GOVERNMENT OF SIERRA LEONE

Labor-intensive Public Works to Mitigate Ebola Impacts (P154904)

Environmental and Social Management Framework (ESMF)

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Ministry of Finance and Economic Development
Secretariat Building
George Street, Freetown

List of Acronyms

DLCP	Department of Land and Country Planning.
DoE	Department of Environment.
DoF	Department of Forestry.
EIA	Environmental Impact Assessment.
EPA	Environmental Protection Act.
EPA	Environment Protection Agency
ERRTF	Ebola Recovery and Reconstruction
ESMF	Environmental and Social Management Framework.
ESIA	Environmental and Social Impact Assessment
EU	European Union
FCC	Freetown City Council.
GRS	Governance Reform Secretariat.
GoSL	Government of Sierra Leone.
ILO	International Labour Union
lPRSP	Interim Poverty Reduction Strategy Paper.
LA	Local Authority.
LDP	Local Development Plan
LIPW	Labor-intensive Public Works
MLCPFE	Ministry of Lands, Country Planning, Forestry and Environment.
MLGCD	Ministry of Local Government and Community Development.
NaCSA	National Commission for Social Action
NBSAP	National Biodiversity Strategy and Action Plan
NEAP	National Environment Action Plan.
NEP	National Environment Policy
NEPB	National Environment Protection Board.
NYC	National Youth Commission
PCU	Project Coordination Unit.
PEMO	Provincial Environmental Management Officers
PMP	Pest Management Plan
POCs	Project Oversight Committees
RPF	Resettlement Policy Framework.
UNDP	United Nations Development Program
YESP	Youth Employment Support Project

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1.0 EXECUTIVE SUMMARY

The Labor-intensive Public Works to Mitigate Ebola Impacts (LIPW or the Project) is an initiative of the Government of Sierra Leone (GoSL). The project is aligned with the most recent 2010-2013 Joint Country Assistance Strategy (JCAS), which is organized around two pillars: growth and human development. For this same reason, approval has been obtained for processing by the Acting Country Director of the World Bank since March 9, 2015.

The Project Development Objective is to help mitigate the socioeconomic impact of the Ebola outbreak in Sierra Leone by providing temporary employment for youth in poor households.

The proposed project would seek to achieve the developmental objective by contributing to the scaling up of the national labor-intensive public works program and help mitigate both immediate and longer term socioeconomic impacts. The LIPW program was previously financed through a US$10 million component of the YESP; however, these activities closed in January 2015. Similar to the arrangements under the previous project, this project will be implemented by the National Commission for Social Action (NaCSA). The Project will target 12,000 youth in poor households in approximately 150 communities within the four districts with the highest extreme poverty incidence in the country, Bombali, Kono, Moyamba, and Western Rural, which are also among the districts which faced the highest Ebola caseloads during the outbreak.

LIPW is uniquely placed to support the recovery process through multiple channels: (i) providing an alternative source of livelihoods to youth in poor households that have suffered job losses or loss of an income earner; (ii) helping maintain or create community assets that might not otherwise be invested in due to lack of funds or over-stretched capacity at both central and decentralized levels; (iii) stimulating other small-scale income generating activities both by reducing household risk and providing access to capital. Indeed, evidence from a recent randomized impact evaluation of the ongoing LIPW program shows that it not only increases household consumption, but also promotes asset accumulation and creation of household enterprises, and increase access to health services, among other positive impacts. Together with cash transfers, LIPW has been at the core of recent Government efforts to build SP systems and has reached nearly 40,000 beneficiaries.

The project will therefore finance: grants to targeted communities for the implementation of LIPW sub-projects, including for the procurement of materials (e.g., Small equipment and tools); cash transfers to youth in targeted households in exchange for their participation in the LIPW sub-project implementation; and program management and capacity building for efficient project implementation and monitoring. Since the exact locations and sites for the sub-projects are to be identified during the concept phase of the Project, the environmental and social laws of Sierra Leone and the Operational Policy 4.01 of the World Bank requires the Government of Sierra Leone to prepare an Environmental and Social Management Framework (ESMF) which is to establish a mechanism to determine and assess future potential environmental and social impacts of all project and program activities to be financed under the Public Works to Mitigate Ebola Impacts Project, and

to set out mitigation, monitoring and institutional measures to be taken during project implementation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels.

In accordance with Bank policy on Involuntary Resettlement (OP 4.12), the Government of Sierra Leone is also required to prepare a Resettlement Policy Framework (RPF) to address the needs of those who might be affected when project activities causes the involuntary taking of land and other assets resulting in: (a) relocation or loss of shelter, (b) loss of assets or access to assets (c) loss of income sources or means of livelihoods, whether or not the affected person must move to another location. The RPF was developed as a stand-alone document and separately disclosed.

The Government of Sierra Leone is also required to disclose the ESMF and RPF in country and at the Bank's Info Shop so that they are accessible to the general public, local communities, potential project affected people, local and international NGOs and all other stakeholders. All project activities, whether or not they are funded by the World Bank are also subject to the provisions of OP 4.01 and hence this Environmental and Social Management Framework. The key highlights of the ESMF include the following:

- Detailed guidelines for identifying adverse impacts;
- Data on Sierra Leone's bio-physical features;
- Main features of Sierra Leone's demographics, public health and poverty;
- Summary of requirements to comply with triggered policies on the ERRTF;
- Potential adverse environmental and social concerns and impacts from anticipated sub-project activities;
- Roles and responsibilities of key institutions and players;

Detailed and comprehensive environmental and social baseline data which provide the environmental and social management process with key baseline information when identifying adverse impacts. The information contains data on Sierra Leone's bio-physical, environmental features such as ecosystems, geology, hydrology in terms of ground and surface water resources, major and sensitive wetlands, flora and fauna. On social baselines the report discusses the main features of Sierra Leone's demographics, public health and poverty.

A thorough review of the World Bank's triggered Safeguard Policies is made. The triggered policies on the Public Works to Mitigate Ebola Impacts Project are:

- OP 4.01 Environmental Assessment;
- OP 4.04 Natural Habitats; and
- OP 4.12 Involuntary Resettlement.

Table 4 presents a summary of the requirements to comply with these policies. The administrative, policy, legislative and regulatory framework in Sierra Leone for the Public Works to Mitigate Ebola Impacts Project in particular and for environmental management in general is presented in Chapter 8 of this report.

The Generic potential adverse environmental and social concerns and impacts from anticipated sub-project activities with root and immediate causes is presented in detail in Chapter 10 and the roles and responsibilities of key institutions and players for the purposes of this Environmental and Social Management Framework are discussed in Chapter 11: National Environment Authorities, District and Regional level authorities, role of the National Environment Agency, role of the National Youth Commission and the National Commission for Social Action.

Overall policy guidance and coordination of the project will be provided through the Inter-Agency Forum, which is the lead coordination platform for social protection. The Technical Steering Committee will coordinate the technical aspects of the Project and is composed of key ministries including education, youth, labor, agriculture, finance and economic development and social welfare. The National Commission for Social Action (NaCSA) will continue to take a lead role in the implementation of the sub-projects, in close collaboration with the Ministry of Agriculture, Sierra Leone Roads Authority, other technical ministries, local councils, communities and youth groups. The NaCSA will provide quarterly updates to the Inter-agency Forum and Technical Steering Committee. The Community Oversight Committees (COCs) will be responsible for the smooth running of works activities in targeted communities. The Anti-Corruption Commission will be responsible for conducting independent monitoring.

DISTRICT LEVEL

The National Commission for Social Action works with COCs, which submit proposals on behalf of a community to NaCSA, who approves them in coordination with the District Council. The physical Implementation of individual sub-projects would be managed by communities through Community Oversight Committees, selected by the communities themselves. COCs, composed of six members would be responsible for: (i) with support from NaCSA, facilitating the identification and enrolment of workers through standardized community-based targeting processes; (ii) maintaining daily timesheets at the sub-project sites containing the unique ID codes used to link to the e-payments and deliver to NaCSA; (iii) facilitating the purchase of the required sub-project materials and tools; (iv) with support from the NaCSA staff hiring skilled labor for sub-project related tasks that may require technical skills; (v) holding responsibility for the completion of the scope of work as stipulated in the project agreement; (vi) maintaining an administrative account and submitting financial reports on the utilization of funds provided to cover the cost of materials and other administrative costs; (v) preparing and submitting end of tranche and sub-project completion reports; and (vi) supporting NaCSA and key partners and stakeholders in monitoring the implementation of sub-project. The M&E unit of NaCSA and the SP Secretariat will conduct periodic unannounced spot checks to verify work progress and beneficiary attendance.

NaCSA, in collaboration with representatives from local councils and relevant decentralized staff of technical ministries and departments such as the Sierra Leone Road Authority, Ministry of Agriculture, and approve proposals.

THE NATIONAL ENVIRONMENTAL PROTECTION AGENCY

The National Environment Protection Agency is responsible for ensuring that all development projects in Sierra Leone comply with the relevant environmental laws of the country. The new law, The Environmental Protection Act of 2008, specifically states that the Environment Protection Agency's role, among many others is to review and recommend for approval/clears EAs. Therefore, the NaCSA can call upon the EPA to assist in the review and clearance all EAs/EMPs of the project.

The Environment Protection Agency's Board facilitates coordination, cooperation and collaboration amongst government ministries, local authorities, local and international NGOs and other actors.

The EPA is meant to be decentralized and issues directives to the districts and local councils consistent with national environmental laws. With the EPA centrally located in Freetown with weak or non-existent decentralized structures and an inadequate capacity to carry out the ground monitoring of implementation of the mitigation measures and other activities of the Youth Employment Support Project, regular and intrusive monitoring would have to be carried out at the district and local level with the NACSA providing monitoring oversight. The Agency would either build its institutional and human resources capacity at the district level to enable it to fulfill its mandate at all levels or limit itself to providing periodic oversights monitoring to ensure that no adverse cumulative impacts from the activities of the project are occurring at these levels.

NaCSA will perform three critically important and significant roles as follows: (i) review, clearance and approval of EAs for Category A and B projects; (ii) training of district staff to carry out approval and monitoring of sub-projects at the district and community levels.

Monitoring Oversight

NaCSA with EPA assistance should use good practice cases in the country to demonstrate to district and local councils and their project staff that there is significant value in the good environmental practices. Project staff should make concerted effort to report on the implementation of Environmental Management Plans (EMP) and systems and should rely on the affected communities and /or third parties, such as NGOs and multi stakeholder mechanisms, regional and district environment committees to monitor the implementation of sub-project EMPs. Lastly NaCSA staff should use random checks to ascertain compliance with good environmental management practice. The usual Environmental Assessment (EA) and EMPs are prepared for the main project, as required by Sierra Leonean law and World Bank policy, but the EMP provisions usually do not find their way into contract documents to be contractually binding. They can therefore be easily ignored by contractors and supervision consultants.

The Sierra Leone Road Authority and the Agricultural Services at the district and local levels should be made aware of this problem and should work hard to improve the implementation of the EMPs for sub-projects. NaCSA will have staff who are trained on environmental issues and will therefore provide: (i) on the ground ESMF performance reviews/audits both for enforcement purposes; (ii) more importantly to reinforce the training and to keep COCs and the Regional and District Coordinators and Community-based Specialists/Facilitators cognizant of their ESMF responsibilities; and (iii) provide periodic/oversight monitoring. The Training Program is contained

in section 10 of the report.

CAPACITY ASSESSMENT

As more assistance pours into Sierra Leone, the country's technical capacity for effective environmental management needs to be seriously addressed. The entire regulatory and legislative framework that manages the Environmental Sector in Sierra Leone has been strengthened by the passing of the new Environmental Protection Act (2008). Despite this effort, however, there is considerable room for improvement and greater attention to implementation and outcomes through better on- the- ground environmental management, more public involvement, improved human resources capacity and a higher quality of more focused EA reports are the highest priorities.

The on-going and planned Bank financed operations such as the World Bank Decentralized Service Delivery Program II and the closing Youth Employment Project (YESP) have implemented sub-project type activities at the District and community levels and has provided some form of training to District staff on environmentally similar issues. The synergies and complementarity of these efforts will be used to build capacity at these levels to be utilized by the LIPW Project and other planned projects and programs. It is however difficult to guarantee that the built capacity is retained after the completion of these projects and since there is no concrete data to show the level of retention of trained staff be it at the national or district level, it is assumed that some may have been retained.

The District Councils have District Environment Officers who are expected to have the capacity to carry out the environmental and social management requirements of the ESMF. The Districts will also be assisted by NaCSA there is no in-house capacity to perform these roles. As in earlier projects, this project will continue to build the institutional and human resources capacity at both National, District and Regional levels for environmental management.

At the time the LIPW Project was being prepared, the activities were not fully identified. Consequently, specific information on site location of sub-projects, land requirements, communities, geophysical land features, nature, type and use of equipment, etc. was not available. Therefore, exact details and intensity of social and environmental impacts and their effective mitigation cannot be determined during project preparation. This document referred to as the Environmental and Social Management Framework (ESMF) is thus prepared to establish the mechanism to determine and assess future potential adverse environmental and social impacts of sub-projects that are to be identified and cleared based on a participatory process described below, and then to set out mitigation , monitoring and institutional measures to be taken during implementation and operation of the sub-projects to eliminate adverse impacts, off set them, or reduce them to acceptable levels. ESMF also guides the preparation of subproject specific ESIAs and ESMPs.

This section therefore, identifies and illustrates the specific steps involved in the environmental and social assessment process leading towards the clearance and approval of the Project's sub-projects from and environmental and social management standpoint. This process is embedded into the overall Project cycle, timeline, and implementation process for the entire

program. The steps outlined below incorporate the requirements of both, relevant national laws and the Bank's triggered safeguard policies.

FIRST STEP of the environmental and social management process begins at the start of the planning cycle for the preparation of the Public Works to Mitigate Ebola Impacts Project. The potential owner or the implementing agency to assign an Environmental Category for their sub-project type, using table 7. The sub-project proponent will be the COC assisted by the NaCSA regional and district staff.

The guidelines in the ESMF are developed for infrastructure rehabilitation and agriculture sub-projects which are expected to be typical investments in the LIPW component of the Project. The categorization in Table 7 is based on the extent of the potential impacts and not on the generic "sub-project" type, which in turn determines the extent of the environmental assessment required for it. Depending on the nature of the sub-project, its extent, and the extent of the potential impacts, the Category, and hence the level of rigor for environmental analysis is determined. Table 5.0 provides a list of sub-project types that may be considered for inclusion in the Project.

- Resettlement is likely to be a factor for some of the sub-project types involving land acquisition or restriction for new irrigation sites or extension of existing sites.
- Any sub-project with resettlement or loss of assets will be Category B, at a minimum, even if they are less than 50 ha irrigation or a small market.

Any sub-project with potential high risks of large scale or irreversible environmental and social impacts will be Category A, which will be excluded from financing as the project has been categorized as B

- The overall Public Works to Mitigate Ebola Impacts Project is a Category B and should not be confused with sub-projects.

THE SECOND STEP is to determine which of the World Bank's safeguard policies may be triggered by a sub-project and what the requirements are to comply with the triggered policy.

- This requires the sub project operator to use the Safeguards Tables in Annex A, Further information on these policies is available on the Bank's website, www.worldbank.org.

- The assumption is that the Environmental Assessment OP 4.01 is already triggered and hence the need for compliance with this ESMF. Therefore compliance with this ESMF by the sub project potential implementer is deemed to be accepted as compliance with OP 4.01.

- Annex A contains information to help the potential operators determine which of the following Bank safeguard policies may be triggered by their sub-project;
    - Environmental Assessment (OP 4.01) (Always Applies)
    - Natural Habits (OP 4.04)
    - Involuntary Resettlement (OP 4.12)

If any of the Bank safeguard policies are triggered by a sub-project, the operator/implementer will modify the design and implementation phases to ensure that the sub-project satisfies the requirements of the particular policy.

THE THIRD STEP is for the implementer/operator to prepare a comprehensive sub-project Environmental and Social Impact Assessment including a project specific Environmental Management Plan (see Annex D of this report for guidelines on how to prepare an EMP). Annex B provides a list of sub-project types with their potential impacts and methods by which those impacts may be mitigated. Additionally, for situations where OP 4.12 applies, the sub-project proponent will prepare a Resettlement Action Plan (RAP) consistent with the separately disclosed RPF. Annex C of the report contains an example of a TOR for an ESIA and Annex D contains guidelines for the preparation of an ESMP or EMP for Category A/B/C. According to Sierra Leonean law public consultation is a requirement in the preparation of an ESMP and thus Annex G has a generic guide to an acceptable public involvement process.

STEP FOUR: Following compliance with these steps, the implementer /operator submits their ESIA and ESMP to the required authority as specified.

- The ESIA for Category A and B sub-projects will be reviewed and cleared by the National Environment Protection Agency; Category A sub-projects will not be financed by the Labor-intensive Public Works to Mitigate Ebola Impacts (P154904).

- The ESMP for lower Bs and Cs is reviewed and cleared by the respective Regional / District Environment Officers with the assistance of trained Service Providers;

- Annex H contains a generic Environmental and Social Appraisal Form to be used by the EPA and the Regional and District Staff, to provide guidance to their review process and to notify the NaCSA and the District Councils of their decision before final approval and funding is made.

- The first set of cleared ESIAs for any Category B sub-project would have to be reviewed and cleared by the Bank to ensure compliance with its safeguard policies. The World Bank reserves the right to not allow funds to be applied if a sub-project does not meet the requirements of its safeguard policies.

PROPOSED TRAINING:

Environmental and Social Management process

- Review of Environmental and Social Management Process;
- Review of EA Guidelines
- EA Classification of sub-projects;
- How to prepare Site Specific Environmental Management Plans;
- How to measure cumulative adverse impacts; How to design appropriate mitigation measures;
- How to review and clear the investment activities of the project;

- The importance of public consultations in the EA process;
- How to monitor mitigation measures (with measurable indicators);
- How to embed the ESMF Process into civil works contracts.

Environmental and Social Policies, Procedures and Guidelines

- Review and discussion of Sierra Leone's national environmental policies, procedures,and legislation;
- Review and discussion of the Bank's safeguard policies;
- Strategies for consultation, participation and social inclusion.

Selected topics on Environmental protection

- Land Use, land degradation and soil erosion in the local community area;
- Natural Resources Management, sustainable soil conservation and prevention of deforestation;
- Pollution of water resources;
- Wetland Degradation;
- Ground Water and surface water management;
- Use of Integrated Pest Management Plan (IPMP);
- Safe Management of Pesticides;
- Environmental Protection of Water Resources;
- Disaster Preparedness for Floods and Droughts.

TRAINING COST ESTIMATES: The Training Program is to be implemented by NaCSA in close collaboration with Sierra Leone Environment Protection Agency (SLEPA).

Given the fact that capacity building was budgeted for and implemented under the YESP, nonetheless capacity building will be sustained at all levels under the Public Works to Mitigate Ebola Impacts Project. The proposed cost estimates are based on the assumption that the training program for the District Environment Officers, Community and Youth Groups and potential service providers will be held at the Regional or district levels.

Resource persons and these targeted stakeholders are likely to come from other parts of the country and therefore will require travel allowances and per diems. These estimates include an allowance for travel expenses. Training on these topics would be embedded within the regular training activities provided to Regional and District Coordinators, Community-based Specialists/Facilitators, and COCs prior to commencement of sub-project implementation.

It is proposed that the training program will be implemented at least once in each quarter in each participating region. The following roll-out plan is proposed:

- The NaCSA focal point on safeguards will be responsible for providing refresher training using annexes to the ESMF as a base-tool. A consultant will be recruited to provide capacity building for NaCSA safeguards focal points at the central level and at other levels as needed.
- The process of sub-project review and approval should incorporate environmental considerations. A section in the Project Application Form (PAF) of project packages for instance and inclusion of SLEPA in the field appraisal team and projects approval committee are key. The relevant annexes in the ESMF report will be used wholly or adapted accordingly.
- Institution of joint monitoring of sub-projects by field-staff (staff of implementing agencies, SLEPA and Local councils).
- The cost of sub-project review and approval process and the costs of the refresher training (estimated at US$10,000) will be borne by the implementing agency as part of their operating costs.
- Regular coordination meetings on compliance with the ESMF should be organized to ensure that project implementation is compliant with stipulated guidelines

The total training budget for the duration of the project implementation is estimated at approximately US$ 10,000

COST FOR IMPLEMENTATION OF THE ESMF

Cost for Environmental and Social Management of the Public Works to Mitigate Ebola Impacts Project	**In US Dollars**
Refresher Training Regional and District Coordinators, Community-based Specialists/Facilitators	US$ 10,000
Review and Clearance of ESIA /ESMPs	To be carried out by the NACSA
Monitoring Plan	To be carried out by the NACSA

2.0 INTRODUCTION

The Project Development Objective is to provide temporary employment to youth in poor households to help mitigate the socioeconomic impact of the Ebola outbreak in Sierra Leone.

The key results of the project include: (i) increased direct project beneficiaries especially for female; and (ii) increase number of man-days of temporary work provided. The project would contribute to the scale up of the national labor-intensive public works program, to help mitigate both immediate and longer term socioeconomic impacts.

The environmental and social laws of Sierra Leone and the Operational Policy 4.01 of the World Bank required the Government of Sierra Leone to prepare an Environmental and Social Management Framework (ESMF) which is to establish a mechanism to determine and assess future potential environmental and social impacts of all project and program activities to be financed under the Public Works to Mitigate Ebola Impacts Project, and to set-out mitigation, monitoring and institutional measures to be taken during project implementation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels.

The proposed operation would help finance the costs associated with mitigating the impact of the Ebola crisis on one of the most vulnerable groups in Sierra Leone, i.e. the youth. The project will help respond to the situation by supporting short-term employment.

Since the exact locations of the areas where the sub-projects are to be located was not known at the time the Project was prepared, the environmental and social laws of Sierra Leone and the Operational Policy 4.01 of the World Bank requires the Government of Sierra Leone to prepare an Environmental and Social Management Framework (ESMF) which is to establish a mechanism to determine and assess future potential environmental and social impacts of all project and program activities to be financed under the Youth Employment and Support Project, and to set out mitigation, monitoring and institutional measures to be taken during project implementation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels.

In accordance with Bank policy, the Government is also required to prepare a Resettlement Policy Framework (RPF) to address the needs of those who might be affected when project activities causes the involuntary taking of land and other assets resulting in: (a) relocation or loss of shelter, (b) loss of assets or access to assets (c) loss of income sources or means of livelihoods, whether or not the affected person must move to another location. The RPF will be prepared as a stand-alone document and separately disclosed.

The Government of Sierra Leone is also required to disclose the ESMF and RPF in country and at the Bank's Info Shop so that they are accessible to the general public, local communities, potential project affected people, local and international NGOs and all other stakeholders. All project activities whether or not they are funded by the World Bank are also subject to the provisions of OP 4.01 and hence this

Environmental and Social Management Framework. The key highlights of the ESMF include the following:

- Detailed guidelines for identifying adverse impacts
- Data on Sierra Leone's bio-physical features
- Main features of Sierra Leone's demographics, public health and poverty
- Summary of requirements to comply with triggered policies on the YESP
- Potential adverse environmental and social concerns and impacts from anticipated sub-project activities
- Roles and responsibilities of key institutions and players

2.1 SCOPE OF WORK

The scope of work is to prepare an Environmental and Social Management Framework (ESMF) which presents a process for screening, monitoring and mitigating potential impacts

3.0 DESCRIPTION OF THE PROPOSED PROJECT

3.1 Project Background

The Ebola Virus Disease (EVD) crisis is occurring in a context of already high poverty and food security. Sierra Leone reported the highest level of EVD cases of any country, with 11,600 cases and 3,600 deaths as of March 1, 2015.[1] Since emerging from a decade-long civil war in 2002, the country has experienced strong growth over the last decade, yet nearly half of the population remains poor. Despite strong growth averaging 5.8 percent annual per capita growth between 2003 and 2011, in 2011 more than half (53 percent) of the country's six million inhabitants remained below the poverty line and nearly one million (14 percent) were extremely poor.[2] Although poverty reduction over this period was higher outside of the capital, Freetown, poverty in Sierra Leone remains disproportionately rural, with 78 percent of the poor living in rural areas. In addition to high levels of poverty, a large number of Sierra Leoneans are also food insecure and exposed to shocks. According to the World Food Program (WFP), before the crisis almost half (45 percent) of households or 2.5 million people experienced food insecurity during the lean season.

The recent gains in poverty reduction are being threatened by the EVD crisis, while the country lacks adequate safety nets to protect the poorest. In 2014, the crisis reduced the country's growth to 4.0 percent from 11.3 percent expected prior to the outbreak.[3] A joint report by the Government and the Bank on the socioeconomic impacts of EVD indicates declines in employment, high food security, and reduced utilization of services have the potential to negatively affect both short and long-term household

[1] WHO Situation Report, March 1, 2015.
[2] 2011 Sierra Leone Integrated Household Survey.
[3] "The Economic Impact of Ebola on Sub-Saharan Africa: Updated Estimates for 2015." World Bank (2015).

well-being.[4] There have been significant declines in employment in urban areas (7 percentage points), particularly among the non-farm self-employed, with non-health related effects of EVD cited as one of the main reasons for not working. Food insecurity continues to be stubbornly high throughout the country, with more than half (53 percent) of households taking at least one negative coping measure (e.g., reducing meals). These data also indicate the poorest households are the most food insecure and are less likely to have access to informal safety nets through remittances. There is also evidence of a decrease in utilization of health services for non-EVD conditions, as illustrated by a lower proportion of women in the capital receiving post-natal care. Yet social safety net coverage is low and existing programs suffer from high leakage and inefficient program administration, revealing a strong need to scale up safety nets based on robust systems.

Youth are particularly vulnerable to employment shocks induced by the EVD crisis. The latest estimates from indicate youth – defined as those ages 15-35 – are facing larger employment shocks than the broader population. A joint cell phone survey report by Government and the Bank suggests youth employment rates and business operations have been disproportionally affected and continue to decline. Since the outbreak began, the employment rate among youth in some urban areas declined more steeply than among workers overall and youth in rural areas experienced a larger drop in hours worked. The percentage of households in non-farm enterprise work who reported that their business is no longer operating is now at four times the pre-crisis level. Non-farm household enterprises, where over one-third of youth work, was one of the hardest hit sectors of the economy. The data also suggests youth are facing greater difficulties in re-entering work. Since youth are newer to the labor market, these shocks could affect their labor market outcomes and poverty status in the longer run. Given the post-conflict setting, youth participation could play a central role in maintaining stability.

The Government's post-EVD recovery strategy highlights the need to restore livelihoods of vulnerable groups that have been lost due to the crisis, build resilience of poor households through safety nets, and promote agricultural production and infrastructure creation through community-driven approaches. However, the current community-led LIPW activities financed under the Youth Employment Support Project (YESP, P121052) have closed and preparation of a pipeline youth employment project is not programmed until 2016-2017. This project would therefore seek to provide timely support to scale up the current LIPW program, bridging the gap between the current and pipeline funding.

3.2 Project Development Objectives

The specific objective of the program is to provide temporary employment to youth in poor households to help mitigate the socioeconomic impact of the Ebola outbreak in Sierra Leone.

The project will target 12,000 beneficiaries through approximately 150 labor-intensive public works sub-projects. The YESP project targeted over 20,000 through 470 sub-projects.

[4] "The Socio-Economic Impacts of Ebola". Statistics Sierra Leone, World Bank, and Innovations for Poverty Action. (2015).

3.3 Project Components

Component 1: Labor-intensive Public Works (US$ 2.3 million):

The objective of this component would be to provide temporary employment to youth in poor households through labor-intensive public works sub-projects. The public works is expected to support approximately 150 sub-projects, implemented in the poorest districts among those highly affected by the EVD crisis and where Bank-financed cash transfer programs are also operating. Around 75 communities would be identified as eligible to receive a sub-project based on the common targeting tools. The works will be chosen from among two areas i) Communal Agricultural activities and ii) feeder road rehabilitation and maintenance. The LIPW sub-projects would be designed and implemented using a community-driven approach and taking into account seasonality.

Eligible beneficiaries would be entitled to work between 50 and 75 days depending on the design requirements of each sub-project and would receive a transfer amount of Le. 10,000 (equivalent to US$2) as daily wage. The breakdown of sub-project costs would be as follows: a minimum of 60 percent of the cost of each sub-project would be dedicated to transfers to beneficiaries in exchange for work; 30 percent would be allocated toward materials and tools; and the remaining 10 percent would cover administrative costs, including a small stipend to Community Oversight Committees (COC) members for overseeing the physical implementation of the works.

Component 2: Systems Development (US$0.3 million):

This component would support the consolidation of social protection systems in response to EVD and test their scalability for future crises. Building on successful of the SL YESP, this component would support scale up of key SP systems, notably: (i) common targeting mechanisms; (ii) electronic systems for registration, attendance verification, and payments; and (iii) independent anti-corruption and monitoring measures. In particular, it would support expansion of the Social Protection Registry for Integrated National (SPRINT) through the targeting of an additional 6,000 youth in poor households, the e-payments system linking to the broader Management Information System (MIS), as well as and other system elements currently being tested under the ongoing LIPW and cash transfer programs.

The beneficiaries would be targeted using a combination of a geographical (i.e., 2014 poverty maps) and community-based targeting, which are common targeting mechanisms used under the Government current cash transfer program. Depending on the severity of the outbreak at the time of implementation, these tools would be adjusted to the EVD crisis, for example by incorporating EVD caseload data and minimizing the risk of disease transmission through use of health protocols and avoiding large gatherings. Beneficiary information would be housed in the SPRINT's online database and linked to the attendance verification and e-payments modules in the broader MIS.

This component would finance: (i) operational costs of conducting the community-based targeting and registration processes in each targeted community; (ii) training for NaCSA Regional and District staff on the use of the SPRINT and the MIS; (iii) training for COCs on their roles and responsibilities; and (iv) meetings of the National Social Protection Steering Committee to validate the geographical targeting and any revisions to the tools and systems. It would also finance the costs of the anti-corruption measures and

independent monitoring implemented by the Anti-Corruption Commission (ACC) and the costs of the expansion of the e-payment system.

Component 3: Project Management (US$0.35million):

The objective of this component would be to support efficient project implementation. Specifically, the component would finance routine project management for the design and implementation of public works sub-projects, delivery of cash transfers to public works beneficiaries, and staff and operational costs related to supervision of the public works sub-projects, including the following activities: (i) information, education, and communication (IEC); (ii) M&E activities; (iii) recurrent operational costs, including regional- and district-level supervision and implementation support; and (iv) fiduciary aspects. These costs would be similar to those financed under YESP, which exhausted funding for LIPW in February 2015.

4.0 DESCRIPTION OF THE BIOPHYSICAL AND HUMAN ENVIRONMENT

Sierra Leone is a country on the West Coast of Africa and lies between latitude 6^0.00'and 10^0 0'N and longitude 10^0 16' W and 13^0 18 W. It has a north-south distance of 331 Km and an east-west distance of 326 Km. It is bounded on the West by the Atlantic Ocean, by Guinea – Conakry on the North and Northeast and by Liberia on the South –East (Fig 1). The country is divided into four administrative regions: Northern, Southern, Eastern and the Western Area on which the capital Freetown is situated. Sierra Leone a very high population density compared to any other country in West Africa. Certain regions in the country carry the bulk of the population, including the Freetown peninsula, the Kono, Kenema and Bo districts. The northern part of the country is sparsely populated.

Figure 1: *Location map of Sierra Leone*

4.1 Geography

Sierra Leone has a land area of approximately 72, 000 km^2 and is located within the Upper Guinean

Rainforest, Eco-region, a region recognized as one of the hotspots for biodiversity conservation. The country is divided into four main relief regions; coastline, interior lowland plains, interior plateau and mountains, each of which can be subdivided into a number of ecosystems. The coastline or coastal plains is relatively gentle and comprised of estuarine swamps, terraces, alluvial plains and beach ridges. The interior lowland plains extend from the coastal terraces in the west to the east of Sierra Leone, occupying approximately 43% of the land area. At the edge of the lowland plains are the interior plateau, made up of granite that runs from the northeast of the country to the southeast. In the north and east of the country are found two of the highest mountains, with the Loma Mountains being the highest in West Africa, west of Mount Cameroon. The highest peak on the Loma Mountains is Bintumani, which rises to 1945m, while Sankan Biriwa on the Tingi Hills, rises to 1805m. All the ecosystems of the Plateau and Interior Plains account for 84% of the total land area of Sierra Leone, and have a flat to gently rolling topography. West of these two mountains, is the Freetown Peninsula, which is also made up of dissected peaks, with the two highest peaks being Sugar Loaf and Picket Hill. The hills on the Freetown peninsula are unique to this region, and found nowhere else in the sub-region.

4.2 Climate

Sierra Leone has a tropical humid climate with two distinct seasons, namely the wet season starting from May to October and the dry season from November to April, each lasting for about six months. Diurnal temperatures vary from 25 degree to 34 degree Celsius although they could be as low as 16 degree Celsius at night during the Harmattan. The average monthly temperatures are around 26 degree Celsius.

Rainfall varies both in space and time. The mean annual variability is about 20%. The average annual rainfall varies from about 2500mm in the drier areas of the north- west and north-east of the country to about 3000mm in the southeast and about 5000mm in the Freetown Peninsula. The rainfall pattern is unmodal with most of the rainfall occurs from late April to early November. The wettest months in most parts of the country are July and August. The heavy rains in the wet season usually result to high discharges and runoff which ranges from 20% to 40 % of the total annual rainfall. Rivers overflow their banks during this period, though greatly reduced in the dry season from November to March. The heavy rains and maritime influence leads to high humidity. Relative humidity is usually about 90 % in the wet season but drops to about 20 % inland in the Harmattan during dry season. Pan evaporation is generally less than 2.0mm day due to high diurnal humidity. Normal wind speed averages 8 knots throughout the year. There is plentiful of sunshine which varies substantially with the amount of cloudiness averaging 6-8 hours per day during the dry season and 2-4 hours per day during the wet season.

4.3 Current Economic Trends

Sierra Leone is a post-conflict country that has experienced strong growth over the last decade, yet nearly half of the population remains poor. Since emerging from a decade-long civil war in 2002, the economy has been on a recovery path, averaging 5.8 percent annual per capita growth between 2003 and 2011. Despite this growth, in 2011 more than half (53 percent) of the country's six million inhabitants remained below the poverty line and nearly one million (14 percent) were extremely poor.[5] Although

[5] 2011 Sierra Leone Integrated Household Survey.

poverty reduction over this period was higher outside of the capital, Freetown, poverty in Sierra Leone remains disproportionately rural, with 78 percent of the poor living in rural areas. Further, there is regional variation in poverty rates, with poverty highest in the Northeast and lowest in the West.

The economy is largely dependent on the extraction of minerals (such as diamonds, rutile, bauxite and gold) and subsistence agricultural practices. Nearly 80% of the labour force is engaged in agriculture, with rice cultivation making up the bulk of the subsistence activity. Industrial development is still in the formative period and large sections of the population, including youth, are working in low productivity jobs. Sierra Leone is consistently ranked at the bottom of the UNDP Human Development Index – in 2012 it ranked 177 out of 186 countries. Life expectancy is 42 years, or just over half of the life expectancy in the top 20 ranked countries. About 37 percent of the population is literate, with the level at just 25 percent for women. Only half of Sierra Leone's primary schools are functioning, many of them in inadequate conditions, and about 26 percent of children ages 6-17 do not attend primary or secondary school.

With Sierra Leone currently experiencing political stability and peace now firmly established in the country after 10 years of civil conflict, enormous challenges lie ahead, in particular: rehabilitation, reconstruction and development of a vibrant economy based on the exploitation of available natural resources that provide Sierra Leoneans with livelihood and economic prosperity require a healthy environment. Natural resources in Sierra Leone are necessary to promote sustainable economic development but require adequate investment in the development of capacity including investment in human capital that will ensure the proper utilization and management of natural resource.

Table 1.1. Summary of the geography of Sierra Leone

Geographic coordinates: West Africa
Latitude 8 300 N Longitude 11 300W
Area: Total: 71,740 sq km Land: 71,620 sq. Km Water: 120 sq. Km
Coastline: 320 km wide (extends along the Atlantic Ocean) Flood Plain between 32 km and 64 km wide
Land Boundaries: Bordered on the north and east by Guinea for about 652 km
On the south by Liberia for about 306 km
The Peninsula: wooded mountains parallel to the sea for about 40 km height of mountains 88m at Picket Hill
The Interior Plains Region: featureless grassland savannah;
"Bolilands" savannah isolated hills more than 200 m; plateau region granite with
laterite (IRON BEARING) and mountain masses;
The LOMA Mountains: Monut Bintimani at 1948m, the Tingi Hills at 1824m

4.4. Biodiversity Management

The natural landscape of Sierra Leone is comprised of diverse ecosystems including lowland rainforest, montane forest, freshwater swamps, mangrove/coastal and marine ecosystems. Nearly 75% of the land area of Sierra Leone comprises arable lands. The most fertile of these are found in low-lying coastal plains including the mangrove swamps and riverine grasslands, as well as inland valley swamps and alluvial/flood plains of its major river systems.

The level of species richness and endemism is incomplete for all ecosystem types in the country, but available data points to the lowland rainforest ecosystem as being biologically diverse in terms of species richness and endemism than all other ecosystems. Closely associating with the various ecological zones are diverse species of plants and animals. Sierra Leone has a very rich biodiversity but over the years, overexploitation to the nation's terrestrial and marine biodiversity has intensified. There are a total of 48 forest reserves and conservation areas representing about 4% of the land area (c. 180,250 ha) in Sierra Leone. Most of them are inadequately protected and managed. The total area of government wildlife reserves is estimated at 173,000 ha. Only two of these reserves, Outamba Kilimi National Park (OKNP) and Tiwai Wildlife Sanctuary (TWS), have been elevated to the status of national park and wildlife sanctuary, under the IUCN classification system. The current area coverage of protected areas is still less than 5% with some of the major ones including Gola forests, Western Area Forest Reserve, Outamba-Kilimi National Park, Loma Mountains, Tingi Hills, Tiwai Island Wildlife Sanctuary and Kangari Hills.

The major threats to biodiversity include the indiscriminate farming practices, wanton exploitation of forest resources, over-fishing, energy production, mining and logging. There are over 2000 species of plants including 74 endemic species identified in SL. Fifteen species of primate, 18 species of antelopes and duikers, 9 bat species and over 500 bird species have been recorded in SL. Of the bird species, 6 are threatened with extinction. The 15 primates are all either endangered or vulnerable. Of the 18 antelopes, 2 are extinct and 16 are threatened.

As a result of the high dependence on Agriculture (31 % of GDP, 60% of the population), the utilization of biodiversity has important implications for both food security and poverty reduction in Sierra Leone. Loss of Biodiversity is one of the major problems facing the country.

In 2003 the Government of Sierra Leone produced and adopted the National Biodiversity Strategy and Action Plan (NBSAP), a report that highlighted the status of the nation's various ecosystems and biological resources, outlined the threats to the existence and performance of these systems, and provided actions (including the means) for addressing these looming dangers. These actions are short-, medium-, and long-term in nature and are poised to help save the biodiversity (as well as other environmental and ecological goods and services) of Sierra Leone from total collapse, and to maintain the integrity of critical ecological systems in perpetuity.

Aside the thematic strategies that have been outlined by the NBSAP, it also identifies cross- sectoral strategic issues covering policy planning and legislation, capacity building, public participation, participatory monitoring and evaluation, incentive measures, research and training, public education and awareness, access to technology and information, benefit sharing, indigenous knowledge, financial resources, etc. The NBSAP proposes the adoption of participatory approaches to natural resource management, while at the same time seeking to impress on all stakeholders the need for conservation, sustainable use and equitable sharing of "accruing" benefits of biodiversity. Noting the high illiteracy rate, mass poverty and overly dependence of a large section of the population on biodiversity resources, the report stresses on public education and awareness raising at community level. It also recognizes the need to finance biodiversity conservation activities on a more sustainable and long-term basis and

therefore recommends the establishment of a predictable long-term funding mechanism for the sustainable management of protected areas by setting up a trust fund. Unfortunately the Plan never really reached implementation stage due to lack of resources.

The NBSAP further identified eight (8) priority ecological sites of important biodiversity and suggested that urgent actions were needed to restore the integrity and ecological functionality of these systems. These ecological sites are spread over four major types of ecosystems comprising the Arid and Semi-arid; Coastal, Marine and Freshwater; Forest; and Mountain zones.

The present state of peace in Sierra Leone together with the increased political commitment and will towards tackling environmental issues in the country provide an enabling environment within which the objectives of this planned project can be achieved; that is, to save Sierra Leone's biodiversity by improving management effectiveness of representative ecosystems described in the NBSAP.

4.5 Natural Resources Management

Sierra Leone is well endowed with substantial natural resources of croplands, forests, rangelands, freshwater, wetlands (swamps), biodiversity, wildlife, extensive fisheries and mineral resources-diamonds, gold, rutile, bauxite, iron ore, chrome ore etc. These resources have continued to determine the path and pattern of economic growth in the country, depending mainly on how they are being valued, used and managed which in turn depends on the economic policies and institutions in place. It is a truism that the exploitation of these resources during the colonial period and twenty years after Independence from 1961 to 1980 resulted in steady economic development in the country. However, starting from the early 1980s to recent years the exploitation of these resources has not been effectively managed to the benefit of the country and has contributed very little to reducing poverty and the development of the country. Therefore, the irrational use of the environment and natural resources over the years resulted in environmental degradation and the deterioration in the quality of the urban environment**.**

4.6 Land resources

Sierra Leone has a land area of approximately 7.2 million hectares (72,000km2). About 5.4 million hectares of this total are cultivable of which about 4.3 million hectares are low fertile arable upland and 1.1 million hectares of more fertile arable swamps (Lands and Water Division, 1999). The agricultural sector which provides employment and exporting earnings in the country relies on land as basic input for crop cultivation, which in turn is affected by how well farmers maintain the soil, water and living resources. The combined effects of poor farming practices such as shifting cultivation, recurrent bushfires and overgrazing, increasing population and ensuing shorting of fallow periods of land have been recorded as contributing factors to soil erosion resulting to land degradation, which is perceived as widespread in Sierra Leone.

Table 2: Direct Cause of Land Degradation in Sierra Leone

CAUSE	Low (a)	Medium(b)	High(C)	Critical(d)	Total	Total (C&d)	Ranking
Logging	24	25	125	25	199	199	1st
Mining	20	47	87	19	173	173	3rd
Wild bush fire	40	35	34	3	112	112	9th
Expansion of Settlements	19	39	65	23	146	146	6th
Shifting cultivation	13	59	60	4	136	136	7th
Refugee Camp Activity	25	38	57	2	122	122	8th
Firewood Collection	8	45	101	28	182	182	2nd
Infrastructure	41	50	18	0	109	109	10th
Charcoal Production	20	43	95	14	172	172	4th
Pollution (Waste disposal)	21	42	42	3	108	108	11th
Tobacco Growing	14	7	5	1	27	27	13th
Tree Crop Plantation	55	40	47	5	147	147	5th
Animal Grazing	37	25	14	0	76	76	12th
Others	0	0	0	0	0	0	14th
TOTAL	**337**	**495**	**750**	**127**	**1709**		
% Ranking	**19.7**	**29.0**	**43.9**	**7.4**			

Table 3: Indirect Causes of Land Degradation in Sierra Leone

Indirect cause	Low (a)	Medium(b)	High(C)	Critical(d)	Total	Total (C&d)	Ranking
Weak institutions	40	58	56	14	168	70	6th
Misdirected Subsidies	19	67	35	21	142	56	5th
Corruption	16	14	96	21	147	117	2nd
Poor Administration	51	65	8	7	131	15	10th
Enforcement	77	30	38	16	161	54	9th
Undervaluation of resources	10	74	30	34	148	64	7th
Low Public Awareness	32	35	88	24	179	112	3rd
Extreme Poverty	6	41	86	38	171	124	1st
Inadequate and un-enforced labor rights	44	36	49	12	141	61	8th
Total	337	462	570	203	1572		
% Ranking	21.4	29.4	36.3	12.9			

4.7 Mineral Resources

Diamond, gold, Rutile, bauxite and iron ore have been mined on the commercial level for more than 40 years in at least 7 of the 12 districts in the country. Mining activities undertaken by large mining companies to exploit the country's minerals are a major cause of deforestation and land degradation through loss of forest cover of large areas, soil erosion, siltation and contamination of river systems and tidal creeks and displacements of villages. Heavy siltation of river beds and tidal creeks reduce coastal coral and fish populations that feed and breed in it. Small scale or artisanal mining of diamonds and gold in the east and northern parts of the county is also a major cause of loss of forest cover of large

areas and land degradation. In both large and small scale mining the top soil is generally lost. The extent to which the land and forest cover has been damage and what is required to rehabilitate and restore mined out areas to support agriculture or forest cover is still unknown. Therefore, there is urgent need to undertake an assessment for the development of a comprehensive rehabilitation programme for the small scale mining areas.

4.8 Forests resources

Information available has shown that Sierra Leone is climatically a forested country and over sixty percent of its land was originally covered by closed high forest of most evergreen and semi – decisions types. Today the country has lost nearly 70% of its forest cover, with less than five percent of the original forest remaining in isolated forest reserves on tops of mountain and hillsides, particularly at Gola (77,044 hectares), Kambui (21, 213 hectares) , Dodo Hills (21,185 hectares), Nimini (15,557 hectares), Freetown Peninsula (14,089 hectare),

Tama (17,094 hectares) Tonkoli (47,656 hectares), Kasewe (2,333 hectares), Loma (33,200 hectares), Sanka Biriwa (11,885 hectares), Kuru Hills (7,001 hectares and Kangari Hills (8,573 hectares). At present, the forest resources are confronted with increasing deforestation due to the rapidly growing population and consequent demand for more agricultural land and urban requirement for timber and fuelwood, mining for mineral and recurrent bush fires, with past legislation favouring such anthropogenic activities at the expense of forest conservation. With population pressure and commercialization today, the rate of exploitation has far out stripped the rate of regeneration by natural means. The result is deforestation, threat to biodiversity and depletion of fish stock.

Bio-Energy - Firewood Collection and Deforestation

Like most countries in the African region, no less than 80% of households in Sierra Leone depend on firewood as their main energy source. Of course there are urban-rural disparities. In rural areas the percentage approaches 100%. It hovers around 70% in the municipality of Freetown where alternative energy sources including solar energy, electricity, natural/cooking gas, kerosene and charcoal are available. The demand for biomass energy from fuel wood is increasing with the rapid growth of the population. It is estimated that between 349,000 and 560,000m^3 of fuel wood is used per year and this demand is expected to increase at a rate of about 2% per annum. Current practices of the production, transformation and end use of the biomass are inefficient and unsustainable.

Vulnerability:

Land degradation in Sierra Leone is also aggravated by some natural disasters such as droughts, floods and tropical storms. Poor people are particularly vulnerable to both natural disasters and changes in environment conditions. This is so because they live directly on natural resources. The natural disasters most commonly experienced in Sierra Leone include:

- *Tropical Storms*: These blow off the roofs of houses, destroy farms, fell trees across roads, damage overhead telephone and electrical cables etc.
- *Erosion and Flooding*: These may cause the loss or inundation of farmlands, sweep bridges and houses away, loss of agricultural productivity, damage physical infrastructure (siltation of dams and water ways), and a deterioration of water quality, loss of aquatic ecosystems and

the subsistence of local communities.

- *Coastal Erosion*: This threatens the lives and livelihoods of coastal communities.
- *Windstorms, landslides and earthquakes* are natural phenomena: These cause major descriptions to economic life and require avoidance strategies
- *Wildfires:* Cause enormous economic losses, especially if dwelling houses or plantations are consumed
- *Drought:* Often hampers agricultural productivity, livestock management that would lead to loss of livelihood among pastoral communities and even displacement/migration.
- *Desertification:* Often triggered by drought or over-exploitation of plant cover/trees by, for example, bush burning and intensive firewood extraction. This leads to dwindling of farm yields thereby negatively affecting livestock management with the resultant loss of livelihood and subsequent migration.
- *Climate Change Impact*: This is caused by global warming, melting of ice in polar caps to sea level rise. It also causes coastal erosion, inundation of small islands, saline intrusion into coastal aquifers, and increase in the frequency of coastal storm surges and changes in ocean dynamics. This can impact on fisheries resources and undermine subsistence of local communities.
- *Storm Surges and Changes in Ocean Dynamics:* This can impact on fisheries resources and undermine subsistence of local communities

4.9 Water Resources including The Marine Environment

Surface & Groundwater resources

Sierra Leone is not a water deficient country. However, both water access and water contamination are serious issues affecting the majority of the population. In Sierra Leone, water is used mainly for domestic purposes, watering livestock, power generation, irrigation and industries. To this end, groundwater plays a major role in meeting the demand of water especially in rural areas. However, groundwater potential varies from one locality to another as does its development. There is no systematic monitoring of this resource in the whole country.

Agriculture is the largest water consumer. In some regions water is relatively scarce. Even where the supply itself is adequate in quantitative terms, the quality of the water is in serious decline. Despite the efforts to improve the situation, water shortages and quality degradation are common problems in Sierra Leone. Among the challenges currently facing Sierra Leone, perhaps none is more important than the threat to the country's supply of clean, fresh water.

Wetlands

About 4,837.8 km^2 of SL is covered by wetlands with vegetation that is typically of freshwater swamp forests, riparian and mangroves. Running from the uplands in the north to the mangrove estuarine systems along the coast are seasonal wetlands called bolilands. They are important habitats for a diversity of migratory water fowl and water dependent amphibian and mammal species, and grazing lands for buffalo and waterbuck. However, these bolilands are threatened by conversion to rice cultivation and are subject to recurrent anthropogenic bush fires in the dry season. The lake ecosystems of Lake Mape, Lake Mabesi and Lake Sonfon with excellent habitats for many water fowl and waders

as well as game species are also under threat.

Water Supply resources

Although Sierra Leone is a tropical country and has ten rivers, the majority of the population do not have access to potable water supply. Data available from the 1985 National Population Housing Census (CSO, 1993) revealed that 44% of the population obtained their drinking water supply from rivers, 37% from wells and only 16 % from pipe – borne. At present, portable water is available in Freetown, and even here only 32% of the population is connected. At present, water supply systems in several towns including the capital Freetown is of low quality while the existing provincial water supply treatment facilities are dysfunctional due to lack of spare parts, fuel, chemicals and lubricants as well as to physical damage on both provincial water supply installations and rural water supply schemes.

The use of streams and rivers as outlets for sewage and solid waste disposal and mining of minerals, the overcrowded and congested living conditions of urban areas particularly Freetown, coupled with the high reliance on pit latrines has increase the incidence of water – borne diseases.

4.10 Coastal and Marine Environment

Coastal and Marine Environment

The shoreline of Sierra Leone has a length of about 560km. It includes the estuaries of three large river networks (Scarcies, Sierra Leone and Shrebo) and four coastal islands. The continental shelf has an estimated area of 25,000 km². Sierra Leone has extensive and rich marine resources comprising the marine fisheries (pelagic and dermersal) as well as crabs, shrimps, lobsters, turtles, cuttle fish, squids etc. The coastal and marine resources form a strong and valuable base which contributes significantly to the national economy.

The coastal resources also include mangroves, sand beaches, several river estuaries and fresh water bodies, cliffs, wildlife, cultural and historical sites and landscape. Sierra Leone is endowed with some 172, 000 hectares of mangroves covering about 825 kilometers of coastline and extending 30 to 50 kilometres in the estuaries of the Scarcies Rivers (34,234 hectares), Yawri Bay (24,505 hectares) and Sherbro River (99,854 hectares), (World Bank, 7 February 1994). The mangrove ecosystem serves as a very important ecological function and provides habitat to a diversity of fauna, wood for construction, fuel wood and charcoal, and reduces coastal and river erosion. It is also an ideal breading ground and nursery area for many species of prawns and sea fish, and supports thousands of migratory and shore birds (CCSL, 1993). Mangrove root system builds up land by sequesting silt and organic matter and purifies water by filtering out heavy metals and organic waste. These mangroves along the coastal creeks have been heavily deforested due to farming, fuelwood collection for fish smoking, housing construction and urban sprawl.

Signs of environmental degradation, as well as decline in natural resources biodiversity, are becoming obvious in some parts of Sierra Leone coasts. This is attributed to the combination of poverty, rapid population growth, as well as increasing land-based activities and sources of pollution such as industrial[1] and agricultural activities. Of these problems the main ones are:

1. Declining harvests of marine and coastal living resources
2. Loss of coastal and marine biodiversity
3. Coastal pollution
4. Beach (coastal) erosion

There are currently no clear policies and programmes for coastal area management. Data on the extent of mangrove deforestation and land use patterns are scarce and hardly available. There is therefore an urgent need for the development of an integrated coastal zone management plan for the protection of coastal and marine resources.

Fisheries Sector

Fishery resources contributed 11 percent of the Gross Domestic Product (DGP) in 1987/88 and this contribution can be increased if the fishery sub- sector is properly managed. Unfortunately, much of the potential built-up capacity was destroyed during the war period. The official production figures before the war indicate a peak of catches of around 230.000 tonnes/year (in the period of 1985 to 1990), a drop of total catch during the war to about 60.000 t/year and a slight increase thereafter to a total of 82.623 tonnes in 2003. Artisanal fisheries contributes 80% of this production the remaining being from industrial fishing vessels legally operating in Sierra Leone (1.756 t/y crustaceans, 4.598 t/y cephalopods and 9.549 t/y of demersal fish). The fisheries sub-sector alone contributes 9.4 percent of GDP and is the most important economic activity along the coastline of Sierra Leone.

It can be assumed that the fish resources are in a healthier state than during much of the 1990s, but extensive illegal and uncontrolled fishing operations that continue taking place in offshore and inshore waters severely challenge the existing resources. The overall perception is that fishery in Sierra Leone, although not yet overexploited, is currently threatened to decline due to extensive fishing pressure exercised by vessels operating (mostly illegally) with no effort limitations or access restrictions to fish stocks. Industrial fishery is essentially an offshore operation at present, providing little sustainable development to the country. The Sierra Leone economy is unable to capture much of the fish value, as most of the fleet management functions, logistics and marketing are executed offshore by the foreign partners and records are not even available to the relevant authorities.

The fisheries sector is saddled with major problems of exploitation of fisheries resources and lack of data and accurate information to determine the extent of the fisheries resources. Also, the management of fisheries through monitoring, control and surveillance of the industrial and artisanal fishing activities is currently ineffective. A comprehensive assessment of the fisheries resources is therefore needed. Regular programmes for estimation and improvement in the reporting mechanisms on fish catches can reduce the current uncertainties about catch assessment and the extent of over fishing. The EC is currently implementing a TA project for institutional support to fisheries management.

5.0 THE SOCIAL ENVIRONMENT

5.1 Human Settlements

The underlying causes of environmental problems in Sierra Leone are poverty and population increase. Population pressure has a profound implication for deforestation and land degradation. In the rural areas, development of settlements in marginal areas by the farming community has led to high levels of deforestation and soil degradation. In the urban areas, increasing rural-urban migration is exacerbating the problems of overcrowding, poor living conditions and sanitation, inadequate water supply and housing. The 11-year civil conflict fought between 1991 and 2002, which affected the quality of life in both rural and urban areas, inevitably had serious repercussions on the environment. Houses and properties were destroyed and a large proportion of the population was displaced and forced to live in camps thereby worsening the complexity of environmental degradation problems.

5.2 Urban Development and Peri-urban agriculture

The cities Freetown Bo, Kenema and Makeni are undergoing rapid expansion. In Freetown, the peri-urban land that is often used for agriculture is being subdivided and sold as housing plots. State lands are sold or given on long-term leases. Tenure for peri-urban farmers is thus insecure, and housing development is not proceeding in a well-coordinated manner. It is therefore possible that landlessness for peri-urban agriculture will in future become a key issue unless measures are identified and implemented.

5.3 Human Habitat

The provision of housing in Sierra Leone is one of the most difficult problems facing the government. It is estimated that about 50% of the population of Freetown lives in sub- standard housing. As better housing leads to a healthy socio-economic and political condition, sub-standard housing can have very serious repercussions on an individual or community as a whole. The most striking features especially in the urban centres are the following:

- Construction of makeshift shelters out of cards boards of scraps of metals:
- Overcrowding which increases the risks of air borne infections
- Inadequate water and sanitation facilities and garbage collection
- High infant mortality rate
- Air pollution
- Vulnerability to flooding and mudslides
- Food contamination
- Increase in pests, and
- Uncollected waste in neighborhood.

While most people live in their own houses, the materials used for construction are locally produced and not durable. Most of them are constructed with mud walls and thatched roofs made of either grass or palm fronds. Where corrugated sheets are used they are not only expensive but they are not durable and difficult to repair. The introduction of more durable materials has however increased in the last two

years with the post-war rehabilitation and reconstruction. The current economic situation however calls for the use of cheap but very durable and locally produced materials.

In the urban areas especially Freetown, Bo, Kenema and Makeni, where the population runs into hundreds of thousands, the physical environment conditions pose a large risk to health overcrowding, noise, inadequate drainage and insufficient ventilation are common features. Contributory to this especially during and after the war is insecure tenure for many urban dwellers. Fear of eviction is today a common worry among many urban tenants and residents in illegal settlements. In the squatters and slum areas, NGOs have spent some years trying to improve the health of the poor residents through community-based programmes that address both poverty and the environment.

5.4 Solid Waste Management

Solid waste management services in urban centres in Sierra Leone have received low priority over the years. Due to the degree of mixed industrial/domestic/commercial development in the country's urban centres, solid waste streams are highly mixed causing difficult challenges for the collection and subsequent disposal thereof. Even hazardous and medical/clinical wastes find their way into the general waste streams since there are no specific services for dealing with such toxic wastes. Most of the urban centres operate open rudimentary dump sites with minimal environment protection measures without leachate control which eventually ends up in polluting the water resources. Lots of littering, burning, water pollution etc. occurs at the disposal sites which cause further environmental decline. In Freetown there is a clear need for some new sanitary landfills. The lack of skills for solid waste management within the urban centres has also stunted the service provision. All these shortcomings culminate in the marginal existence of a service rendered by the urban authorities or their representatives. The result of all these has been the flooding of roads, groundwater pollution and escalating outbreaks of cholera and other waterborne diseases. Some components of a World Bank project are being carried out for the establishment of a more permanent solution to the city's solid waste management problem.

5.5 Sewerage and Sanitation

Most urban areas in Sierra Leone do not have sewerage systems except the larger ones whose coverage is very minimal. They mainly depend on on-site sanitation. Recent survey reports estimate that only around 30% of the rural population has access to safe drinking water supply from either water points, gravity fed systems, spring boxes, or rain water harvesting, etc. Basic sanitation coverage is estimated to have been reduced from 30%, in 1990, to less than 20% as of the year 2000. It is estimated that hardly 5% are served by a central sewerage system, 11% use septic tanks and 76% use pit latrines. The sewage is discharged untreated to the ocean leading to coastal zone pollution One of the key challenges in coming years would be to expand water and sanitation services in rural and urban areas. In rural areas, communities are served primarily by unprotected shallow wells, lakes and rivers. Solid and liquid wastes, human and animal excreta, all contribute to contaminating ground water sources. Siltation in riverbeds and lakes caused by mining activities exacerbates the problem for rural communities in search of potable water.

5.6 Energy Production & Use

Energy production, supply and utilization have serious implications for Sierra Leone's economy and

environment. Bio-energy is the main source of fuel for 75% of the country's population (both rural and urban) and accounts for 80% of the energy consumption in the country. Petroleum, hydropower and coal are the major source of commercial energy in the country. The electricity sub sector contributes about 0.6 per cent of total energy consumption. Blackouts and power rationing as a result of low water levels in the hydro dams are currently common. There is currently an ongoing project on construction of a new hydropower dam at Bumbuna in order to increase the hydro potential capacity.

With the current high prices of electricity and fossil fuels (kerosene) and the underdevelopment of alternative/renewable sources of energy (solar, wind, geo-power, etc), fuel wood and charcoal will continue to provide the bulk of the country's energy needs for the foreseeable future. However, the long-term prospects for sustained supply of firewood and charcoal are threatened by the visible and worsening problems of deforestation and desertification in many parts of the country.

5.7 Air Quality

Air pollution is a major problem but no significant studies on air pollution have been carried out in other urban centres in Sierra Leone. Major sources of air pollution in Freetown city are vehicular exhaust emissions, industrial activities, sand and quarry industries, road and building industries, all which produce enormous amounts of pollutants in their vicinity.

Urban activities generate close to 80% of all carbon dioxide (CO_2) as well as a significant amount of other greenhouse gases (GHG). Direct sources of greenhouse gas emissions include energy generation, vehicles, industry and burning of fossil fuels and biomass in households. Emissions from vehicles and transport equipment not only contribute to CO_2 emissions but also to local pollution problems through the emission of carbon monoxide, lead, sulphur oxides and nitrogen oxides. In addition, the reduction of green cover in urban areas reduces a city's ability to reabsorb CO_2 and poor waste management releases CFCs and such gases like methane into the atmosphere.

Currently, a Climate Change Impact Assessment – NAP- National Adaptation Programme, is being drafted by the GOSL which seeks to further address climatic change related vulnerability of key sectors which form the basis of livelihood of rural communities and the backbone of the national economic development and prosperity.

5.8 Noise Pollution

Major sources of noise pollution include traffic noise and road construction. With increased road traffic, noise will affect all those living along the roads. Noise will also be generated during construction of roads in major urban centres like Freetown. Of late, due to power cuts in many urban centres, electric generators have now become significant sources of noise pollution. In many instances industrial generators are used in residential areas hence causing a lot of noise pollution. The other recent trend in many urban centres is the introduction mainly in residential areas of nightclubs and discotheques which play loud music since they are not designed in accordance with acoustic standards. People are undertaking these activities as income generating ventures.

5.9 Health impacts

Some common issues in urban centres which impact upon health are:

Sewage: Overflow of soak-away pits and septic tanks particularly during the rainy season in many of the urban areas impacts directly on public health. Water-borne diseases such as cholera, schistomiasis are some of those associated with untreated sewage discharges.

Solid waste: Only small percentages of the generated solid waste is collected and disposed of resulting into heaps of uncollected garbage in open spaces, streets, road side drains, etc. The result of all these is flooding of roads, pollution of groundwater and escalating outbreaks of cholera and other waterborne diseases.

Air pollution: Exposure to excessive concentrations of industrial emissions increases the frequency of human respiratory ailments such as colds and influenza and also worsens existing respiratory diseases such as asthma, tuberculosis and pneumoconiosis. In order to curb the situation, there are on-going continuing efforts and in combating diseases including provision of health education, environmental sanitation and the use of safe and clean water. In this context one of the main challenges is to expand water and sanitation services in rural and urban areas.

6.0 THE SOCIO POLITICAL ENVIRONMENT

According to demographic data, about one-third of Sierra Leone‘s population is in the 15-35 year age group, of which an estimated 40 to 50 percent are considered unemployed and underemployed. With prospects of rising national wealth from the extractives sector, youth expectations are only going to rise, with a risk of social and political alienation if such expectations are not met. However, the extractives sector is likely to employ only a few thousand people, as the iron-ore projects currently employ only about 5,000 workers. This generation suffered from the civil war and did not have education opportunities, so they may not possess the necessary skills needed for the job market. During the CAS period, the government has prepared a new Employment Policy, set up a dedicated Youth Ministry and a National Youth Commission, and taken forward targeted youth employment programs. Nonetheless, the challenge of youth unemployment remains enormous.[6]

In the second half of 2014 during the outbreak of Ebola, the Sierra Leone economy contracted at an estimated annualized rate of 2.8%. Before then, the economy had grown at an estimated annualized rate of 11.3%, and 2014 growth was projected at 4%, largely based on export earnings from iron ore.[7]

Until the outbreak of Ebola in May 2014, Sierra Leone was seeking to become a transformed nation with middle-income status through key reforms in infrastructure, energy, private sector development and job creation. But the country still carries its post-conflict attributes of high youth unemployment, corruption and weak national cohesion. Under successive past and present leaders, Sierra Leone continues to face the daunting challenge of enhancing transparency in managing the country’s vast natural resource endowments and fiscal policy. Problems of poor infrastructure, including roads and energy, and widespread rural and urban impoverishment still persist in spite of remarkable strides and reforms.

[6] World Bank: 2012, Country Assistance Strategy Progress.
[7] www.worldbank.org/en/country/sierraleone - accessed June 6 2015.

7.0 DESCRIPTION OF THE WORLD BANK ENVIRONMENTAL AND SOCIAL SAFEGUARD POLICIES

7.1 This Environmental and Social Management Framework has been designed so that all investments in the Project will comply with all the Environmental laws of Sierra Leone and the Environmental and Social Safeguard Policies of the World Bank. In this chapter the Bank's safeguard policies and their applicability are discussed and in the subsequent chapter those of the Sierra Leone are presented. The World Bank Safeguard Policies are:

1. Environmental Assessment (OP 4.01)
2. Natural Habitats (OP 4.04)
3. Forests (OP4.36)
4. Pest Management (OP 4.09)
5. Physical Cultural Resources (OP 4.11)
6. Indigenous Peoples (OP4.10)
7. Involuntary Resettlement (OP 4.12)
8. Safety of Dams (OP 4.37)
9. Projects on International Waters (OP 7.50)
10. Projects in Disputed Areas (OP 7.60)

These policies apply to all project activities funded under this project irrespective of whether or not they are funded by the World Bank or any other donor. Once an activity is funded under the Public Works to Mitigate Ebola Impacts Project, application of World Bank's safeguard policies is mandatory. In preparing the ESMF, a consideration of the type of future investments planned vis a vis the baseline data presented in Chapter 3 against the requirements of the World Bank Safeguard policies, has led to the determination that the following Bank policies are likely to apply.

OP 4.01 Environmental Assessment
OP 4.04 Natural Habitats
OP 4.12 Involuntary Resettlement

WB Safeguards Policies Applicable to the Project

7.2 ENVIRONMENTAL ASSESSMENT (OP 4.01)

The policy requires environmental assessment of projects/programs proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus improve decision making. The EA is a process whose breath, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the project/program investments under the Project. The EA process takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and cultural property) and transboundry and global environmental aspects.

The environmental and social impacts of the project will come from the sub-projects in the 4 districts. However, since the location of these sub-projects will not be identified before appraisal of the project, the EA process calls for the Government of Sierra Leone to prepare an Environmental and Social Management Framework (ESMF) which establishes a mechanism to determine and assess future potential environmental and social impacts during project implementation and to set out mitigation, monitoring and institutional measures to be taken during operations of these activities, to help eliminate adverse environmental and social impacts, off set them, or reduce them to acceptable levels.

The policy further calls for the project as a whole to be environmentally screened to determine the extent and type of the EA process. The project has been screened and assigned an EA Category B which is defined as likely to have adverse impacts on human populations or environmentally important areas, but impacts were determined to be small scale, largely reversible and easily mitigated with a set of measures in sub-project EA/EMP.

7.3 INVOLUNTARY RESETTLEMENT (OP/BP 4.12)

The implementing agencies, COCs and other operators of the project will make every possible effort to avoid negative impacts on people, their property, land, including people's access to natural and other economic resources, as far as is possible. Notwithstanding, land acquisition, compensation and resettlement of people seems inevitable for certain type of investments, such as irrigation sub-projects envisioned under this project. Therefore, a Resettlement Policy Framework (RPF) has been prepared by the Government and approved by the Bank in compliance with OP 4.12. The RPF sets the guidelines for the Resettlement Action Plans (RAPs) that would have to be prepared when any project investment triggers this policy. The RAPs would be prepared by the sub-project operators and submitted to the office of the Youth Commission at the district, regional or ward level for approval. In some cases, the World Bank reserves the right to also approve any RAP as a condition for that particular sub-project to be financed under the project.

The Policy would be triggered when an activity, for instance an irrigation sub-project, causes the involuntary taking of land and/or other assets resulting in (a) relocation or loss of shelter, (b) loss of assets or access to assets (c) loss of income sources or means of livelihood, whether or not the affected persons must move to another location.

The Safeguard Policy on Involuntary Resettlement OP 4.12, in most cases, is not triggered because people are being affected by physical displacement. It is triggered because the project under implementation causes land acquisition, whereby a physical piece of land is needed and people may be affected because they are cultivating on that land, they may have buildings on that land, they may be using the land for water and grazing of animals or they may otherwise access the land economically, spiritually or any other way which may not be possible during and after the project is implemented. Therefore, people are in most cases compensated for their loss (of land, property or access) either in kind or in cash of which the former is preferred.

The resettlement policy applies to all displaced persons regardless of the total number of affected, the severity of the impact and whether or not they have legal title to the land. Particular attention should be paid to the needs of vulnerable groups among those displaced. The policy also requires that the

implementation of the resettlement action plans are a pre- requisite for the implementation start of the construction to ensure that displacement or restriction of access does not occur before necessary measures for resettlement and compensation are in place.

For chosen sites involving land acquisition, it is required that these measures include provision of compensation and other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, the taking of land and related assets may take place only after compensation has been paid, and where applicable, resettlement sites, new homes, related infrastructure and moving allowances have been provided to displaced persons. For program activities requiring relocation or loss of shelter, the policy further requires that measures to assist the displaced persons are implemented in accordance with the project resettlement plans of action. The policy aims to have the displaced persons perceive the process to be fair and transparent. Where there is a conflict between the laws of Sierra Leone and the World Bank Policy OP 4.12, the latter must take precedence if the Bank is to fund the project. Finally, OP 4.12 also requires the RPF to be disclosed in country and at the Bank's InfoShop before project Appraisal.

7.4 PHYSICAL CULTURAL RESOURCES (OP 4.11)

Regardless of whether or not potential impacts on physical cultural resources (PCR) have been identified, all subprojects must be monitored for unexpected encounters with PCR, using the Chance-Finds procedure for which guidance is provided in Annex I.

Table 4: Summary of Requirements of Bank Safeguard Policies Triggered by the activities of the Public Works to Mitigate Ebola Impacts Project

Bank Safeguard Policy Triggered	Action Required by Policy	By Whom	Dates Action Required
OP 4.01 Environmental Assessment	(1) Preparation of an ESMF (this report) (2) Preparation of sub-project EAs/EMPs	(1) ESMF to be prepared by Government; (2) sub-project screening forms and EAs/EMPs by NaCSA.	(1) ESMF to be approved and disclosed before project approval; (2) Before sub-project implementation.
OP 4.12 Involuntary Resettlement	(1)Preparation of RPF. (2) Preparation of sub-project RAPs	(1) RPF by NaCSA (2) RAPs by NaCSA	(1) RPF to be disclosed before project approval; (2) Before sub-project implementation.

OP 4.04 Natural Habitats	Identify significant areas through screening Process (as per ESMF guidance)	Environmental and social screening form by NaCSA, inclusion of required mitigation measures into EA/EMPs.	Before sub-project implementation.

Policies not triggered by the Project

PEST MANAGEMENT (OP 4.09)

The World Bank uses various means to assess pest management in the country and support integrated pest management (IPM) and the safe use of agricultural pesticides: economic and sector work, sectoral or project specific environmental assessments, participatory IPM assessments, and adjustment or investment projects and components aimed specifically at supporting the adoption and use of IPM. In Bank financed agriculture operations, pest populations are normally controlled through IPM approaches, such as biological control, cultural practices, and the development and use of crop varieties that are resistant or tolerant to the pest.

An integrated pest management plan (IPMP) is a comprehensive plan, developed when there are significant pest management issues such as (a) new land use development or changed cultivation practices in an area; (b) significant expansion into new areas; (c) diversification into new crops in agriculture; (d) intensification or existing low technology systems; and (e) proposed procurement of relatively hazardous pest control products or methods; or (f) specific environmental or health concerns (e.g. proximity of protected areas or important aquatic resources, worker safety). An IPMP 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, Pest Management. The Plan is designed to minimize potential adverse impacts on human health and the environment and to advance ecologically based IPM. However, while the Project will finance agricultural sub-projects, they will be small-scale and will not use any pesticides or finance the purchase of pesticides and therefore OP 4.09 is not triggered and preparation of an IPMP is not required.

8.0 DESCRIPTION OF THE ADMINISTRATIVE, POLICY, LEGISLATIVE AND REGULATORY FRAMEWORK

8.1 Administrative Framework

Sierra Leone is administratively divided into 14 Districts which composes of chiefdoms ruled locally by chiefs representing the various tribes. The chiefdom councils are made up of Tribal Authorities which are set up to administer the chiefdoms and advise the paramount chief who in turn coordinates with the

district authorities. Villages are headed by Headmen and the Village Area Committees administer the villages.

The role of the Central Government for the youth program is to facilitate development, provide stimulus for investment initiatives, and promote effective regulation, monitoring and coordination of the program. Overall policy guidance and coordination of the project will be provided through the Inter-Agency Forum, which is the lead coordination platform for social protection. The Technical Steering Committee will coordinate the technical aspects of the Project and is composed of key ministries including education, youth, labor, agriculture, finance and economic development and social welfare. The National Commission for Social Action (NaCSA) will continue to take a lead role in the implementation of the sub-projects, in close collaboration with the Ministry of Agriculture, Sierra Leone Roads Authority, other technical ministries, local councils, communities and youth groups. The NaCSA will provide quarterly updates to the Inter-agency Forum and Technical Steering Committee. The Community Oversight Committees (COCs) will be responsible for the smooth running of works activities in targeted communities. The Anti-Corruption Commission will be responsible for conducting independent monitoring.

The communities through COCs will be involved in the implementation and monitoring of project activities. Local Councils, Youth Councils and Youth Representatives are expected to be active in the selection of cash for works projects. The Anti-Corruption Commission will be responsible for providing independent monitoring.

8.2 Policy Framework for Decentralisation by Devolution

The Government of Sierra Leone has made substantive progress in strengthening its financial management framework and systems, implementing more than 80% of the 2002 CFAA recommendations. On decentralisation, implementation of the devolution plan is ongoing and a Chiefdom Governance Act has been developed and approved by Parliament. Local Councils were elected in 2004, following the enactment of the Local Government Act of 2004.

Local Governments are managing grants, undertaking participatory planning, and have established basic budgeting, procurement and accounting procedures. Nineteen out of thirty four identified functions have been devolved to local councils, including primary and secondary health care and 14 out of 19 elected councils have met the transparency and financial management accountability requirements. Local governments have the responsibility for social development and public provision within their jurisdiction, facilitation of maintenance of law and order and issues of national importance such as education, health, water and sanitation, roads rehabilitation, environmental management and agricultural development.

8.3 The Legislative and Regulatory Framework for Decentralization

The principal legislation for decentralization and devolution are the following:

- Local Government Action of 2004;
- The Chiefdom Governance Act;
- The National Youth Commissions Act;

8.4 Environmental Policy and Legislation

The Government has formulated a range of sectoral policies, regulatory and institutional frameworks that deal with natural resource (forestry, wildlife, minerals, fisheries, etc) management, protected area system management and biodiversity conservation. Two key pieces of instruments, namely the National Environment Policy (NEP) and the National Environmental Protection Act (NEPA), were enacted in 1994 and 2000, respectively, to cover environmental management in the country.

8.5 The National Environmental Policy

The National Environmental Policy (NEP) was approved by cabinet since 1990 and was subsequently revised in 1994 (GOSL, 1994). The NEP aims at achieving sustainable development in Sierra Leone, through sound environmental and natural resources management. The policy objectives are to:

- *Secure for all Sierra Leoneans a quality of environment adequate for their health and well-being;*
- *Conserve and use the environment and natural resources for the benefit of present and future generation; restore, maintain and enhance the ecosystems and ecological processes essential for the functioning of the biosphere; to preserve biological diversity, and uphold the principle of optimum sustainable yield in the use of living natural resources and ecosystems;*
- *Raise public awareness and promote understanding of the essential linkages between the environment and development and to encourage individual and community participation in environmental improvement efforts*

The NEP contained among others sector policies land tenure, land use and soil conservation; forests and wildlife; biological diversity and cultural heritage; mining and mineral resources; coastal and marine resources; settlements, recreational space and greenbelts and public participation. The policy goal for the land tenure, land use and soil conservation is to "use available land in such a way that its quality is conserved so as to enhance its potential for continuous productivity and to prevent degradation". One of the major strategies which government is now pursuing to achieve the goals of the NEP is *"to make as priority Environmental Impact Assessment (EIA) of proposed activities which may significantly affect the environment and the use of a resource*.**"**- (GOSL, 1994).

The NEP also has a specific goal and policy for water resource management which ensures adequate quantity and acceptable water quality to meet domestic, industrial, transportation, agricultural and fisheries by accelerating programmes for the utilization of water for the various uses and expending water quality management, monitoring and assessment programmes. Although laws prohibiting pollution of water bodies exist they are hardly enforced. In July 2008, the EPA was established by an Act of Parliament: the Environmental Protection Agency Act (EPAA – 2008). The Minister of Lands, Housing, Country Planning and the Environment (MLHCPHE) still has the overall responsibility of the EPAA (2008) and the Department of Environment (DOE) is now changed to be the EPA.

8.6 The National Environmental Action Plan.

The then Department of the Environment (DOE) in 1995 developed with World Bank Support, the National Environmental Action Plan (NEAP). This plan is presented in two volumes. Volume 1 analyses the environmental issues in Sierra Leone and the recommended interventions. Volume 2

contains the environmental proposals. A National Environmental Policy (NEP) has been prepared in 1994. The goals, objectives and strategies of the (NEP) are outlined below:

Policy Goals

The goal of the National Environmental Policy is to achieve sustainable development in Sierra Leone through sound environmental management.

Objectives

- To secure for all Sierra Leoneans a quality of environment adequate for their health and well-being;
- To conserve and use the environmental and natural resources for the benefit of present and future generations;
- To restore, maintain and enhance the ecosystems and ecological processes essential for the functioning of the biosphere; to preserve biological diversity and the principle of optimum sustainable yield in the use of living natural resources and ecosystems; and
- To raise public awareness and promote understanding of the essential linkages between environment development and to encourage individual and community participation in environmental improvement efforts.

Strategies

The following strategies will be pursued in order to achieve the policy goals and objectives. (a) To establish and/or strengthen environmental protection standards, monitor changes in, and publish relevant data on, environmental quality and resource use; (b) To make prior environmental impact assessment (EIA) of proposed activities which may significantly affect the environment or use of a natural resource and to provide relevant information, in a timely manner, to persons likely to be significantly affected by a planned activity and to grant them equal access and due process in administrative and judicial proceedings; (c) To promote environmental management through the creation of administrative and infrastructural support with appropriate financial backing; and (d) To cooperate in good faith with other countries and agencies to achieve optimal use of transboundry natural resources and effective prevention or abatement of transboundry environmental protection. The legal basis for the implementation of the NEAP and for environmental Management and protection in Sierra Leone is the National Environmental Protection Act, 2000.

EIA Procedure and Guidelines

The DOE had issued in July 1999 EIA procedures and EIA guideline documents for Environmental Impact Assessment. These documents state the objectives, outlines the procedures for an Environmental Impact Assessment, and guidelines which proponents should follow to carry out such assessments. The EIA processes are outlined as follows:

- Integration of environmental considerations in development planning processes, in order to make use of natural resources in a responsible manner; and
- Protection and enhancement of the quality of all life forms;

The present EIA procedures and guidelines under the EPA are essentially identical to those of 1999 guidelines.

Responsibilities in Dealing with EIAs – Competent Agency

The guidelines define the competent Agency as the agency that will have to take responsibility for the EIA process, including the review of the initial proposal, of the reports and of the final decision on the acceptability of the submitted EIA. It affirmed the role of the DOE as the competent department at the National level in Sierra Leone and the role, in the long term, of regional environmental offices when they are established, in dealing with EIAs. According to the Presidential directive of 2005, NaCEF was the competent Agency but with the passing of the Environmental Protection Act in 2008 the agency responsible for environmental protection is the Environment Protection Agency.

EIA Processes and Procedures

The processes and procedures described below have been incorporated into the new EPAA (2008). The processes as described by the guideline are the following:

- Application;
- Pre-screening;
- Screening;
- Scoping;
- EIA and Environmental Impact Report; and
- Review and decision by the Competent Agency.

Pre-Screening

At Pre-Screening, NaCSA should establish contact with the EPA, establish an official contact person, and provide an initial description of the proposed activity. The competent Agency will register the application.

Screening

From screening into the further stages of the process, NaCSA is recommended to appoint an independent consultant to assist in the process. The screening phase should decide the following amongst others:

- The need for and level of assessment;
- The level of Government to be responsible;
- The acceptability of the proposed consultant; and
- The public participation process;

At this phase, NaCSA is to submit a screening report to the EPA. The EPA may require NaCSA to advertise its application.

Scoping

The scoping process is intended at ensuring that the EIA focuses on the right issues. It will be sanctioned by a scoping report, which is basically meant to be the Terms of Reference for carrying out the EIA. Although not clearly a requirement as per the guideline, it is also recommended that public consultation be undertaken at this stage, to make sure that relevant stakeholders have a say in identifying the issues and impacts that will further be assessed during the EIA.

EIA and EIS

The guideline provides a template structure for the EIA report (or EIS Environmental Impact Statement), as follows:

- Executive Summary
- Project Description
- Description of the Environment
- Description of Project Impacts
- Description of Alternatives Considered
- Assessment of the legal implications of the impacts
- Description of Expected Benefits of the Project
- Description of Methodology
- Evaluation of Impacts
- Mitigating Measures
- Identification of Information Gaps
- Other
- List of Participants
- List of References

Categorization of Projects

The NEPA 2000 categorizes projects into three "schedules" according to their potential impacts:

- Schedule I includes "projects requiring Environmental Impact Assessment License".
- Schedule 2 outlines factors for determining whether a project requires an Environmental Impact Assessment
- Schedule 3 outlines contents of Environmental Impact Assessment (EIA)

The project categorization as given in NEPA 2000 has been retained and incorporated into the EPAA (2008). The National Environmental Protection Board (NEPB) which has been screening projects has now been replaced by the newly constituted Environment Protection Agency Board under the 2008 EPA Act. The NEPB was under-funded and understaffed and could not fully carry out the roles assigned to it under the EA. The new board may suffer similar fate unless there is increased support from GOSL and other donor agencies. This support will take the form of training technical staff and

recruiting service providers to assist in carrying out sub-project review and clearance as well as project monitoring. Under the EPAA – 2008 the EIA Processes and Procedures including Project categorization remain the same as is outlined above. Only the nomenclature has been altered.

8.7 The National Environmental Protection Act (NEPA):2000

The Environment Protection Act (EPA) of 2000, which was revised and enacted into law on the 28th August 2008 establishing the Environment Protection Agency (EPA) and authorized the Director of EPA and Minister of the Environment to administer and monitor the implementation of the Act. The Act makes provision for the development of an Environment Impact Assessment (EIA) for certain types of projects to be undertaken within Sierra Leone, which include agriculture, mining, construction, waste disposal, and exploitation of hydraulic resources. In compliance with the Environment Protection Act, the EIA document to be submitted by the Developer must clearly give information on the project of its possible impacts on the ecosystem and its locality; social, economic, and cultural effects that the project is likely to have on the people and society. Information on how the consultative process with the communities; interested parties, and Government Ministries to be carried out; actions or measures taken to avoid, prevent, change, mitigate, or remedy the likely effects on the natural resources, people and society of the project area; plans for decommissioning the project; and other information for proper review of the potential environmental impact of the project should also be provided in the EIA document.

In issuing a license for a project based on an EIA, the Minister also has the authority to establish regulations for national environmental standards pertaining to the use of natural resources, water quality, effluent limitation, air quality, wastes, atmospheric and ozone protection, noise control, pesticide residues, and odours. Internationally banned chemicals are prohibited in Sierra Leone, as well as the discharge of any hazardous substances into the air, land, and water.

In addition to the Environment Protection Act, comprehensive sectoral legislations cover Surveys and Lands, Minerals and Mining, Agriculture, Forestry, water supply etc., of which some are briefly described below:

The New National Environmental Protection Act (NEPA) of 2008 gives the new Environmental Protection Agency (EPA) similar powers as NaCEF as it also empowers the Agency to perform the following tasks among other responsibilities:

- Screen projects for Environmental Impact Assessment (EIA);
- Issue environmental Impact Assessment Licenses; and
- Promote the formulation of environmental policies, and monitor the implementation of environmental policies, programmes, projects, standards and regulations.

8.8 Institutional Framework for Environmental Management in Sierra Leone

National Environment Protection Board (NEPB)

The National Environment Protection Act of 2000 provided for the establishment of an

Environmental Protection Board with the following functions:

a. Facilitates coordination, cooperation and collaboration among government ministries, local authorities and other agencies in areas of environmental protection;
b. Review national and sectoral policies and make such recommendations it deems necessary to the Minister.
c. Review environmental impact assessments make appropriate recommendations to the Director.
d. Investigates any activity which it considers to result in harmful consequences to the environment and advise on measures necessary to prevent or minimize such impacts;
e. Advise the Minister on areas of environmental protection and control requiring special or additional measures indicating the priorities and specific goals to be achieved;
f. Undertake specific studies/research aimed at developing strategies for the protection of the environment and make appropriate recommendations to the Minister; and

The NEW Environment Protection Act of (2008) recommended that a 14 member Board be set up to replace the National Environmental Protection Board created by the Act of 2000. The statutory functions and composition of the new Board are essentially the same as those of the NEPB.
Other sector instruments for the management of the environment include:

1. The Forestry Act of JUNE (1988)
2. The Mines and Minerals Act (1994)
3. National Lands Policy and Land Commission Act of 2004
4. The Fisheries Management Act (1994)
5. The Public Health Act (1993)
6. The Wildlife Conservation Act of 1972

The following are some of the key institutions with environment-related functions:

i) Ministry of Agriculture and Food Security (MAFS)

ii) Ministry of Lands and Country Planning (MLCP)

iii) Ministry of Works and Technical Maintenance (MWTM)

iv) Ministry of Transport and Communications (MTC)

v) Ministry of Health and Sanitation (MOHS)

vi) Ministry of Social Welfare and Gender (MSW&G)

vii) Ministry of Youth and Sports (MYS)

viii) Ministry of Mineral Resources (MMR)

ix) Ministry of Information and Broadcasting (MIB)

x) Ministry of Development and Economic Planning (MODEP)

Other Partners include

- Private sector/NGOs/CBOs (see description below)
- Ministry of Works and Technical Maintenance (MTM)
- Road Transport Authority (RTA)
- Sierra Leone Roads Authority (SLRA)
- Ministry of Labour & Social Security (MLSS)
- Ministry of Energy and Power (MEP)
- National Power Authority (NPA)
- Sierra Leone Maritime Administration (SLMA)
- Ministry of Transport and Communications (MTC)
- Civil Aviation Department (Civil Aviation Authority)

These government ministries are also involved in environmental management and protection by virtue of their responsibilities. The activities of these ministries are regulated by their various acts and determined generally by their policies. The Ministry Lands, Country Planning, Forestry and the Environment is responsible for conserving and managing the country's resource base. It is also responsible for addressing land acquisition and transfer, land ownership and use; national development and planning; physical planning and management of forest resources and provides advisory services to the public on land matters.

The Forestry Act: 1988

The Act contains special protection provisions under which the Minister is empowered to declare any area to be a "protected area for purpose of conservation of soil, water, flora and fauna". The legislation stipulates that 'no person may cut, burn, uproot or destroy trees that are in protected areas or trees that have been declared as being protected.'' It also states that the Chief Conservator/Director of Forest may issue a license or concession to fell and extract a protected tree.

The Ministry of Mineral Resources is responsible for supervising mining operations in the country. It issues licenses for all mining operations, enforces laws and provisions contained in the Mining Act and its amendments. It is also responsible for enforcing provisions in the new act relating to the rehabilitation of mined out areas.

The Mines and Minerals Act: 1994

The Mines and Minerals Act of 1994, which came into operation on 4 March, 1994 addresses mining

leases and licenses requirement for open – pit and industrial mining. When a Proponent/Miner applies for a mining lease, information on the period of time for which the lease is sought; estimated mineral deposits, reserves, and mining conditions; mining treatment options and those selected for use in the mining project; specific details of the mining operation such as the schedule, nature of production, potential environmental and social impacts, forecast of capital investment, operating costs and revenues, and the anticipated source of financing, proposed mitigation programs and marketing arrangements for the sale of the mineral production should be provided and forwarded to the Director of Mines in the Ministry of Mines and Mineral Resources.

Other requirements under the Mines and Minerals Act include illegal exploitation and disposed of any radioactive mineral except under and in accordance with the terms and conditions granted by the Minister of Mineral Resources.

There are however, potential areas of conflict between the Mineral Resources Ministry's mandate and that of the Ministry of Marine resources as to which of the two institutions has jurisdiction over marine areas with respect to marine based mineral resources, offshore dredging and its impact on marine resources and the overlap of water quality monitoring with the interest of the Ministry of Marine Resources. Clear cut roles and responsibilities of the two agencies need to be urgently articulated to erase the confusion, minimize the institutional infighting and avoid the duplication of efforts and wastage of very limited resources and cost effective utilization of the very thin human resource base.

National Land Policy and Land Commission Act: 2004

Currently, a comprehensive Land Policy has been formulated and Lands Commission Act is being formulated by the Ministry of Lands, Country Planning and the Environment and approved by Cabinet. The land policy aimed at ensuring "the judicious use of the nation's land and its natural resources by all sections of the Sierra Leone Society." The policy also provides the framework to 'ensure equal opportunity of access to land and security to tenure in order to maintain a stable environment for the country's sustainable, social and economic development.'' The land policy if effectively implemented will ensure sustainable land use and enhance land capacity and conservation.

The Lands Commission Act is to establish a commission with its composition and functions and for other purposes including the management of state lands, the execution of a comprehensive programme for the registration of title to land throughout Sierra Leone.

The Wildlife Conservation Act: 1972

The Wildlife Conservation Act of 1972 was enacted to help regulate the utilization and protection of wildlife resources, but is outdated and deserves urgent review and update. Notwithstanding the level of comprehensiveness of most of these frameworks, they lack strength because they are out of tune with current best practices and approaches to resource management and conservation. Prescriptions, guidelines and management practices are flouted with impunity also because of weak governance and accountability structures that permeate particularly the state management structures.

In spite of this seemingly impressive array of environmental laws, the legislation has not fully provided a platform for sustainable use of natural resources and proper management of the environment. This

can be attributed to the following reasons:

- Lack of implementation, enforcement and compliance;
- Potential conflicts of interest within sectors by not linking environmental and natural resources management responsibility with other development interest;
- The relative absence of an autonomous Environmental Protection Agency vested with both advisory and executive authority at all levels of government to design, monitor and implement environmental policies;
- Lack of a mechanism that ensures environmental and natural resources management issues in the sectoral ministries and line agencies provide information to the main Environment Department to carry out effective monitoring of environmental policies that are to be implemented by the former.
- Enforcement has been very ineffective, due to institutional weaknesses such as understaffing, inadequate management skills and insufficient funding).

There is an urgent need to harmonize legislation and create an enabling policy framework for effective environment and natural resources management in the country. It appears that much of the current legislation is merely empowering and does not contain specific provisions and detailed criteria for the preservation and/or sustainable harvesting of particular natural resources. It is also proposed that as a matter of urgency, fresh studies be commissioned to update the existing instruments including the NEP, EA, and the NEAP[82].

It is however hoped that the new framework Environmental Protection Act (2008), which delineates roles and responsibilities of different actors involved in environmental planning and management in Sierra Leone will be the instrument. As a coordination framework, the new framework act defines mechanisms for linkages between different roles as well as legal limitation of each.

At the local level, the environmental functions are according to the new Act to be carried out by provincial officers of the DOE (formerly under NaCEF but now under the EPA) of the then MLHCPE through its Assistant Environmental officers in the Northern, Southern, Eastern Provinces and an officer for the Western Area. Once the Regional / Provincial Environment Offices are set up, their main tasks will basically include monitoring of environmental programmes and projects, evaluation of environmental degradation and completion of reports.

With the inception of the City and Town Councils in 2005, part of the Environmental Planning, Monitoring and Evaluation has been devolved to the councils. City and Town Councils are charged with the responsibility of Environmental Sanitation. Assistant Environmental Health Officers are attached to the councils to offer professional advice and training on the cleaning and physical removal of garbage and disposal by council employees. Council provides logistic support in the form of tools, protective gargets and vehicles. In Freetown, the functions have now been taken over by

[8] The last NEAP prepared for Sierra Leone dates back to 1992. Key issues in the 1992 NEAP related to strengthen environmental management capacity of different stakeholders, creating an enabling legislative and regulatory framework. Implementation of this NEAP did not realize. The main problems encountered during implementation was lack of coordination, and insufficient human and financial resources to carry out the plans

the FSWMC. At the chiefdom level, each household is encouraged to clean their environment and remove refuse to a safe site. Sanitary officers and chiefdom police are empowered to rigorously enforce chiefdom byelaws. Training for chiefdom staffs are provided by EHU and NGO's. In Freetown, Urban Water Supply is the responsibility of GVWC. GOSL through NaCSA and other NGOs (UNICEF, Action Aid etc.) provide services to communities

The involvement of civil society/private sector in environmental management. There has been substantial deterioration in the environment and resource base in Sierra Leone. Yet there is still a lack of awareness among large sections of the population on the environmental issues facing the country, the role they should play in the protection and improvement of the environment. The introduction of environmental education in the educational system in the country has also been limited. There is a strong NGO sector in Sierra Leone responsible for creating public interest in environmental issues. The most active NGOs on the ground in areas related to environmental and natural resources management are: **The Conservation Society of Sierra Leone (CSSL),** which promote the conservation and sustainable use of Sierra Leone's natural resources through research, education, advocacy and support to site management groups. CSSL also undertake campaigns for the protection of wildlife, parks and sanctuaries.

The *Environmental Foundation for Africa (EFA)* mission in Sierra Leone is to restore and protect the environment and its natural resources. It has acquired experience in terms of operation in conflict zones, humanitarian and refugee operations, post-conflict reconstruction and rehabilitation.

The *Commonwealth Human Ecology Council (CHEC-SIL)* promotes conservation of the ecology through education and disseminates environmental information through the mass media. It also supports the Government of Sierra Leone (GOSL) in promoting, through education, policy implementation and project execution.

The *Organization for Research and Extension of Intermediate Technology (OREINT)* promotes self-sustaining rural development through the promotion of agriculture and appropriate technology to enhance and improve the socio-economic status of the people in rural areas.

Green Scenery and Friends of the Earth are other local NGOs that are actively involved in tree planting and awareness raising campaigns on the protection and management of the environment and natural resources.

Generally, capacity among local NGOs may be low as compared to their international counterparts, most of which work through local organizations.

In general, the *private sector* does not have the capacities for effective management of natural resources, although some major mining companies operating in SL are gradually increasing capacity for handling environmental matters of their operations. These limitations within the private sector do not offer opportunities for either a wholesale outsourcing of management responsibilities or a public-private-partnering. Until recently no conscious efforts were made by Government to include the private sector in resource management except in licensed exploitations.

Research and academia have an acceptable level of human and technical resources to assist in developing and managing effectively and on sustainable basis the natural resources of the country. The two main universities Fourah Bay and Njala run courses in agriculture, forestry, wildlife and fisheries management and environmental studies and research into various aspects relating to natural resources management. Lack of financial resources has been the limitation in how far they can engage.

9.0 INTERNATIONAL OBLIGATIONS UNDERTAKEN BY SIERRA LEONE

Sierra Leone has also endorsed and signed several international Conventions and Protocols including:

- Convention on Biodiversity (CBD),
- United Nations Framework Convention on Climate Change (UNFCCC),
- United Nations Convention to Combat Desertification (CCD),
- Convention on International Trade in Endangered species of Wild Fauna and Flora (CITES),
- Convention on Wetlands of International Importance (Ramsar),
- Convention on Bio-safety, United Nations Convention on the Law of the Sea (UNCLOS),
- Bassel Convention, Vienna Convention, and Montreal Protocol
- Stockholm Convention on Persistent Organic Pollutants

These Conventions and Protocols are it different stages of implementation but in general implementation is slow as many have not been ratified or harmonized with the laws, policies and programmes of Sierra Leone. As a result Sierra Leone trails far behind in the implementation of the provisions of these conventions.

Table 5 - Summary international/regional treaties and their Implementation

Convention/ Treaty	**Adoption date**	**Ratification Date**	**Objectives**	**Implementation Programmes/projects**
1. Convention on Biological Diversity (CBD)	June, 1994	12th Dec., 1994	1. Promote Conservation of Biological Diversity 2. Sustainable use of its components 3. Fair and equitable sharing arising out of the utilisation of genetic resources	1. Development of National Biodiversity Strategic Action Plan (NBSAP).

2. The Cartagena Protocol on Biosafety to the Convention on Biological Diversity	Jan, 2000	2003	1. To contribute to ensuring an adequate of protection in the field of living modified Organisms resulting from modern biotechnology	1. National Biosafety Framework Project launched in 2002 2. Establishment of Biosafety Clearing house
3.United Nations Convention to Combat Desertification	June 1994	25th Sept. 1995	To combat desertification and mitigates the effect of drought in countries experiencing serious droughts and or desertification	1. Development of National Action Programme (NAP). 2. Development of Medium Size Projects (MSP) to combat land degradation
4. The United Nations Framework Convention on Climate Change	May 1992	April 1996	To achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climatic system	1. Initial Communications to Fulfil the Country's Obligations to the UNFCCC.
5. Kyoto Protocol	Dec. 1997	(Advanced stage)	To strengthen the commitment of developed country Parties with a view to reduce their overall emissions	National Capacity Self-Assessment
6. The Vienna Convention on Protection of Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer	Sep. 1987	Apr. 1993	Protect human Health and the environment against adverse effects resulting from modifications of the ozone layer form anthropogenic emissions of substances proved scientifically to have high ozone depleting potential	1. Phasing out of Ozone Depleting Substances (ODS) by 2010. 2. Capacity building of Institutions dealing with ODS
7. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	Mar.1989	Apr. 1993	1. To reduce trans- boundary movements of hazardous and other wastes to a minimum consistent to their environmentally sound management 2. To treat hazardous wastes and other wastes 3. To minimise the generation of hazardous wastes.	

8. Protocol on liability and compensation on damages resulting from trans-boundary movements of hazardous waste and their disposal	Dec 1999	Not yet	To provide for a comprehensive regime for liability and for adequate and prompt compensation for damages resulting from the trans-boundary movements of hazardous wastes and their disposal including illegal traffic of those wastes	
9. Bamako Convention on the ban of the import into Africa and the control of trans-boundary movements of hazardous wastes within Africa (Bamako convention)	Jan 1991	April. 1993	1.To protect by strict control the human health of African population against adverse effects which may result from hazardous waste by reducing their generation to a minimum wastes in Africa. in terms of quantity and or hazard potential 2. To adopt precautionary measures ensure proper disposal of hazardous waste	
11. Stockholm Convention on Persistent Organic Pollutants (POPs)		9th Sept. 2003	1. To strengthen National Capacity and to enhance knowledge and understanding amongst decision makers , managers, industry and the public at large on POPs 2. To develop a National implementation Plan (NIP) to manage the elimination of POPs.	1. Enabling activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) in Sierra Leone.
12. Abidjan Convention And Protocol on Management And Protection Of Coastal and Marine Environment In		7th June, 2005	1. For the Cooperation in the Protection and Development of the Marine and Coastal Environment of west African Region.	Guinea Large Marine Ecosystem to Combat Living and Fisheries Marine Depletion
13. Ramsar Convention On Wetlands		7th June, 2005	1. To manage wetland systems so that the human uses of these areas are undertaken In such a way as to retain their natural capital for future generation. 2. To encourage and support countries to develop and implement national policy and legislative frameworks,	

9.1 Regional Cooperation

Sierra Leone is member of the Mano River Union (with Liberia, Guinea), the Economic Community of West African States (ECOWAS) and the African Union (AU). Relations have significantly improved among the MRU states after the resignation of Charles Taylor in August 2003. ECOWAS's main objective, to establish a common market among member countries to promote free movement of people and goods, has not moved very far. With regard to the AU, Sierra Leone has not yet signed up to the Governance Peer Review within the New Economic Partnership for Africa (NEPAD). While factors destabilising the region have been reduced, there is a long way to go to achieve close cooperation between the countries concerned, this including the cooperation on transboundary environment matters.

9.2 International Conventions and Treaties

Sierra Leone is a party to many international agreements on Biodiversity, Climate Change, Desertification; Ozone Layer Protection, Endangered Species etc. and examples are**:**

- UN Framework convention on climate change (1997)
- Convention on Biological Diversity (1992)
- Convention combat of Desertification (1994)
- Montreal Protocol on substances that deplete the ozone (1989).
- Vienna convention on protection of Ozone layer (1987).
- Convention of the International Trade of Endangered species (1995).
- Stockholm convention on persistent organic pollutants (2003).

10.0 DETERMINATION OF POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

10.1 POTENTIAL ENVIRONMENTAL AND SOCIAL CONCERNS FOR THE LABOR-INTENSIVE PUBLIC WORKS TO MITIGATE EBOLA IMPACTS PROJECT

Sierra Leone's Poverty Reduction Strategy otherwise known as the Agenda for Change outlines a strategy to promote youth employment and empowerment from five programs as follows:

- Support to Youths in Agriculture;
- Support for Viable Youth Enterprise;
- Labour Intensive Public Works Schemes;
- Waste Management and Disposal project;
- Handy Corps Scheme.

10.2 POTENTIAL NEGATIVE IMPACTS

Destruction of natural habitats – cultivation of swamps may potentially lead to loss of fauna and potential land degradation. Mandatory screening by EPA is required to ensure that selected swamp is not a sensitive ecosystem, undisturbed natural habitat or protected area. Projects in critical natural habitats without specific arrangements for mitigation and/or offsetting must be avoided.

Mitigation measures:

- Avoidance of sub-projects that would have serious and permanent impacts that cannot be mitigated
- Exclude ecosystems that provided and important habitat for protected species.
- Proper selection of project sites and adherence to applicable central and local laws and regulations
- Improve technical details of swamp cultivation schemes
- Rehabilitation of degraded areas at the end of the project
- Establish buffer zones around protected areas and wetlands

For the purpose of the project, swamp cultivation involve cultivation of inland valley swamp (IVS) rice. This will be cultivation of existing swamp rice locations and it is not anticipated that there will be critical habitats destroyed as part of the project implementation.

Water pollution – small scale irrigation sub-projects may not have noticeable individual impacts, however, they may have negative cumulative environmental and social impacts, including water pollution due to increased run off, although use of pesticides is not financed under the project, fertilizer run-off can contribute to reduction of quality of water, and has negative impacts on aquatic habitats, contributing to eutrophication of the waterbodies. Water pollution affects water quality which in turn affects aquatic life (leading to fish loss), human health and loos of livelihoods for those communities who depend on these water resources.

The safeguard policies on pest Management OP 4.09 have not been triggered as there will be no use of pesticides or purchase of pesticides under the project.

Mitigation measures:

- Avoidance of sub-projects that would have serious and permanent impacts that cannot be mitigated
- Proper selection of project sites and adherence to applicable central and local laws and regulations
- Implement water quality monitoring program
- Encourage tree planting and other protection measures for riparian zones, including protection of springs and other water sources.
- Protection of borrow sites.
- Improve technical details of irrigation schemes
- Rehabilitation of degraded areas during implementation at the end of the project
- Limit scale of irrigation

Construction impacts – the project will include small scale infrastructure development, which is associated with dust, noise pollution impacts, waste generation; and social and public health impacts, including construction site and traffic safety, potential influx of migrant work force and spread of communicable diseases.

Mitigation measures:

- Proper selection of project sites and adherence to applicable central and local laws and regulations. Locate sub-projects at far/safe distances from water points and sources, and residential/populated areas.
- Dust control by water, restrict construction to certain times
- Control and daily cleaning of construction sites and provision of adequate waste disposal sites. Appropriate and suitable storage of building material on site. Safety Designs (signage).
- Proper selection of project sites and adherence to applicable central and local laws and regulations
- Improved technical design with guidance from SLRA
- Maximizing the use of local unskilled and skilled workers, where possible. The nature of the project is targeting engagement of the locally based workforce.
- Implement water and/or air quality monitoring program
- Proper disposal of chemicals and other hazardous materials.
- Adequate protection from livestock entry by fencing site perimeters.

Soil erosion and land degradation – impacts caused by small-scale agricultural production. By virtue of these activities, the project has potential to create positive as well as negative impacts on the biophysical and human environment. It is expected to create jobs as youth unemployment is identified as one of the key risks facing the country due to its potential, if not appropriately addressed, to result in social unrest and threaten the country's peace and security. By extension it is also expected to reduce poverty and increase food self-sufficiency. Land Degradation becomes an important issue as the Support for Youths in Agriculture as well as the Support for Viable Youth Enterprise demand land. Agriculture and livestock grazing are most widespread land uses in Sierra Leone and these activities are associated with serious and accelerating environmental degradation. In the absence of a reliable land tenure system and the availability of sufficient resources to invest in long term conservation methods, degradation can happen faster than expected defeating the objective of the project. Degradation in this sense means a diminution of the biological productivity expected of a given tract of land being used in a particular way. On a farm it will be reflected in lower crop yield and on a nature reserve in fewer plant and animal species.

The soil on degraded land is typically impoverished or eroded, there is less water available due to increased surface runoff or contamination, plant and animal productivity is lower and wild life less diverse. The adopted farming methods by the agricultural component of the project, location of the sub projects on erosion prone hill slopes and intensive and inappropriate farming methods will determine the likelihood for significant impacts. Soil erosion impacts include dramatic increase in the frequency and intensity of floods and droughts, habitat damage related to sedimentation impacts downstream and disruption of natural ground water recharging. There is very little data measuring the extent of degraded land in Sierra Leone both before and after the war

but the anecdotal evidence supporting accelerated deterioration in land productivity is compelling. The most causes are deforestation, inappropriate use of agricultural technologies, poor management of cultivated land, overgrazing in certain parts of the country, excessive use of agro chemicals, poor mining habits etc.

Soil erosion harms productivity by depositing silt in dams, irrigation systems and river transport channels, and by damaging fisheries resulting in increased deficits in food production, declining food security and increase in poverty.

Mitigation measures:

- Avoidance of pesticide use or purchase of pesticides
- Introduce crop rotation management
- Minimize loss of natural vegetation during land clearing for agriculture or construction.
- Training on soil conservation;
- Rehabilitate anti erosion infrastructure such as hillside terracing, soil bunds, micro dams or earth dams etc.;
- Control bush fires and burning:
- Proper selection of project sites and adherence to applicable central and local laws and regulations
- Implement water and/or air quality monitoring
- program
- Establish buffer zones around protected areas and wetlands
- Proactive technical assistance from Ministry of Agriculture

11.0 INSTITUTIONAL ASSESSMENT AND FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT

11.1 NATIONAL LEVEL

Overall policy guidance and coordination of the project will be provided through the Inter-Agency Forum, which is the lead coordination platform for social protection. The Technical Steering Committee will coordinate the technical aspects of the Project and is composed of key ministries including education, youth, labor, agriculture, finance and economic development and social welfare. The National Commission for Social Action (NaCSA) will continue to take a lead role in the implementation of the sub-projects, in close collaboration with the Ministry of Agriculture, Sierra Leone Roads Authority, other technical ministries, local councils, communities and youth groups. The NaCSA will provide quarterly updates to the Inter-agency Forum and Technical Steering Committee. The Community Oversight Committees (COCs) will be responsible for the smooth running of works activities in targeted communities. The Anti-Corruption Commission will be responsible for conducting independent monitoring. At the national level, periodic environmental and social safeguards audits will be conducted to assess safeguards performance of the sub-projects.

11.2 DISTRICT LEVEL

The National Commission for Social Action works with COCs, which submit proposals on behalf of a community to NaCSA, who approves them in coordination with the District Council. The physical Implementation of individual sub-projects would be managed by communities through Community Oversight Committees, selected by the communities themselves. COCs, composed of six members would be responsible for: (i) with support from NaCSA, facilitating the identification and enrolment of workers through standardized community-based targeting processes; (ii) maintaining daily timesheets at the sub-project sites containing the unique ID codes used to link to the e-payments and deliver to NaCSA; (iii) facilitating the purchase of the required sub-project materials and tools; (iv) with support from the NaCSA staff hiring skilled labor for sub-project related tasks that may require technical skills; (v) holding responsibility for the completion of the scope of work as stipulated in the project agreement; (vi) maintaining an administrative account and submitting financial reports on the utilization of funds provided to cover the cost of materials and other administrative costs; (v) preparing and submitting end of tranche and sub-project completion reports; and (vi) supporting NaCSA and key partners and stakeholders in monitoring the implementation of sub-project. The M&E unit of NaCSA and the SP Secretariat will conduct periodic unannounced spot checks to verify work progress and beneficiary attendance.

11.3 ENVIRONMENTAL MANAGEMENT

The National Environment Protection Agency is responsible for ensuring that all development projects in Sierra Leone comply with the relevant environmental laws of the country. The new law, The Environmental Protection Act of 2008, specially states that the Environment Protection Agency‘s role, among many others is to review and recommend for approval/clears EAs. Therefore, the overall responsibility of the EPA is to assist with the review and clearance of all EAs/EMPs of the project when called for by the NACSA.

The Environment Protection Agency’s Board facilitates coordination, cooperation and collaboration amongst government ministries, local authorities, local and international NGOs and other actors.

The EPA is meant to be decentralized and issues directives to the districts and local councils consistent with national environmental laws. With the EPA centrally located in Freetown with weak or non-existent decentralized structures and an inadequate capacity to carry out the ground monitoring of implementation of the mitigation measures and other activities of the Youth Employment Support Project, regular and intrusive monitoring would have to be carried out at the district and local level with the NACSA providing monitoring oversight. The Agency would either build its institutional and human resources capacity at the district level to enable it to fulfill its mandate at all levels or limit itself to providing periodic oversights monitoring to ensure that no adverse cumulative impacts from the activities of the project are occurring at these levels.

The NACSA will perform three critically important and significant roles as follows: (i) Review, of EAs for Category B projects. (Category A investments will not be supported by the Project). Clearance and approval will be conducted according to the national law and WB safeguards policies. (ii) Training of District Staff to carry out approval and monitoring of sub-projects at the district and community

levels.

11.4 Monitoring Oversight

NaCSA with EPA assistance should use good practice cases in the country to demonstrate to district and local councils and their project staff that there is significant value in the good environmental practices. Project staff should make concerted effort to report on the implementation of Environmental Assessments (EA) and Environmental Management Plans (EMP) and systems and should rely on the affected communities and /or third parties, such as NGOs and multi stakeholder mechanisms, regional and district environment committees to monitor the implementation of sub-project E A / EMPs. Lastly NaCSA staff should use random checks to ascertain compliance with good environmental management practice.

The Sierra Leone Road Authority and the Agricultural Services at the district and local levels should be made aware of this problem and should work hard to improve the implementation of the E A / EMPs for sub-projects. NaCSA will have staff who are trained on environmental and social issues and will therefore provide: (i) on the ground ESMF/RPF performance reviews/audits both for enforcement purposes; (ii) more importantly to reinforce the training and to keep COCs and the Regional and District Coordinators and Community-based Specialists/Facilitators cognizant of their responsibilities as outlined in ESMF/RPF; and (iii) provide periodic/oversight monitoring. The Training Program is contained in Chapter 12 of the report.

11.5 CAPACITY ASSESSMENT

As more assistance pours into Sierra Leone, the country's technical capacity for effective environmental management needs to be seriously addressed. The entire regulatory and legislative framework that manages the Environmental Sector in Sierra Leone has been strengthened by the passing of the new Environmental Protection Act (2008). Despite this effort, however, there is considerable room for improvement and greater attention to implementation and outcomes through better on the ground environmental management, more public involvement, improved human resources capacity and a higher quality of more focused EA reports are the highest priorities.

The on-going and planned Bank financed operations such as the World Bank Decentralized Service Delivery Program II and the closing Youth Employment Project (YESP) have implemented sub-project type activities at the District and community levels and has provided some form of training to District staff on environmentally similar issues. The synergies and complementarity of these efforts will be used to build capacity at these levels to be utilized by the LIPW Project and other planned projects and programs. It is however difficult to guarantee that the built capacity is retained after the completion of these projects and since there is no concrete data to show the level of retention of trained staff be it at the national or district level, it is assumed that some may have been retained.

The District Councils have District Environment Officers who are expected to have the capacity to carry out the environmental and social management requirements of the ESMF. The Districts will also be assisted by service providers where there is no in-house capacity to perform these roles. As the

earlier projects, funding will also be provided for this project to continue to build the institutional and human resources capacity at both National, District and Regional levels for environmental management.

12.0 PROPOSED TRAINING

Environmental and Social Management process

- Review of Environmental and Social Management Process;
- Review of EA Guidelines
- EA Classification of sub-projects;
- How to prepare Site Specific Environmental Impact Assessments;
- How to prepare Site Specific Environmental Management Plans;
- How to measure cumulative adverse impacts;
- How to design appropriate mitigation measures;
- How to review and clear the investment activities of the project;
- The importance of public consultation s in the EA process;
- How to monitor mitigation measures (with measurable indicators);
- How to embed the ESMF Process into civil works contracts.

Environmental and Social Policies, Procedures and Guidelines

- Review and discussion of Sierra Leone's national environmental policies, procedures, and legislation;
- Review and discussion of the Bank's safeguard policies;
- Strategies for consultation, participation and social inclusion.

Selected topics on Environmental protection

- Land Use, land degradation and soil erosion in the local community area;
- Natural Resources Management, sustainable soil conservation and prevention of deforestation;
- Pollution of water resources;
- Wetland Degradation;
- Ground Water and surface water management;
- Use of Integrated Pest Management Plans (IPMP);
- Safe Management of Pesticides;
- Environmental Protection of Water Resources;
- Disaster Preparedness for Floods and Droughts.

12.1 TRAINING COST ESTIMATES

The Training Program is to be implemented by NaCSA in close collaboration with the EPA. Although the fact that capacity building was budgeted for and implemented under the YESP,

nonetheless capacity building will be sustained at all levels under the Public Works to Mitigate Ebola Impacts Project. The proposed cost estimates are based on the assumption that the training program for the District Environment Officers, Community and Youth Groups and potential service providers will be held at the Regional or district levels.

Resource persons and these targeted stakeholders are likely to come from other parts of the country and therefore will require travel allowances and per diems. These estimates include an allowance for travel expenses. Training on these topics would be embedded within the regular training activities provided to Regional and District Coordinators, Community-based Specialists/Facilitators, and COCs prior to commencement of sub-project implementation.
It is proposed that the training program will be implemented at least once in each quarter in each participating region. The following roll-out plan is proposed:

- The NaCSA focal point on safeguards will be responsible for providing refresher training using annexes to the ESMF as a base-tool.
- The process of sub-project review and approval should incorporate environmental considerations. A section in the Project Application Form (PAF) of project packages for instance and inclusion of SLEPA in the field appraisal team and projects approval committee are key. The relevant annexes in the ESMF report will be used wholly or adapted accordingly.
- Institution of joint monitoring of sub-projects by field-staff (staff of implementing agencies, SLEPA and Local councils).
- The cost of sub-project review and approval process and the costs of the refresher training (estimated at US$ 10,000) will be borne by the implementing agency as part of their operating costs.
- Regular coordination meetings on compliance with the ESMF should be organized to ensure that project implementation is compliant with stipulated guidelines

The total training budget is estimates at approximately US$ 10,000

Table 6: COST FOR IMPLEMENTATION OF THE ESMF

Cost for Environmental and Social Management of the Public Works to Mitigate Ebola Impacts Project	**In US Dollars**
Refresher Training Regional and District Coordinators, Community-based Specialists/Facilitators	US$ 10,000
Review and Clearance of ESIA /ESMPs	To be carried out by the NACSA
Monitoring Plan	To be carried out by the NACSA

13.0 ENVIRONMENTAL AND SOCIAL PLANNING, REVIEW AND CLEARING PROCESS FOR THE PROJECT

13.1. ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCESS

At the time the Project was being prepared, the activities were not identified. Consequently, specific information on numbers of sub-projects, site location of sub projects, land requirements, youth groups, communities, geophysical land features, nature, type and use of equipment, etc. was not available. Therefore, exact details and intensity of social and environmental impacts and their effective mitigation cannot be determined during project preparation. This document referred to as the Environmental and Social Management Framework (ESMF) is thus prepared to establish the mechanism to determine and assess future potential adverse environmental and social impacts of sub-projects that are to be identified and cleared based on a participatory process described below, and then to set out mitigation, monitoring and institutional measures to be taken during implementation and operation of the sub-projects to eliminate adverse impacts, off set them, or reduce them to acceptable levels.

This section therefore, identifies and illustrates the specific steps involved in the environmental and social assessment process leading towards the clearance and approval of the Project's sub-projects from and environmental and social management standpoint. This process is embedded into the overall Project cycle, timeline, and implementation process for the entire program. The steps outlined below incorporate the requirements of both, relevant national laws and the Bank's triggered safeguard policies.

FIRST STEP IN THE PROCESS

- The First step of the environmental and social management process begins at the start of the planning cycle for the preparation of the Public Works to Mitigate Ebola Impacts Project.
- The first step is for the potential owner or the implementing agency to assign an Environmental Category for their sub-project type, using table 7 below.
- The sub-project proponent will be COC assisted by the NaCSA regional and district staff.

The guidelines in the Environmental Management and Social Framework (ESMF) are for infrastructure rehabilitation and agriculture sub-projects which are expected to be typical investments in the LIPW component of the Project. The categorization in Table 7 is based on the extent of the potential impacts and not on the generic "sub-project" type, which in turn determines the extent of the environmental assessment required for it. Depending on the nature of the sub-project, its extent, and the extent of the potential impacts, the Category, and hence the level of rigor for environmental analysis is determined. Table 7 provides a list of sub-project types that may be considered for inclusion in the Public Works to Mitigate Ebola Impacts Project.

TABLE 7: Potential SUB-PROJECT Types and Probable Category

Sub-project Type	Sub-project Environmental Category

Swamp Cultivation (based on EPA clearance on the status of the potential project site. Protected areas and critical habitats will not be considered)	B
Small scale irrigation	B
Feeder road rehabilitation	B
Small scale solid waste management, composting, and recycling	B
Small-scale agricultural production	B

- Resettlement is likely to be a factor for some of the sub-project types involving land acquisition or restriction for new irrigation sites or extension of existing sites.
- Any sub-project with resettlement will be Category B even if they are less than 50 ha irrigation or small market.
- The Public Works to Mitigate Ebola Impacts Project is a Category B and should not be confused with sub-projects.

THE SECOND STEP is to determine which of the World Bank's safeguard policies may be triggered by a sub-project and what the requirements are to comply with the triggered policy.

- This requires the sub-project operator to use the Safeguards Tables in Annex A.

- The assumption is that the Environmental Assessment OP 4.01 is already triggered and hence the need for compliance with this ESMF. Therefore compliance with this ESMF by the sub-project potential implementer is deemed to be accepted as compliance with OP 4.01.

- Annex A contains information to help the potential operators determine which of the following Bank safeguard policies may be triggered by their sub-project;
    - Environmental Assessment OP 4.01 (Always Applies)
    - Natural Habits (OP 4.04)
    - Involuntary Resettlement (OP 4.12)

If any of the Bank safeguard policies are triggered by a sub-project, the operator/implementer will modify the design and implementation phases to ensure that the sub-project satisfies the requirements of the particular policy.

THE THIRD STEP is for the implementer/operator to prepare a comprehensive sub-project Environmental and Social Impact Assessment including a project specific Environmental Management Plan (see Annex D of this report for guidelines on how to prepare an EMP). Annex B provides a list of sub-project types with their potential impacts and methods by which those impacts may be mitigated. Additionally, for situations where OP 4.12 applies, the sub-project

proponent will prepare a Resettlement Action Plan (RAP) consistent with the separately disclosed RPF. Annex C of the report contains an example of a TOR for an ESIA and Annex D contains guidelines for the preparation of an ESMP or EMP for Category A/B/C. According to Sierra Leonean law public consultation is a requirement in the preparation of an ESMP and thus Annex G has a generic guide to an acceptable public involvement process.

STEP FOUR: Following compliance with these steps, the implementer /operator submits their ESIA and ESMP to the required authority as specified.

- The ESIA for Category B sub-projects will be reviewed and cleared by the National Environment Protection Agency; Category A sub-projects will not be financed.

- The ESMP for lower Bs and Cs is reviewed and cleared by the respective Regional / District Environment Officers with the assistance of trained Service Providers;

- Annex H contains a generic Environmental and Social Appraisal Form to be used by the EPA and the Regional and District Staff, to provide guidance to their review process and to notify the NaCSA and the District Councils of their decision before final approval and funding is made.

- The first set of cleared ESIAs for any Category A or B sub-project would have to be reviewed and cleared by the Bank to ensure compliance with its safeguard policies. The World Bank reserves the right to not allow funds to be applied if a sub-project does not meet the requirements of its safeguard policies.

13.2 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLANS FOR INDIVIDUAL SUB-PROJECTS

In addition to using the screening form and checklist, the NACSA, District Environment Officers, COCs and any other operators are required by this Environmental and Social Management Framework to prepare an Environmental and Social Management Plan (ESMP) for each sub-project before it is sent to the NACSA and or the Regional and District Environment Officer for their review and clearance and the District Council or NaCSA for approval. The ESMP will consist of a set of mitigation, monitoring and institutional measures to be taken during sub-project implementation to eliminate adverse impacts, off set them or reduce them to acceptable levels. The ESMP is sub-project specific and need not be more than few pages long and will be part of the sub-project design dossier and must include the actions needed to implement these measures including the following features:

Mitigation: Based on the environmental and social impacts identified through the check list, the ESMP should describe the technical details of each mitigation measure, together with designs, equipment descriptions and operating procedures as appropriate.

Monitoring: The ESMP should include a monitoring section that will be linked to the mitigation measures. Specifically, that monitoring section should provide a clear description and technical details of the monitoring methods a list of measurable and monitorable indicators with clear

institutional arrangements, sampling locations, frequency of sampling , detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions by the proponent, e.g. the need for on-site construction supervision, or the need to test and have a water quality monitoring plan, etc.

Monitoring and reporting procedures to be put in place to ensure early detection of conditions that necessitate particular mitigation measures and to furnish information on the progress and results of mitigation. The ESMP should also provide a specific description of institutional arrangements for the sub-project (i.e. who is responsible for implementing the mitigation measures and carrying out the monitoring regime for operations, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting and staff training).

Additionally, the ESMP should include an estimate of the costs of the measures and activities recommended so that the District or the Youth Group can budget the necessary funds. Similar to the process for planning of sub-projects, the mitigation and monitoring measures recommended in the ESMP should be developed in consultation with all the affected groups to include their concerns and views in the design of the ESMP.

13.3 Costs of the Environmental and Social Management Process

The costs associated with the environmental and social management process would be made up of the cost of technical and management staff, equipment and allowances to support the efforts of the Districts, Regions, COCs, dealing with environmental and social management of the project. **These costs are already included and budgeted elsewhere in the overall Project Budget.**

14.0 MONITORING AND EVALUATION

14.1 Goals of Monitoring and Evaluation.

This monitoring and evaluation is not to be confused with the ESMP discussed in section 9.2 of this report. The ESMP is a sub-project specific and therefore site specific only.
The Monitoring plan discussed here is the Plan for the entire project at the national level. The objective for monitoring and evaluation plan is two-fold:

1) To alert program authorities (NACSA, District Councils, The EPA, District and Regional Environment Offices, Farmer Groups) and to provide timely information about the success or otherwise of the Environmental and Social Management process outlined in the ESMF in such a manner that changes can be made as required to ensure continuous improvement to the process.

2) To evaluate the performance of the ESMF by determining whether the mitigation measures designed into the sub-project activities have been successful in such a way that the pre-project environmental and social condition has been restored, improved upon, or made worse than before, and to determine what further mitigation measures may be required.

A number of indicators would be used in order to determine Project's beneficiaries and targeted youth groups in the districts, as well as their environment (land being used compared to before, level of new investments in agriculture compared to before, level of new investments in soil conservation or irrigation compared to before, how many youth employed than before and how many are out of poverty than before the project etc.) Therefore, the Project's Environmental and Social Management Framework will set three major environmental and social performance indicators by which to evaluate its success:

1) Has the pre-project environmental state of natural resources, bio-diversity and flora and fauna been maintained or improved upon, and

2) The extent to which access to agricultural extension services, environmental management services, irrigation services and water resources management services to the rural youth and vulnerable communities has been improved.

In order to assess whether the goals of these environmental and social mitigation measures are met, the sub-projects will indicate parameters to be monitored, institute monitoring milestones and provide resources necessary to carry out the monitoring activities.

14.2 Monitoring and Evaluation Indicators

The following are some important monitorable and measurable indicators to be applied, to measure the Environmental and Social Management Framework process, mitigation plans and institutional performance:

- Number of COCs, Regional and District staff trained;
- Number / percentage of sub-project proponents using the screening form and checklist;
- Number of agricultural cultivation activities;
- RAPs developed and implemented ahead of project commencement; and
- Number of Districts submitting their periodic monitoring reports.

The Environmental and Social Screening Form (ESSF) has been designed to assist in the evaluation of sub-projects that are to receive funding from the project. The form is designed to place information in the hands of reviewers so that mitigation measures, if any, can be identified and/or that requirements for further environmental analysis be determined. The ESSF contains information that will allow reviewers to determine if endangered or threatened species or their habitat, protected areas or forest are likely to be present, and if further investigation is therefore, required. The ESSF will also identify potential social or economic impacts that will require mitigation measures and /or resettlement and compensation. Other indicators can be developed based on the findings from the screening form.

14.4 Monitoring Roles and Responsibilities

The implementing agencies will monitor and evaluate the environmental and social impacts of their sub-project and the mitigation measures designed, regularly and as frequently as specified in their

cleared package and will maintain suitable records to be made available to their respective District and Regional Councils as well as the NaCSA and the EPA. The implementing agencies will monitor the impacts and mitigation measures during all phases of their sub-project execution cycle, i.e. from planning to operations and maintenance stages. The implementers will also be responsible for monitoring the environmental and social impacts and mitigation measures resulting from the suppliers and all other third parties in the course of their duties. Further, the implementers would also be responsible for monitoring the environmental and social impacts and mitigation measures of their sub-project activities at other locations beyond their sub-project sites, at end user locations like borrow pits, rights of way, swamp land, wetlands, nearby critical natural habitats, parks, etc.

Therefore whatever environmental and social impacts are or can be attributed to their sub-project activities, the appropriate mitigation will apply consistent with this Environmental and Social Management Framework (ESMF) and their ESIAs and ESMPs, and the implementers would be responsible for monitoring and evaluating the same. The implementing agencies will prepare and submit periodic monitoring reports to their respective District and Regional Councils and to NaCSA and the EPA.

14.6 The Role of the NACSA in Environment Protection

NaCSA, assisted by the Districts and Regional Environment Offices, will do on the ground ESMF performance reviews/audits both for enforcement purposes and to reinforce the training while and keep the District and Regional staff cognizant of their responsibilities. NACSA will carry out this role by reviewing in each project participating district, (i) the ESIA for Category B+ sub-projects and the ESMPs of Category B/C sub-projects submitted to their District Environment Officer; (ii) the appraisal form completed by NaCSA Regional and District staff, with support from the District Environment Officer and the clearance decision contained therein; (iii) a visit to the sub-project site during operations to ensure that activities are going on as per the ESMP and civil works contracts and after construction completion to ensure sub-project is being implemented and is operational as designed.

In addition to on the ground environmental reviews and implementing training, NaCSA will be responsible for monitoring as detailed in Section 8.0. NaCSA will perform this role by reviewing consolidated periodic reports from the Regional/District staff, preparing a national consolidated periodic monitoring report, and making spot/unannounced site inspections at the District level and at the sub-project site. NACSA will share this information with Local Government Authorities. Overall policy guidance and coordination of the project will be provided through the Inter-Agency Forum (IAF), which is the lead coordination platform for social protection. The Technical Steering Committee will coordinate the technical aspects of the Project and is composed of key ministries including education, youth, labor, agriculture, finance and economic development and social welfare.

In conclusion therefore, the monitoring responsibilities is placed on NaCSA and local communities and youth groups who are then supervised and monitored by their Districts who in turn are accountable to their Regions, the Technical Steering Committee and IAF and where necessary the EPA. The system is made functional by the transfer of appropriate technology, capacity building through training (mostly through learning by doing), training workshops and technical

assistance. The system for monitoring is thus strengthened and sustainable and should yield successful results overall.

14.6 Stakeholder Consultations

Stakeholder consultations were undertaken as part of the process of developing the original Safeguards Instruments (ESMF and RPF) with key institutional and community groups at the National, Regional, District and community level. In addition, consultations were held with NaCSA central, regional, and district staff about its experiences in implementing the YESP during preparation of this project between April and June 2015. The consultations with all the stakeholders aimed at exploring and soliciting feedback from stakeholders on key elements of the Safeguards Instruments (ESMF and RPF), particularly the procedures and implementation arrangement, land acquisition and compensation, grievance redress, and community participation.

During preparation of project specific EIAs and RAPs, public consultations will continue to be an integral part of assessments and will be conducted prior to EIAs and RAPs are finalized and publicly disclosed.

ANNEX A: Verification of Safeguard Policies triggered by the Project

Safeguard Policy	Summary	Objective	Actions
Environmental Assessment (OP 4.01)	The Bank requires environmental and social impact assessment (ESIA) of sub-projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable. The environmental assessment is a process that is conducted to identify the negative impacts that a project may have on aspects of the biophysical and social environment. It analyses the impacts of project alternatives, provide mitigation measures to be undertaken to eliminate or minimize the impacts identified. A more comprehensive description is provided in elsewhere in this ESMF and on the Banks web site www.worldbank.org.	To identify potential impacts that a project may have on the bio-physical and human environment and to provide mitigative measures to eliminate or minimize these impacts.	The sub-project implementer automatically complies with this policy by complying with the measure described in this ESMF. Preparation of ESIAs/ESMPs are required for Category A and B sub-projects, and only an ESMP for category sub-projects.
Natural Habitat (OP4.04)*	The conservation of natural habitats is essential for long term sustainable development. The Bank supports and expects sub-projects operators to apply a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development. The Bank will not support sub-projects that, in its opinion, involve the significant conversion or degradation of critical natural habitats.	To identify and mitigate impacts on natural habitats. (i) Will it be sited on lands that were converted from natural habitat in anticipation of the sub-project?	If "yes", and in the Bank's opinion the natural habitat is not significant, proceed with the sub-project.
		(ii) Will it be sited on lands that require conversion of natural habitat?	If "yes", and the natural habitat is significant, proceed to question (iii). If "No", proceed with the sub-project.
		(iii) Will it be on a site with significant natural habitat and are there feasible alternatives for the sub-project?	If "yes", go to the feasible alternative. If "no", go to question (iv).
		(iv) Do the overall benefits of the sub-project substantially outweigh the environmental costs?	If "yes", proceed. If the ESIA indicates it would significantly convert or degrade natural habitats, the sub-project will include mitigation measures acceptable to the Bank (these could include minimizing habitat loss, and/or establishing and maintaining an ecologically similar protected area). Other forms of mitigation will be approved if technically feasible. If "no", the Bank will not support it.

Safeguard Policy	Summary	Objective	Actions
Involuntary Resettlement** (OP 4.12)	World Bank experience indicates that involuntary resettlement under development project , if left unmitigated , often gives rise to severe economic, social and environmental risks: impoverishment due to loss of production assets or income sources; relocation to environments where productive skills are applicable and competition for resources greater; weakened community institutions and social networks; dispersion of kin groups; loss of cultural identity, traditional authority, and potential for mutual help. Where people are forced into resettling as a result of a World Bank project, the Bank requires that those who are affected are treated in such a way so as to minimize their disruption and to compensate for their losses. The Government of Sierra Leone has prepared and disclosed the Resettlement Policy Framework (RPF) which the implementer will be responsible for complying with should his sub-project trigger this policy.	To identify and minimize or where feasible avoid involuntary resettlement (i) Is there any land acquisition resettling in loss of access, restriction or denial of access to that land? (ii) Will the taking of land result in relocation or loss of shelter? (iii) Will the taking of land result in a loss of assets or access to assets? (iv) Will the taking of land result in the loss of income sources or means of livelihood?	If the answer to one or more of the questions is "yes", then a resettlement action plan (RAP) consistent with the disclosed Resettlement Policy Framework (RPF) is prepared by the project operator. Depending on the significance of the impacts (e.g. minor or less than 200 resettled) an abbreviated resettlement plan would be required. The plans will ensure that: (a) they are consulted and given feasible resettlement alternatives; (b) they are provided prompt and full compensation for losses incurred. If physical relocation is required the plan will: (i) provide assistance during relocation; (ii) be provided with housing , housing sites, or agricultural sites; (iii) offered support after resettlement; (iv) provided with development assistance, monitored and granted access to grievance redress mechanisms.

* Other comments – Natural Habitats:

(1) In deciding whether to support a sub-project with potential impacts on a natural habitat, the Bank takes into account the Implementer's and the Government of Sierra Leone's ability to implement the appropriate conservation and mitigation measures. If there are potential institutional capacity problems, the sub-project and overall Project includes activities that develop the capacity of national and local institutions for effective environmental and social planning and management.

(2) The Bank expects the Implementer and the Government to take into account the views, roles and rights of interest groups including NGOs and local communities affected by the sub-projects, and that such interested parties be involved in planning, designing, implementing and evaluating such sub-projects.

**Other comments - Resettlement

(1) At the Government of Sierra Leone's request, the World Bank may provide technical, legal and financial support for resettlement planning and for institutional capacity strengthening as this relates resettlement planning and implementation.

(2) The full cost of resettlement activities to achieve the objectives of the project is included in the total cost of the sub-project to be paid for by the operator.

(3) The Borrower is responsible for adequate monitoring and evaluation of the activities set forth in the resettlement instrument (i.e. the RAP).

(4) Resettlement planning includes early screening, scoping of key issues, the choice of resettlement instrument, and the information required to prepare the resettlement component. To prepare the plan, the borrower will draw upon appropriate social, technical, and legal expertise and on relevant community based organizations and NGOs. Where resettlement is required, resettlement activities will be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them to levels prevailing prior to the beginning of project implementation.

ANNEX B: Mitigation Measures

Program activities	Potential environmental and social concerns	Mitigation Measures	Implementers	Monitoring responsibilities	Timing	Estimated costs per sub-project
Swamp cultivation	• habitat destruction • land degradation • species loss	1. Avoidance of sub-projects that would have serious and permanent impacts that cannot be mitigated 2. Exclude ecosystems that provided and important habitat for protected species. 3. Proper selection of project sites and adherence to applicable central and local laws and regulations 4. Improve technical details of swamp cultivation schemes 5. Rehabilitation of degraded areas at the end of the project 6. Establish buffer zones around protected areas and wetlands	NaCSA regional and district staff; COCs	NaCSA, with support from District Environmental Officers	At preparation of subproject ESIA/EMP	1. $0 2. $0 3. $0 4. $0 5. $100 6. TBD
Small scale irrigation	• water pollution • land degradation • water quality • land loss • species loss	1. Avoidance of sub-projects that would have serious and permanent impacts that cannot be mitigated 2. Proper selection of project sites and adherence to applicable central and local laws and regulations 3. Implement water quality monitoring program 4. Improve technical details of irrigation schemes 5. Rehabilitation of degraded areas at the end of the project 6. Limit scale of irrigation	NaCSA regional and district staff; COCs	NaCSA, with support from District Environmental Officers	At preparation of subproject ESIA/EMP	1. $0 2. $0 3. TBD 4. $0 5. $100 6. $0
Feeder road rehabilitation	• dust, noise, traffic diversions and related problems • waste management • land degradation • drainage blockage	1. Dust control by water, restrict construction to certain times 2. Control and daily cleaning of construction sites and provision of adequate waste disposal sites. Appropriate and suitable storage of building material on site. Safety Designs (signage). 3. Proper selection of project sites and adherence to applicable central and local laws and regulations 4. Improved technical design with guidance from SLRA	NaCSA regional and district staff; COCs	NaCSA, with support from District Environmental Officers	At preparation of subproject ESIA/EMP	1. $0 2. $500 3. $0 4. $100 5. $0

Program activities	Potential environmental and social concerns	Mitigation Measures	Implementers	Monitoring responsibilities	Timing	Estimated costs per sub-project
Solid waste management, composting, and recycling	• soil and ground water pollution • odor	1. Proper selection of project sites and adherence to applicable central and local laws and regulations 2. Implement water and/or air quality monitoring program 3. Locate sub-projects at far/safe distances from water points and sources, and residential/populated areas 4. Proper disposal of chemicals and other hazardous materials. 5. Adequate protection from livestock entry by fencing site perimeters.	NaCSA regional and district staff; COCs	NaCSA, with support from District Environmental Officers	At preparation of subproject ESIA/EMP	1. TBD 2. $0 3. TBD 4. $100 5. $0
Small-scale agricultural production	• pesticide use • habitat destruction • erosion • agricultural run-off • land degradation • air pollution from burning species loss • water pollution	1. Avoidance of pesticide use or purchase of pesticides 2. Introduce crop rotation management 3. Minimize loss of natural vegetation during land clearing for agriculture or construction. 4. Training on soil conservation; 5. Rehabilitate anti erosion infrastructure such as hillside terracing, soil bunds, micro dams or earth dams etc.; 6. Control bush fires and burning: 7. Proper selection of project sites and adherence to applicable central and local laws and regulations 8. Implement water and/or air quality monitoring program 9. Establish buffer zones around protected areas and wetlands 10. Technical assistance from Ministry of Agriculture	NaCSA regional and district staff; COCs	NaCSA, with support from District Environmental Officers	At preparation of subproject ESIA/EMP	1. Completed 2. $0 3. $0 4. TBD 5. TBD 6. $0 7. $0 8. TBD 9. $0

ANNEX C: Outline of an Environmental and Social Impact Assessment Report

The following is a recommended outline for an Environmental and Social Impact Assessment that is required for Category A and Category B sub-projects. The Owner /operator of the sub-project for which use of project funds is sought, will be required to submit such a report if the activity falls within one of these categories. The rigor of the environmental analysis for a Category B report will be significantly less than that required for a Category A report. In the outline accompanied by brief descriptions, the differences for addressing each of the categories are provided where appropriate and necessary for clarity.

Report Section	**Category A**	**Category B**
Executive Summary	Stand-alone document, comprehensive and summarizing all of the salient points of the ESIA; not to exceed 15 pages.	Same but may be shorter in length
Acknowledgements	Acknowledgements to all those who were instrumental in carrying out and completion of the ESIA	Same
Introduction	Explains the purpose of the ESIA, its structure and audience, describes the WB and Sierra Leone's needs for an ESIA	Same
Sub-project Description	Describes the sub-project in detail. Describes sub-project project goals, objectives, beneficiaries, outcomes, value, schedule, and implementing bodies.	Same but the more general description of
Legal Administrative Framework	Describes the main legal instrumentation for environmental control and management, particularly specific instrumentation relating to the type of sub-project (e.g. irrigation) and the general effectiveness of the legal instruments, Indicates Government bodies responsible for each of the relevant instruments. Lists relevant ratified international conventions and where appropriate and relevant, track record of ensuring that conventions are adhered to. Describes the institutional framework for the administration of the relevant environmental legislation and implementation of policy, and analyzes the capacity and effectiveness of the institutions.	Same, but the analysis may not be as rigorous as A.
Alternatives	Discusses the various sub-project alternatives that were considered and weighs the environmental merits of each. Rationalizes the selected project on various grounds including environmental.	Same
Methodology	Discusses how the assessment was conducted including: screening, scoping and bounding; the composition of the assessment team; the impact scoring system, (if utilized) employed; the public participation program (reference to Annex H); sources of data and information; field studies conducted and other major inputs to the assessment.	Same

The bio-physical and social environment	Describes both physical and social environment within the project area of influence. This will include the soils, fauna, flora, protected areas, other special areas, biodiversity, population, ethnicity, relevant cultural patterns and traits, employment, health and relationship of the people to the resources, land use, and development patterns. Selected areas of the above will involve surveys to obtain primary data.	Same but will rely mostly on secondary data
Potential Environmental and Social Impacts	Identifies the important potential impacts (Biophysical and Social), the most effective mitigation to conduct, the residual impacts to be expected, and the cumulative effect to be expected. Impacts may or may not be rated on a scale of, for instance, very significant, significant, moderately significant, less significant, or no significance at all. Description of those safeguards policies that may be affected and how these will be addressed.	Same but not as rigorous assessment
Environmental Management	A detailed description of how each of the impacts will be mitigated included cost, scheduling and the responsible institutions. Includes a monitoring procedure with schedule, cost and responsibilities, including monitoring feedback mechanism. Includes a self-assessment of institutional capacity building needs for effective environmental management with a schedule and cost of various types of capacity building.	Same
Literature Cited	A complete reference to all literature cited in the conducting of the assessment and preparation of the ESIA.	Same
Annexes	Various volumes covering separate studies (e.g. social assessment, biological studies, etc.) as well as an annex including detailed descriptions of impacts and most effective mitigation.	Same but separate studies probably not required since most of the data will be secondary.

ANNEX D: Guidelines for an Environmental and Social Management Plan (ESMP)

ESMP Contents usually are:

- **Description of adverse impacts:** The anticipated impacts are identified and summarized.

- **Description of Mitigation Measures**: Each measure is described with reference to the e4fcets it is intended to deal with. As needed, detailed plans, designs, equipment description, and operating procedures are described.

- **Description of monitoring program:** Monitoring provides information on the occurrence of impacts. It helps identify how well mitigation measures are working, and where better mitigation may be needed. The monitoring program should identify what information will be collected, how, where and how often. It should also indicate at what level of effect there will be a need for further mitigation. How environmental impacts are monitored is discussed below.

- **Responsibilities:** The people, groups, or organizations that will carry out the mitigation and monitoring activities are defined, as well as to whom they report and are responsible. There may be a need to rain people to carry out these responsibilities, and to provide them with equipment and supplies.

- **Implementation Schedule:** The timing, frequency and duration of mitigation measures and monitoring are specified in an implementation schedule, and linked to the overall sub-project schedule.

- **Cost Estimates and Source of Funds:** These are specified for the initial sub-project investment and for the mitigation and monitoring activities as a sub-project is implemented. Funds to implement the EMP will be part of the overall project budget.

Monitoring Methods:

Methods for monitoring the implementation of mitigation measures or environmental and social impacts should be as simple as possible, consistent with collecting useful information, so that the sub-project implementer can apply them. For instance, they could just be regular observations of the sub-project activities or sites during construction and then when in use. Are structures/ plants/equipment being maintained and damages repaired, does a water source look muddier/cloudier different than it should, if so, why and where is the potential source of contamination. Most observations of inappropriate behaviour or adverse impacts should lead to common sense solutions. In some case, e.g. high emission of greenhouse gases or loss/death of flora and fauna, there may be need to require investigation by a technically qualified person.

ANNEX E: Environmental and Social Screening Form and Checklist

ENVIRONMENTAL AND SOCIAL SCREENING FORM AND CHECKLIST

1. Sub-project information

Sub-project code:	
Sub-project name:	
District name:	
Region name:	

2. Information for the person responsible for filling out this form and date form was filled

Name:	
Institution/organization/agency:	
Title:	
Phone number:	
Signature:	
Date form was filled:	**Date: ___/___/_____** **DD/MM/YYYY**

3. Sub-project description

Instructions: Please provide information on type (irrigation or not) and scale of the sub-project, sub-project area, area of plants and building, amount of waste solid, liquid and air generation, location and lengths of channel networks, buried and or surface located pipes, construction work areas and access roads. Complete on a separate sheet of paper if necessary.

4. The natural environment

(a) Describe the vegetation/trees in adjacent to the sub-project area.

(b) Estimate and indicate where vegetation/ trees might need to be cleared.

(c) Are there any environmentally sensitive areas or threatened species (specify below) that could be adversely effected by the sub-project?

☐ Yes
☐ No

Natural Forests	Natural Parks	Rivers	Lakes	Wetlands (swamps, polder, seasonally inundated areas)	Habitats (endangered species*)
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Other, describe:_____ ☐ Yes ☐ No

*For which protection is required under Sierra Leone laws or international agreements.

ENVIRONMENTAL AND SOCIAL SCREENING FORM AND CHECKLIST

5. River ecology	
Is there a possibility that, due to installation of structures, such as weirs and other irrigation structures, the river ecology will be adversely affected? Attention should be paid to water quality and quantity, the nature, productivity and use of aquatic habitats and variations of these over time.	☐ Yes ☐ No
6. Protected areas	
(a) Does the sub-project area (or components of the sub-project) occur within or adjacent to any protected areas designated by government (national park, nature reserve, world heritage site etc.)?	☐ Yes ☐ No
(b) If the sub-project is outside of, but close to, any protected area, is it likely to adversely affect the ecology within the protected area areas (e.g. interference with the mitigation routes if mammals or birds)?	☐ Yes ☐ No
7. Geology and soils	
(a) Based upon visual inspection or available literature, are there areas of possible geologic or soil instability (erosion prone, landslide prone, subsidence prone)?	☐ Yes ☐ No
(b) Based upon visual inspection or available literature, are there areas that have risks of large scale increase in soil leaching and/or erosion?	☐ Yes ☐ No
8. Landscape/aesthetics	
Is there a possibility that the sub-project will adversely affect the aesthetic attractiveness of the local landscape?	☐ Yes ☐ No
9. Invasive plant species along feeder road routes	
Is the sub-project likely to result in the spread of invasive plant species (along feeder roads)?	☐ Yes ☐ No
10. Historical, archaeological or cultural heritage site	
Based on available sources, consultation with local authorities, local knowledge and/or observations, could the sub-project alter any historical, archaeological or cultural heritage site (including cemeteries, memorials and graves) or require excavation near same?	☐ Yes ☐ No
11. Resettlement and/or land acquisition	
Will involuntary resettlement, land acquisition, or loss of access to land as defined by World Bank OP 4.12 be caused by sub-project implementation?	☐ Yes ☐ No
12. Loss of Crops, Fruit Trees and Household Infrastructure	
Will the sub-project result in the permanent or temporary loss of crops, fruit trees and household infrastructure (such as granaries, outside toilets and kitchens, etc.)?	☐ Yes ☐ No

ENVIRONMENTAL AND SOCIAL SCREENING FORM AND CHECKLIST

13. Noise pollution during construction and operations		
Will the operating noise level exceed the allowable decibel level for the Region?	☐ Yes	☐ No
14. Solid and liquid waste		
(a) Will the sub-project generate solid or liquid waste?	☐ Yes	☐ No
(b) If (a) is "yes", does the sub-project include a plan for their adequate collection and disposal?	☐ Yes	☐ No

15. Public consultation process

Briefly describe the sub-project consultation process in terms of when consultations took place, where they took place, who participated and how the criteria used to select participants in this process, what were the contributions from the participants, was it recorded and were contributions from participants included in decision making. Use separate sheet if necessary and attached a consultation report.

16. Vulnerable groups

(a) Were members of associations from the following vulnerable groups consulted?			If yes, provide the names of groups consulted.
Women	☐ Yes	☐ No	
Youth groups	☐ Yes	☐ No	
Other groups (e.g. orphans, ex-combatants, widows, widowers, elderly)	☐ Yes	☐ No	

(b) If (a) is "yes", specify which groups and describe how they benefit.

Sub-project <u>negative</u> list – will the sub-project do any of the following?		
(a) Convert natural habitats to agricultural lands?	☐ Yes	☐ No
(b) Purchase any pesticides?	☐ Yes	☐ No
(c) Introduce species dependent on high pesticide or fertilizer use?	☐ Yes	☐ No
(d) Use large-scale or diesel pump for irrigation?	☐ Yes	☐ No
(e) Introduction of any species known or suspected of being detrimental to local biodiversity or hydrological balance?	☐ Yes	☐ No

If the answer to any of these questions is "yes", discontinue process.

ENVIRONMENTAL AND SOCIAL SCREENING FORM AND CHECKLIST

Sub-project <u>positive</u> list – will the sub-project do any of the following?		
(a) Improve natural habitat management?	☐ Yes	☐ No
(b) Reclaim or rehabilitate any degraded natural habitats to restore it to acceptable state?	☐ Yes	☐ No
(c) Improve fire management through controlled early burning, rather than outright fire suppression?	☐ Yes	☐ No
(d) Train and equip the community fire volunteers to receive, but will not be encouraged to directly tackle large and dangerous fires?	☐ Yes	☐ No
(e) Integrate pest and nutrient management approaches?	☐ Yes	☐ No
(f) Aim at positive and sustainable environmental and social outcomes?	☐ Yes	☐ No
If the answer to any of these questions is "yes", progress to the next stage.		
Land acquisition and access to resources – will the sub-project do any of the following?		
(a) Require that land (public or private) be acquired (temporarily or permanently) for its development?	☐ Yes	☐ No
(b) Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing, forests)?	☐ Yes	☐ No
(c) Displace individuals, families, farms?	☐ Yes	☐ No
(d) Require the change of land use from private to community use?	☐ Yes	☐ No
(e) Require the change of land use from private to environmental use?	☐ Yes	☐ No
If the answer to any of these questions is "yes", please engage stakeholders to complete and sign a Memorandum of Agreement (MOA) and Memorandum of Understanding (MOU).		
Local and community people – are there any of the following?		
(a) Local or community groups living within the boundaries of sub-project?	☐ Yes	☐ No
(b) Resources (land, water, etc.) to be used for the sub-project, over which the community people have prior claim?	☐ Yes	☐ No
(c) Displaced individuals, families, farms?	☐ Yes	☐ No
(d) Members of these community groups who would be affected (i.e., benefit from, or be adversely affected) by the subproject?	☐ Yes	☐ No
If the answer to any of these questions is "yes", please inform NaCSA HQ and if needed prepare Resettlement Action Plan (RAP) or Abbreviated Resettlement Action Plan (ARAP).		

ANNEX F: Environmental and Social Safeguards Screening Checklist

Introduction

The following Safeguard Guidelines indicate how implementers and beneficiaries of sub-projects should carry out their activities in a manner that will not work against the improvement of the environment and their immediate benefactors. They are also to be used as sources of action to be taken in particular circumstances in solving problems that are environmentally oriented from projects. They are as follows:

a) All sub-projects would be aimed at positive and sustainable environmental and social outcomes to minimize or as much as possible completely avoid negative environmental impacts and their social, environmental and communal consequences;

b) There is the need for the provision of buffers such as vegetative-belts against adverse human induced and natural disasters (bush fires, excessive droughts, floods, etc.). This is to secure the project from coming to a halt or standstill when such disasters happen. In fire prone areas, fire belts should be created to control rampaging fires;

c) The sub-projects in agricultural landscapes will aim to apply conservation and sustainability techniques, and to improve on the management of natural habitats and natural resources.

d) There will be the adaptation of land use systems that through appropriate management practices enables land users to maximize the economic and social benefits from the land while maintaining or enhancing the ecological support functions of the environment. This is to enable the sustainable growth of the environment and its resources;

e) Tree species to be introduced should have both environmental and economic value that would provide direct benefits to the environment and economic benefits to the communities instead of growing tree species that would otherwise force farmers into forfeiting their farm lands for the implementation of Subprojects.

f) Members of the community should be educated on added advantages of trees and other relevant resources sited by or within their objects of worship including sacred grooves. This may go a long way to motivate them to protect these areas even more; and

Mixed farming systems will be encouraged, as opposed to extensive mono-cropping to reduce pest and market vulnerability.

Sub-project Site Selection:

The sensitivity of the sub-project site location should be considered to gauge the suitability of a site and what level of environmental and/or social planning that may be required to adequately avoid, mitigate or manage the potential effects.

Issues	**Site Sensitivity**		
	Low	**Medium**	**High**
Natural Habitats	No natural habitats present of any kind.	No critical natural habitats; other natural habitats occur.	Critical natural habitats present. Within declared protected areas.
Water quality and water resource availability and use	Water flow exceed any existing demand; low intensity of water use; potential water use conflicts expected to be low; no potential water quality issues.	Medium intensity of water use; multiple water users; water quality issues are important.	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important.
Natural hazards vulnerability, floods, soil stability/erosion	Flat terrain; no potential stability/erosion problems; no known volcanic/seismic/ flood risks.	Medium slopes; some erosion potential; medium risks from volcanic/seismic flood/typhoons.	Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic seismic or flood risks.
Physical Cultural Property (Shrine, etc.)	No known or suspected physical cultural heritage sites.	Suspected cultural heritage sites; known heritage sites in broader area of influence.	Known heritage sites in subproject area.
Involuntary Resettlement	Low population density; dispersed population; land tenure is well defined.	Medium population density; mixed ownership and land tenure.	High population density; major towns and villages; low income families and/or illegal ownership of land; communal properties.
Indigenous Peoples	No indigenous population.	Dispersed and mixed indigenous populations; highly acculturated indigenous populations.	Indigenous territories, reserves and /or lands; vulnerable indigenous populations.

ANNEX G: Generic Guidelines for Preparing and Implementing a Public Consultation Plan for ESIA

The purpose of community involvement is not to find the "right" answer from these groups, but to engage the community in the sub-project so that they can share ownership and to give them the opportunity to inform the design process. It will also give the youth groups and communities the comfort of knowing early on in the process the mechanism through which affected group and/or community members will be treated. In developing a strategy for public involvement there are a number of key issues that must be considered:

- Define goals clearly;
- Secure commitment to effective implementation;
- Plan consultation timing and phasing;
- Provide adequate resources;
- Be aware of site specific sensitivities;
- Be aware of the historical context;
- Recognize the interest of developers/operators;
- Be prepared to hear different views.

In planning for the process of a public involvement program, the following principles must be followed:

- Identify all stakeholder groups (typically integrated with social assessment). Who will be affected directly and indirectly? Who else might have an interest or feel that they are affected?
- Identify the key issues around which public involvement will be required (scoping) These key issues would include: (i) environmental and social issues or decisions at stake; (ii) key organizations and interested parties involved; (iii) local authorities and the agencies involved; (iv) size of the issue or importance of the decision; (v) urgency and time frame.
- Understand the decision making process: (i) identification of parties making the decisions; (ii) where in the project cycle decisions are made.
- Determine the necessary level of involvement. Meaningful public involvement takes place at all levels: (i) conveying information to the public; (ii) listening to the opinions and preferences of the public; (iii)involving the public in making decisions.
- Identify key points to be included in the public involvement process.

The nature and size of the project, combined with both the nature and number of stakeholders and the status of national legislation, will largely define when, where, and at what level public involvement is required for an ESIA and the environment management plan. (i) select most effective involvement techniques to be used; (ii) define a communication methodology; and (iii) develop a budget.

Timely disclosure of information is key and it may be useful to develop systems to ensure that stakeholders receive information on time and in an accessible format. Whilst it is important that consultation take place before major decisions points, the aim should be to facilitate consultation throughout the preparation and implementation phases. This implies that consultation will often be necessary as part of the research effort of the ESIA and the development of mitigation during the analysis phase of the study.

ANNEX H: Environmental and Social Appraisal Form (ESAF)

The Environmental and Social Appraisal Form (ESAF) has been designed to assist in the evaluation of Project's sub-project packages sent for review. The form is designed to place information in the hands of the District Environment Officer, The Regional Level Environmental specialists and the EPA so that the respective sub-project proposal/package applications for environmental and social clearance can be reviewed and cleared.

The ESAF contains information that will allow reviewers to determine the characterization of the prevailing local bio-physical and social environment with the aim to assess the potential sub-project impacts on it. The ESAF will also identify potential socio-economic impacts that will require mitigation measures and or resettlement and compensation.

Part 1: Identification

1. Name of District:------ Name of Operator:------

2. Sub-project Location (this may be more than one location for a sub-project package):

3. Reason for Field Appraisal : *Summarize the issues from the ESIA or ESMP that determined the need for a field appraisal*.
4. Date(s) of Field Appraisal:

5. Field Appraisal Officer Address:

6. Extension Agent/Service Provider/Operator ESIA Consultant's Representative and

Address:

7. Operators Representative and Address:

PART 2: Description of the Operators Sub-project Application

8. Sub-project Application Details: Provide details that are not adequately

Presented in sub-project application. If needed to clarify application details, attach sketches of the sub-project components in relation to the community or youth group and to existing facilities.

PART 3: Environmental and Social Issues

9. Will the sub-project:

- Need to acquire land? Yes------No-----
- Affect an individual or community /youth group access to land or available resources? Yes----No----
- Displace or result in the involuntary resettlement of an individual or family? Yes----No----

If YES, tick one of the following:

- The Resettlement Action Plan (RAP) included in the sub-project application is adequate. No further action required.
- The RAP included in the sub-project application must be improved before the application can be considered further.
- A RAP must be prepared and approved before the application can be considered further.

10. Will the sub-project:

• Encroach onto an important natural resource habitat? Yes-----No---

• Negatively affect ecologically sensitive ecosystems? Yes----No-------

If YES tick one of the following:

- The ESIA and the ESMP included in the operator's application is adequate. No further action required.
- The ESIA and/or the ESMP included in the operators application must be improved before the application can be considered further.
- An ESMP must be prepared and approved before the application can be considered further.

11. Will the project involve or result in:

- Diversion or use of Surface water?
- Use of Swamp Land or other NATURAL habitats?
- Construction and/or Rehabilitation of small earth dams?

If YES, tick one of the following:

- The application describes suitable measures for managing the potential adverse environmental effects of these activities. No further action required.
- The application does not describe suitable measures for managing potential adverse environmental effects of these activities. An ESMP must be prepared and approved before the application of considered further.
- The application describes the application of the transformation of swamp land into agricultural land
- The application describes the application of the transformation of natural habitat into agricultural land.

12. Are there any other environmental or social issues that have not been adequately

addressed?

If YES, Summarize them

And tick one of the following:

- Before it is considered further, the application needs to be amended to include suitable measures for addressing these environmental or social issues.

- An Environmental Management Plan needs to be prepared and approved before the application is considered further.

PART 4: Field Appraisal Decision:

- The sub-project application can be considered for approval.

Based on a site visit and consultations with both interested and affected groups, the filed appraisal determined that the community and the proposed operator adequately address environmental and/or social issues as required by the Project's ESMF and meets the requirements of the Environmental Protection Action of Sierra Leone EPA and the World Bank OP 4.01 .

- Further sub-project preparation work is required before the application can be considered further.

The field appraisal has identified environmental and /or social issues that have not been adequately addressed. The following work needs to be undertaken before further consideration of the application:

All required documentation such as an amended application, EMP, RAP. Screening Forms, draft civil works contracts, etc., will be added to the operators application package before it is considered further.

Name of District Environmental Officer, Regional Environmental Specialist and

EPA's Head of Division

Signature:---------- Date;----------

List of persons Met

ANNEX I: Physical Cultural Resources: Chance-Finds Procedure

(A) Individual Small Artefact

If subproject excavation or construction encounters an individual small item of movable physical cultural resource (PCR) such as a coin, work can proceed but the artefact should be handed to a COC member, who should hand it to the NaCSA District Coordinator, who will transfer it to NaCSA HQ. The District Coordinator will then perform the following tasks:

1. Take the artefact to the National Tourism Board of Sierra Leone, together with a brief written *Chance Finds Report* (copying NaCSA HQ Focal Person) containing:
    a. The date and time of discovery
    b. Location of the discovery
    c. Description of the PCR
    d. Estimated weight and dimensions
2. The District Coordinator will then arrange for the work force to resume work as before.
3. If further artefacts are found in the same or similar location, the District Coordinator will follow procedure (B) below.

(B) PCR Site or Cluster of Artefacts

If subproject excavation or construction encounters substantial PCR such as an archeological sites, a historical sites, a group of cultural or historic artefacts, a graveyards or individual grave(s) or any apparently human remains, the District Coordinator will perform the following tasks:

1. Stop the construction activities in the immediate area of the chance find, and proceed with alternative works elsewhere within the subproject;
2. Delineate the discovered site or area;
3. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, the District Coordinator will arrange for day and night guards until the National Tourism Board of Sierra Leone can take over;
4. Submit to the National Tourism Board of Sierra Leone and NaCSA HQ focal person a brief written *Chance Find Report*, containing:
    a. The date and time of discovery
    b. Location of the discovery
    c. Description of the PCR
    d. Estimated weight and dimensions
    e. Temporary protection measures implemented.
5. The National Tourism Board of Sierra Leone will notify other concerned local authorities as necessary (e.g. Church, police, etc.);
6. The National Tourism Board of Sierra Leone will be in charge of protecting and preserving the site before deciding on the appropriate procedures. This may require a preliminary evaluation of the findings to be performed by the archeologists or other experts of the National Tourism Board of Sierra Leone, who will ascertain the

significance and importance of the findings, according to the various criteria relevant to cultural heritage;

7. As soon as possible the National Tourism Board of Sierra Leone should notify the District Coordinator what measures are being taken to safeguard or remove the PCR, and whether, and when, work can resume in the concerned area. This notification may require NaCSA to work with the community to change the design or layout of the subproject.
8. Implementation for this decision shall be communicated in writing to NaCSA by the relevant local authorities. Construction or excavation work in the concerned area may be resumed only after such permission is received.