be affected by the degree to which offsets and set asides in such habitat associated with commercial activities that promoted by the strategy can be protected from community uses.as well as the ability to control leakage from such areas to other locations which might also be qualify as such habitat.
1.5	4.11: Physical and Cultural Resources	While unlikely to be triggered by the REDD+ strategy, cultural resources may nonetheless be relevant to the ESMF, owing to the potential for cultural features to be affected at project level. This factor is relevant for projects that require conversion of land or involve changes in management regimes or access to land as under Priority Strategies 1–4. These cultural resources may include sacred sites within forests, which may be difficult to identify through an EA process due to the secret nature of sacred societies in Liberia.
1.3	4.12: Involuntary Resettlement	Reforestation activities could displace people involuntarily.
3.1 and 3.2	4.12: Involuntary Resettlement	Completion and expansion of the proposed protected area network could lead to displacement or restrict access that would affect livelihoods of local people.

6.0 IMPLEMENTATION ARRANGEMENTS

This section provides descriptions of the arrangements for implementing interventions under the REDD+ Strategy. These interventions could take the form of specific project(s), activity(-ies), or policy(-ies)/regulation(s) associated with the strategy options. This section presents the management structure and roles and responsibilities with a focus on the procedures for:

1. Screening and assessment of site-specific environmental and social impacts;
2. Preparation of time-bound action plans for reducing, mitigating, and/or offsetting any adverse impacts; and
3. Monitoring of the implementation of the action plans, including arrangements for public participation in such monitoring.

As the strategy options have not yet been fully defined, the procedures and checklists in Attachments 4-7 provide a general overview, but may require further refinement when the strategy options are more fully articulated.

6.1 MANAGEMENT OF REDD+

The Readiness Preparation Proposal (R-PP) for Liberia identifies a three-tiered structure for managing REDD+. These tiers include policy formulation; advisory and consultation; and implementation.

6.1.1 Policy Formulation

As envisioned in the R-PP, 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 the government, directors of governmental agencies, a National Coordinator, and advisors to the President.

The operational arm of the NCCSC is the National Climate Change Secretariat (NCCS), which provides inter-sectoral coordination and monitoring and evaluation on climate change-related policy and programming at the national level (e.g., REDD+, Clean Development Mechanism, etc.). The NCCS will be chaired by a National Coordinator that will report directly to the NCCSC and the President. There will be at least two experts covering priority technical areas for the NCCS, and an administrative coordinator and support staff are envisioned.

6.1.2 Advisory and Consultation

While the FDA has the overall responsibility for REDD+ in Liberia, the inter-sectoral REDD Technical Working Group (RTWG) provides technical guidance and advising on the development and implementation of a national REDD Strategy programming in Liberia. The RTWG is a platform for all stakeholders, including other sector agencies, civil society, development partners, and the private sector. Through its representative, the RTWG communicates to stakeholders and communities closer to the forest and directly affected by REDD+ issues through national- and county-level forest forums. The RTWG is chaired by the FDA and co-chaired by the EPA and the Ministry of Finance and Development Planning (World Bank, 2016b). The RTWG provides technical advice to inform and guide decisions about program development in Liberia.

A **SESA Working Group** has also been formulated with representatives from civil society, government, and the private sector with a specific mandate to provide guidance on the development of the SESA and ESMF, and their implementation.

6.1.3 Implementation of the REDD+ Strategy

Implementation of the REDD+ Strategy is the primary responsibility of **the REDD+ Implementation Unit (RIU)** which is based at the FDA. In addition, an **MRV Working Group** is envisioned to oversee MRV aspects of implementation.

6.2 Institutional Arrangements for ESMF Implementation

Implementation of the ESMF will be the primary responsibility of the EPA and the FDA.

6.2.1 EPA

The Environmental Protection Agency is the primary agency responsible for environmental management, protection, and monitoring, and is responsible for identifying and consulting with relevant stakeholders in implementation of their mandate. As the LFSP ESMF Final Draft (November 2015) notes, the EPA faces numerous logistical challenges in Monrovia and at the county level (the EPA has a presence in 10 of the 15 counties): "Even though there may be some technical staff available who may have the capacity to support the project, the Agency will need substantial support in terms of transport and environmental field testing equipment to be able to perform its permitting and monitoring functions." (GoL, 2015c, p. 51). This lack of capacity references not only technical capability, but basic logistics (transportation) that are necessary to carry out the ESMF mandate.

6.2.2 FDA

With the mandate to manage the nation's forests, the FDA has primary responsibility for implementation of REDD+-related programs and activities. However, as noted in the LFSP ESMF Final Draft, "capacity for environmental assessment is virtually non-existent." (*Ibid.*).

6.3 ESMF Implementation and Capacity

The EPA has the mandate to provide technical oversight and coordination of safeguard activities and will serve as the lead agency for implementation of the social and environmental safeguards. To support this work, the EPA, which will constitute a **Safeguards Working Group (SWG)** that will support coordination and implementation of ESMF-related activities. The SWG will comprise members of the current SESA Working Group which has overseen the development of the SESA and the ESMF. The SWG will be co-chaired by the **EPA Environmental Safeguard Coordinator (ESC)** and the **FDA Social Safeguard Coordinator (SSC)**. Both of these positions are discussed below.

The LFSP, supported by the World Bank, identified regionally based **Interagency Task Teams (ITT)** made up of representatives from the EPA, FDA, Ministry of Agriculture (MoA), other agencies through their regional offices, other stakeholders (private sector, NGOs, civil society organizations [CSOs], and community-based organizations [CBO]). The ITT will be coordinated by the FDA and will operate from the regional offices. The ITT will have some oversight responsibility for implementation at the regional and local levels.

In addition to these task teams, it is recommended that regional-level **EPA Environmental Inspectors** and **FDA Social Safeguard Officers** be identified and trained to assist in planning, screening and monitoring of environmental and social issues.

6.4 Staffing and Training Needs

6.4.1 Staffing

The number of EPA staff needed will largely depend on the number and scope of projects and activities that implement REDD+ activities. However, a core team will be needed to head up these efforts and reserve staff will need to preliminary training for potential future engagement and additional training. It is recommended that at least two Monrovia-based staff and five field-based staff receive training to support strategy implementation.

Environmental Safeguard Coordinator and Social Safeguard Coordinator. The EPA will hire and train one ESC, while the FDA will hire a SSC under LFSP. Environmental Inspectors and Social Safeguard Officers that will be responsible for monitoring compliance should also be hired and trained for each regions in which the LFSP is being implemented. These numbers will increase as necessary as projects come online to implement the strategy.

Safeguards Consultants: While ESC, SSC, Environmental Inspectors, and Social Safeguards Officers are identified and trained, consultants familiar with ESS will be contracted to oversee and

coordinate ESIA, and to develop monitoring and reporting processes for activities and programs. Such consultants should also be contracted to provide oversight and mentoring to the Environmental and Social Safeguards (ESS) Coordinator for at least three years to ensure that guidelines and protocols are well established. ESS Focal Points for individual projects or activities, may be necessary, depending on the scope and scale of proposed activities.

ESIA Consultants: International and national consultants will lead and conduct ESIA and provide mentoring and support to Environmental Inspectors.

6.4.2 Training

In order to carry out its mandate, EPA and FDA staff, along with members of the SWG, will require training in environmental and social screening and monitoring. Training will focus on the cumulative development of skills. In addition, EPA and FDA staff require basic computer literacy skills and training. Training should include the following:

- Administrative training (EPA and FDA staff):
  - Computer literacy (word processing and spreadsheets);
  - Database management; and
  - Use of GPS and spatial data collection and maintenance.
- Technical training (EPA and FDA staff and select SWG as needed):
  - Introduction and orientation to REDD+
  - World Bank Safeguard policies;
  - Liberia EPA Environmental Assessment Regulations;
  - Introduction to ESMF/Process Framework;
  - Preparation of ToR for Subject Area Specialist (ESIA, Pest Management, Resettlement);
  - Preparation of Environmental Briefs;
  - ESIA;
  - Preparation of process documents for projects or activities;
  - Technical training to support implementation of the ESMF (subjects to be determined);
  - Training on emerging social and gender-related issues;
  - International and national obligations of REDD+;
  - Environmental and social benefits/risks of REDD+;
  - Preparation and review of screening reports;
  - Process and procedures of environmental and social assessments; and
  - Monitoring and evaluation of REDD+.

7.0 REDD+ ENVIRONMENTAL AND SOCIAL SAFEGUARD PROCESS

7.1 INTRODUCTION AND APPLICATION OF THE ESMF

The REDD+ Strategy proposes a number of interventions to support its implementation (GoL, 2016a). While many of the interventions will take the form of formalized projects (e.g., LFSP), some will not have such a formal project structure. For example, the FDA or EPA may convene a committee to develop regulations necessary for REDD+ Strategy implementation. In such cases, the ESMF should still be considered, since policies and legislation can require an EIA under the EPML. However, for ease of presentation, we present the E&S process with reference to "projects" rather than "interventions."

Other than the LFSP, the nature and locations of the projects that will be financed under the WB Liberia REDD+ Investment Program have not yet been fully defined, and so cannot be evaluated in terms of their E&S performance. In the interim, it is crucial to have a process in place so the REDD+ implementing agencies can identify, evaluate, and manage any E&S risks that may arise once details of the projects are established. This process also ensures the project complies with the relevant E&S safeguarding requirement of the Liberian EPA and WB.

This section of the ESMF sets out the process to identify, assess, and manage the E&S impacts once a project's details are more fully defined. The ESMF ensures that the "mitigation" measures required to address E&S impacts for specific REDD+ Strategy priorities and options (identified through the SESA), are incorporated in the assessment of the project and its management processes. This process ensures that both WB and Liberian procedures, with respect to E&S safeguarding, are addressed in an integrated fashion.

The process description includes the WB EA and Liberian EIA requirements, as set out in Section 3.0, and the procedures that must be followed in the event a WB-financed project triggers safeguard policies (e.g., should the project involve involuntary resettlement, pesticide use, or chance finds of cultural significance). General clauses that can be included in Contractor's Agreements to ensure compliance with these procedures are also provided.

Once the project and its locations have been identified, the project management and RIU should use this section of the ESMF as a guide to progress through the various stages indicated in Figure 7.1 on the following page.

7.2 STEPS FOR IDENTIFYING, ASSESSING, AND MANAGING ENVIRONMENTAL AND SOCIAL IMPACTS

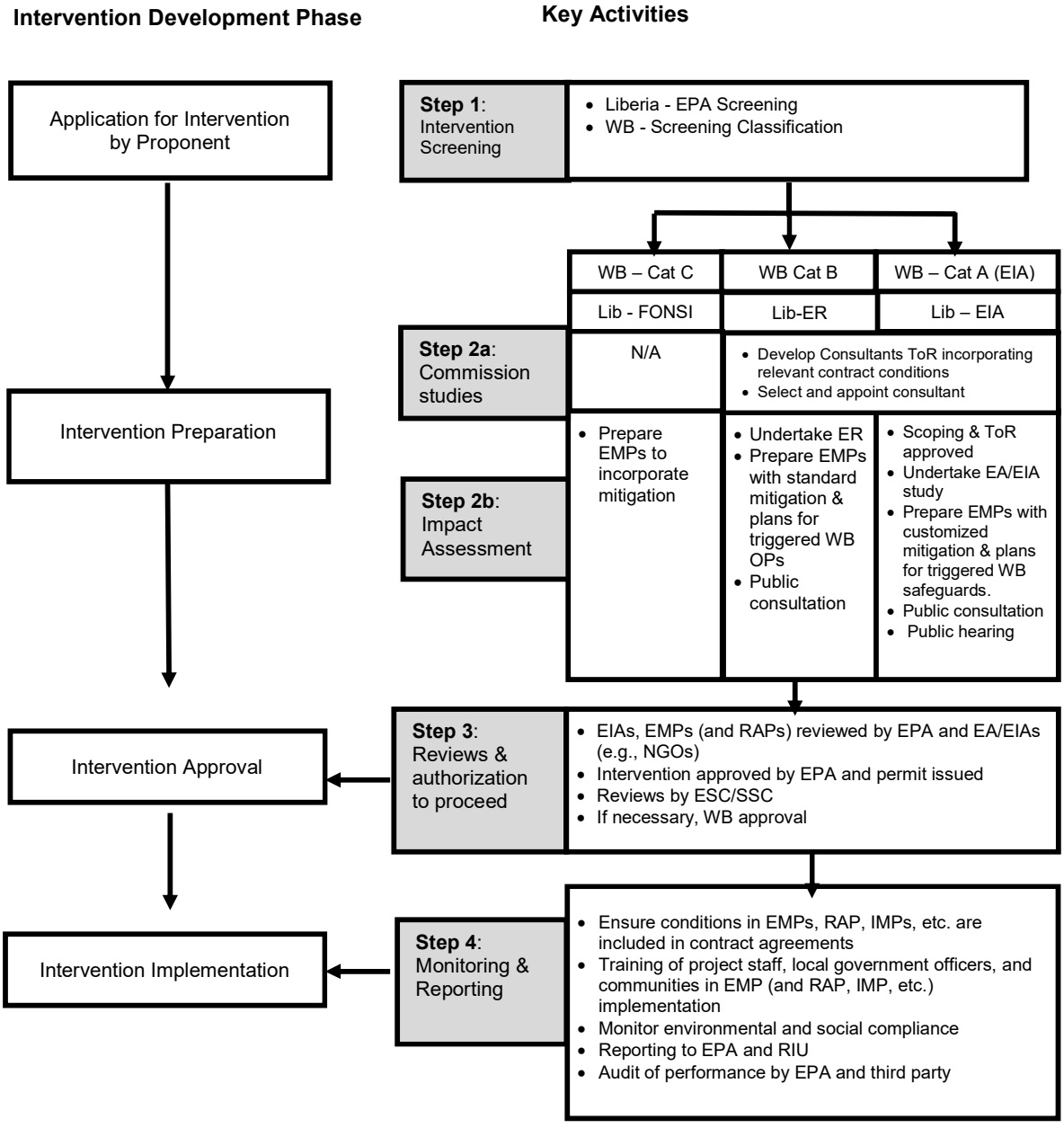
Figure 7.1 presents the systematic steps to identify, assess, and manage E&S impacts. These steps are discussed in detail in the subsections below.

7.2.1 Step 1: Environmental Screening and Classification

A screening of each proposed intervention or project should be undertaken. The EPA and FDA through their respective ESC and SSC, will:

- Classify the intervention in accordance with OP4.01 into one of three categories A, B, or C (as outlined in Table 3.3) depending on type, location, and scale of the interventions, and the nature and extent of its potential environment impacts. This will give particular attention to any activities that have potential to result in non-compliance with WB OPs (see Table 3.2) and will consider the "mitigation" measures identified through the SESA (see Modifications Tables in Section 4.0).
- Ensure compliance with the national EIA screening process (described in Section 3.1 above).
- Determine and formally agree with the EPA on the level of assessment required (e.g., ER or EIA) or whether a FONSI can be granted.

Figure 7.1: Proposed Screening, Review and Assessment Process



To facilitate this process, the ESC and SSC should develop a standard screening checklist form that incorporates:

- The Liberian national EIA screening form;
- Criteria that reflects the WB , including whether the site and proposed intervention presents risks to natural habitats, water quality and water resource availability and use, natural hazards, cultural property, involuntary resettlement, and pesticide use;
- Process for checking whether any of the "mitigation measures" identified through the REDD+ SESA process apply (see Modification Tables in Section 4.0); and
- Identification of stakeholders, including groups that may be affected by the project (to be appended to the checklist).

Information to complete the checklist may require field visits and key informant interviews.

Following this screening, the project management, with oversight and approval from the ESC and SSC, should prepare and submit a Notice of Intent and Project Brief consistent with requirement set out in the EPML to the EPA. In certain instances, and subject to EPA confirmation, completion of an EPA screening form may replace the Project Brief. If so, the screening form must be prepared by a National Environmental Management Authority-registered evaluator.

Attachment 8 provides a proposed template, along with other monitoring report templates.

7.2.2 Step 2: Environmental and Social Assessment Studies

If the screening process identifies the project as both Category A (under WB requirements) and one that requires an ER or EIA under Liberian law, a "harmonized" EIA approach will be undertaken. This harmonized approach addresses WB safeguards that may be triggered and Liberian EIA requirements in a single process that is documented in one report.

This harmonized EIA should be relatively straightforward, as the criteria that determine the three risk categories adopted by the WB and EPA (through the EPML) are similar. As such, Category A projects under the WB criteria generally meet the same criteria that would require a full EIA under the EPML; Category B projects generally meet the same criteria that would require an ER; and Category C projects generally meet the criteria for a FONSI. However, this may not always be the case: in some instances, the processes required and criteria applied may vary. For example, the requirement to consider natural habitats within WB OP4.01 is not reflected in Liberian legislation, and the requirement to implement management plans for projects in receipt of a FONSI is not reflected in requirement for Category C projects. In such cases, the E&S safeguard process should adopt the higher of the two standards.

Step 2a: As per the process outlined above, the ESC, SSC, and Safeguards Consultant should prepare the ToR for the EIA/EA and additional ToR any other associated study/deliverable that may be required (e.g., preparation of a RAP, a Pesticide Management Plan, etc.). Recruitment should follow EPA procurement rules for completion of such studies, and the selected consultant must be a registered environmental evaluator. The ToR should include issues identified in the screening exercise including any requirement specified by the EPA as a result for that process.

The development of comprehensive ToR is a key step in the E&S safeguard process which will define the tasks required to undertake the EA/ESIA and define the scope of outputs required. As such, the development of ToR is included in the staff training needs in Section 6.4.

Step 2b: As part of the EA/EIA process, the necessary safeguard documents should be produced. Depending on the WB and EPA classifications, these may include:

- An ESMP, a set of contract/partnering/financing agreement clauses (see Attachment 7), and a summary of public consultation carried out for Category A/EIA interventions;
- Simplified ESMP outlining measures identified during the EA study for Category B/Environmental Review interventions, and as may be required for any interventions issued with

a FONSI under the Liberian EIA process, where the consent is conditional on application of the specified mitigation measures;
- A RAP for interventions that may result in involuntary resettlement or displacement (explained in more detail in the Project's Resettlement Process Framework below); and
- An Integrated Pest Management Plan (PMP) for interventions that include agricultural activity where pesticide use is anticipated. Guidance on preparation of an Integrated Pest Management Plan is provided in Attachment 4.

The ESMP should comply with requirements specified in OP4.01 Annex C and identify:

- Potential E&S impacts related to siting, construction, and operation of the intervention;
- Mitigation and monitoring measures to address potential impacts;
- Responsibilities for monitoring EMP requirements;
- Training and capacity-building requirements for project officers and communities;
- Estimated budget for mitigation monitoring and training; and
- Measures to ingrate the ESMP into the intervention's overall planning design budget and implementation.

The applicant should submit copies of the EIA or ER as appropriate to the EPA.

7.2.3 Step 3: Approval

In compliance with WB guidelines and Liberian EIA requirements, the applicable documents (EIA, EMP, and/or RAP) must be made available for public review before a project can be approved. Public review must be at a place accessible to local people (e.g., at a district council office, relevant environmental authority) and in a form, manner, and language they can understand.

For those EIAs that require an EIA under Liberian legislation, the EPA must provide environmental permit. If the WB is not satisfied that adequate capacity exists for carrying out the EA or for approval of the EA by implementing agencies, all Category A subprojects, and as appropriate, Category B subprojects—including any EA reports—are subject to prior review and approval by the WB.

As emphasized in the WB's guidelines, a subproject of a project (in this case, the REDD+ Strategy) should not be approved and funded until such reports are received, approved, and disclosed.

7.2.4 Step 4: Monitoring

Before projects are finalized and signed, and prior to project implementation, a review of contracts/partnering or financing agreements should be undertaken by the ESC/SSC to verify that measures identified in the ESMP and/or RAP are included in the clauses for successful applicants (e.g., contractors, NGO, other REDD+ partners). Sample clauses for inclusion in such contracts are included in Attachment 7.

During the project implementation phase, project management should undertake monitoring in accordance with the management measures as set out in the EMP. Results of the monitoring should be included in regular reports to the SWG. The frequency and format of the reports should be specified in the EMP and agreed with the project management (typically, biannually for regular reports, and immediately in the event of a specific incident or emergency occurrence that may present an environmental or social risk). It is important that the ESC and SSC ensure these reports are received in a timely manner so that any potential noncompliance with E&S standards is rapidly identified and rectified, and that data and indicators required for program monitoring are generated. The ESC and SSC should also receive copies of reports or notifications provided to, or by, the EPA to the partner regarding the environmental performance of the interventions, and should work with project management to enable them to address any EPA concerns. Attachment 8 provides templates for these monitoring reports.

In addition, the ESC and SSC should undertake their own verification monitoring of the interventions. This should ensure a representative sample of projects are reviewed, including those that may be

considered to be high risk. An annual monitoring report should be submitted to the ESC and SSC, and to the WB for review.

7.3 PEST MANAGEMENT PLAN REQUIREMENTS UNDER OP4.09

Agriculture intensification resulting from REDD+ interventions may lead to increased use of pesticides in cultivated land in intervention areas. Due to an absence of import controls, there are indications that poor quality, unregistered, and unregulated pesticides are being imported to Liberia, and that farmers who lack knowledge on their appropriate handling and use are using them (USAID FED, 2012a).

While pesticides are designed to kill specific pests, they can easily reach destinations other than their targets through entering the air, water, and sediments during handling, storage, application, and disposal of material and containers. Without specific management, impacts could include:

- Destruction of crop pollinators leading to poor crop yields;
- Elimination of the natural enemies of crop pests and consequent loss of natural pest control that keeps the pest population low;
- Development of resistance to pesticides, encouraging further increases in the use of chemical pesticides;
- Contamination of soil and water bodies;
- Toxicity to fish and birds;
- Proliferation of aquatic weeds;
- Pesticide poisoning of farmers and deleterious effects on human health;
- Unacceptable levels of pesticide residues in harvested produce and in the food chain; and
- Loss of biodiversity in the environment, particularly of the aquatic non-target species.

Use of pesticides can present acute and/or long-term and eco-toxicological hazards, especially if used incorrectly. This is particularly relevant in the Liberian context, since EIA/permitting systems in this area are not yet established and there is currently no functioning system for the import and safe use of pesticides and the management of associated wastes. Notably:

- Liberia has a list of pesticides banned under the Stockholm conventions, but there are inadequate controls on imports and it is understood that some Liberian farmers use banned pesticides.
- Few pesticides and choices of active ingredients have been available in Liberia, due to lack of good infrastructure and capital. Some of those available pesticides contain generic versions of off-patent pesticide, some of which may be of low quality and come without proper agro-dealer technical support.
- The EPA does not have the infrastructure or resources to test, register, and manage pesticides entering Liberia, or to ensure adequate training is undertaken to those using such products.
- Liberia does not have an established system to regulate spraying of pesticides by spraying providers or individuals.

As a result, the pesticide risk profile for Liberia is higher than in some other emerging market countries, and extra care will be needed to develop and implement risk mitigation and management measures that can function in this context.

The EPML (Sections 35 and 37) establishes a number of important principles to safeguard the quality of the freshwater environment (56, 57, and 61) and soils (under Sections 52 and 53). The EPML makes specific provisions for the management of pesticide and toxic and hazardous chemicals and materials. However, the regulations to implement such requirements are not yet in place.

Liberia, as a signatory to the Stockholm convention, is required to take measures (legal and/or administrative) to eliminate or heavily restrict the production and use of persistent organic pollutant (POP) pesticides and polychlorinated biphenyls (PCBs), and to minimize the unintentional production and release of POPs. Substances are listed in three categories: elimination, restricted use, and unintentional production.

WB OP 4.09, Pest Management, requires WB-funded projects to include a Pest Management Plan prepared by the borrower. This can be a stand-alone document or part of an EA. The Pest Management Plan is meant to promote the use of biological or environmental control methods and reduce reliance on synthetic chemical pesticides through implementation of Integrated Pest Management (IPM) techniques. These involve the integration of cultural, physical, biological and chemical practices to grow crops with a minimal use of pesticides. The WB applies the following criteria to the selection and use of pesticides:

- Have negligible adverse human health effects.
- Be effective against the target species.
- Have minimal effect on non-target species and the natural environment.
- Take into account the need to prevent the development of resistance in pests.

When there are significant pest management issues or when procurement of substantial quantities of pesticides is envisaged, WB OP 4.01 Annex C requires that pest and pesticide management issues relevant to the project be addressed in the EA and preparation of a specific Pest Management Plan, which forms part of the EMP. Attachment 4 presents the procedures for development of the REDD+ Pest Management Plan.

The WB does not finance formulated products that fall into World Health Organization (WHO) classes IA and IB, or formulations of products in Class II, if the country lacks restrictions on their distribution and use; or if they are likely to be used by, or be accessible to, lay personnel, farmers, or others without training, equipment, and facilities to handle, store, and apply these products properly.

The WB does not finance products that are on the United Nations Environment Program's list of POPs, with the possible exception of DDT for malaria control under specific circumstances. The same generally applies to other products that are being phased out for health or environmental concerns by an increasing number of countries (e.g., persistent products, products known to have endocrine disrupting properties, etc.). Indicators to help identify such products include:

- The list of products subject to the Prior Informed Consent Procedure. In most cases, these products will be excluded from procurement on the grounds that these provide unnecessary risk to the environment and human health.
- Products not permitted for use for environmental or health reasons in countries or groupings with advanced pesticide registration schemes like the USA, Canada, European countries, and the European Union.

The intended use of the selected pesticides should be permitted under the national legislation, and in compliance with the criteria of OP 4.09. Pesticides that are permitted under national legislation but do not meet the criteria of OP 4.09, cannot be financed.

7.4 Physical Cultural Resources within Environmental Assessment (Safeguard OP 4.11)

OP 4.11 addresses Physical Cultural Resources (PCR). PCR are defined as "movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance." These resources are recognized as "integral parts of a people's cultural identity and practice" and warrant protection under this policy.

Section 88 of the EPML also provides for the management and protection of cultural elements of natural heritage sites, but there are no regulations in place to implement this requirement.

Interventions implemented through REDD+ strategies generally have potential to affect two broad types of PCR:

1. Above-ground or buried tangible moveable or immovable objects, property, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values; and
2. Unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls.

In the context of Liberia's REDD+, features in the first category will generally comprise burial grounds, shrines, churches, and mosques. Many of these will be identifiable prior to commencement of on-site activities through standard survey techniques. Although not well studied, there is previous evidence of, and potential for, uncovering further undiscovered, buried prehistoric artefacts, though they are likely to be small scale (e.g., fragments of stone tools, pots, etc.). The second category features cultural heritage sites within forest areas associated with "secret societies."

In implementing the REDD+ Strategy, the most likely PCR will be sacred areas within forests that have religious or cultural significance to local people. However, because many of these areas are by their very nature secret, it may be difficult (if not impossible) to identify the precise location or extent of the area (see text box above entitled 'Sacred Sites and Public Consultation in Liberia'). Protection of these sites will present formidable challenges that will require specific procedures. Under WB OP 4.11 Physical Cultural Resources, there is a requirement to avoid or mitigate adverse impacts on physical cultural resources. Attachment 5 presents the process to ensure adherence to this safeguard.

Sacred Sites and Pubic Consultations in Liberia

The Poro (a highly secretive traditional bush school) is a critically important element of local traditions in many parts of rural Liberia, especially in Lofa, Gbarpolu, Grand Bassa, and Bong Counties. Almost all major activities associated with it are carried out in heavily forested areas and non-members are forbidden from entering into forests set aside for this purpose. The details of those activities remain a mystery to non-members and those who are members are forbidden from discussing them with non-members. As a result, the SESA team considered it inappropriate to probe the community members about this use and its implications for REDD+. For example, in Lofa and Bong Counties, where communities use old-growth forests for their Poro and Sande (female traditional schools), respondents would not identify this use, let alone discuss it in any detail. It was only mentioned fleetingly in Zigida (Lofa County) during the community mapping exercise.

The taboo on discussion of these areas will pose a challenge for adhering to the World Bank's policy regarding PCR (OP4.11). For example, to ensure that the integrity of the areas designated for Poro or Sande activities are maintained, mapping or identifying these areas through a screening process would be the most obvious way to safeguard these areas. However, the identification of these areas would not likely be allowed since sharing this knowledge with the public is forbidden. However, consultations can be designed so that communities can safely identify larger areas that may be excluded from activities without divulging the exact location (or even acknowledging the existence) of these areas. At the same time, this challenge must be addressed considering it is widespread throughout the country, and in Lofa and Gbarpolu Counties in particular, where a significant proportion of the proposed PAN exists.

7.5 Process Framework for Involuntary Resettlement or Restriction of Access to Natural Resources under World Bank Safeguard 4.12

7.5.1 Policy Requirements

World Bank OP4.12 on involuntary resettlement aims to avoid resettlement, so the first objective of the policy is to avoid involuntary resettlement where feasible. Where it may not be avoided, the policy aims to minimize impacts and/or compensate for impacts. In these cases, affected persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them to levels prior to project implementation (OP 4.12, paragraph 2).

This policy applies to direct economic and social impacts that result from WB-assisted investment projects, and are caused by:

1. **Involuntary taking of land** resulting in relocation or loss of shelter; loss of assets or access to assets; loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or
2. **Involuntary restriction of access** to legally designated parks and PAs resulting in adverse impacts on the livelihoods of the displaced persons.

Because of the high level of dependency of rural people of natural resources, the assessment of REDD+ priorities and related SOs presented above, identified three SOs that could potentially trigger World Bank Safeguard SO4.12 (see Table 5.1 and text box below entitled 'Forest Dependency').

Forest Dependency

In rural areas, the forest contributes to rural livelihoods in many ways: forest-based agriculture (shifting cultivation), fuel wood, bushmeat, and wild plant foods (fruits and nuts). This dependence on forest foods increases during crop failures. Income from sale of forest products and cultural traditions are also forest dependencies. In communities with significant forest land, forest land is seen as a land reserve for agriculture expansion, tree crop plantation, or new settlement establishment. In short, direct dependence on forests for farm land, fuel, fiber, food, medicine, and ritual is the norm for rural communities. The contribution of forests and forest resources to individuals' livelihoods varies, but (broadly speaking) rural peoples' dependency on the forest can be grouped into three broad categories based on the type of forest use and intensity of that use:

- **Subsistence users.** These people live within the forest or on the forest edge and depend entirely on the forest for income and livelihood (e.g., subsistence farmers, NTFP gatherers, hunters, artisans). They are removed from the political and economic mainstream, often with little or no access to formal employment and basic services. Opportunities for outside forest livelihood activities are low or non-existent. The use of forest products dominates subsistence, with commercial demand being influenced from outside, usually through middlemen coming from urban areas. Any significant change in forest use without a viably sustainable option will negatively affect this category of users because they have little or no capacity to adapt and are therefore highly vulnerable.
- **Livelihood users.** These people live in communities near forest but have other economic activities that contribute to their livelihoods. Often some household members have access to employment but most are heavily dependent on subsistence farming, hunting, or gathering. People in this category are also distant from the economic or political mainstream and tend to view concession companies as tenants on the land, and therefore, expected to provide livelihood support. This category of users is also highly vulnerable to loss of (access to) forest resources, although members have some limited opportunities for economic activities outside the forest. However, most remain forest dependent and are likely to be affected significantly if there are further restrictions on their use of the forest resources in the absence of sustainable alternatives.
- **Commercial users.** These people are involved in formal commercial economic activity that emanates from the forest. This includes chainsaw logging, and workers employed by concessionaires. However, these low-skilled workers are likely to be affected significantly if their use of forest resources is restricted, and are likely to revert to subsistence or livelihood use of forests in the absence of employment.

7.5.2 Process Framework for Involuntary Restrictions of Access to Legally Designated Parks and Protected Areas

Activities that trigger involuntary restrictions of access to legally designated parks and PA (SO3.1 and SO3.2) resulting in adverse impacts on the livelihoods of displaced people[8] require the development of a Process Framework that describes the participatory process including:

1. Preparation and implementation of specific components of the project;
2. Determination of criteria for eligibility of displaced persons;
3. Identification of measures to assist the displaced persons in their efforts to improve their livelihoods, or at least to restore them, in real terms while maintaining the sustainability of the park or protected area;
4. Conflict resolution processes involving displaced persons; and
5. Description of arrangements for implementing and monitoring processes.

The development of a Plan of Action during project implementation should describe the agreed restrictions, management schemes, measures to assist the affected persons, and the arrangements for their implementation. This Plan of Action could take the form of a natural resource use agreement or PA Management Plan so long as it covers all of the criteria above.

[8] This covers restrictions on the use of resources imposed on people living outside the park or protected area, or on those who continue living inside the park or protected area during and after project implementation.

Informed participation of affected communities in the process to develop and implement measures to mitigate negative impacts is a key element of the WB process. Specifically, affected communities have the right to participate in the decision process to determine the nature and extent of resource restrictions, the criteria for eligibility, and the measures to mitigate adverse impacts arising from resource restrictions. In addition, affected communities should also actively participate in the implementation of safeguard measures.

The safeguard requirements will depend on the scope, size, and complexity of the project. It is important to note that the Process Framework does ***not*** apply to projects that provide incentives to change livelihood and natural resource use practices on a voluntary basis.

For involuntary restrictions on use of natural resources that result in adverse livelihood impacts, all projects will require an initial screening to determine if negative impacts may result from project implementation. However, the results of the initial screening will determine whether the impacts warrant additional requirements. Table 7.1 summarizes the required steps in this safeguard process for involuntary restrictions on use of natural resources that result in adverse livelihood impacts.

Table 7.1: Process Framework Steps

Type of Project/Activity	Assess Social impacts (Initial Screening)	Consult with Local Communities	Develop Process Framework (and Action Plan)	Monitor and Evaluate
Project or activity will not restrict access to natural resources	No; although it is good practice to conduct some social analysis for most projects.	No; although it is good practice to consult with local communities for most projects.	No	No
Project/activity will have limited restrictions on unsustainable and illegal activities with no direct impacts on local communities	Yes; to assess impacts and inform project design.	Yes; but could be limited to a sample of representatives of local communities.	No. Project proposal should describe the limited restrictions and the results of the impact assessment and consultations. It may also include measures to ensure that the project will not adversely affect local communities' livelihood or customary rights.	Yes. To assess and monitor any impacts. If negative impacts result from the project, the project will be required to address the impacts. This may include requirements to prepare and monitor a Process Framework and/or Action Plan.
Subprojects with restrictions affecting local communities' livelihood and well-being	Yes; to assess impacts and inform project design and Process Framework.	Yes. The level of detail and scope is proportional to project activities and their impacts on local communities.	Yes. Level of detail and scope is proportional to project activities and their impacts on local communities.	Yes, including implementation of the Process Framework and Action Plan.

Attachment 6 comprises a description of the preparation of the Process Framework and its content.

7.6 INVOLUNTARY TAKING OF LAND RESULTING IN LOSS OF MEANS OF LIVELIHOOD

A number of SOs, depending on how they are implemented, have the potential to result in land takings that result in the loss of means of livelihoods. This would include the creation of new PAs under SO3.1 and SO3.2, and land that may be used for reforestation under SO1.3. However, it is important to note that this policy does **not** apply to natural resource access restrictions under community-based projects (i.e., where the community using the resources decides to restrict access to these resources voluntarily). However, to make this determination, an assessment satisfactory to the WB must be undertaken to establish that the community decision-making process is adequate, and it provides for identification of appropriate measures to mitigate adverse impacts, if any, on the vulnerable members of the community (OP4.12 para.3). However, this policy would be triggered

where new parks and PAs are created as part of the project, persons who lose shelter, land, or other assets (OP4.12 para.3).

Where this policy is triggered on WB-funded projects, **a Resettlement Plan** and/or a **RPF** are required. The requirements for Resettlement Plans and RPF are detailed in the Appendices to SO4.12. These include measures to ensure that displaced persons are informed about their options and rights pertaining to resettlement; consulted, offered choices among, and provided with technically and economically feasible resettlement alternatives; and provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.

In the event the impacts include physical relocation, the Resettlement Plan or RPF must include provisions to ensure displaced persons are provided assistance (such as moving allowances) during relocation. They must be provided with residential housing, or housing sites, or as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site.

7.7 Ensuring Safeguard Compliance by Implementing Partners

It is anticipated that REDD+ interventions will be implemented by partners (contractors, NGOs, etc.) through projects that will be responsible for adhering to applicable GoL laws and regulations. For the ESMF, foremost of these is the requirement to adhere to various standards in relation to environmental management as set out in the Liberian EPML (GoL, 2003).

Where WB funds are used, relevant WB OPs will also need to be applied. The WB requires borrowing governments to address certain E&S risks to receive Bank support for investment projects. This is undertaken through the application of relevant procedures and measures whenever any of WB E&S safeguard polices are triggered.

In particular, the WB OP4.01 Environmental Assessment requires the borrower to ensure and report on compliance with measures agreed upon based on the findings and results of the EA, compliance with any EMP, status of mitigation measures, and findings from any monitoring programs. The WB bases supervision of the project's environmental aspects on the findings and recommendations of the EA, including measures set out in the legal agreements, any EMP, and other project documents.

To ensure that implementing partners are aware of and bound to comply with these terms, agreements with implementing partners should include clauses to ensure the relevant E&S standards are upheld. This requires application of both the "mitigation" outlined in the ESMF, and as appropriate, the safeguard procedures outlined in the annexes to the ESMF, as well as any project-specific measures identified in the ESMPs emerging from their ESIAs. The final content of the agreements will depend on the nature of the intervention and how it is being delivered. Attachment 7 provides a basic list of sample clauses that should be considered for inclusion in all such agreements with reference to those required for WB funding.

8.0 BUDGET

The following outlines the line items that should be considered for ESMF Implementation. The costs associated with implementation of the ESMF will in large part be determined by the projects and activities that will require screening and monitoring. In addition, the Consultant does not have information regarding the salary scale associated with these positions for the Government of Liberia. The types of positions will also be determined by the types of activities or projects that are undertaken. For example, if the strategy activities and projects are primarily research-oriented, and concentrate on the development of local capacity, then the need for staff to screen these projects and undertake detailed EA may be limited. On the other hand, if the activities and projects envisioned involve large scale interventions at multiple sites and geographies, then the staffing needs, technical assistance and training will be much different.

Accordingly, the budget provided identifies the line items that should be considered in planning for implementation of the ESMF; numbers are illustrative and based on similar initiatives in other countries preparing REDD+ Strategies.

Table 8.1: Illustrative Budget Format for ESMF Implementation

Budget Line Item	Five-Year Budget ($)					Total ($)
	Year 1	Year 2	Year 3	Year 4	Year 5	
Staff						
EPA Personnel	20,000	20,000	20,000	20,000	20,000	**100,000**
FDA Personnel	10,000	10,000	10,000	10,000	10,000	**50,000**
STAFF SUB-TOTAL	**30,000**	**30,000**	**30,000**	**30,000**	**30,000**	**150,000**
Consultants • E&S Safeguard Consultant(s) • Training of Trainers Consultant(s) • ESIA Consultant(s)	120,000	120,000	90,000	90,000	75,000	**495,000**
Training • Details regarding training subject and participants TBD	80,000	80,000	40,000	40,000	40,000	**280,000**
Activities • Safeguards Working Group Coordination • Screening (inclusive of travel/transport) • ESIA (exclusive of consultant fees) • Review Process (exclusive of public consultations) • Public Consultations • Monitoring	10,000	40,000	40,000	40,000	40,000	**170,000**
International Travel • Training-related travel	35,000	35,000	35,000	35,000	35,000	**175,000**
Equipment • Vehicles (assumes periodic purchase of vehicles) • Computers • Software • Printers • Office Equipment (desks, chairs, filing cabinets) • Environmental testing equipment • GPS Units • Camera	375,000	20,000	20,000	200,000	20,000	**635,000**
Other Direct Costs (ODCs) • Vehicle fuel and maintenance • Stationery • Communication (telephone and internet)	80,000	80,000	80,000	80,000	80,000	**400,000**
TOTAL	**730,000**	**405,000**	**335,000**	**515,000**	**320,000**	**2,305,000**

9.0 CONCLUSIONS

The REDD+ Strategy has the potential to transform the forestry sector by changing ownership and use of forest resources. However, the REDD+ Strategy carries with it great risk, particularly to the most vulnerable of Liberia's population that is dependent on forests and forest resources for their food security and livelihoods. Effective engagement with these communities is critical to ensure that both social and environmental risks (often emanating from community use of forest resources), are considered and managed, and that conflict over use and management is mitigated. Accordingly, it is imperative that projects developed to implement the REDD+ Strategy rigorously analyze the potential impacts of interventions with reference to the priority outcomes that are identified in the SESA. Screening tools and mitigation guidance to ensure that these impacts are considered and managed, are provided in the ESMF and should be modified as needed.

The REDD+ Strategy ESMF builds on the REDD+ SESA which identified potential E&S impacts associated with implementation of the REDD+ Strategy. Mitigation measures to address these impacts were also identified in the SESA, and these measures formed the basis for the development of the ESMF. This ESMF has been prepared so as to be compliant with the laws of the GoL, and where applicable, to the requirements of the relevant World Bank E&S Safeguards.

Implementation of the ESMF will also require a great deal of institutional capacity building. A list of proposed trainings has been provided in the WSMF, but additional areas should be identified as the REDD+ Strategy is implemented in order to further support and strengthen the institutions that are responsible for identifying, managing and mitigating E&S safeguards.

Finally, a particular challenge for implementation of the REDD+ Strategy in Liberia will be the provision of sufficient budget and resources to ensure that the ESMF is in place. An illustrative budget has been developed as part of the ESMF and these funds are needed at a minimum to ensure that Liberia's institutions can carry out their mandate both under Liberian Law and consistent with applicable World Bank safeguard requirements. Failure to do so could jeopardize the ultimate success of the REDD+ Strategy.

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ATTACHMENT 1: SESA MODIFICATIONS TO THE REDD+ STRATEGY

Table A1.1 below presents the list of proposed adjustments recommended and presented in the draft ESMF which were subsequently integrated in full or in part into the REDD+ Strategy.

Table A1.1: Recommended Modifications from the Draft ESMF (April 2016)

Proposed Adjustments	Included in Revisions	
	Yes	Partly
Priority 1 Strategy Option Modifications		
1. Concentrated Infrastructure and service development should be coupled with complementary livelihood measures to mitigate potential issues associated with in-migration. Will require multi-sectoral planning mechanisms (1.1&1.2)	X	
2. Focus interventions initially on research that can determine and/or demonstrate viability of alternative livelihood strategies and under what conditions (crosscutting)		X
3. Options should include means measures to increase efficiency of pit saw logging rather than focusing only on diverting such activities from HCV forest (1.4).		X
4. Option 1.4 could include promotion of sustainable practices, as currently included under Option 1.5. Both these options could link such measures to Option 1.8.		X
5. Options related to charcoaling should take into account the existing market and relationships, and include this research to inform the design of interventions (1.5).		X
6. Strategy Option 1.5 should consider options for reducing demand through, for example, promoting charcoal efficient stoves in urban areas, and the use of other energy sources.		X
7. The intention behind the proposal to "reduce impact" on high carbon stock forest should be further explained. For example clarification should be provided as to whether this relates to a presumption against charcoal production or chainsaw logging from such areas, which would increase the area of lower value carbon which would need to be exploited to generate the same amount of energy, or whether sustainable exploitation of such high carbon value areas is proposed (crosscutting).		X
8. Options must address urban demand for charcoal since urban dwellers drive demand for this product. (1.5)		X
9. Recognize the contribution to GHG of livestock rearing and nitrogen based fertilizers, and where possible, promote those species and products/practices that have low contributions (1.6).		X
10. The role of community forests within this Priority should be considered and included if it will enhance the viability of the strategy. For example, the chainsaw logging regulation only permits chainsaw logging in community forests or private lands (GoL, FDA Reg. 115-11§2). Failure to support community forestry could undermine this strategy option. Similarly, the large numbers of CFMA applications for commercial management of community forests suggests that communities are very interested in logging their customarily owned forests. Providing alternatives through community forestry may be necessary to ensure community use of forests that is compatible with REDD+ objectives.		X
Priority 2 Strategy Option Modifications		
1. More specificity regarding conservation standards and mechanisms (FSC or other) to be applied to FMCs and CFMAs including: specific objectives to be achieved in relation HCS and HCV (1-6) (e.g., whether reduced loss, no loss, net gain etc.); broad approach to sustainable logging (definition of offtakes etc.); whether there should be requirements for set asides, and/or offsets and if so under what circumstances.		X
2. Alter Strategy 2.1 from "conserve" to "manage and maintain" areas of HCV to be consistent with the HCV Draft National Interpretation for Liberia and reflect the fact that all HCV areas may not need to be conserved through strict protection but can in many instances be sustainably used.		X
3. Include specific measures relating to CFMA.		X
4. Promote biodiversity conservation at the landscape scale including through aggregated set asides, and where relevant, consideration of critical natural habitat management units.		X
5. Specification of measure to safeguard any set asides, offsets or areas intended for sustainable logging areas from community use.		X

Proposed Adjustments	Included in Revisions	
	Yes	Partly
Legal and Institutional Modifications		
6. Capacity building for implementation and enforcement of relevant regulations and laws should be an important component within these strategy options, along with realistic timeframes to develop the requisite skills and capacity, before implementation is contemplated at scale. This will be significant given the current lack of capacity and resources of national agencies to: regulate environmental performance of the forest sector; undertake HCV and HCS assessment or provide oversight of those that do; plan for and manage (including thought the EIA) process for indirect impacts of forest concessions notably those arising from population displacement and population influx; establish and manage collaborations with for example private sector and CSO for development of amongst others offsets and Conservation Agreements.		X
7. Capacity building of communities must be considered. The requisite skills and knowledge will take considerable time and investment to develop.		X
Priority 3 Strategy Option Modifications		
1. Rather than focusing on the currently proposed PAN and it expansion to include the CPAs (as proposed by Junkers *et al.*) the strategies should promote a landscape level ecosystems and mosaic approach to conservation at local regional and national levels. This should capitalize on the package of opportunities offered by both the PAN and conservation measure those that will be created under conditions applicable to emerging commercial and community land uses (notably areas of HCV set asides, offsets sustainably managed FMC and CFMA). Such an integrated and complementary approach to landscape level conservation may better achieve the desired outcomes		X
2. The strategy should prioritize locations for interventions that will protect critical natural habitat or other important biodiversity that may otherwise be threatened		X
3. The Strategy should identify the need for and specify the nature of complementary measures (potentially under Strategy Priority 1) to address the indirect effects on areas of conservation importance (HCS and HCV1-4) arising from the diversion of community land uses that would otherwise occur in the PANs or areas subject to other conservation measures. This may require some adjustment to Options 1.1 and 1.2 to ensure that communities located close to PA and other forest areas who are not willing or able to relocate have the necessary access to infrastructure and services to enable them to adopt alternative livelihood options to those that are forest based. This is particularly important as the determination of SESA Priority Issues identified (under Outcome 1) that development of alternative livelihood options are currently constrained by *"poor infrastructure… and access to markets"*		X
Legal and Institutional Modifications		
4. Include provisions to build capacity and resources to deliver and manage the PAN taking account of the fact that to date this has been lacking and without significant support will become further stretched if the PAN is to be expanded. Accordingly, capacity building for implementation and enforcement of relevant regulations and laws should be an important component within these strategy options. Realistic timelines must also be considered for the requisite capacity to be developed to support implementation.		X
5. Develop a systematic landscape classification to inform where forest and non-forest area areas both within and outside of the PAN may perform an ecological function or have potential to do so (e.g., through forest regeneration) within the landscape mosaic and warrant safeguarding including through REDD+.		X
Priority 4 Strategy Options		
1. Should differentiate between conservation requirements for HCV and HCS that may apply (e.g., as per current RSPO) or specify whether RSPO NEXT which includes voluntary criteria on amongst others no deforestation and reduction in greenhouse emissions, would apply. This could usefully take account of Liberia's commitment to zero deforestation under the Norway LOI.	X	
2. Strategy Option 4.2, the specification of Mineral Contracts may be better removed as the application of RSPO (or equivalent) may not be appropriate as it could significantly constrain mining (RSPO promotes set asides and may require zero deforestation rather than allowing for offset and zero net deforestation as proposed for mining under Strategy Option 4.3). It would also be inconsistent with the principle of "zero net deforestation" set out in strategy option 4.3.		X
3. Strategy 4.2 should clarify whether mineral development refers to commercial, or also includes artisanal mining activities.	X	
4. Forest standards such as FSC may be more appropriate to TSC than "RSPO and equivalent". If this is the case TSC may be better addressed under Priority 2.	X	

Proposed Adjustments	Included in Revisions	
	Yes	Partly
5. Strategy 4.3 should include consideration of aggregated offsets and the role of REDD+ in promoting such an approach.		X
6. Strategy 4.3 could benefit from a definition of "deforestation" as distinct from "forest clearance" in Option 4.2, possibly taking account of the evolving RSPO and Liberia's definitions (e.g., tree cover, carbon, biodiversity or other values). Specification of what "other deforesting land uses" may comprise could also be provided.		X
7. It is not immediately evident how Strategy Option 4.4 can be implemented in practice as mining sites are necessarily constrained by the location of reserves. It is not clear why this strategy does not also include avoidance of HCV areas. While this strategy could be reworded to require offsetting through new planting to result in "no net loss" of high carbons stock (and possibly similar consideration for HCV), it is not clear how this would differ from measures under strategy 4.3, and hence whether Strategy Option 4.4 is required. It is also not clear what the "other concessions" refer to as agriculture, and forestry are covered elsewhere in the strategy and will require different management measures.		X
8. The Strategy should specifically promote biodiversity conservation at the landscape level (e.g., through aggregated set asides and offset) including consideration of critical natural habitat management units.		X
10 The Strategy should identify the need for and specify the nature of measures to safeguard any set asides or offset promoted through its implementation from community use		X
11 The strategy should specify the need to provide sufficient opportunities for communities to be more actively engaged in decisions about concession management.	X	
12 Identification of appropriate lands for offsets should be undertaken with adherence to FPIC principles	X	
Legal and Institutional		
13 Establish formal mechanism and policies to promote innovative collaborative approaches with the private sector and CSO to conservation including for example through aggregate offsets and conservation agreements.		X
Priority 5 Strategy Option Modifications		
1. Strategy description should include descriptions of the role of communities in development of benefit sharing mechanisms and policies.		X

ATTACHMENT 2: ESMF STAKEHOLDER PARTICIPATION AND CONSULTATION REPORT

A1.0 STAKEHOLDERS CONSULTED DURING THE SESA PROCESS

During the Inception phase of the SESA, stakeholder groups were identified and categorized at different levels including the national, county, and community levels. This included government agencies, civil society and nongovernmental organizations, community-level forest user groups, community bodies or institutions organized to represent community interests in the resource sector, and the private sector. Below is a summary description of these key stakeholder groups identified and consulted during the SESA.

A1.1 Government Agencies and Institutions

At the national level, the government agencies and institutions consulted included the National Climate Change Secretariat, FDA, EPA, Land Commission, Bureau of Concessions, the Ministry of Gender, Development and Social Protection, and the MoA. Local government officials at the county level consulted included Superintendents and other senior local government officials, Representatives of the Ministry of Gender, Development and Social Protection, Representatives of the Ministry of Agriculture, and the County Land Commissioners. At the local and community levels, government official consulted included District Superintendents, District Commissioners, Paramount Chiefs and Clan Chiefs.

A1.2 Civil Society Organizations and NGOs

Civil society organizations (CSOs) included non-state actors that bring together individuals with common interests in forestry and agriculture sectors, and engage in a collective activity to further their members' interests. The main CSOs consulted at the national level included the Traditional Council of Liberia, Press Union of Liberia, National Civil Society Council of Liberia, Federation of Liberian Youth, Liberia National Students Union, National Union of Community Forestry Development Committees, Charcoal Union and the Pit-sawing Union. At the county and local levels, civil society actors included county representatives of the National Civil Society Council of Liberia, Community Forestry Development Committees and Community Forestry Management Bodies, County Forest Forums, and religious leaders.

NGOs that are active in the forestry and agriculture sectors (i.e., with presence on the ground and ongoing programs or projects in rural parts of the country, and international NGOs working in the forestry or agriculture sector) were divided into three categories: representative bodies or platforms bringing together several NGOs, national NGOs, and international NGOs. The main NGO platforms consulted included the environmental NGO Coalition of Liberia, the Alliance for Rural Democracy, and the Consortium on Natural Resource Management. National NGOs that participated in one or more consultation events included Rural Integrated Center for Community Empowerment, Foundation for Community Initiatives, Green Advocates International, Forest Cry Liberia, Society for the Conservation of Nature of Liberia, and Sustainable Development Institute. International NGOs consulted included Conservation International, Flora and Fauna International, BirdLife International, and the Royal Society for the Protection of Birds.

A1.3 Communities and Community Groups

Communities, as used in the context of the SESA, refers to collections or concentrations of the general populations in specific locations at the local level. Communities consulted included a town or village (during the case studies), and a collection of town and/or villages making up a clan, chiefdom or district (during the community validation). Community groups consulted included different social groups within the target community, forest user groups, and community-based organizations established to represent their community in the forestry and/or agriculture sector, e.g., Community Forest Development Committees (CFDC) and Community Forest Management Bodies (CFMB).

A1.4 Private Sector

Private sector actors were placed into three categories and included businesses in the forestry, agriculture, and mining sectors. The main companies consulted included logging companies (i.e., active concession holders), and representative bodies such as the Liberia Timber Association and Liberian Loggers Association, oil palm companies, and mining companies. The major oil palm companies (Golden Veroleum Liberia (GVL), Sime Darby Plantation Liberia, and Equatorial Palm Oil) were consulted both at the national and regional levels. In the iron ore (mining) sector, ArcelorMittal Liberia was the only company active during the period and was consulted both at the local and national levels.

A2.0 Description of Participation and Consultation Process

The stakeholder participation and consultation process adopted a bottom-up approach during the SESA (i.e., starting at the village level and then moving up to the district, county, and national levels. The process commenced with the inception workshop and concluded with the national consultation on the ESMF. The stakeholder participation and consultation process involved 12 community-level interactions and workshops, 12 regional-level consultations, three national workshops, and one technical workshop. The community-level consultations included six case studies, and six community validation workshops on the findings of their respective case study. The regional consultations included six regional validation workshops on the case studies' findings and six regional consultations on the draft ESMF; and the national workshops included the inception workshop, national workshop on the priorities issues identified during the case studies and validated at the regional level, and the national consultation workshop on the draft ESMF. Figure A2.1 summarizes the stakeholder participation and consultation process.

Figure A2.1: Stakeholder Participation and Consultation Process

A2.1 Case Studies

During the inception workshop, stakeholders agreed on six sites to conduct community-level case studies. The sites were selected based on their suitability to illustrate the drivers of deforestation and forest degradation, ensure geographical balance. Sites also were selected to ensure that different forest management approaches were considered, and that the diverse drivers of deforestion and forest degradation listed in the R-PP were captured for analysis. The case studies focused on six communities and their interaction with protected areas, commercial forestry, agricultural concessions, shifting cultivation and forest-dependent livelihoods, charcoal production, and mining. The case studies were conducted in the following six counties: Bong, Margibi, Lofa, Nimba, Grand Kru and Rivercess. Unrest related to GVL's operation in Butaw, Sinoe County necessitated a case study site from Sinoe County to Grand Kru County, based on concerns that the unrest and its impacts would influence perceptions and the findings of the case study. Table A2.1 presents the case studies' sites, key characteristics of these sites, and dates.

Table A2.1: Case Studies Locations, Dates and Characteristics of Each Site

Case Study Location	Dates (2015)	Primary Driver and/or Key Characteristics
Zigida (Lofa County; Zorzor District)	June 2–5	Proposed Wonegizi PA, REDD+ site & benefit sharing
Gbarpa (Nimba County; Yarmein District)	June 6–10	Community forestry, mining and PA management
Gbarngay (Bong County; Suakoko District)	June 10–14	Shifting cultivation and forest dependent livelihoods
Newaken (Grand Kru County: Thren Dist.)	June 22–26	Oil palm plantation expansion/ agriculture concession
Teekpeh Town (Rivercess County; District 5)	June 27–July 1	Logging concession, and community participation and benefit sharing
Sherman Farm (Margibi County; Kakata District)	July 3–5	Biomass (fuelwood), impacts and livelihoods

A2.2 Community and Regional Validation

The case studies findings were validated at six community validation workshops. The workshops were organized in the same counties and districts where the case studies were conducted, but in different towns, and brought together a broader mix of stakeholders from different towns within the district. During the community validation workshops, a representative group of participants was selected to attend the regional validation workshops. This approach ensured that the local knowledge and experiences that informed the discussions at the community level were brought to the regional workshops, and that participants from the community validation workshops were on hand to directly respond to questions about their experiences. Table A2.2 presents the six regional validation workshops, locations, and dates.

Table A2.2: Locations, Dates and Clusters of Counties during the Regional Validation

Locations	Dates (2016)	Counties in the Cluster
Tubmanburg, Bomi County	November 3	Bomi, Grand Cape Mount and Gbarpolu Counties
Kakata, Margibi County	November 6	Margibi and Rural Montserrado Counties
Gbarnga, Bong County	November 16	Bong, Lofa and Nimba Counties
Buchanan, Grand Bassa Co.	November 27	Rivercess and Grand Bassa Counties
Plebo, Maryland County	December 2	Grand Kru, River Gee and Maryland Counties
Greenville, Sinoe County	December 4	Sinoe and Grand Gedeh Counties

A2.3 Institutional Review and National Workshop

Following the regional consultations to validate the findings of the case studies, the social and environmental issues or concerns emerging from the validation were consolidated, analyzed, summarized, and presented as issues that could influence or be influenced (positively or negatively) by the REDD+ strategy. Based on the emerging Strategy Options, the issues that emerged from the community and regional validation workshops were split into three categories: community socioeconomic and cultural issues, macroeconomic and social issues, and biophysical issues. These issues were presented to the SESA Working Group to validate and prioritize on February 5, 2016. On February 9 and 10, a broader group of stakeholder met at a national workshop and reviewed and validated the priorities. The findings of the case studies, the outcomes of the community and regional validations, as well as the institutional review and national validation workshop were developed into a Priorities Report (Tetra Tech, 2016) and form the basis for assessing the Strategy Options presented in the draft REDD+ Strategy.

A3.0 Consultations on the ESMF

A draft ESMF was prepared for stakeholder review and input in May 2016. Feedback was sought from local stakeholders through a series of regional workshops. The objective of these workshops was to present the impacts for validation, and to solicit feedback on the issues that would affect the proposed framework to mitigate these impacts. These workshops therefore provided critical opportunities for community and county level stakeholders to review the Strategy Options being considered and to make inputs that would be taken into account during revisions. Six regional

consultation workshops on the ESMF were organized in clusters bringing together all the counties, except Montserrado County.

Nine of the Strategy Options proposed in the draft REDD+ Strategy were presented to stakeholders during the consultations. The nine Strategy Options selected were those options with a higher possibility of affecting community forest and land rights, local wellbeing and livelihoods, and benefits. Other options, for example proposing government adopt measures to *"ensure that mining and other deforesting land uses result in zero-net deforestation, through mechanisms such as biodiversity offsetting agreement"* and to *"apply same conservation standards to all concessions involving forest clearance, including Timber Sale Contracts, and mineral development concessions, including outgrowers and private plantations with holdings larger than 10 hectares"* were not included because they were considered as having lower possibility of affecting communities and many of the issues related to the impacts were deemed too technical.

The selected Strategy Options (which have subsequently been revised) were:

1. **Strategy Option 1.3**: Increase the area and productivity of non-forest land under permanent food and cash crops, to reduce the expansion of shifting agriculture.
2. **Strategy Option 1.4**: Manage small-scale logging (pit-sawing) to minimize impact on highest conservation value forests.
3. **Strategy Option 1.5**: Manage charcoal production to reduce impact on high carbon stock forest and establish sustainable sources and levels of production.
4. **Strategy Option 1.6**: Enforce existing hunting laws and support the development of livestock rearing.
5. **Strategic Option 1.7**: Manage artisanal and small-scale mining to avoid areas of highest conservation value forest and to minimize impact on other forest areas.
6. **Strategy Option 3.1:** Complete the Protected Areas Network and strengthen management to prevent forest degradation.
7. **Strategy Option 3.2**: Expand the PAN by adding conservation priority areas, to achieve the 30% conservation commitment.
8. **Strategic Option 5.1**: Define carbon rights and develop policies and regulations for upholding these.
9. **Strategy Option 5.2**: Establish benefit-sharing mechanisms for REDD+, in harmony with those operating in the forestry, mining, agriculture and other relevant sectors.

National Workshop

A national workshop was then organized to bring stakeholders from the fifteen (15) counties together with national level stakeholders. Table A2.3 below presents the locations, dates and counties brought together during the regional consultations and the national workshop on the draft ESMF.

Table A2.3: Regional and National Consultations on the ESMF

Locations	Dates (2016)	Counties in the Cluster
Fishtown, River Gee County	May 5	Grand Kru, River Gee and Maryland Counties
Zwedru, Grand Gedeh Co.	May 9	Sinoe and Grand Gedeh Counties
Gbarnga, Bong County	May 12	Bong, Margibi and Nimba Counties
Voinjama, Lofa County	May 16	Lofa County
Robertsport, Cape Mount	May 23	Bomi, Grand Cape Mount and Gbarpolu Counties
Buchanan, Grand Bassa Co.	May 26	Rivercess and Grand Bassa Counties
Monrovia - Liberia	June 2 & 3	Stakeholders from across the country & Monrovia

A3.1 Consultations with Private Sector and NGO

Several meetings were held with NGO and private sector organizations to discuss specific strategy options: CI and FFI were consulted to discuss issues related to the development of the PAN and

management of HCV forests; GVL was consulted regarding measures related RSPO standards and agricultural concessions; AML was consulted regarding mining issues and their experience with voluntary set asides.

A3.2 ESMF Consultations and Priority Issues

Throughout the stakeholder consultation process, subsistence and livelihoods, tenure and benefit sharing were broad themes that were repeatedly highlighted across the country, although the specifics varied from one County or region to another. For example, in Lofa County, subsistence and livelihoods concerns were expressed in terms of continued access to forestlands for farming and other forest-based livelihood activities, whereas in Nimba County stakeholders were concerned about support to engage with the formal economy through cash crop farming, and in Bong County stakeholders were more concerned about access to land for subsistence agriculture and livelihood activities. While all of these concerns were raised in the context of the potential impact of REDD+ interventions on local livelihoods, the nuanced differences in views from the different regions seemed to have been shaped by their local circumstances and experiences. During the consultations on the draft ESMF, stakeholders across the country also had another opportunity to review the issues that emerged from the case studies and the validation workshops; this time taking into account the Strategy Options that were being proposed in the REDD+ Strategy.

The stakeholder consultations on the draft ESMF were organized through six regional workshops. Region 1 included Grand Kru, Maryland and River Gee counties, Region 2 included Grand Gedeh and Sinoe counties, Regional 3 included Nimba, Bong and Margibi counties, Region 4 involved only Lofa, Region 5 brought together Gbarpolu, Bomi and Grand Cape Mount counties and Region 6 included Grand Bassa and Rivercess Counties. This arrangement allowed for representative groups of stakeholders from all fifteen counties to participate in the consultations on the draft ESMF.

Participants at each workshop were asked whether they thought the Strategy Options would or would not deliver the desired Outcomes in their context, identify conditions or factors that would be needed to improve the chances of the Strategy Options delivering the desired outcomes or hinder the effective implementation of the proposed Strategy Options, and some of the potential impacts of the Strategy Options that were of concern to them. Table A2.4 below presents the key issues that emerged from the consultations on the draft ESMF. These issues are a mix of concerns regarding potential negative impact of the proposed options, factors that could hinder the successful implementation of the proposed option or minimize its positive impacts and recommendations for additional or complimentary measures that should be considered during the revision of the draft REDD+ Strategy.

While these issues were raised in almost all the regional consultations and broadly reflect the concerns of stakeholders in the rural parts of the country, different issues were emphasized in some regions more than in others. The regions where particular issues were repeatedly emphasized are listed in the column headed '*Regions*' in Table A2.4 and are grouped as follows:

Region 1: Grand Kru, Maryland and River Gee counties;

Region 2: Grand Gedeh and Sinoe counties;

Region 3: Nimba, Bong and Margibi counties;

Region 4: Lofa (only)

Region 5: Gbarpolu, Bomi and Grand Cape Mount counties; and

Region 6: Grand Bassa and Rivercess Counties

Finally, while Table A2.4 provide a more summary of issues raised repeatedly in the various regions, Table A2.5 presents the top priority issues of concern per region. While these are presented as top priority issues, it is important to bear in mind that participants at the regional workshops discussed them as multifaceted issues. For example, fears about the potential increase in land conflicts were presented in terms of increased intra and inter-communal conflicts, as well as conflicts between communities and law enforcement.

Table A2.4: Regional Priority Issues and Impacts

Desired Outcomes	Key Issues and Concerns Raised during Regional Consultations on ESMF	Main Regions
1. Reduction in dependency on shifting cultivation for livelihoods and food security. 2. Diversified livelihood options from forests	**Strategy Option 1.3**: Increase the area and productivity of non-forest land under permanent food and cash crops, to reduce the expansion of shifting agriculture.	
	• Who will provide the agriculture inputs that will be required to make this transition and will such support be sustained?	Region 1
	• Training for farmers and improving access to market will be critical. NGOs provide limited training and support to communities but exaggerate their impacts.	Region 2
	• Agriculture extension services are limited to accessible areas and not reaching most farmers. Experiences from Kpatawee (community oil palm) and Gbedin (swamp farming) show that with the right approaches farmers can shift from shifting cultivation to permanent crops and lowland farming, but sustained government support is required.	Region 3 Region 4
	• Re-establish support programs for agricultural cooperatives, as it was before the war. Programs need to be well planned or designed (for example soil suitability testing across the country), delivered in an efficient manner and sustained over time.	Region 3 Region 4 Region 6
	• If people get the agriculture inputs in a timely manner, and realize that they can actually increase their yield they will make the transition. Varieties should be appropriate and based on local needs (Cassava introduced in Bassa but could not be used for the preferred local food (Dumboy and Fufu – only good for Garrie).	Region 4 Region 5 Region 6
	• Materials could be sold, ex seedlings distributed to local farmers in Bomi were sold. Include complementary support (e.g., emergency food aid) so that farmers can meet immediate needs and actually use the inputs on their farms.	Region 5
3. Increased Land Security 4. Adequate access to land for livelihoods	• Land pressure is increasing in areas where there are oil palm plantations. • Number of jobs offered in return for land offered for oil palm plantation not adequate.	Region 2
	• Rapid population growth and lack of clear land ownership is a challenge for farmers. • Also, some families have vast amount of land while others are either landless or have limited access to land.	Region 3
5. Enhanced forest productivity under Community Forest management systems	**Strategy Option 1.4**: Manage small-scale logging (pit-sawing) to minimize impact on highest conservation value forests.	
	• FDA lacks the resources to enforce the regulation on chainsaw logging. Involve local communities more in the formal enforcement structure.	Region 4 Region 5
	• Instead of relying on enforcement only, there is a need to strengthen the capacity of chainsaw loggers to be more efficient. For example, organize pit-sawyers (ex into cooperatives - Bassa) to work with logging & agriculture concession holders.	Region 1 Region 4 Region 6
	• Develop programs that provide skill training & alternative livelihood for chainsaw loggers.	Region 1 Region 5
	• Influential people in the community, with ties to community elders referred to as 'landowners', facilitate chainsaw logging thus hindering local law enforcement. The FDA also supporting chainsaw logging because of the revenue they generate.	Region 3 Region 5 Region 6

Desired Outcomes	Key Issues and Concerns Raised during Regional Consultations on ESMF	Main Regions
	Strategy Option 1.5: Manage charcoal production to reduce impact on high carbon stock forest and establish sustainable sources and levels of production	
	• Provide alternative and affordable sources of energy in areas with high population density to reduce demand for charcoal. Charcoal is mainly used in cities.	Region 1 Region 3 & 4 Region 5 & 6
	• Train charcoal producers in efficient charcoal production technologies/ methods (if they exit). Provide charcoal producers other viable options for income generation before imposing restrictions on charcoal production. Charcoal burning is not just a source of income – it is a critical for most burners and their families' survival.	Region 3 Region 5 Region 6
	Strategy Option 1.6: Enforce existing hunting laws and support the development of livestock rearing.	
	• Tackle urban demand for bushmeat, encourage and support livestock rearing and poultry farming on large-scale to ensure adequate and affordable supplies of meat and poultry products. Build on current NGO efforts (ex. BRAC in Lofa)	Region 1 Region 2 Region 4 Region 5 & 6
	• Train extension officers in livestock rearing and fishery so that they can support communities and households. Existing workforce need to be utilized. For example, majority of the graduates from the Clay Agriculture Center still unemployed in Bomi.	Region 3 Region 5
6. Achieve sustainable exploitation rates chainsaw logging, artisanal mining, & NTFP collection	**Strategic Option 1.7**: Manage artisanal and small-scale mining to avoid areas of highest conservation value forest and to minimize impact on other forest areas.	
	• Artisanal mining is a major livelihood activity. Increased restriction will drive more people towards other unsustainable forest uses, and increase economic hardship.	Region 1 Region 2
	• To reduce artisanal mining, develop viable alternatives for income apart from mining that can benefit artisanal miners. Ministries of Labor and Agriculture to be key players in such effort.	Region 3 Region 4 Region 5 & 6
	• Organize artisanal miners into cooperatives to make regulation easier.	Region 6
	• Reform the mining sector and ensure coherence between policies/ laws/ regulations and practice. For example, government is issuing mining licenses to artisanal miners but then complain about their impacts on the forest. Strengthen law enforcement so that operators respect permit conditions. • Government institutions, ex. MLME, FDA, EPA not held accountable for their failures. • Address the influx and influence of other ECOWAS citizens in the sector to curtail smuggling and untaxed income which is a major incentive for people involved.	Region 3 Region 4
	• When addressing artisanal mining take into account the domestic need. • Ensure coordination between the FDA, MLME and EPA. They do not coordinate their activities well.	Region 5
	• Research and experiment with domestication for indigenous species of NTFPs. • Train people in proper harvesting techniques, preparation and value chain for high-value NTFPs.	Region 6

Desired Outcomes	Key Issues and Concerns Raised during Regional Consultations on ESMF	Main Regions
7. Achieve conservation outcomes through a landscape approach	**Strategy Option 3.1:** Complete the Protected Areas Network and strengthen management to prevent forest degradation; and **Strategy Option 3.2**: Expand the PAN by adding conservation priority areas, to achieve the 30% conservation commitment.	
	• Clarify land ownership to reduce the potential of land conflicts, to ensure tenure security for communities and incentives for better management of forest (Bomi), and to empower communities to strengthen control over and manage their forest (Bassa).	Region 2 Region 3 Region 4 Region 5 & 6
	• This will increase conflict over land between the government and communities, and between communities. Those displaced will compete with others over their land.	Region 1
	• This will affect host communities ex it will limit their control over the forest. Establish protected areas only where communities agree.	Region 2
	• Establish protected areas only in communities where there is sufficient forest to accommodate local livelihood activities and conservation efforts.	Region 2 Region 4
	• Establish protected areas on public and government land. Communities with forest targeted for conservation should decide whether they want it or not. They can then work with the government to manage these protected areas on their land	Region 6
	• Communities should own their protected areas. The government should work with them to set aside forest for conservation. Losing the land will always be a concern. Expanding the PAN should provide for local people to retain their land ownership	Region 2 Region 3 Region 4 Region 5 & 6
	• Land for livelihood activities will be insufficient. Expanding the PAN will affect the land right of many people. Therefore it should respect communities land rights	Region 3 Region 4 Region 5
	• Integrate programs to provide alternative livelihood for affected populations.	Region 5
	• Traditional institutions could be key partners but this raises concerns about human rights. Involve local people in decision-making about the PAN	Region 4 Region 5
8. Reduced conflict over land 9. Existing land rights are maintained	**Strategic Option 5.1**: Define carbon rights and develop policies and regulations for upholding these.	
	• Clarify land ownership in order to reduce land conflict. Landowners should then have the right to their carbon. Communities that protect their forest should have the right to the carbon as an incentive. Communities that own land collectively should have ownership of the carbon rights. If a particular group has a deeded land that group should have the right to the carbon. However, the larger community should benefit because they also will be affected. • Those directly affected should be prioritized in benefit sharing because they will be losing livelihood (*Bomi proposed 50% of income for host communities)*. Benefits expected include schools, roads, money, and training. • If you narrow the ownership of the forest only to directly affected communities, it will deprive the larger community of benefits (District or County)	Region 2 Region 3 Region 4 Region 5
	• Government recognition and respect for the rights of landowners will make their ownership more secured. It will be difficult for outsiders to lay false claim to the land. However, efforts to clarify ownership could create problem because of competing claims from different interests and users.	Region 4 Region 6

Desired Outcomes	Key Issues and Concerns Raised during Regional Consultations on ESMF	Main Regions
	• Train local leaders to contribute to resolving land conflicts	Region 1 & 6
	• Concessions and communities often conflict over land use and benefit issues. Decision-making is top down and the process is not always inclusive. Directly affected people do not always participate in decision-making. This also leads to conflicts between communities and the government. • People need to be properly consulted and be duly represented by parties that are knowledgeable in order to enter agreements that are practical. • Communities and in-migrants seeking employment from concessions, or seeking access for bush meat is a source of conflict	Region 3
10. Equitable, credible, and functioning (effective) benefit sharing mechanisms are in place	**Strategy Option 5.2**: Establish benefit-sharing mechanisms for REDD+, in harmony with those operating in the forestry, mining, agriculture and other relevant sectors.	
	• The current benefit sharing mechanisms are not effective. There are several challenges. It should be independent of the government. The communities 30% Land Rental Fees go through the government, it is not transferred on time and in full.	Region 6
	• Benefits are not reaching the village level. Those in charge divert benefits to their personal needs. Also, local leaders promote their own interests. This is why the people are not benefiting.	Region 1 Region 5
	• Benefits do not filter down and people are not consulted properly. Need to build transparency and accountability into benefit sharing mechanisms.	Region 2 Region 5
	• Effective monitoring and evaluation of benefit-sharing mechanisms needed.	Region 5
	• Local leaders have limited skills to negotiate on behalf of their people and they do pursue the interests of the people. • Even if locals receive benefits from REDD+ they still need land for their livelihood activities.	Region 2
	• Influential people or local elites might want to dominate and marginalize people therefore benefit sharing will have to be managed well.	Region 3

Table A2.5: Top Priority issues by Region

Region	Top Priority Issues
Region 1	The potential increase in land related conflicts as a result of increased competition over forestland outside PAs
Region 2	The potential increase in land related conflicts due to competition over forestland outside PAs and plantation expansion
Region 3	The need to clarify carbon rights and introduce systems for effectively managing the related benefits
Region 4	The potential negative impacts of REDD+ projects and the expansion of PAs on local livelihoods
Region 5	Developing and delivering support to improve agricultural productivity in a timely and effective manner
Region 6	Clarifying land ownership prior to REDD+ implementation and expansion of the Protected Areas Systems

A3.3 National workshop on ESMF

Following the six regional workshops on the draft ESMF and strategy options in the draft REDD+ strategy, a national workshop was organized on June 2 and 3 to bring stakeholders from the 15 counties together with national-level stakeholders to conclude the stakeholder consultations on the draft ESMF and to validate the SESA process. Eighty-nine persons participated in the workshop.

Following the opening activities, participants were presented an overview of the SESA process (i.e., from the Inception Phase to the regional consultations on the draft ESMF). Next, a presentation of the Priority Outcomes and Issues identified through the case studies and prioritization process was presented to remind participants about the key issues that have been raised by stakeholders in previous SESA consultations. The third presentation outlined the Strategy Options presented in the draft REDD+ Strategy. These presentations set the scene for breakout group discussions on various options in light of the desired outcomes and key issues raised by stakeholders.

Seven Strategy Options under five Priority Options from the draft REDD+ Strategy were presented to participants. The Priority Options are high-level proposals for REDD+ implementation and the Strategy Options are proposed actions to implement each proposal. The Focus Groups were asked to discuss one Strategy Option using open-ended questions such as: “What will need to happen and where – in order for the proposed interventions or Strategy Option to deliver the desired outcomes?” “What specific interventions are missing from the proposed Strategy Options?”

The Focus Groups, their assigned Strategy Options, and summary feedback are presented in Table A2.6 below.

Table A2.6: Priority/Strategy Options and Summary Feedback

Strategy Option(s)	Summary feedback from workshop groups
Strategy Option 1.1: Reduce impact of pitsawing (chain saw logging) on forest through better regulation, improved efficiency and developing alternatives	1. Organize hunters into associations and build their capacities for sustainable hunting 2. Strengthen and enforce existing regulations on wildlife. 3. Promote livestock rearing as alternative livelihood options in forest communities. 4. Organized artisanal miners into cooperatives to enhance monitoring their mining activities. 5. Conduct nationwide awareness on deforestation and forest degradation. 6. Organize pit-sawyers and charcoal producers into cooperatives and provide them technical support. 7. Establish fast growing tree species for woodlots in degraded areas. 8. Introduce improved techniques and/ or technology for improved charcoal production. 9. Establish regulations to control the harvest of round poles and rafters. 10. Revise and strengthen existing regulations on charcoals and chainsaw logging.
Strategy Option 1.2: Reduce impact of charcoal industry on forest through better regulation, improved efficiency and the development of alternatives energy sources.	1. Develop irrigation farming systems in rural areas and train local farmers to manage them. 2. Enforce value-addition requirements in logging concession agreements to compel companies to produce timber for local market. 3. Regulate pit-sawyers to restrict their activities to designated forest areas. 4. Conduct study on alternative livelihood options for pit-sawyers. 5. Establish community land governance structures that are inclusive, transparent, and accountable. 6. Build local capacities for land governance and dispute resolution to address potential conflicts. 7. Develop an effective system to ensure benefits from REDD+ reach people at the community level. 8. Provide affordable electricity to urban areas to reduce dependence on charcoal. 9. Train charcoal producers to manufacture and sell energy-saving stoves.
Strategy Option 1.3: Reduce expansion of shifting agriculture in forest areas by promoting permanent food and cash crops in non-forest areas and through conservation agriculture.	1. Establish a program to provide extension services to farmers. 2. Promote environmentally safe inputs, and introduce policies to make them affordable. 3. Develop programs to promote livestock rearing, poultry, snail farming, fish rearing. 4. Give equal right and access to land for every citizen of the community. 5. Recognize land ownership of communities, by enacting the land right acts. 6. Empower communities to address potential land conflict and participate in law enforcement.
Strategy Option 1.5: Integrate hunting, artisanal mining and forest restoration into community-led livelihood and sustainable forest management practices.	1. Provide vocational training to expand livelihood options for rural population. 2. Increase funding for sustainable agriculture, including building irrigation systems for rural farmers. 3. Improve access to market to help farmers sell their produce. 4. Introduce extension services for rural farmers and encourage conservation agriculture. 5. Provide vocational training and create job opportunities for rural population. 6. Provide and/ improve storage facilities for agricultural produce. 7. Promote value-addition in the agriculture sector. 8. Train community forestry bodies to be more effective in their work. 9. Support communities to demarcate their boundaries to avoid conflicts. 10. Seek Free, Prior Informed Consent of communities before expanding Protected Areas. 11. Establish a conflict management framework that involves communities. 12. Identify and distinguish public land from private and community land prior to REDD+ projects.

Strategy Option(s)	Summary feedback from workshop groups
Strategy Options 2.1-2.3: Ensure that all industrial logging is practiced to high conservation standards[9], that conserve and maintain areas of high conservation value such as important wildlife corridors within commercial forestry concessions so that loss of forest and biodiversity is minimized; Establish a strong presumption against further TSC contracts on dense forest and within 3km of a Protected Area.	1. Develop policy to adopt the HCS approach and make it mandatory for agriculture concessions. 2. Develop legal framework to mainstream the HSC approach in the forestry and agriculture sector. 3. Develop and implement monitoring and enforcement framework for HCS approach. 4. Conduct HCV assessments before granting land-based concessions. **5.** Develop an effective system for compensating communities/ people in case of relocation. 6. Increase staffing levels at FDA by recruiting more suitably qualified staff. **7.** Finalize and implement regulation on abandon logs. 8. Code of Harvesting Practices should be strictly implemented and enforced. **9.** Develop program to provide support for alternative livelihood options for affected communities. 10. Enforce the Environmental Management Law of Liberia effectively. 11. Strengthen EPA's capacity to monitor projects and ensure compliance with permit conditions.
Strategy Options 2.5: Manage commercial forestry in community forests larger than 1,000 ha[10]to achieve sustainable logging standards as apply to FMC	1. Introduce improved or new agricultural technology for farmers. 2. Introduce payments of Land Rental Fees to communities for customary land under Protected Areas. 3. Allocate specific portion of forestland for farming, hunting and other cultural practices. 4. Establish Protected Areas in all 15 counties to increase amount of forest being conserved. 5. Respect customary or traditional boundaries when establishing Protected Areas. 6. Communities should be supported to play a central role in the management of Protected Areas. 7. Strengthen local capacity to manage and resolve conflicts related to land. 8. Do not issue any new logging contracts and review existing contracts to ensure compliance. 9. Ban the export of round logs and enforce value-addition requirements in the concession agreements. 10. Ban the allocation of forested areas to agricultural companies for plantation. 11. Develop a plan for attracting tourists to Protected Areas.
Strategy Options 3.1 & 3.2: Complete (18% of forestlands) and Expand (30% of forestlands) the Protected Areas Network and strengthen management to prevent forest degradation	1. Introduce and promote conservation agriculture and lowland or swamp farming. 2. Create awareness in communities situated within or close to the Protected Areas. 3. Clarify and formalize role of communities in Protected Area management. 4. Provide skill training for community dwellers to expand their livelihood options. 5. Negotiate with communities and address livelihood and benefit sharing before expanding PAs. 6. Strengthen law enforcement through prosecution of violators. 7. Promote community participation and ownership of Protected Areas. 8. Promote eco-tourism as an alternative income source for government and communities.

[9] The draft strategy states that "High conservation standards" is used as a general term because the appropriate standard needs to be defined, based on a review of the existing harvesting codes and the applicability in Liberia of methods/standards such as Reduced Impact Logging and Forestry Stewardship Council certification".

[10] The draft strategy states that "the area of 1,000 ha. is proposed on the grounds that it is a significant and measurable area. It is also the area intended as the upper limit for private forests that are not subject to the full range of forestry regulations, although current law and regulations are not fully clear on this"

ATTACHMENT 3: SUMMARY TABLES OF IMPACTS AND PROPOSED MODIFICATIONS FOR THE REDD+ STRATEGY AND ITS IMPLEMENTATION

Table A3.1. Proposed Strategy Adjustments

Impact	+/-	Strategy Adjustment
Priority 1. Reduce forest loss from chainsaw logging, charcoal production, and shifting agriculture		
Microeconomic		
Livelihood dependency on shifting cultivation could increase if livelihoods are limited by enforcement of regulations related to chainsaw logging, charcoaling, hunting and mining.	-	Adaptations learned from proposed pilots under LFSP, AML, and SCNL/RSPB sites should be made to the strategy and/or additional diverse sites identified for pilots to inform refinement of SO1.3 to ensure it can successfully divert activities from forests and thus support SO1.1, 1.2, and 1.5 before they are more widely implemented.
Changes to charcoal markets will disrupt existing charcoal market chains; full impacts are not understood.	-	Clearly articulate the types of research that will be undertaken under SO2.1 and what it will inform.
Biophysical		
Loss of HCS/HCV from unsustainable pitsawing	-	Include sustainable practices in chainsaw logging, e.g., through linking SO1.1 to woodlot interventions under community forestry.
Loss of HCS/HCV associated with mangrove use	-	Recognize carbon and biodiversity conservation of mangroves through their inclusion within SO1.1 and 1.2 and/or through an SO of its own.
GHG emissions through burning of firewood	-	In view of firewood's national contribution to GHG, it warrants a specific inclusion under SO1.2 or a SO of its own.
Macroeconomic		
Enforcement of regulations related to chainsaw logging, charcoaling, hunting, and mining will result in job losses for unskilled workers.	-	Specify how alternative skills and jobs for low-skilled laborers that are currently engaged in activities that will be affected by implementation of the REDD+ Strategy Options will be provided.
Priority 2: Reduce impact of commercial logging in all forestry concessions		
Overarching		
Specify more clearly what is included under "industrial logging" and "commercial forestry" – assumed to apply to FMCs, TSCs, and commercial CFMAs but not explicitly stated.		
Replace "compliance with …. EIA standards" with "compliance with …. national EIA procedural requirements and management measures arising thereof."		
Microeconomic		
Limiting activities in concession areas could displace these activities to adjacent customary lands and erode customary land user rights	-	Articulate which standard should be used. For example, HCV 5 and HCV 6 support customary claims to land.
Biophysical		
Loss/protection of HCV/HCS forest	+/-	Specify proposed standards to be adopted (FSC, HCV, HCS, etc.) that can be demonstrated to deliver the "high conservation standards" (SO2.1) and to "maintain areas of highest conservation value" in HCS (SO2.2) of different types of commercial forestry (FMC, TSC, CFMA).
Impact on HCV/HCS areas	-	Replace reference to "dense forest" with "HCV/HCS forest" and remove reference to proximity to PAs. Consideration should also be given to specification in the SOs of the need for TSCs to be outside of critical natural habitat.
Loss of HCV/HCS through clear felling of TSCs	-	Specify requirement for offsetting of HCS/HCV loss from TSCs to ensure no loss of HCS/HCV.
Range of impacts from unsustainable management of community forestry <1000 ha, which in aggregation could be substantial	-	Reference to the threshold of 1,000 ha in SO2.5 should be removed and replaced by a requirement for all commercial CFMAs >50ha to be subject to EIA screening and, depending on the outcome of that exercise, to the relevant EIA process and any resulting management regime.

Impact	+/-	Strategy Adjustment
Priority 3: Complete and manage a network of Protected Areas		
Microeconomic		
Increased shifting cultivation around PAs resulting from limiting access to newly established PAs	-	SO3.1–3.3 should focus on biodiversity landscapes rather than only on PAs. This approach will likely be more successful in promoting REDD+ objectives (reduced emissions, deforestation, degradation, and conservation) rather than focusing on strict protection through PAs. The landscape approach takes a more holistic view by considering multiple uses and users. This provides for management plans and strategies that address livelihood needs. This approach is also less likely to result in leakage from PAs to the surrounding landscape, which could negate the positive gains from PA establishment.
		SO3.4 should make more explicit reference to such biodiversity landscape areas, making the distinction between them and the LFSP target landscapes, understood to be the focus of SO3.4 as it currently stands.
Biophysical		
Protection of biodiversity landscapes	-	SO3.1–3.3 should focus on biodiversity landscapes rather than only on PAs. They should promote conservation opportunities offered by set asides, offsets, CFMAs, or sustainably managed areas associated with commercial development. Together with PAs these should be developed as an integrated suite of biodiversity management measures within such landscapes, rather than the current focus on strict protection through PAs.
		SO3.4 should make more explicit reference to such biodiversity landscape areas, making the distinction between them and the LFSP target landscapes, understood to be the focus of SO3.4 as it currently stands.
Macroeconomic		
Availability of charcoal and timber for energy and construction reduced	-	SO3.1–3.3 should focus on biodiversity landscapes rather than only on PAs. This approach will likely be more successful in promoting REDD+ objectives (reduced emissions, deforestation, degradation, and conservation). The landscape approach takes a more holistic view by considering multiple uses and users including the role of charcoalers and pitsaw loggers. This provides for management plans and strategies that address these macroeconomic needs.
Land available for commercial development reduced	-	SO3.1–3.3 should focus on biodiversity landscapes rather than only on PAs. This approach will likely be more successful in promoting REDD+ objectives (reduced emissions, deforestation, degradation, and conservation). The landscape approach takes a more holistic view by considering multiple uses and users, including the role of concessionaires. This provides for management plans and strategies that address related macroeconomic needs.
Priority 4: Prevent or offset clearance of high carbon stock and high conservation value forest in agricultural and mining concessions.		
Microeconomic		
Increased shifting cultivation around concession areas	-	Clarify that RSPO standards, which provide social safeguards to address this impact (RSPO 6), will be applied to oil palm and other plantations, and identify how these will be compelled (rather than voluntary). Further, clarify that conservation of HCV/HCS under SO4.1 and SO4.2 for palm oil and other plantations relates to application of RSPO, as this will provide social safeguards under RSPO 6.
Biophysical		
Loss/protection of HCV/HCS forest	+/-	Clarify that conservation of HCV/HCS under SO4.1 and SO4.2 for palm oil relates to application of RSPO and whether this includes the voluntary RSPO NEXT standards.
		Clarify that SO4.1 and SO4.2 apply also to rubber and other non-palm oil agricultural concessions and large farms that are not signed up to RSPO, and specify standard to be applied to ensure conservation of the HCV/HCS.
		Adjust wording of SO4.3 and SO4.4 to ensure that in addition to achieving zero net deforestation (SO4.3) and conservation of

Impact	+/-	Strategy Adjustment
		dense forest (SO4.4), all components of HCV are safeguarded. It should also ensure full compensation for biodiversity losses (rather than only for forest loss) and recognize this is likely to be extremely challenging to achieve.
Range of impacts from unsustainable management of agricultural concessions and farms <1000 ha, which in aggregation could be substantial	-	Threshold of 1,000 ha in SO4.2 should be removed and replaced by a requirement for all concessions and private farms >50 ha to be subject to EIA screening and, depending on the outcome of that exercise, to the relevant EIA process and any resulting management regime.
Priority 5: Fair and sustainable benefits from REDD+		
Microeconomic		
Disincentives for communities to manage community forests sustainably	-	Benefit-sharing mechanisms should explicitly consider ways to provide direct benefits to those that are displaced economically from their livelihoods.

Table A3.2: Legal and Institutional Measures

Strategy Priority	Legal and Institutional Measures
Priority 1. Reduce forest loss from chainsaw logging, charcoal production, and shifting agriculture	1. Identify policies and/or mechanisms needed to support development of market chains and inputs to support alternative, sustainable livelihoods, and the champions of these reforms under SO1.3. 2. Implementation and enforcement of current and proposed alterations to regulations related to chainsaw logging (SO1.1), charcoaling (SO1.2), hunting, and mining (SO1.5) as well as revenue collection (SO1.1–1.3) will require a strong capacity-building component within the FDA, both technically and logistically. The inclusion of realistic timelines for development of requisite skills sets/capacity and ability to implement those skills needs to be factored into strategy options as there is currently limited capacity to implement any of the SOs. 3. A description is required of the institutional arrangements that are either currently in place, or need to be developed to ensure the cross-sector budgeting, planning and coordination necessary for implementation of the SO option. This should include a mechanism for donor coordination.
Priority 2: Reduce impact of commercial logging in all forestry concessions	1. Specify measures to address the indirect effects (land pressure, conflict, etc.) on areas of conservation importance (HCS and HCV) outside the forest concessions arising from leakage of chainsaw logging and charcoal production from within them. This may be covered by the development of HCV 5 standards. 2. Develop specific standards for community forestry. 3. Map out capacity building and restructuring of the FDA to support implementation of activities with particular focus on the nature, components, processes, and delivery mechanisms to demonstrate how these will address the specific gaps. 4. Map out the capacity building support for community organizations to support implementation of activities to ensure meaningful participation of affected communities. 5. Clarify measures to be applied when TSCs are found to be non-compliant with forestry law. 6. Clarify measures that will be adopted to implement the presumption against further TSCs in dense forest/HCV/HCS and how they will be legally implemented. 7. Promote the finalization and adoption of the Liberian national interpretation of HCV and, if FSC is adopted, the national FSC Indicators for HCS. 8. Identify mechanisms to implement HCV/HCS standards through their inclusion in forestry or other relevant legislation relating to management of FMCs, TSCs, and CFMAs, which should give due consideration to existing contract rights and how to apply such requirement, both to future concessions and retrospectively to those that have already been awarded. 9. Support creation of addenda to the EIA legislation to include regulations and associated guidance for the forest sector consistent with adopted standards (e.g., requirement for consideration of HCV and HCS in the EIA process). 10. Develop formal mechanisms and policies to promote innovative collaborative approaches with the private sector and CSOs to conservation including for example through aggregate offsets and Conservation Agreements. 11. Support the creation of legal and institutional measure to develop Community Agreements for the forestry sector.
Priority 3: Complete and manage a network of Protected Areas	1. Include measures to support communities to manage areas sustainably such as CFMAs and those subject to conservation agreements or other management mechanisms. 2. Include provisions to build capacity and resources to deliver and manage the PAN (and landscape-level planning and implementation), taking account of the fact that this has been lacking to date and, without significant support, will become further stretched if the PAN is to be expanded. Accordingly, capacity building for implementation and enforcement of relevant regulations and laws should be an important component within these SOs. Realistic timelines must also be

Strategy Priority	Legal and Institutional Measures
	considered for the requisite capacity to be developed to support implementation. 3. Map out the capacity building support for community organizations to support implementation of activities to ensure meaningful participation of affected communities. 4. Map out capacity building and restructuring of the FDA to support implementation of activities with particular focus on the nature, components, processes, and delivery mechanisms to demonstrate how these will address the specific gaps. 5. Identify legal provisions and associated guidance that would be required and steps to producing them if CFMAs or areas such as HCV set asides are proposed for inclusion within the 30 percent target for forest protection. 6. Promote, within EIA legislation and guidelines, consideration of indirect effects that are particularly relevant to forest management activities but can often be overlooked. Such impacts typically result from displacement of community land uses resulting in leakage effects. 7. Develop a systematic landscape classification to inform definition of biodiversity landscape units where forest and non-forest areas within and outside of the PAN may perform an ecological function or have potential to do so (e.g., through forest regeneration) and warrant promotion and safeguarding including through REDD+.
Priority 4: Prevent or offset clearance of high carbon stock and high conservation value forest in agricultural and mining concessions.	1. Map out the capacity building support for community organizations to support implementation of activities to ensure meaningful participation of affected communities. 2. Map out capacity building and restructuring of the FDA to support implementation of activities with particular focus on the nature, components, processes, and delivery mechanisms to demonstrate how these will address the specific gaps. 3. Capacity building for implementation and enforcement of relevant regulations and laws should be an important component within these SOs. Realistic timelines must also be considered for the requisite capacity to be developed to support implementation. 4. Promote the finalization and adoption of the Liberian national interpretation of HCV. 5. Identify mechanisms to implement such HCV standards through their inclusion in agricultural or other relevant legislation relating to management of palm oil rubber and other agricultural activities and mining that should, amongst others, give due consideration to existing contract rights and how to apply such requirement to both future concessions and those that have already been awarded. 6. Support creation of addenda to the EIA legislation to include regulations and associated guidance for the agriculture and mining sector consistent with adopted standards (e.g., requirement for consideration of HCV and HCS in the EIA process). Such guidance should cover both large commercial concessions and private farms. 7. Support creation of legal and institutional measure for enforcement Community Agreements or similar.
Priority 5: Fair and sustainable benefits from REDD+	Consider and include performance-based standards for benefit-sharing mechanisms.

Table A3.3. Impacts That Can Be Mitigated/Harnessed through Application of the ESMF

Impact	+/-	Mitigation/Enhancement Measure
Priority 1. Reduce forest loss from chainsaw logging, charcoal production, and shifting agriculture		
Microeconomic		
Increased shifting cultivation for food security	-	Design realistic sustainable livelihoods interventions based on research, and in consideration of availability of inputs and expertise.
Decreased customary land security	-	Articulate how customary rights of individuals within areas subject to forestation will be protected including, if secure tenure is required, avoiding benefitting local elites at the expense of customary users.
Displacement	-	Proposed forestation activities should include appropriate processes and mechanisms relating to resettlement including, where required, FPIC processes and mechanisms to ensure that customary rights of individuals and communities are protected with regard to afforestation activities and other measures.
Community leaders lack the skills and information needed to represent constituents	-	Provisions for FPIC are required where new forest areas are being considered to ensure consideration of customary land owners and users (cross-cutting).
Biophysical		
Leakage of community activities from within areas subject to strategy interventions to other HCS/HCV areas	-	Ensure sufficient incentives, notably availability of viable livelihood options to divert activities from forests and compensate for any losses resulting from the intervention. Dependent on Strategy Adjustment.
Land pressures due to population influx	-	Ensure siting of SO1.4 interventions take account of potential impacts from population growth and associated pressures on natural resources.
GHG emission from livestock and nitrogen based fertilizer	-	Promote livestock species and fertilizers/practices under SO1.3 that have low GHG contributions.
Resilience to climate change provided by forest landscape	+	Promote interventions that retain forest in locations that play a role in supporting climate change resilience.
Reduce/increased vulnerability to climate changes shocks to livelihoods due to nature of species cultivated	+	Promote climate-resilient seeds and crops under SO1.3, particularly at locations identified to be at risk of climate change.
Conversion of natural or critical natural habitat	+/-	No conversion of critical natural habitat both within or outside forest (including swamps and wetlands that may be targeted for agriculture). Where feasible, avoid conversion of natural habitat. Promote interventions that divert pressures away from, or conserve, areas of forest that may comprise critical natural habitat. Screening to ensure compliance with above and WB OP4.04.
Protections of water and soils integrity provided by forest landscapes	+	Promote interventions at locations where they can contribute to soil and water conservation.
Pollution of water and from agricultural inputs	-	Avoid use of prohibited pesticides and chemicals. Adopt integrated pest management approaches and where possible, promote conservation agriculture. Adhere to pesticide management plans (outlined in ESMF).
Priority 2: Reduce impact of commercial logging in all forestry concessions		
Microeconomic		
Communities unable to effectively engage in commercial forestry	-	Specify potential interventions and measures to engage and support Community Forest management planning with the private sector in CFMAs, and to strengthen the regulatory environment related to CFMAs.
Communities lack the skills and knowledge to represent their constituents	-	Map out the capacity building support for community organizations to support implementation of activities to ensure meaningful participation of affected communities.
Increased dependency on shifting cultivation and other drivers of deforestation	-	Ensure measures are implemented to address both (i) the potential for leakage of community activities from within the concessions subject to strategy interventions (e.g., due to restrictions on activities) to areas of HCS and HCV outside of them, and (ii) new pressures on such areas due to population influx (e.g., attracted by new infrastructure and opportunities).

Impact	+/-	Mitigation/Enhancement Measure
Increases in shifting cultivation and other livelihood activities in and around HCS areas	-	Ensure high conservation areas set aside from forestry and implemented through the strategy are protected from becoming vulnerable to community or other uses (e.g., through Community Agreements or similar as being applied to the mining and agriculture sectors).
Biophysical		
Leakage of community activities from within areas subject to strategy interventions to other HCS/HCV areas	-	Ensure sufficient incentives, notably availability of viable livelihood options to divert activities from forest and compensate for any losses resulting from the intervention. Dependent on Strategy Adjustment (under Priority 1).
Community pressure on set aside resulting in HCS/HCV loss	-	Ensure set asides supported by strategy interventions are protected from becoming vulnerable to community or other uses (e.g., through Community Agreements or similar as being applied to the mining and agriculture sectors)
Resilience to climate change provided by forest landscape	+	Promote interventions that retain forests in locations that play a role in supporting climate change resilience.
Conversion of natural or critical natural habitat	+/-	No conversion of critical natural habitat. Only support TSCs that do not comprise critical natural habitat. Where feasible, avoid conversion of natural habitat. Promote interventions that divert pressures away from, or conserve, areas of forest that may comprise critical natural habitat. Screening to ensure compliance with above and WBOP4.04.
Protection of biodiversity landscapes	+	Prioritize interventions at location that plays a role within biodiversity landscapes. Integrate with similar initiatives, e.g., through aggregated offsets in other sectors (mining, agriculture, PAs) within the same landscape unit.
Protections of water and soils integrity provided by forest landscapes	+	Promote interventions at locations where they can contribute to soil and water conservation
Priority 3: Complete and manage a network of Protected Areas		
Microeconomic		
Increases in shifting cultivation and other livelihood activities around PA	-	Ensure measures are implemented to address the potential for leakage of community activities, from within PAs or other areas managed for conservation that are subject to strategy interventions (e.g., due to restriction on activities) to areas of HCS and HCV. Include measures to support communities to manage areas sustainably such as CFMAs and those subject to conservation agreements or other management mechanisms.
Erosion of customary land rights	-	Conduct Environmental Assessments (EAs) in compliance with WB OP4.12 where implementation of strategy results in relocation of customary owners of forestland, or involuntarily limits access to resources. Provisions for FPIC are required where new forest areas are being considered to ensure consideration of customary land owners and users.
Increased conflicts over land	-	Measures should include specific reference to interventions that are needed to support stakeholder engagement in the planning and implementation for PAs (and other conservation management regimes), which should include adherence to FPIC principles.
Biophysical		
Leakage of community activities from within areas subject to strategy interventions to other HCS/HCV areas	-	Ensure sufficient incentives, notably availability of viable livelihood options to divert activities from forests and compensate for any losses resulting from the intervention. Dependent on Strategy Adjustment (under Priority 1).
Resilience to climate change provided by forest landscape	+	Promote interventions that retain forests in locations that play a role in supporting climate change resilience.
Conversion of natural or critical natural habitat	+/-	Promote interventions that divert pressures away from, or conserve, areas of forest that may comprise critical natural habitat. Screening to ensure compliance with above and WB OP4.04.
Protection of biodiversity landscapes	+	Prioritize interventions at locations that play a role within biodiversity landscapes. Integrate with similar initiatives in other sectors (mining, agriculture, PAs) within the same landscape unit.

Impact	+/-	Mitigation/Enhancement Measure
Protection of water and soils integrity provided by forest landscapes	+	Promote interventions at locations where they can contribute to soil and water conservation.
Priority 4: Prevent or offset clearance of high carbon stock and high conservation value forest in agricultural and mining concessions.		
Microeconomic		
Increases in shifting cultivation and other livelihood activities around concession areas	-	Ensure measures are implemented to address the potential for leakage of community activities, from within concession areas are subject to strategy interventions. Include measures to support communities to manage areas sustainably such as CFMAs and those subject to conservation agreements or other management mechanisms.
Communities lack the skills and information to effectively negotiate for their rights or manage their forests	-	Include measures to support communities to manage areas sustainably such as CFMAs and those subject to conservation agreements or other management mechanisms.
Increased land conflict and land security	-	Provisions for FPIC are required where new forest areas are being considered to ensure consideration of customary land owners and users.
Resettlement	-	Conduct EAs in compliance with WB OP4.12 where implementation of strategy results in relocation of customary owners of forestland, or involuntarily limits access to resources.
Biophysical		
Leakage of community activities from within areas subject to strategy interventions to other HCS/HCV areas	-	Ensure sufficient incentives, notably availability of viable livelihood options to divert activities from forest and compensate for any losses resulting from the intervention. Dependent on Strategy Adjustment (under Priority 1).
Land pressures due to population influx	-	Ensure measures are implemented to address the potential for leakage of community activities, from within concession areas are subject to strategy interventions.
Community pressure on set aside resulting in HCS/HCV loss	-	Ensure set asides supported by strategy interventions are protected from becoming vulnerable to community or other uses (e.g., through Community Agreements or similar).
Resilience to climate change provided by forest landscape	+	Promote interventions that retain forest in locations that play a role in supporting climate change resilience.
Conversion of natural or critical natural habitat	+/-	No conversion of critical natural habitat. Where feasible, avoid conversion of natural habitat. Promote interventions that divert pressures away from, or conserve, areas of forest that may comprise critical natural habitat. CH screening to ensure compliance with above and WB OP4.04.
Protection of biodiversity landscapes	+	Prioritize interventions at locations that play a role within biodiversity landscapes. Integrate, e.g., through aggregated offsets, with similar initiative in other sectors (mining ,forestry, PAs) within the same landscape unit.
Protections of water and soils integrity provided by forest landscapes	+	Promote interventions at locations where they can contribute to soil and water conservation.
Macroeconomic		
Decreased revenues from the forest	?	Research is necessary before instituting policies that would potentially limit revenues in order to fully understand the potential costs and benefits in social, environmental, and economic terms.
Priority 5: Fair and sustainable benefits from REDD+		
Microeconomic		
Increased land conflict	-	Given the potential for conflict, a credible FGRM needs to be in place and operational as a first step in the implementation of these strategy options.
Macroeconomic		
Loss of jobs for unskilled laborers currently dependent on forest activities	-	Specify how alternative skills and jobs to low-skilled laborers that are currently engaged in activities that will be affected by implementation of the REDD+ Strategy will be provided.

ATTACHMENT 4: PEST MANAGEMENT PROCEDURES UNDER WORLD BANK SAFEGUARD OP 4.09

A1.0 DEVELOPING REDD+ PEST MANAGEMENT PLAN (PMP)

As details of agricultural activities that may be implemented under REDD+ have not yet been determined, it is not possible to develop a REDD+ specific pesticide management plan. The key elements of such a plan are outlined below, and can be developed later. As required by integrated pest management (IPM) approaches, the PMP should cover both criteria for selecting suitable pesticides, and for managing the use of pesticides.

What BP 4.01 Annex C Says about the Preparation of a Pest Management Plan

A pest management plan is a comprehensive plan, developed when there are significant pest management issues such as:

1. New land use development or changed cultivation practices in an area;
2. Significant expansion into new areas;
3. Diversification into new crops in agriculture, particularly if these tend to receive high usage of pesticide, like cotton, vegetables, rice, etc.;
4. Intensification of existing low-technology systems;
5. Proposed procurement of relatively hazardous pest control products or methods; and
6. Specific environmental or health concerns (e.g., proximity of protected areas or important aquatic resources; worker safety).

A pest management plan is also developed when proposed financing of pest control products represents a large component of the project.

A pest management plan reflects the policies set out in OP 4.09. The plan is designed to minimize potential adverse impacts on human health and the environment and to advance ecologically based IPM. The plan is based on on-site evaluations of local conditions conducted by appropriate technical specialists with experience in participatory IPM.

- The first part of the plan identifies the main pest problems and their contexts (ecological, agricultural, public health, economic, and institutional) and defines broad parameters.
- The second part of the plan develops of specific operational plans to address the pest problems identified. It is often more appropriate for this to be undertaken for each program component or at specific intervention level rather than at the program level.

A1.1 Scope of PMP

A PMP is designed to minimize potential adverse impacts on human health and the environment and to advance ecologically based IPM. It describes pest and pesticide management issues relevant to the project and provides a strategy and plan for IPM implementation. It determines whether current or proposed use of pesticides is justified under an IPM approach, and whether it is economic. Hazards associated with the transport, storage, handling, use and disposal of pesticides are identified and assessed. Measures are provided to reduce these hazards to a level that can be managed by the envisaged users of the products concerned. Preparation of a PMP also includes screening of pest control products if financing of such products is envisaged.

The Environmental Assessment (EA), and where relevant, the PMP:

1. Provides an assessment of current relevant pest management practices;
2. Identifies specific practices and conditions that could and should be improved (e.g., calendar-based spraying, use of overly toxic or otherwise inappropriate pesticides, failure to apply available non-chemical methods, insufficient access of farmers to information about IPM, policy biases towards chemical control, deficiencies in institutional capacity to implement IPM and control of pesticide use, etc.);
3. Provides measures and activities to be taken under the project to improve the situation;
4. Provides a monitoring scheme to determine the effectiveness of these measures and enable correction where necessary.
5. Attention to pest management practices and pesticide handling is particularly important for projects to which any of the following points apply:

6. The pesticide financing proposed represents a large component;
7. The procurement of pesticides in WHO hazard Class II is proposed (Class I is excluded from Bank financing);
8. Farmers or other laypeople without proper training, equipment, protective gear, storage and disposal facilities, are the envisaged end-users in client countries;
9. There are specific environmental or health concerns (e.g., proximity of the project area to protected or sensitive areas, or important aquatic resources);
10. The government capacity to control the use of pesticides is limited;
11. Pesticide use is subsidized and thus may induce irrational use and/or provide a disincentive for the uptake of IPM.

An indicative outline for a pest management plan is provided below.

A1.2 Outline Contents of the PMP

PART A: Pest or Vector Management Approaches

i. Current and anticipated pest or disease vector problems, relevant to the REDD+ Program;
ii. Current and proposed pest management practices and risks, including local capacity in private and public sector, their skills and understanding of objectives and risks of vector control, and the quality of oversight and monitoring;
iii. Relevant IPM experience within the project area, country or region; and
iv. Assessment of proposed or current pest management approaches, and recommendations for adjustments.

PART B: Pesticide Use and Management

i. Specification of current and/or envisaged pesticide use through interventions supported by REDD+.
   - Compile a list of pesticides in use in the country and the crops or vectors for which they are used. Classify the (commercial formulations of the) pesticides according to the WHO classification of pesticides by hazard; and
   - Describe the current pesticide use patterns in the country and assess whether pesticides are used in the context of IPM.

ii. Indication of type and quantity of pesticides envisaged to be financed by the program and/or assessment of increase in pesticide use resulting from it.

iii. Circumstances of pesticide use and the capability and competence of end-users to handle products within acceptable risk margins

iv. Assessment of risks and opportunities
   - Evaluate the actual potential environmental, occupational and public health risks associated with the transport, storage, distribution and use of the proposed products under local circumstances, and the disposal of empty containers;
   - Assess these risks in the context of skills, knowledge and awareness of the users/applicators as well as the target population; and
   - Assess whether specific groups of people (or animals) are specifically vulnerable or at risk due to the technologies and or pesticides proposed.

v. Pre-requisites and/or measures required to mitigate specific risks associated with envisaged pesticide use under the project including:
   - Selection of pesticides authorized for procurement under the project If required, prepare provisional lists of pesticides which may be procured under the project taking into consideration (a) the criteria in OP 4.09 on Pest Management, (b) the above hazards and risks, and (c) the availability of newer and less hazardous products and techniques (e.g., bio-pesticides, traps);

- Proposed procurement process, and measures for the safe handling, shipping, distribution, and storage;
- Measures for pesticide use including the protection of applicators and others that are at risk of exposure, as well as management of waste disposal; and
- Training needs for those undertaking the spraying.

PART C: Policy, Regulatory Framework and Institutional Capacity

i. Policies on plant protection and vector management.

- Determine whether a national IPM Policy exists and determine whether and how it is integrated into sectoral development policy/strategy, whether related to rural/agriculture, urban development , environmental protection or to public health.

ii. Description and assessment of the national capacity to develop and implement ecologically-based IPM.

- This assessment may include relevant capacities across sectors and include capacities in public health, in agriculture (especially irrigation and extension), in education as well as in communication

iii. Assessment of the country's regulatory framework for control of the distribution and use of pesticides.

- This assessment may in particular include relevant capacities in, and collaboration among, health, environment and agriculture.

iv. Assessment of the institutional capacity for effective control of the distribution and use of pesticides.

- This assessment may include relevant capacities in private as well as public sector, and in particular in health and agriculture

PART D: Strengthening of National Capacities

i. If necessary, propose an action plan containing appropriate measures, in project sub-components, to strengthen the national capacities to improve the regulatory system for pesticides, and implement ecologically sound management of pests and vectors. This capacity improvement should cover public as well as private sector.

PART E: Monitoring and Evaluation

i. Description of activities that require monitoring both locally throughout implementation and during supervision missions.

ii. Monitoring and supervision plan, implementation responsibilities, required expertise and cost coverage.

ATTACHMENT 5: PROCEDURES FOR CHANCE FINDS AND "SECRET" SITES UNDER WORLD BANK SAFEGUARD OP 4.11

The procedures outlined in this document cover measures to be applied when dealing with chance finds (i.e., physical cultural resources encountered unexpectedly during project). However, in recognition that "secret sites" may not be readily identifiable, and to avoid inadvertently entering such areas during surveys, specific measures for their avoidance and safeguarding are also included in this procedure.

A1.0 PROCEDURES

A1.1 Avoidance of Sacred and Culturally Sensitive Sites

PCR should be dealt with through the EA process described in Section 7.1.2: screening; impact assessment; and formulation of mitigation measures and a management plan. However, discussions of, much less identification of sacred sites, is often a difficult subject to broach in Liberia. Therefore, a screening process will need to be developed that is sensitive to the cultural taboos surrounding discussions around these issues. This will require stakeholder discussions where the proposed plans and activities are presented and described in detail accompanied by maps detailing the potential areas for activities. Direct discussion of the location may not be possible, but communities should be given the opportunity in the screening stage to identify large areas which contain the sacred areas, to be excluded. To incorporate this safeguard into the EA process, the EIA screening form will need to be modified to ensure that PCR is considered in the screening process. Similarly, impact assessment protocols may need to be developed that specifically address these issues.

A1.2 Chance Finds

In the event of finding previously unknown sites or feature of cultural value during project implementation, the following standard procedures for identification, protection from theft, treatment and recording should be followed. Specifically,

a) Stop the activities in the area of the chance find.
b) Delineate the discovered site or area.
c) Secure the site to prevent any damage or loss of removable objects.
d) Notify the Supervising Engineer who in turn will notify the responsible authorities.
e) The Ministry of Cultural Affairs, in collaboration with responsible local authorities (where applicable), would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures.
f) The Ministry of Cultural Affairs or other responsible authorities will make decisions on how to handle the findings. This could include changes in the layout (such as when finding an irremovable remains of cultural or archaeological importance), conservation, restoration, and salvage.
g) The Ministry of Cultural Affairs shall communicate implementation of the authority decision concerning the management of the finding in writing.
h) Construction work could resume only after permission is given from Ministry of Cultural Affairs or other responsible authorities concerned with safeguarding the cultural heritage.

A2.0 GENERAL CONSIDERATIONS

During project supervision, the ESC shall monitor the above procedures relating to the treatment of secret sites if any chance find is encountered.

Relevant findings will be recorded in World Bank Supervision Reports and Implementation Completion Reports will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.

ATTACHMENT 6: PROCESS FRAMEWORK FOR INVOLUNTARY RESETTLEMENT OR RESTRICTIONS OF ACCESS TO NATURAL RESOURCES UNDER WB SAFEGUARD OP 4.12

This Process Framework describes the requirements to address social impacts from restrictions on access to natural resources consistent with the World Bank's involuntary resettlement policy (OP/BP 4.12). The objectives of this Framework are to avoid, minimize, or mitigate potentially adverse effects of restrictions of access to natural resources resulting from implementation of the REDD+ strategy. The Process Framework also aims to ensure that affected communities are consulted and participate in meaningful ways in the implementation of the REDD+ Strategy.

The Framework describes the requirements and planning procedures for projects, as well as the role of other institutional actors to ensure compliance with the Framework and World Bank policies.

A1.0 PREPARATION OF A PROCESS FRAMEWORK

Assuming that initial screening identifies adverse impacts, a Process Framework is required. This should be prepared with the participation of affected communities and the steps involved in this process are proposed as follows:

- **Conduct detailed social analysis or surveys.** These analyses should inform project designers of the local context. This may involve surveys and key informant meetings. Information collected may include data on the type and extent of resource use, the numbers of users, levels of dependency, management systems that are in place, and other information that will help to determine the impacts that project activities may have. This should be undertaken by an independent consultant.
- **Consult with affected communities.** Proposed actions in the Process Framework should be developed in close consultation with affected communities. At a minimum, this should involve consultations with a representative sample of affected communities and their representatives, and other stakeholders. These consultations should help stakeholders to understand the potential scope of impacts and help to design interventions to mitigate these impacts.
- **Disclosure and Finalization:** While consultations for design of the proposed Process Framework may be limited to a representatives of affected communities, the contents of the proposed Process Framework should be disclosed to all affected communities and other stakeholders, and revised accordingly prior to finalization.

A2.0 PROCESS FRAMEWORK CONTENTS

The level of details of the Process Framework will vary depending on the activities, types of restrictions and their impacts. However, the Process Framework should include the following:

- **Description of project**. The Framework should describe the project and the local context in which it will be implemented with a particular emphasis on the socio-economic characteristics of local communities and their use of natural resources in the project area.
- **Background to the project.** This section should describe the activities that have been undertaken to date to prepare the project. This should include a description of the consultations with local communities and other stakeholders, the findings of any social analysis or surveys that informed design, and initial screening results.
- **Impacts of the project.** This section should outline the potential impacts of the project.
- **Participation.** This section should provide details on the participatory planning process that will be used during implementation to determine acceptable levels of levels use, management arrangements, and the measures that will be taken to address and mitigate the impacts on local communities. Participatory processes should be designed for meaningful engagement with stakeholders taking into consideration their levels of education, literacy, and availability to engage

(e.g., timing of meetings takes into account farming cycle, gender-related household responsibilities, etc.).

- **Roles and responsibilities.** The roles and responsibilities of the various stakeholders, along with the methods for their engagement and participation should be described. This should include descriptions of any organizations, committees or other structures that may need to be developed to implement the Process Framework.
- **Description and timing of participatory social assessments:** To ensure that decisions are based on a well-grounded understanding socioeconomic contexts participatory social assessments should usually be undertaken as part of implementation so as to inform decision-making process. This can provide clarity on the (a) types and extent of community use of natural resources; (b) existing rules and institutions for the use and management of natural resources; (c) identification of customary use rights and land tenure; (d) local knowledge of biodiversity and natural resource use; (e) threats to and impacts on the biodiversity; and (h) potential conflicts over the use of natural resources, and methods for solving such conflicts.
- **Description and timing of biological assessments:** To ensure that decisions are based on a well-grounded understanding biological contexts, biological and ecological assessments should usually be undertaken.
- **Criteria for eligibility of affected persons.** The Framework should describe how the local communities will participate in the process to establish criteria for eligibility for assistance to mitigate adverse impacts and improve livelihoods. Criteria should distinguish between different types of users, and which users are eligible for assistance and to what extent. Some considerations may include whether or not user activities are legal or illegal; whether users are resident or in-migrants; levels of dependency on the activity (subsistence, commercial, etc.); customary rights, etc. Special attention should be made to identify vulnerable groups to ensure that they are able to participate in, and benefit from, sub-project activities.
- **Measures to assist the affected persons.** The Framework should describe how groups or communities will be involved in determining the measures that will assist affected persons in managing and coping with impacts from agreed restrictions. These measures should be in place before restrictions are enforced, although they may be implemented as restrictions are being introduced or enforced. They are described, along with agreed restrictions and levels of natural resource use, in Action Plan developed during sub-project implementation.
- **Conflict resolution and complaint mechanism.** The Framework should include a description of an agreed upon process whereby conflicts arising from implementation of the project may be managed and resolved. This should include a description of roles and responsibilities and a communications plan to ensure that affected communities are aware of, and can participate in the process.
- **Implementation Arrangements**. The Framework should describe the implementation arrangements, including the roles and responsibilities of different stakeholders.
- **Monitoring and Evaluation.** A description of the monitoring and evaluation arrangement should be included in the Process Framework with specific details will be included in the Action Plan.
- **Budget.** The Framework should include a budget and financing plan for its implementation.

A3.0 ACTION PLAN

The Action Plan should describe the agreed restrictions, management schemes, measures to assist the displaced persons and the arrangements for their implementation. This should also include provisions for monitoring and evaluation. The Action Plan could be in the form of a natural resources or protected areas management plan.

A4.0 INSTITUTIONAL ARRANGEMENTS

The ESC/SSC will review and approve project specific Process Frameworks. During project preparation, the ESC/SSC or SWG may request further information concerning the project's effects on local communities, and request further assessment or consultations as well as work on the Process Framework. The ESC/SSC will also review and approve any Plan of Actions being developed during project implementation. Finally, the ESC/SSC will monitor implementation of this Process Framework.

ATTACHMENT 7: SAMPLE ENVIRONMENTAL AND SOCIAL CLAUSES FOR INCLUSION IN CONTRACTS AND AGREEMENTS

A1.0 SAMPLE CLAUSES

A1.1 Compliance mechanisms during project preparation:

1. Sites and nature of intervention should be selected based on environmental social and economic "mitigation" outlined in the ESMF. The intervention selection process is likely to involve site visits and studies to determine:

    - Site urban and/or rural characteristics;
    - Applicability of national, state, or municipal environmental regulations;
    - Land ownership, or related land tenure issues;
    - Historic and current community characteristics;
    - Current livelihood activities and practices;
    - Identification of and application of appropriate safeguards (as defined by OP 4.04) of natural or critical natural habitat (i.e., no conversion) and/or ecologically important habitats (e.g., forests, wetlands, rare or endangered species) to ensure the interventions avoid such areas/divert activities from them as appropriate;
    - Preliminary identification of flora and fauna and ecosystems which play a role within biodiversity landscapes to ensure these can be protected and functions safeguarded;
    - Potential to contribute to climate change resilience (where feasible);
    - Adoption of integrated pest management practices and where feasible promotion of conservation agriculture;
    - Measures to address leakage of community activities that result in environmental loss or degradation are included where required in intervention design;
    - Protection, and where feasible, enhancement of soil and water conservation;

2. The project's potential environmental and social impacts will be established by an environmental and social screening exercise undertaken in accordance with requirements of both the Liberians EPA and WB, as outlined in Section 7.2.1 of the ESMF. Depending on the outcome of the screening exercise, it will be followed by an environmental and social impact assessment (ESIA) which shall be undertaken in compliance with both EPA and WB requirements. The ESIA will contain an environmental and social management plan (ESMP) which comprehensively lists and describes all arrangements, measures and activities which are required to establish good environmental and social practice and avoid harm to valued environmental components or human health and safety by the project activities; it will also incorporate and elaborate on as appropriate the management measures required to ensure the mitigation outlined in the ESMF and as appropriate the safeguard procedures outlined in the Attachments to the ESMF will be achieved. The ESIA and ESMP must be approved by both the EPA and RIU prior to progression to project implementation.
3. When the screening determines that an ESIA is not required, the mitigation measures outlined in the ESMF and, as appropriate, the World Bank Safeguard procedures outlined in the Attachments to the ESMF must be applied as relevant.
4. The ESMPs (incorporating mitigation measures and safeguard procedures outlined in the ESMF) are accepted and agreed upon between RIU and Contractor as a contractual basis for environmental due diligence for all activities and phases of the project (design, construction, operation). All objections, additions, interpretations or questions to the ESIA and ESMP and

ESMF procedures have been submitted and clarified before contract signature, and all correspondence on these documents had been documented and attached to the contract.

5. The Contractor will comply with all provisions set forth in the ESMP and ESMF and include the estimated cost into the financial proposal as a separate, independent item.
6. The Contractor will review the ESMP and update it to implementation readiness, meaning that is shall contain all required descriptions, drawings, geographical and topographical references, quantities, procedures, timetables, schedules, standards, responsibilities and cost, in the level of detail necessary for implementation.
7. These ESMPs produced by the Contractor shall be referred to as "implementation ready EMPs" (IREMPs). These IREMPs shall be developed in step with the design process, as designs advance to more detailed stages, for which specific environmental planning can be developed.
8. IREMPs shall be prepared for specific lots, works packages, sections or phases of the project and shall cover the entire geographic scope of the project and all activities related to civil construction works, including activities and impacts outside the immediate area of project influence.
9. The Contractor will define key environmental criteria for monitoring and make provisions for monitoring implementation, including methods, specifications, activities, responsibilities, schedules, reporting lines, and cost. The Contractor will also define threshold values for environmental criteria and define response mechanisms for the case of their exceeding.

A1.2 Compliance mechanisms during project implementation:

1. The contractor shall, in all his activities, ensure maximum protection of the environment and the socio-economic wellbeing of the people affected by the project, whether within or outside the physical boundaries of the project area.[11]
2. No physical/civil/construction works, including site preparation in the project area which are financed by the project, may start before the designs have been reviewed and approved by the RIU and found to be in compliance with the ESIA and ESMF and relevant environmental and land acquisition certificates of authorization for the works have been obtained from Liberia's EPA.
3. No physical/civil/construction works, including site preparation in the project area which are financed by the project may start until the implementation-ready EMPs (IREMPs) have been produced by the Contractor, reviewed and quality checked by the Client, and found of acceptable quality and authorized for implementation by the Client. Upon authorization for implementation the IREMPs will be considered part of the Contract.
4. The Client will enforce compliance of the Contractor with the terms of the Contract, including adherence to the ESMP and IREMP(s). In case of non-compliance of the Contractor with the ESMP, failure of the Contractor to produce IREMPs, or noncompliance of the Contractor (or any subcontractors) with the IREMPs authorized by the Client, as well as significant deviations from accepted international good practice, the Client will seek remedies from the Contractor.
5. To ensure environmental and social compliance the Client reserves the right to employ third parties for remedies in case of Contractor exceeding contractual timeframe allowed for remedies of non-compliance cases and resulting environmental damage, [*client may specify*

[11] To this end once further details of the intervention are determined, specific requirements of relevant good practice should be identified and included under this clause particularly where an ESIA is not triggered, to ensure these are addressed by the contractor. These measures may include, for example, procedures for: demarcation of working and storage areas; vegetation clearance; sourcing of materials and workforce; works near to water courses and wetlands; waste management; and traffic management.

conditions under which this clause would apply e.g., Notice Period to Remedy Problems, financial penalties etc.]

6. The Contractor will adhere to Liberia's environmental legislation and World Bank's Safeguards Policies and all related regulations, standards and good practice guidelines. In case of significant differences between WB policies and Liberia's environmental legislation, which are relevant to the conduct of the project, the Contractor will notify the Client, who, after consultation with WB and Liberia's Authorities, will inform the Contractor how to proceed.
7. The contractor shall protect the health and safety of workers by providing the necessary and approved protective clothing and by instituting procedures and practices that protect the workers from dangerous operations. The contractor shall be guided by and shall adhere to the relevant national labour regulations for the protection of workers. In addition, the contractors should indicate specific measures they will take during construction to prevent HIV-AIDS or other disease transmission by the work force.
8. To help ensure that good environmental and social practices are consistently followed throughout project construction and operation, all workers, operational staff, and contract personnel shall be prohibited from (i) hunting, (ii) fishing, (iii) wildlife capture, (iv) bush-meat purchase, (v) plant collection, (vi) unauthorized vegetation burning, (vii) speeding, (viii) weapons possession (except by security personnel), (ix) working without Personal Protection Equipment (PPE), (x) inappropriate interactions with local people, (xi) disrespecting local customs and traditions, (xii) littering of the site and disposing trash in unauthorized places, (xiii) using alcohol on-site or during working hours, (xiv) sexual harassment, or (xv) setting unauthorized fires of any kind.
9. Unscheduled inspections of all works and installations may be carried out by representatives from the Client at any time. The Liberian authorities will have the right for unscheduled site inspections and compliance checks, as well as the levelling of fees and fines for non-compliance.
10. The Contractor will employ sufficient numbers of qualified environmental and H&S staff to ensure environmental compliance with ESMP and IREMPs, perform day-to-day management and supervision of works, conduct dialogue with designer, construction management and authorities, and manage environmental monitoring and reporting

ATTACHMENT 8: ENVIRONMENTAL AND SOCIAL MONITORING REPORTS CHECKLISTS

A1.0 INTRODUCTION

The relevant environmental and social monitoring checklists should be completed at key stages in project planning and implementation to record compliance with the procedures outlined in the ESMF as follows:

- During **project planning** (see Section A8.2 below) to monitor adherence to the E&S safeguard process (e.g., application of the screening, assessment and approval process as outlined in Sections 7.2.1 and 7.2.2 of the ESMF);
- During **project implementation** (see Sections A8.3.1 AND A8.3.2 below) to monitor individual project performance;
- During **program implementation** (Section A8.4) to monitor performance of the overall REDD+ Strategy against the specific SESA E&S outcomes.

A2.0 ADHERENCE TO E&S SAFEGUARDS PROCEDURES DURING PROJECT PLANNING

This section should be completed by prior to issuing authorization for project implementation by the ESC/SSC with support from the project management

Name of Project:
Date of review:
Review undertaken by:
Documents examined:

Summary of follow up actions and dates for their completion:
Responsibility for delivery of follow up actions:
Follow up review date:

Approved by:

	Action or Condition	Status	Next Step(s)/ Follow up Actions required
1.Screening & Classification **(Step 1 in Figure 7.1)**	Has the project been screened and classified as category A, B or C under Word Bank classification system? Is there a formal record of this classification on filed and has it been seen by the reviewer?		
	Has the project been screened by the EPA • If a FONSI has been obtained from the EPA? Is the certificate of approval on file and has it been seen by the reviewer? • If a FONSI has not been granted, what level of assessment has been specified by the EPA required? Is a record of this decision on file and has it been seen by the reviewer?		
2. Assessment and Management Plans **(Step 2)**	**Assessment**		
	Has the relevant level of assessment as identified through the screening process been completed and does this comply with OP/BP4.01 and the EPML requirement with respect to EIA? Did the assessment identify that any of the following might occur? • Involuntary resettlement • Use of pesticides • Presence of physical cultural resources • Conversion of natural or critical natural habitat; if the latter, has a critical habitat assessment been undertaken?		
	Management Plans		
	Does the ESIA include Management Plans that adequately address all the risks		

	Action or Condition	Status	Next Step(s)/ Follow up Actions required
	identified in the ESIA and do these EMPS comply with OP/BP4.01 and the EPML requirements with respect to EIA. If any of the WB OPs are triggered, have the relevant project specific Management Plans and procedures been produced, including the following standalone documents as may be required? • Resettlement action • Pest Management Plan • Chance Finds Management Plan • Stakeholder Engagement Plan • Grievance mechanism • Others as required to address the identified project specific issues? Do the Management Plans include the monitoring procedures and checklists necessary to undertake the monitoring during implementation outlined in Section A8.3.2 below?		
3. Stakeholder engagement **(Step 2)**	Has consultation been undertaken in accordance with general requirements of the EPML and WB OP/BP 4.01 and specific requirements under OP/BP 4.12 in relation to resettlement, if this is anticipated to occur?		
4. Approvals **(Step 3)**	Have relevant approvals been received from the EPA and World Bank?		
5. Condition and contractual obligations **(Step 4)**	Were all management plans and conditions as applicable, finalized prior to tendering works packages and included in the tender documentation/ agreements, so that potential bidders were aware of performance standards expected from them and are able to reflect that in their bids? Have discrete mitigation measures been included in the pricing? Has this this ESMF and relevant clauses for Contractors been included in the tender document /agreements?		

A3.0 ADHERENCE TO MITIGATION AND MANAGEMENT MEASURES DURING PROJECT IMPLEMENTATION

During the implementation phase the project must operate in accordance with both

- The general mitigation and enhancement management measures (outlined in Attachment 3 of the ESMF) that have been identified through the SESA, to ensure compliance with the REDD+ E&S outcomes, and must be applied to all RED+ projects;
- The EMPs emerging from the project specific EA/EIA process, which will vary according to project.

This section should be completed by Project Managers at regular intervals during project implementation (minimum bi annually or as otherwise specified in EMPs) and immediately, in the event of a specific incident or emergency occurrence, which may present environmental and social risks

Name of Project:
Date of review:
Review undertaken by:
Documents examined:

Summary of follow up actions and dates for their completion
Responsibility for delivery of follow up actions:
Follow up review date:

Approved by:

A3.1 Application of mitigation and enhancement measures to ensure compliance with the REDD+ E&S outcomes

This table is to be completed by Project Managers for all projects regardless of whether an EA or EIA was required/undertaken for regular reports

Potential Impact	Does this apply to the project? If "no" specify reasons	If "yes" have the measures outlined below been implemented	If "yes" provide brief description. If "no" provide rationale and, if required, follow up actions
Microeconomic			
Increased shifting cultivation for food security		Realistic sustainable livelihoods interventions that are based on research, and in consideration of availability of inputs and expertise have been put in place	
Increases in shifting cultivation and other livelihood activities in and around HCS areas and PA		High conservation areas set aside from forestry and implemented through the strategy are protected from becoming vulnerable to community or other uses through Community Agreements or similar mechanisms Measures are in place to address the potential for leakage of community activities, from within protected areas or other areas managed for conservation that are subject to strategy interventions (e.g., due to restriction on	

Potential Impact	Does this apply to the project? If "no" specify reasons	If "yes" have the measures outlined below been implemented	If "yes" provide brief description. If "no" provide rationale and, if required, follow up actions
		activities) to areas of HCS and HCV outside of them Measures are in place to support communities to sustainably manage areas such as CFMAs and those subject to conservation agreements or other management mechanisms.	
Erosion of customary land rights		EA conducted in compliance with WB OP4.12 where implementation of strategy results in relocation of customary owners of forestland, or involuntarily limits access to resources Provisions for FPIC are in place and operating where new forest areas are being considered in order to ensure consideration of customary land owners and users	
Decreased customary land security		Policy is in place to identify customary rights of individuals within areas, and measures have been put in place to protect those rights	
Displacement		Process framework for resettlement is in place and operational	
Increased conflicts over land		Measures are in place to support stakeholder engagement in the planning and implementation for PAs (and other conservation management regimes), which should include adherence to FPIC principles. Credible Feedback and grievance redress mechanism is in place	
Community leaders lack the skills and information needed to represent constituents		FPIC processes have been designed and are being implemented	
Communities unable to effectively engage in commercial forestry		Interventions and measures to engage and support Community Forest management governance and planning capacity are in place	
Biophysical			
Leakage of community activities from within areas subject to strategy interventions to other HCS/HCV areas		Sufficient incentives in place, notably availability of viable livelihood options to divert activities from forest and compensate for any losses resulting from the intervention.	
Land pressures due to population influx		Siting of interventions take account of potential impacts from population growth and associated pressures on natural resources	
GHG emission from livestock and nitrogen based fertilizer		Promotion of livestock species and fertilizers/practices that have low GHG contributions	

Potential Impact	Does this apply to the project? If "no" specify reasons	If "yes" have the measures outlined below been implemented	If "yes" provide brief description. If "no" provide rationale and, if required, follow up actions
Resilience to climate change provided by forest landscape		Promotion of interventions that retain forest in locations that play a role in supporting climate change resilience.	
Reduce/increased vulnerability to climate changes shocks to livelihoods due to nature of species cultivated		Promotion of climate resilient seeds and crops particularly at locations identified to be at risk of climate change	
Conversion/retention of natural or natural critical habitat		Critical Habitat screening and any follow up actions resulting from that screening, in order to ensure compliance WB OP/BP4.04 No conversion of critical natural habitat both within or outside forests (including swamps and wetlands) that may be targeted for agriculture) Where feasible avoidance of conversion of natural habitat Promotion of interventions that divert pressures away from, or conserve, areas of forest that may comprise critical habitat	
Community pressure on set asides resulting in HCS/HCV loss		Projects involving set asides are supported by measures to protect them becoming vulnerable to community or other uses (e.g., through Community Agreements or similar)	
Protection of biodiversity landscapes		Adoption of biodiversity landscape approaches to conservation Prioritization of interventions at location that play a role within biodiversity landscapes Adopt aggregated offset/set aside/other conservation approaches with other initiatives in the same landscape unit	
Protection of water and soils integrity provided by forest landscapes		Promotion of interventions at locations where they can contribute to soil and water conservation	
Pollution of water and from agricultural inputs		Where pesticides are proposed implementation of and adherence to a Pest Management Plan which complies with OP/BP 4.09 and amongst others ensures avoidance of use of prohibited pesticides and chemicals and promotes integrated pest management practices	

A3.2 Application of the monitoring measures outlined in the project specific EMPs

This section to be completed for all projects where screening for an EA/EIA process or the EA/EIA study has identified the requirement for an EMP (See Steps 1 and 2 in Section A8.2)

The format of the monitoring report should be outlined in the EMPs and agreed with RIU during the project design phase but is likely to include:

- A checklist of environmental and social management and monitoring measure (an example format provided below);
- A summary of E&S issues observed during the monitoring exercise;
- Identification of any areas of potential noncompliance with environmental and social policy, laws and regulations; and
- Summary of actions required highlighting any priorities or those required to address high risk activities which are not being appropriately managed.

Mitigation/ Management measure	Monitoring		Monitoring log		
	Indicator	Data source /methods	Result	Follow up required	Follow up addressed date & name of checker
A. SOLID WASTE					
A1.Generation handling storage transportation and disposal of inert waste					
Secure containment on site – *provide details e.g., in designs drawing dimension etc.*	Site facilities in accordance with mitigation in good state and being used	Field inspection			
Measures to reduce reuse recycle – *specify per intervention (e.g., for cocoa facility may be reuse of shells)*	*Depends on* specific *mitigation*	Field inspections/ interviews with staff			
Disposal to licensed waste facility –*specify which*	Current copy of license held on file	Review of records			
Prohibition of dumping	Evidence of dumping	Field inspections/ interviews with staff			

It is important that to ensure that that these reports are received by RIU in a timely manner to enable any potential noncompliance to be rapidly identified and rectified and to generate the data and indicators required for program monitoring (Section A8.4)

RIU should also receive copies of any reports or notifications provided to, or by, the EPA to the proponent regarding the environmental performance of the interventions, and work with them to enable them to address any EPA concerns.

A3.3 Verification Monitoring/audits

RIU should undertake its own verification monitoring of the projects. This should ensure a representative sample are reviewed and include those which may be considered to be high risk: due to the nature of the activities being undertaken; issues reported on monitoring forms or identified by the EPA; perceived adequacy of the proponent' own monitoring and reporting and their capacity to manage environmental and social risks; or failure to return monitoring forms. The checklists for verification monitoring exercises can be similar to those identified above for reporting.

A4.0 PROGRAM-LEVEL MONITORING

Program level environmental and social safeguards monitoring is require to track overall E&S performance of the REDD+ strategy. .

The general indicators outlined below could provide an indication of overall program environmental performance. These have been derived from.

- The issues associated with each REDD+ E&S outcome as determined through the SESA process, notably the extensive stakeholder engagement exercise
- The general_mitigation and enhancement management measures that have been identified through the SESA to ensure compliance with the REDD+ E&S outcomes

This section should be completed by the Project Manager at regular intervals annually during program implementation

Name of Program:
Date of review:
Report collated by :
Documents examined:

Summary of follow up actions and dates for their completion
Responsibility for delivery of follow up actions:

Approved by:

SESA Outcome	Indicator	Yes/no or value
Microeconomic		
Livelihoods		
1. Dependency on Shifting Cultivation Reduced	Reduction in levels of dependency on shifting cultivation for primary livelihood activity Reduction in use of primary forest sites for shifting cultivation	Percentage Percentage
2. Livelihoods Diversified	Number of people that have diversified their livelihoods	Number
3. Forest mgmt. improved through Community Forestry	Number of established CFMA using that have developed and are implementing forest management plans	Number
Land		
4. Increased Land Security	Number of people who have registered their customary claims to land	Number
5. Adequate access to land for livelihoods	Number of incidents of land grabbing	Number
6. Reduced conflict over land	Number of conflicts over access to land	Number
7. Land rights are maintained	Number of community agreements with concessions that recognize customary claims to land	Number
Governance		
8. Local leaders have skills to represent constituents	Number of forums in which community leaders have presented community perspectives Number of capacity building plans that are in place to support community leaders	Number
9. Equitable, functioning benefit sharing	Benefit sharing mechanism is in place and functioning	Yes/No
10. Law enforcement increased	Number of enforcement actions	Number
11. Credible grievance redress mechanisms in place	Formal grievance redress mechanisms is in place for communities. Number of people that have used the grievance mechanism	Yes/No Number

SESA Outcome	Indicator	Yes/no or value
Biophysical		
Climate Change		
12. Emission reduced and carbon sequestered	National level of use of wood based fuels disaggregated by firewood and charcoal	Numbers
	% of oil palm concessions signed up to RSPO NEXT	Percentage
	Legal requirement in place for adoption of RSPO for all palm oil concessions, and measures for its regulation	Yes/No
	Sector standards in place for conservation of HCS as well as the legal basis for implementing them, for all commercial agricultural activities, including oil palm, rubber plantations, private farms, as well as the forestry and mining sectors	Yes/No
	Level of carbon sequestered nationally	Percentage
	Extent of forests/degraded areas nationally	Percentage
	Extent of mangroves	Percentage
	GHG emissions attributable to animal husbandry and to fertilizers	Percentage
13. Resilient landscapes and livelihoods	% of REDD+ interventions that promote retention of forests sited in locations that play a role in supporting climate change resilience.	Percentage
	% of REDD+ intervention aimed at diversifying livelihoods that promote climate change resilient crops and varieties, and/or livestock with low GHG contributions.	Percentage
	Extent and condition of mangroves.	Percentage and text
Biodiversity		
14. Conservation of natural habitats	% of REDD interventions subject to a critical habitat screening	Percentage
	% of REDD interventions involving conversion of critical natural habitat (Both within and outside of forests)	Percentage
	% of REDD+ interventions that divert pressures away from, or conserve, areas of forest that critical habitat	Percentage
15. Landscape approach to conservation	Level of capacity to manage areas that have been gazetted as protected areas	Percentage
	% forest area proposed for protection, for which ownership has been established	Percentage
	% of Liberia's forests under protection	Percentage
	% of Liberia's forests outside protected areas which are managed as offsets, set asides or conservation CFMA,	Percentage
	Establishment of a systematic approved national categorization of identified landscape conservation units, and their constituent features	Yes/No
	% of REDD+ interventions that promote safeguarding of specific features that play an identified role within the biodiversity landscape mosaic	Percentage
	% of REDD+ interventions that adopt aggregated offset/set aside/other conservation approaches with other initiatives in the same landscape unit	Percentage
	Establish and manage a model for implementation of an integrated cross sector approach to conservation at the landscape level, which involves private, government and NGO sectors	Yes/No and Number
16. Reduce biodiversity loss from shifting cultivation & other community exploitation of forest resources	% of intervention addressed at reducing shifting cultivation that are supported by suitable alternative livelihood options/incentives	Percentage
	% of intervention addressed at enforcement of hunting laws, chainsaw regulations that are	Percentage

SESA Outcome	Indicator	Yes/no or value
	supported by suitable alternative livelihood options/incentives	
	Levels of bushmeat consumption in urban areas	Percentage
	% of population using energy efficient stove	Percentage
	% of population using alternatives to charcoal as primary fuel for cooking	Percentage
	Efficiency of chainsaw logging	Percentage
	Regulation of the chainsaw sector	Yes/No
	Level of protection of mangroves	Percentage
	% of intervention that promote creation of offsets/set asides supported by measure (e.g., through Conser4vation Agreements or similar) to protected them becoming vulnerable to community or other uses or resulting in leakage of activities that previously occurred in such areas	Percentage
17. No loss of biodiversity from commercial activities	Establishment of evidence-based measure for sustainable management of FMCs	Yes/No
	Legal requirement for TSCs to be subject to measure to conserve biodiversity that may be present within them	Yes/No
	Legal basis for adoption and regulation of RSPO	Yes/No
	Establishment of sectoral standards to conserve biodiversity for commercial agricultural other than oil palm notably rubber plantations and private farms, as well as for application of RSPO to Palm Oil growers.	Yes/No
	Establishment of a national biodiversity offset scheme and associated standards	Yes/No
	Establishment of a national biodiversity offset scheme and associated standards	Yes/No
Water & Soils		
18. Creation of national inventory of wetlands	Number of REDD+ interventions involving agricultural intensification within wetlands	Number
	% of interventions involving agricultural intensification in wetlands that operate in compliance with a water resources management plans	Percentage
	% of intervention aimed at agricultural diversification that promote conservation agriculture	Percentage
	% of interventions aimed at agricultural diversification involving pesticide use which have integrated pest management plans in place	Percentage
	Soil fertility levels	Percentage
19. Soil quality maintained	Levels of erosion	Percentage
	Levels of erosion	Percentage
Macroeconomic		
Revenues		
Increased sustainable revenue from forests	Amount of revenue generated from REDD+ activities	Number
Goods and Services (Domestic Demand)		
Adequate supply of energy for urban population	Level of charcoal use is reduced in urban areas Charcoal production is reduced	Percentage Percentage
Sustainable domestic timber supply	Number of value-added processing that is supported by the project	Number
Land is available for commercial development	Amount of land that is put under commercial development	Number
Employment		
Adequate jobs for unskilled laborers	Number of chainsaw loggers, charcoalers, hunters and artisanal miners that have benefiting from jobs training	Number