GOVERNMENT OF THE REPUBLIC OF LIBERIA

Improving Results in Secondary Education (IRISE)

Environmental and Social Management Framework (EMF)

April 2019
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<td>CESMP</td>
<td>Contractor’s Environmental and Social Management Plan</td>
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<td>DLIs</td>
<td>Disbursement Linked Indicators</td>
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<td>EEPs</td>
<td>Eligible Expenditures Programs</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EMIS</td>
<td>Education Management Information System</td>
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<td>EP</td>
<td>Environmental Permit</td>
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<td>EPA</td>
<td>Environmental Protection Agency</td>
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<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>EPML</td>
<td>Environmental Protection and Management Law</td>
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<td>ESIA</td>
<td>Environmental and Social Impact Assessment</td>
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<td>ESIAEs</td>
<td>Environmental and Social Impact Assessments</td>
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<td>ESMF</td>
<td>Environmental and Social Management Framework</td>
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<td>ESMPs</td>
<td>Environmental and Social Management Plans</td>
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<td>GHG</td>
<td>Greenhouse Gas</td>
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<td>GPED</td>
<td>Graduate Program in Educational Management and Administration</td>
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<td>GPRP</td>
<td>Graduate Program in Regional Planning</td>
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<td>GRM</td>
<td>Grievance Redress Mechanism</td>
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<td>HR</td>
<td>Human Resources</td>
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<tr>
<td>IBB</td>
<td>Ibrahim B. Babangida Graduate Program in International Relations</td>
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<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
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<tr>
<td>IDA</td>
<td>International Development Association</td>
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<td>ITCZ</td>
<td>Inter-Tropical Convergence Zone</td>
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<td>LC</td>
<td>Land Commission</td>
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<td>LGRC</td>
<td>Local Grievance Redress Committees</td>
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<td>LISGIS</td>
<td>Liberia Institute for Statistics and Geo-Information Services</td>
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<td>LJHSCE</td>
<td>Liberia Junior High School Certificate Examination</td>
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<td>LLA</td>
<td>Liberia Land Authority</td>
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<tr>
<td>LSHSCE</td>
<td>Liberia Senior High School Certificate Examination</td>
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<tr>
<td>MBA</td>
<td>Master’s in business administration</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>MCSS</td>
<td>Monrovia Consolidated School System</td>
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<td>MFDP</td>
<td>Ministry of Finance and Development Planning</td>
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<td>MIA</td>
<td>Ministry of Internal Affairs</td>
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<td>MoE</td>
<td>Ministry of Education</td>
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<td>MPA</td>
<td>Master’s in public administration</td>
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<td>MPW</td>
<td>Ministry of Public Works</td>
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<tr>
<td>NASSCORP</td>
<td>National Social Security and Welfare Cooperation</td>
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<td>NTLA</td>
<td>National Transitional Legislative Assembly</td>
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<td>PAD</td>
<td>Project Appraisal Document</td>
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<td>PDO</td>
<td>Project Development Objective</td>
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<td>PFMU</td>
<td>Project Financial Management Unit</td>
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<td>RFP</td>
<td>Request for Proposal</td>
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<td>SCR</td>
<td>student-classroom ratio</td>
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<td>STR</td>
<td>student-textbook ratio</td>
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<td>TA</td>
<td>technical assistance</td>
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<td>TforR</td>
<td>Teaching for Results</td>
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<td>UL</td>
<td>University of Liberia</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>VPIs</td>
<td>Vice Principals of Instruction</td>
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<tr>
<td>WASSCE</td>
<td>West African Senior School Certificate Examination</td>
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<td>WB</td>
<td>World Bank</td>
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EXECUTIVE SUMMARY

Project Background

Following a peaceful transition of power in early 2018, the new government has developed a pro-poor strategic vision, placing human development among its priorities. Its strategic plan: “Pro-poor Agenda for Prosperity and Development (2019-2023)” spotlights a focus on accelerated job creation by improving the business environment through investments in infrastructure and increasing access to finance and resolving market failures (coordination failures, weak property rights etc.). To maximize the benefits from these investments, the Government has set out to develop the capacity of Liberian youth and create a qualified and skilled labor force that can participate meaningfully in the economy. At the heart of this effort is a focus on education.

The Secondary Education Teaching for Results (TforR) Project, a World Bank financed project, will support the Government of Liberia in implementing a defined strategy in senior secondary education. In doing so, it will support implementation of the Government’s Education Sector Plan 2017-2021, as well as the strategic roadmap for education transformation outlined in the National Education Summit, over five years (2019-2023) with the overall intention of removing barriers that are impeding access to services and quality learning outcomes. It aims to improve student learning outcomes by addressing the main challenges facing particularly senior secondary education in teacher quality, girls’ completion, accessibility and digital skills. Specifically, it aims to (a) modernize a improve teacher development and management, (b) reduce gaps and inequality in accessing senior secondary education, (c) support girls’ transition to and completion of senior secondary education, (d) provide opportunities for students to learn digital skills, and (e) strengthen the capacity of education institutions and systems. Through the interventions carried out under the project, a good system foundation will be put in place for continuing development of human capital to meet Liberia’s growth needs.

Project Development Objectives

The Project Development Objective (PDO) is to: improve access to, and quality of secondary education. Project Components

The project has five components including the following:
Component 1: Improving Teaching in Senior Secondary Education

This component will strengthen the teaching force and improve teaching in senior secondary education. This project will support the Government to reform its teacher development and management systems, strengthen the capacity and build a good foundation for future educational development in the country through: (1) modernizing the pre-service teacher training system; (2) strengthening the in-service teacher training system; and (3) improving the management of teaching force.

Component 2: Closing the Access Gap in Secondary Education

This component will support the Government in closing the access gap in senior secondary education through the addition and expansion of senior secondary schools, increasing the share of qualified teachers in hard to deploy areas, and providing learning materials in key secondary level subject areas.

Component 3: Increasing Completion Prospects in Secondary Education for Girls

This component will assist the Government to ensure young women can transition to senior secondary education and have the support and guidance to complete their secondary education.

Component 4: Technology for Learning and Digital Skills

This component aims to build digital skill capacity and promote learning by improving access to technology. The primary objective is to use disruptive technology to make youth in Liberia competitive with respect to the changing demands of the labor market.

Component 5: Capacity Building, Technical Assistant, Program Coordination, Monitoring and Management

This component aims to build capacity within the MoE to effectively implement a results-based operation and achieve the project objectives. First, it will provide trainings and technical assistance (e.g. by hiring consultants that will be placed in the MoE to build expertise in critical areas of operations. Specifically, support will be provided on (i) planning and project coordination, (ii) monitoring and evaluation (including third party validations, surveys and impact evaluations), (iii) financial management, (iv) procurement, and (iv) environmental and social safeguards.
**Project Category, Triggered Policy, and Justification for an ESMF**

The project activities, especially component 2, will involve civil works including construction of new structures and rehabilitation of pre-existing structures in selected urban and rural areas. The proposed construction and rehabilitation activities have the potential to negatively impact the environment as well as expose communities and workers to construction related health and safety risks and hazards. General construction related concerns such as noise, air pollution, soil erosion, waste generation, water pollution, and worker’s and community health and safety will apply. In view of the project potential environmental and social impacts and risks, OP 4.01, OP 4.11, and OP 4.12. The project category is B. The exact locations of the proposed infrastructure works have not been finalized at this stage. Therefore, the project has adopted a framework approach. Environmental and Social Management Plans (ESMPs) as well the Contractor’s Environmental and Social Management Plan (CESMP) will be prepared as and when required during implementation. A chance find procedure is incorporated in this ESMF to satisfy the requirements of OP 4.11, while an RPF has been developed to meet the requirements of OP 4.12. In addition to the triggered policies, the World Bank Group Environmental, Health and Safety (EHS) General Guidelines will also apply to the project.

**Relevant National Policy and Legal Framework**

The applicable Environmental and relevant polices and laws are summarized below:

**National Environment Policy of Liberia** (2002): whose goal is to ensure long-term economic prosperity of Liberia through sustainable social and economic development which enhances sustainable environmental quality and resource productivity;

**Land Administration Policy** (2015): presents a framework for land administration in Liberia with a focus on the main features of good land administration and those pertaining to the identification, ownership, use, and valuation of land, as well as the identification of land and the determination of rights to the land;


**The Constitution of Liberia 1986**: provides that, the Republic shall, consistent with the principles of individual freedom and social justice enshrined in the Constitution, manage the national economy and the natural resources of Liberia;
Environmental Protection Agency (EPA) Act, 2003: creates EPA as the principal authority in Liberia for the management of the environment and shall co-ordinate, monitor, supervise all activities in the protection of the environment and sustainable use of natural resources;

Environmental Protection and Management Law, 2003: forms the legal framework for the sustainable development, management and protection of the environment and natural resources by EPA in partnership with its stakeholders in Liberia; and

EPA Regulations and Procedures: these Regulations combine both the assessment and environmental management systems and prohibit commencing an undertaking/activity without prior registration and Environmental Permit (EP) by the EPA.

National Environmental and Occupational Health Policy, 2010: The main objectives of this policy to develop new guidelines/standards and strengthen existing guidelines/standards in Basic sanitation, water quality control, food safety, vector control, port health, human habitat, waste management, communicable disease control for the protection and promotion of public health services in Liberia.

Biophysical and Socio-Economic Environment of Liberia

Liberia comprises about 111,000 square kilometers (43,000 sq. miles) of which 96,300 square kilometers (37,190 sq. miles) is land and 15,000 square kilometers (5,810 sq. miles). The country is divided into 15 counties, 136 districts arrayed within counties, and numerous clans arrayed within districts.

Liberia has a small land area. The forests of Liberia account for a wide range of other environmental products and services that benefit Liberia and the rest of the world. The Country is a verdant land that is heavily forested; it has an extensive and unique biodiversity.

According to the 2008 Population Census, Liberia’s population is at an estimated 3.5 million people. Liberia’s population growth rate in 2008 was estimated to be 5.3% and is expected to decline to 2.1% by 2025. Net migration is positive as a result of immigration from surrounding countries.
The average life expectancy at birth in Liberia is 58 years (2013); infant mortality is 70 deaths per 1,000 live births (2013); and, maternal mortality rate is 770 deaths per 100,000 live births (2010). Poverty and underdevelopment are not the only challenges. Liberia emerged from its protracted civil war as a deeply divided country, its social fabric torn by ethnicity, religion, geography, and history. There are 16 ethnic groups spread across the 15 counties. The key religious groups are Christianity (85%), Islam (12%), and indigenous religions (3%).

**Overview of Project Potential Environmental and Social Risks and Impacts**

It is expected that much of the civil works will be carried out on pre-existing school premises, so the impacts on the natural environment will be very limited with respect to site clearing for construction works. However, extraction of local materials such as sand, gravel, water, timber, etc., especially in rural areas, may adversely affect community resources as well degrade sensitive natural ecosystems if not managed properly. Proposed rehabilitation and construction of water and sanitation facilities including latrines, wells, and handwashing facilities have the potential to expose facility users and communities to unintended public health risks. Improper siting of these infrastructures can lead to pollution of groundwater resources and transmission of waterborne diseases. The project also has the potential to attract workers from outside project communities. Rural communities where some of the proposed works will be executed generally lack skilled labor. So, the potential for labor influx and its associated environmental impacts and risks will need to be managed.

**The Environmental and Social Management Framework (ESMF)**

This ESMF sets out a mechanism for the assessment of the environmental and social impacts of all sub-projects; identifies the generic impacts; and proposes mitigation, and monitoring and institutional measures to be taken during implementation and operation of the project to avoid, minimize or offset adverse environmental and social impacts. It also defines the procedures for conducting Environmental and Social Impact Assessments (ESIAs) and preparing Environmental and Social Management Plans (ESMPs).
Environmental and Social Management Procedures

Environmental and social screening will be undertaken for each activity of the project. The aims of the screening are 1) to determine the nature and the extent of the anticipated adverse environmental and social impacts; 2) to define and develop the most appropriate safeguard instrument, depending on the nature and extent of these impacts; and 3) to establish and implement appropriate mitigation measures.

ESMF Implementation Structure

The Ministry of Education will serve as the main implementation agency to ensure the Project achieves expected results. However, the day-to-day operations will be delegated by the MoE to a Project Delivery Team dedicated exclusively to the Project. This team will be embedded in the MoE, reporting to the Department of Planning and will liaise with entities inside and outside the Ministry to deliver Project results. The Project Delivery Team will have overall responsibility for the ESMF Implementation. A focal person to oversee the overall implementation of the ESMF and other project safeguard instruments, including the RPF, will be appointed. Similar arrangements will also be established at the county level. At county level, a designated project staff will carry out the day-to-day implementation and monitoring of safeguard instruments.

Grievance Redress Mechanism

The Grievance Redress Mechanism (GRM) will provide a way to provide an effective avenue for expressing concerns and achieving remedies for communities. The goal is to promote a mutually constructive relationship and enhance the achievement of project development objectives. The GRM is to ensure that complaints are directed and expeditiously addressed by the relevant agencies which is to enhance responsiveness and accountability. The GRM will operate at several levels including at community/village level, district and county level, and at the level of the Project Delivery Team. At the community, district and county levels, the GRM will strive not develop parallel structures but make use of existing and locally recognized grievance redress systems.
ESMF Budget

An indicative budget for ESMF implementation has been developed. The indicative budget covers several activities, including cost of environmental and social safeguard awareness and sensitization for project communities, capacity building for relevant project staff, subproject screening and preparation of subproject ESMPs, monitoring activities, and environmental audits. The total budget is four hundred thousand United States Dollars ($400,000.00).

Consultation of Stakeholders

The implementation of the ESMF will be participatory as key relevant stakeholders will be engaged to provide meaningful inputs to the project and ESMF report. In addition, the Safeguards team will visit the five selected sites for schools construction under the project as well as the 24 rural expansions to assess current condition and expansion possibilities with potential risks and impacts.

ESMF Monitoring and Evaluation

The project’s ESMF monitoring system will ensure that identified mitigation measures are appropriate and effectively implemented for producing the anticipated results; any additional impacts not identified in the analysis of the potential environmental and social impacts of the rehabilitation and/or construction of facilities are captured as early as possible and are modified, discontinued or replaced if they prove to be inadequate. It will include: (i) the elements to be monitored; (ii) monitoring methods and tools; (iii) the responsibilities for monitoring and reporting; and (iv) the periodicity of monitoring.
1 INTRODUCTION

1.1 Background
Liberia’s education system caters to approximately 1.5 million students. Over the past three decades, the country has seen clear progress on education achievements. For example, from 2007-08 to 2015-16, the teaching workforce more than doubled in size, from 26,359 to 63,396 teachers.

Despite recent achievements however, Liberia’s education system faces multi-faceted constraints, ranging from lack of access to non-conducive learning environments, to poor learning outcomes. Senior secondary education faces acute challenges including low access, transition, completion, and learning outcomes. Pass rates among students highlight variances among genders and public/private institutions, alluding to differentiation in resources, and missed potential opportunities. Overall, the pass rates among females are less than the pass rates among males, on both the Liberia Junior High School Certificate Examination (LJHSCE) and Liberia Senior High School Certificate Examination (LSHSCE). In Liberia’s senior high schools, only one third of the teaching cohort has the minimum qualifications (a university degree or ‘A Certificate’) required to teach at that level as described in the Education Policy. Functioning laboratories or libraries, two critical elements of hands-on learning and research, are missing from most senior secondary schools in Liberia. Use of innovative learning tools, which have been known to improve delivery of services in developing country environments, is rare in Liberia. A lack of quality standards or benchmarks against which schools can measure their performance makes it difficult for parents and administrators to regiment poor performing schools.

1.2 Project Description
The Secondary Education Teaching for Results (TforR) Project will support the Government of Liberia in implementing a defined strategy in senior secondary education. In doing so, it will support implementation of the Government’s Education Sector Plan 2017-
2021, as well as the strategic roadmap for education transformation outlined in the National Education Summit, over five years (2019-2023) with the overall intention of removing barriers that are impeding access to services and quality learning outcomes. It aims to improve student learning outcomes by addressing the main challenges facing particularly senior secondary education in teacher quality, girls’ completion, accessibility and digital skills. Specifically, it aims to (a) modernize and improve teacher development and management, (b) reduce gaps and inequality in accessing senior secondary education, (c) support girls’ transition to and completion of senior secondary education, (d) provide opportunities for students to learn digital skills, and (e) strengthen the capacity of education institutions and systems. Through the interventions carried out under the project, a good system foundation will be put in place for continuing development of human capital to meet Liberia’s growth needs. The Project has five closely related components:

Component 1: Improving Teaching in Senior Secondary Education
Liberia’s poor learning outcome among students are reflected in the WASSCE results which are administered at the end of grade 12. There is an unprecedented need to strengthen the teaching force and improve teaching in senior secondary education. This project will support the Government to reform its teacher development and management systems, strengthen the capacity and build a good foundation for future educational development in the country through: (1) modernizing the pre-service teacher training system; (2) strengthening the in-service teacher training system; and (3) improving the management of teaching force.

Component 2: Closing the Access Gap in Secondary Education
7. Component 2 will support the Government in closing the access gap in senior secondary education through the addition and expansion of senior secondary schools, increasing the share of qualified teachers in hard to deploy areas, and providing learning materials in key secondary level subject areas. This component will include the expansion of 44 junior secondary schools into junior and senior
secondary schools; the construction of 5 senior secondary schools; and the construction of teacher housing and other ancillary facilities such as toilets and wells.
Figure 1: Map of Liberia Showing Major Construction Areas

Component 3: Increasing Completion Prospects in Secondary Education for Girls
11. Component 3 will assist the Government to ensure young women can transition to senior secondary education and have the support and guidance to complete their secondary education.

Sub-Component 3.1: Increasing girls’ transition and completion prospects at the senior secondary level

Component 4: Technology for learning and digital skills
14. This component aims to build digital skill capacity and promote learning by improving access to technology. The primary objective is to use disruptive technology to make youth in Liberia competitive with respect to the changing demands of the labor market. Similar to the previous components, this component will also use a result-based financing approach will complement the Government’s effort to build ICT skills in the country. It aims to improve student learning outcomes on WASSCE by providing access to self-paced adaptive learning technology. Thus, the project will finance procurement of computers and projectors, installation of a digital learning platform (Khan Academy, Kolibri etc.) and training of teachers to serve as computer laboratory facilitators and moderators in 25 schools in Montserrado and Nimba counties, where connectivity is more feasible. The intervention will be rolled out in select schools with minimal infrastructure, to ensure sustainability after the end of the Project. A maintenance and upkeep plan will be established by the Government to streamline usage. Content on the digital learning platform will be mapped to Liberia’s curriculum, and the platform will be self-paced, providing differential and customized learning opportunities to senior secondary students. For this subcomponent, the release of IDA funds will be linked to the following DLI: improved student learning outcomes in WASSCE (pass percentages). This component will also self-paced flexible learning opportunities (the ALISON model). The Centers will be managed by a service provider, with previous experience managing education and technology projects. The digital learning platform will provide modules that will enable users to acquire 21st century skills such as coding, graphic designing, web development). Potential partnerships with organizations such as ANDELA will be explored, to provide a pathway to technology-oriented careers.
Component 5: Capacity building, technical Assistant, program coordination, monitoring and management

15. This component aims to build capacity within the MoE to effectively implement a results-based operation and achieve the project objectives. First, it will provide trainings and technical assistance (e.g. by hiring consultants that will be placed in the MOE) to build expertise in critical areas of operations. Specifically, support will be provided on (i) planning and project coordination, (ii) monitoring and evaluation (including third party validations, surveys and impact evaluations), (iii) financial management, (iv) procurement, and (v) environmental and social safeguards. The component will also support the tracking of spending within the Eligible Expenditures Programs (EEPs) per Table 2. Capacity building support will also be provided to the Senior Management Team and personnel at the MOE level and to county and district education boards at the subnational level to improve the utilization of data, which are produced by EMIS and other quality assurance systems, for planning, decision making, and monitoring purposes. Second, the project will provide specialized technical assistance (TA) to support key initiatives under several areas of the project including (i) teacher development, teacher licensing, and workforce management, (ii) construction of schools, classrooms, and teacher housing, (iii) girls’ education, (iv) textbook management, and (v) the use of digital technology for teacher training and learning.

Component 6: Contingent Emergency Response

This component is included in accordance with OP/BP 10.00 (Investment Project Financing), paragraphs 12 and 13, for contingent emergency response through the provision of immediate response to an Eligible Crisis or Emergency, as needed. It will allow the GoL to request the World Bank for rapid reallocation of project funds to respond promptly and effectively to an eligible emergency or crisis that is a natural or man-made disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact. An Operations Manual for this component will be developed.
1.3 Project Development Objective
The Project Development Objective (PDO) is to: improve access to, and quality of secondary. It will help the Government affect improvements in senior secondary education and will aim to do so through innovative approaches aimed at improving access, quality of teaching and learning, as well as systems building in a resource and capacity strained environment.

1.4 PDO-Level Result Indicators
The following indicators will be used to monitor progress towards PDO achievement of the project:

1. Gross Enrolment Rate at the senior secondary level (percentage)
2. Qualified teacher to student ratio at the senior secondary level (ratio)
3. Percentage of students passing WASSCE in science subjects (percentage)
4. Transition rate of female students in targeted counties (percentage) All indicators, with exception of #2, are disaggregated by gender

1.5 Beneficiaries
The Project will aim to benefit students currently enrolled at secondary level (about 265,000) plus additional 40,000 increase by the end of implementation. About 60% of that increase will be female students given the interventions that specifically target their transition to senior secondary school. Additionally, the Project is expected to directly benefit about 2000 teachers teaching at senior secondary level, plus an additional 15,000 teachers indirectly through licensing and improved qualifications as needed.
2. THE ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

2.1 ESMF Justification

Locations and other details of the subprojects are yet to be finalized at the time the project is being prepared for presentation to the Bank. In view of this, the policy requires project impacts (environmental and social) to be assessed. However, given the nature of certain projects where site-and activity-specific impacts cannot be determined prior to the Decision Meeting, as required, the framework approach has become an acceptable way of meeting EIA requirements for project preparation and approval, and subsequently, EIA/ESMP may have to be prepared prior to project implementation. The ESMF sets out a mechanism for the assessment of the environmental and social impacts of all program sub-projects, and identifies in general the generic impacts, and proposes mitigation, monitoring and institutional measures to be taken during implementation and operation of the program to avoid, minimize or offset adverse environmental and social impacts. It also defines the procedures for conducting/preparing Environmental and Social Impact Assessments (ESIAs) and/or Environmental and Social Management Plans (ESMPs) as and when required.

2.2 Purpose of the ESMF

Cognizant that specific sub/projects to be implemented using TforR project funds will only be fully identified after completion of the Project Appraisal Document (PAD), an Environmental and Social Management Framework (ESMF) is deemed necessary to give an overall guide on how potential environmental and social issues related to the project are to be addressed. Therefore, this ESMF is designed to ensure that:

I. Clear procedures and methodologies for the environmental and social assessment are established;

II. Expected key environmental and social risks and impacts relative to the project are flagged through subsequent preparatory studies;

III. Mitigation measures to avoid and or minimize the potential environmental and social risks/impacts, are adequately designed and implemented in line with the relevant laws of Liberia and the World Bank’s safeguards policies;
IV. Appropriate reporting procedures for managing and monitoring environmental and social concerns related to project interventions are developed and used;

V. Appropriate roles and responsibilities of Institutions relevant to the project are clearly outlined;

VI. Training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF are well-known and provided.

The future implementation of TforR sub-projects to be funded will be subject to the processes defined in this ESMF. Thus, this ESMF further defines how safeguards will be taken into account and managed for all project activities that may have safeguards requirements, including feasibility studies. During project implementation, project activities with potential safeguard issues will be screened to determine the scope and types of safeguards instruments that would be required. Depending on the activities, appropriate environmental assessments will be undertaken in consultations with the Environmental Protection Agency (EPA) of Liberia and the World Bank (WB).

Looking at the future activities and the potential environmental and social risks and impact, the TforR project has been categorized as B type (i.e. projects whose impacts are largely smallscale, localized and of short-term nature).

2.3 ESMF Preparation and Methodologies

As shown in figure 1 below and Annex 2 (containing consultation meeting minutes as well as attendance list/s), the preparation of the ESMF will be participatory as key relevant stakeholders are to be consulted (for examples EPA, LLA, MoE, MCSS, MIA, UL etc.) and provide meaningful inputs to the project and ESMF design and report. In addition, the Safeguards team will visit the five selected sites for schools under the project as well as the 24 rural expansions to respectively to assess current condition and expansion possibilities with potential risks and impacts on sight.
Firstly, work plan and schedule to execute the assignment were presented, discussed, adjusted and agreed upon by the Client and the consultant. Next, the methodology, modalities and contents for carrying out the assignment including undertaking initial consultations with the client were drafted, discussed and agreed to. The both parties also agreed to the roles and responsibilities of all in drafting the ESMF.
2.4 Analysis of the Data, Information and Preparation of the Report

The Consultant has gathered information to produce the ESMF document. In summary, the consultant collected and analyzed baseline information concerning:

- TforR Project components as seen in the draft PAD;
- Relevant existing environmental and social policies, laws, and regulations relative to the project;
- Key environmental and social risks and impacts associated with the proposed project activities;
- Environmental and social risks and impacts mitigation measures;
- Key stakeholder involvement and their roles and responsibilities;
- Technical studies required (project briefs for new constructions); and
- Available information from field visits.

3 POLICY, LEGAL AND INSTITUTIONAL FRAMEWORKS

In Liberia, the protection of the environment constitutes a priority axis of the sustainable development policy. The TforR Project will strictly adhere to, and follow the policy, legal and regulatory frameworks established by the EPA and relevant legal institutions. In this section, the national policies, regulations, procedures and legal provisions relating to the environment and social issues in development interventions in Liberia are reviewed and presented. The revision was made against the WB’s safeguards policies as well as applicable Liberian laws/policies as summarized below.

3.1 Policy Framework

From the review of literature and consultation with key stakeholders, the relevant national policies have been identified as essential related to the proposed project include the following:

- Land Rights Policy, 2013;
I. **National Environment Policy of Liberia (2002):** The goal of this policy is to ensure longterm economic prosperity of Liberia through sustainable social and economic development which enhances sustainable environmental quality and resource productivity on a longterm basis that meets the requirements of the present generation without endangering the potential of future generations to meet their own needs. The policy calls for the need to maintain ecosystems and ecological processes essential for the functioning of the biosphere; ensuring sound management of the natural resources and the environment; adequately protecting human, flora, fauna, their biological communities and habitats against harmful impacts, and to preserve biological diversity; integrate environmental considerations in sector and socio-economic planning at all levels; throughout the nation; and seeking common solutions to environmental problems at regional and international levels.

II. **National Environmental and Occupational Health Policy, 2010:** The main objectives of the National Environmental and Occupational Health Policy are: a) **Environmental Health:** To develop new guidelines/standards and strengthen existing guidelines/standards in Basic sanitation, water quality control, food safety, vector control, port health, human habitat, waste management, communicable disease control for the protection and promotion of public health services in Liberia, in collaboration with key stakeholders. b) **Occupational Health:** To assess the working conditions in major workplaces, establish data base, plan and implement workers’ wellness programs, for the purpose of protecting and promoting health in the workplace for all workers in Liberia, ii) TO provide guidelines and standards for the effective implementation and rendering of occupational health services.
III. **Land Administration Policy, 2015**: This policy presents a framework for land administration in Liberia with a focus on the main features of good land administration and those pertaining to the identification, ownership, use, and valuation of land, as well as the identification of land and the determination of rights to the land.

IV. **Land Rights Policy (2013)**: The Policy provides four (4) land rights categories (Public Land, Government Land, Customary Land, and Private Land). For Public Land and Government Land, the Policy sets forth critical policy recommendations regarding: how the Government transfers such land, and how the Government acquires land, especially through the exercise of eminent domain (i.e. forced acquisition). With respect to the new category of Customary Land, there are several significant recommendations: Customary Land and Private Land are equally protected; and communities will self-define, be issued a deed, establish a legal entity, and strengthen their governance arrangements to make them fully representative and accountable. The GoL also undertakes to support communities in implementing these recommendations. Finally, several Private Land issues are detailed, which include loss of ownership, leases, easements, and adverse possession.

V. **Land Administration Policy, 2015**

The framework for Land Administration is presented in policy. The policy focuses on the main features of good land administration and those pertaining to the identification, ownership, use, and valuation of land.

V1. The World Bank environmental, health, and safety (EHS) general guidelines will be applied as required by their respective policies and standards. The EHS guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. Should these policies be applied during project implementation, the MOE will establish site-specific targets, with an appropriate timetable for achieving them. We do not envisage conflict in these policies relative to the Liberia’s
policies. However, should such thing occur, the project will prepare a detailed justification for any presented alternatives that is needed as part of the site-specific environmental assessment.

3.2 Legal Framework
The following legal instruments are relevant to guide the implementation and monitoring of the TforR Project:

- Environmental Protection Agency (EPA) Act, 2002
- Environment Protection and Management Law, 2003
- EPA Procedural Guideline, 2017
- Land Commission Act, 2010
- Education Reform Act of 2011

I. The Constitution of Liberia 1986: provides that, the Republic shall, consistent with the principles of individual freedom and social justice enshrined in the Constitution, manage the national economy and the natural resources of Liberia; Specifically, Article 7 of

Chapter 11 states “The Republic shall, consistent with the principles of individual freedom and social justice enshrined in the constitution, manage the natural economy and natural resources of Liberia in such manner as shall ensure maximum possible participation of Liberian citizens under conditions of equality as to advance the general welfare of the Liberian people and the economic development of Liberia”. Therefore, it calls natural resources protection and gives the right to every Liberian to fully participate in management of these resources.
II. *Environmental Protection Agency (EPA) Act, 2003: The EPA Act* creates the Agency and gives it the authority for the management of the environment to co-ordinate, monitor, and supervise all activities in the protection of the environment and sustainable use of natural resources. The functions of the Agency include to:

- Review project documents for donor-sponsored environment-related projects to ensure and/or recommend to the negotiating ministry or agency, the inclusion of strategies and activities for capacity building of nationals;
- Identify projects, activities, policies, and programs for which environmental impact assessment must be conducted under this Act;
- Build the capacity of line Ministries, authorities and organizations through the exchange of data and information, and to render advice, technical support and training in environment and national resource management so as to enable them to carry out their responsibilities effectively;
- Ensure the preservation and promotion of important historic, cultural and spiritual values of natural resources heritage and, in consultation with indigenous authority, enhance indigenous methods for effective natural resource management;
- Promote public awareness through public participation in decision making and formal and non-formal education about the protection and sustainable management of the environment, and to allow at minimal or no costs, access to environmental information and records made in connection with this Act;
- Establish environmental criteria, guidelines, specifications and standards for production processes and the sustainable use of natural resources for the health and welfare of the present generation, and in order to prevent environmental degradation for the welfare of the future generations; and
- Review and approve environmental impact statements and environmental impact assessment submitted in accordance with this Act.
III. **Environmental Protection and Management Law (EPML), 2003**: The EMPL forms the legal framework for the sustainable development, management and protection of the environment and natural resources by the EPA in partnership with relevant institutions and individuals. It guides on the management and provides information on the state of the environment of Liberia. It is the framework for formulation, reviewing, updating and harmonizing all environment-related sectoral laws. The EPML also addresses a wide range of environmental issues including Environmental and Social Impact Assessment (ESIA), Environmental auditing and monitoring; environmental quality standards; pollution control and licensing; guidelines and standards for the management of the environment and natural resources; protection of biodiversity, national heritage and the ozone layer amongst many others. Specifically, part III of the 2003 Law establishes a comprehensive framework for EIA, including procedures and substantive standards for the approval and rejection of projects. It also provides for public participation and procedures for appeals against EPA decisions.

IV. **EPA ESIA Procedural Guidelines**: The ESIA guidelines provides information on the steps for initiating a project with potential environmental and social risks and impacts in Liberia. It combines both the assessment and environmental management systems and prohibit commencing an undertaking/activity without prior registration and Environmental Permit (EP) by the EPA.

V. **Land Commission Act, 2010**: The Act established the Land Commission (LC) with a five year mandate to propose, advocate and coordinate reforms of land policy, laws and programs in Liberia. The LC has no adjudicatory or implementation powers. The mandate of the LC extends to all land and land based natural resources, including both urban and rural land, private and public land and land devoted to residential, agricultural, industrial, commercial, forestry, conservation and any other purposes. The following were objectives to be accomplished within the five-year life span of the Commission:

- Equitable and productive access to the nation’s land, both public and private;
- Security of tenure in land and the rule of law with respect to landholdings and dealings in land;
- Effective land administration and management; and
- Investment in and development of the nation’s land resources.

### 3.3 Institutional Framework

Liberia has few institutions of Government whose mandate include education management and administration. These institutions are involved in the implementation of the Project through various entry points. These key government institutions are presented in table 2 along with the roles and responsibilities:

**Table 1 Key Government Stakeholders and their Mandates under the Project**

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Mandate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Education (MoE)</td>
<td>The MoE is the implementation agency of the Developing Country Partner (DCP) and implements the project. The project will use existing</td>
</tr>
<tr>
<td></td>
<td>structures and personnel of the MOE supported by the PDT or delegated to the PDT. Subcomponent implementation will be led by the</td>
</tr>
<tr>
<td></td>
<td>appropriate Assistant Minister reporting to their respective Deputy Minister.</td>
</tr>
</tbody>
</table>
The overall project will be overseen by the Senior Management Team headed by the Minister of Education. The Project Coordinator will report overall project progress at least monthly to the Senior Management Team (SMT).

The SMT includes the Minister of Education (chairperson), the Deputy Ministers for Administration; Instruction; and Planning, Research and Development, all Assistant Ministers.

The MOE will sign all contracts with service providers under the project and manage contracts through the Project Delivery Team established.

At the local level, the project will be supported by County Education Officers (CEOs) and DEOs. DEOs and school principals are expected to play a key role in supervision and monitoring of project implementation.
| Ministry of Public Works (MPW) | The MPW will approve all drawings for civil works and issue construction licenses to works contractors under the project. The MPW is responsible for infrastructure development (road, bridges, buildings, rail way etc.) and zoning regulation in Liberia. The near lack of zoning regulation is responsible for some of the critical environmental issues such reclaiming of urban mangroves, unplanned settlements, urban flooding etc. Very few urban centers in the country is plan consistent with zoning regulations in the whole country. |
| Ministry of Finance and Development Planning (MFDP) | The MFDP will sign off on Grant Agreement and oversee financial management services through its Project Financial Management Unit (PFMU). The MFDP will lead on project negotiation between the Government of Liberia and the World Bank.  

The MFDP leads the implementation of the National Development programs and coordinates multilateral funding support to the GoL. The ministry is the principal authority on fiscal and development planning and executing agency of GoL development programs from the fiscal standpoint.  

The MFDP housed the Project Fund Management Unit (PFMU) which is responsible for fiduciary management of the Bank supported projects. It supports the project to prepare a consolidated work plan and budget for the project on an annual basis. The work plans and budgets will include the planned project expenditures under each component. MoE’s project management will be expected to coordinate and monitor the implementation progress against the work plan/budget. |
Environmental Protection Agency (EPA) of Liberia

The EPA will oversee all environmental impact assessments of the project to ensure basic compliance on all environmental protocols during the project implementation. The EPA will issue environmental compliance certificate to construction contractors under the project. The EPA is the main authority for the management of the environment, and mandated to coordinate, monitor, supervise, and consult with the relevant stakeholders on all activities in the protection of the environment and sustainable use of natural resources. The Agency promotes environmental awareness and implements the national environmental policy and the EMPL. The EPA oversees the implementation of international environment related conventions.
| Liberia Land Authority (LLA) | The LLA will responsible for issuing tribal certificate for construction land, land probate and deeds. The LLA will lead on dispute settlement that may arise from land acquisition. The LLA will ensure full compliance with the Liberia Land Right Act. The LLA transitioned from the Land Commission (LC) which was created in 2010 with a five-year mandate to propose, advocate, and coordinate reforms of land policy, laws, and programs in Liberia.  

The LLA is responsible for land management in the country. This entity is among the newest institutions created under the governance reform program of the GoL to ensure accountable leadership of the state as defines by the 1986 Constitution. The Land Right Act classified land in four categories: Public land, community land, state land and private land. Land management is among the many issues that has resulted into unsustainable resource and environmental management. |
| Liberia Institute for Statistics and GeoInformation Services (LISGIS) | The LISGIS will assist in the gathering of essential population data for the project area. Creation of maps and preparation of other Geo-Information Services will be facilitated by the LISGIS under the project.  

The LISGIS became an autonomous agency of the government by an act of the NTLa 70 on July 22, 2004. The LISGIS, commonly called “the Statistics House” is responsible for compilation, analysis, publication, and dissemination of all data from individuals, establishments, and geo-spatial information in the country. |
The UL will support the project component on teachers work force development at the secondary level. We expect maximum participation from the UL on teachers licensing framework development under the project.

The UL was founded in 1862 as Liberia College and became a full University in 1951. It is a public institution funded mainly by the GoL and now has four campuses: Capitol Hill, Fendall, Medical School, and Starz-Sinji campus located in Sinji, Grand Cape Mount County. The mission of the University is to prepare well qualified men and women for teaching, research, public, and private service, and to contribute to the achievement of the development goals for sustainable human development.

The UL has 7 colleges, 4 graduate programs and 3 professional schools. Colleges at the UL include: College of Social Sciences and Humanities (Liberia College), College of Business and Public Administration, College of General Studies, T.J.R. Faulkner College of Science and Technology, William V.S. Tubman Teachers College, William R. Tolbert, Jr. College Agriculture and Forestry, and Straz-Sinje Technical and Vocational Middle College.
Legislative Caucus

The county legislative caucus will be key for political buy-in. Key decisions on land and stakeholders’ engagement will require approval of Law Makers in the counties in some instances.

### 3.4 Project Management/ Implementation Diagram

Implementation Diagram

- **Senior Management Team (SMT)**
  (Headed by the Minister of Education, and includes all Deputy and Assistant Ministers)

- **Project Delivery Team (PDT)**
  (Headed by the Project Coordinator)

- **Implementing Bureaus**
  (Headed by Assistant Ministers)

- **ESMF Implementation Team**
3.5 World Bank Safeguards Policies

The TforR Project is rated as a category B because its potential adverse effects on the population or areas of environmental importance are limited, site-specific, and likely reversible, and mitigation measures can be more easily designed/implemented. As a WB financed project, the

Bank’s safeguards are presented, and the safeguards policies triggered are highlighted below

Table 2 Triggered World Bank’s Safeguards Policies, Explanation, and Borrower’s Requirements

<table>
<thead>
<tr>
<th>No</th>
<th>Triggered WB’s Safeguard Policies</th>
<th>Explanation for triggering policy</th>
<th>Borrower’s requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td><strong>OP/BP 4.01 Environmental Assessment</strong></td>
<td>This policy has been triggered because component 2 of the project includes civil works, which has the potential to generate negative impacts on the environment as well as expose workers and communities to construction related health and safety risks and hazards. The satisfy the requirements of OP 4.01, the MOE has developed this ESMF as project activities and locations are yet to be finalised. ESMPs will be developed as and when required during project implementation and when project activities and sites are finalized.</td>
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<tr>
<td></td>
<td><strong>OP/BP 4.11 Cultural Physical Resources</strong></td>
<td>It is not known if physical cultural resources are in the project area. However, this policy has been triggered as a matter of precaution since the works will involve excavation with the potential to discover chance finds. A stand-alone physical cultural resources management is not required. A chance find procedure has been incorporated in the ESMF and will be updated and incorporated in the contractor’s site-specific plan.</td>
<td></td>
</tr>
</tbody>
</table>
This policy has been triggered as a matter of precaution. Construction of new infrastructures such as classrooms, teacher housing, toilets, and wells will be undertaken under component 2. However, the exact locations of the proposed construction works have not been are yet to be finalised.

An RPF has been developed to facilitate project preparation, while a RAP or an ARAP may be developed during implementation when required.

No other operational policies of the World Bank are triggered under the Project at this time.¹

4 BIOPHYSICAL AND SOCIO-ECONOMIC ENVIRONMENT OF LIBERIA

¹ Other World Bank policies not trigged under this Project: OP 4.04 Natural Habitats, which does not allow the financing of projects degrading or converting critical natural habitats; OP 4.12 Involuntary resettlement, which covers an impact on individuals or small businesses, with loss of housing or shelter, loss of income or, in some cases, expropriation of private land and physical displacement of dwellings or shelters. OP 4.09, Pest Management; OP 4.10: Indigenous Peoples; OP 4.36: Forests; OP 4.37 Safety of Dams; OP 7.50 International Waterways; and OP 7.60, Disputed Areas
4.1 Biophysical Environment

4.1.1 Physiography

The Republic of Liberia is located at latitudes 4°21’ N and 8°33’ N of the equator and longitudes 11°28’W and 7°32’W. As shown on figure xx above, Liberia is bordered on the West by the Republic of Sierra Leone (299km), on the North by the Republic of Guinea (590km), on the East by the Republic of Cote d’Ivoire (778km) and on the South by the Atlantic Ocean. The Country comprises 110,000 square kilometers (43,000 sq. miles) of which 96,300 square kilometers (37,190 sq. miles) is land and 15,000 square kilometers (5,810 sq. miles). Liberia is divided into 15 counties, 136 districts arrayed within counties, and numerous clans arrayed within districts. Individual counties comprise from 4-18 districts and varying numbers of clans. The six largest counties (7,770 km²) are: Nimba County-11,551 km²; Lofa County, 9,982 km²; Gbarpolu County9,953 km²; Sinoe County 9,764 km²; Bong County-8,754.0 km²; and Grand Bassa County-7,813.7 km². Other counties range in surface area from 1,880 km² (Montserrado County) to 5,663 km² (Rivercess County).
Liberia is dominated by flat to rolling coastal plains that contain mangroves and swamps (World atlas, accessed December 2018). There are six (6) major rivers in Liberia including the Mano River in the Northwest and the Cavalla in the southeast. The others are Lofa, St. Paul, St. John and Cestos River. The Cavalla River is the longest among these rivers (320 miles 515km). All of these rivers flow and empty into the Atlantic Ocean. Liberia also has several mountains with the highest being the Mount Wuteve at 4,724 ft. (1,440 m)
located in Lofa County. However, Mount Nimba which peaks at 5,748 ft. (1,752 m) is shared with the Republics of Guinea and Côte d'Ivoire. The lowest point of the country is the Atlantic Ocean.

4.1.2 Climate
Liberia's climate consists of two separate climate regimes: the equatorial climate regime restricted to the southernmost part of Liberia, where rainfall occurs throughout the year, and the tropical regime dominated by the interaction of the Inter-Tropical Convergence Zone (ITCZ) and the West African Monsoon. The tropical climate of Liberia is hot and humid throughout the year with little variation in temperature (mean daytime temperatures 270-320°C; mean nighttime temperatures 210-240°C). In Liberia, there are distinct wet and dry seasons with most of the rainfall occurring between late April and mid-November. Annual rainfall amounts are 4000-5000 mm along the coastal belt, declining to 1300 mm at the forest-savanna boundary in the north. The seasonal variation in rainfall has a critical influence on the vegetation. Liberia exhibits a fairly high average relative humidity throughout most of the year ranging from above 80% along the coastal belt with lower humidity in the interior portion of the country.

4.1.3 Soils
Large areas of Liberia (75%) are Ferralsols that are highly weathered soils with low fertility and low capacity to retain nutrients. They are suitable for surface farming techniques and provide valuable materials for road construction. They are well-drained with good physical structure; their deep rooting depth makes up for their relatively low water-holding capacity. Acrisols are less weathered than Ferralsols but still low in mineral nutrient reserves. The presence of a subsurface layer of clay accumulation may impede internal drainage and makes them more susceptible to erosion. These soils have high humus content and suitable for cultivation of swamp rice, with proper water management.

4.1.4 Hydrology
Liberia possesses abundant surface water and six principal watersheds: Cavalla, Cestos, Lofa,
Mano, Saint John and Saint Paul rivers respectively. Together, these basins drain approximately 65.5% of the country. The Mano and Cavalla are shared basins between Sierra Leone and Côte d’Ivoire respectively, while the Lofa, Saint John and Saint Paul drain part of Guinea. Numerous micro watersheds or sub-watersheds also exist. The internally produced renewable water resource is estimated at 200km².

4.1.5 Land Cover and Vegetation

Situated within the tropical rainforest belt of West Africa with a total land area of 9.58 million hectares, Liberia’s forests covered about 4.30 million hectares or 45 percent of the land area. Hence, 42% of West Africa's remaining Upper Guinean tropical forest is found in Liberia.

Liberia has a small land area. The forests of Liberia account for a wide range of other environmental products and services that benefit Liberia and the rest of the world. The Country is a verdant land that is heavily forested; it has an extensive and unique biodiversity and is considered one of the 14 centers of global plant endemism which contains over 2,900 different vascular plants species (including 225 tree species), 600 bird species, 150 mammal species; and 67 reptile species.

4.2 Socio-economic Environment

4.2.1 Population

The LISGIS, 2008 National Population Census puts Liberia’s population at an estimated 3.5 million people. (36 individuals/km²), a 65% increase since 1984. Liberia’s population growth rate in 2008 was estimated to be 5.3% and is expected to decline to 2.1% by 2025. Net migration is positive as a result of immigration from surrounding countries. An estimated 58% of the population of Liberia lives along the coast. The major coastal cities, which also include major population centers are: Monrovia, Buchanan, Greenville etc. This information is about to be updated after the upcoming 2019 National Population Census.
4.2.2 Population Density
According to USAID 2013, the highest concentration of population occurs in and around coastally located Monrovia, the capital of the country, including Montserrado and nearby counties. Montserrado County has 595 individuals/km², and nearby Margibi County has 78-individuals/km², Bomi County, 44 individuals/km², Bong County, 38 individuals/km², and Grand Bassa County, 28-individuals/km², which includes the seaport Buchanan. Other counties with moderate to high relative population densities include: Maryland County (59 individuals/km²) which includes the coastal city of Harper in the extreme southeast, bordering Côte d’Ivoire; north central Nimba County (40 individuals/km²), bordering Guinea and Côte d’Ivoire; Lofa County (72 individuals/km²) in the west, bordering Sierra Leone; and Grand Cape Mount County (27 individuals/km²) in the northwest, which includes the coastal city of Robertsport and borders Sierra Leone and Guinea. The remaining 6 counties have densities ≤15 individuals/km².

4.2.3 Life Expectancy
In Liberia, the average life expectancy at birth is 58 years (2013); infant mortality is 70 deaths per 1,000 live births (2013); and, maternal mortality rate is 770 deaths per 100,000 live births (2010). HIV prevalence among adults aged 15-49 years is 1.5% (2009). Adult literacy rates average 61% (2010). Poverty and underdevelopment are not the only challenges. Liberia emerged from its protracted civil war as a deeply divided country, its social fabric torn by ethnicity, religion, geography, and history. There are 16 ethnic groups, and Christianity (85%), Islam (12%), and indigenous religions (3%) are practiced.

4.2.4 Size of Household Population
On average, household size is 5.6 persons, with the proportion of female-headed households varying from 5% in Bomi County to 21% in Lofa County, the area most heavily and continually affected by violence during the conflict (USAID, 2014). The effects of the conflict are evident as well in the spatial distribution of disabled people as a percentage of the population.
5.0 OVERVIEW OF PROJECT ENVIRONMENTAL AND SOCIAL RISKS AND POTENTIAL IMPACTS AND MITIGATION MEASURES

5.1 Topology of the Project Activities
Under Component 1, the Project aims to (a) construct 5 new high schools in designated district capitals to reduce overcrowding of students; and (b) expand 44 junior high schools by adding a senior high school construction annex at the existing sites. Under Component 2, the Project will construct 50 teacher housing compounds as a measure of deploying qualified teachers in science and math to hard-to-reach schools. Under Component 3, some infrastructure updates will be supported to enable the establishment of technology-oriented laboratories and classrooms.

The sites on which the construction is to take place have not yet been identified. However, the main work that will likely be undertaken under the Project may have be the following:

- Construction of new buildings or other facilities at sites either owned by the Government of Liberia, or designated for MoE use by the community or local entity;
- Extension of current buildings and facilities at existing school sites; and
- Rehabilitation of old buildings and facilities, including repair of recent buildings that do not meet current standards.

5.2 Generic Positive Environmental and Social Impacts
The Project will have many positive effects, which should be sustained over the long term. In general, it will help fight poverty and boost shared prosperity, as well as encourage investment in knowledge and skills in all sub-sectors of education. Promising investments will be made in regional infrastructure and economic integration, with a focus on initiatives to produce highly qualified human resources.
for priority growth sectors. More specifically, the Project will promote awareness among all national stakeholders about the environmental and social issues of Project activities and respect for the environment and key principles of sustainable development.

**Potential Environmental and Social Risks**

Some activities under this project, mainly component 2, may have adverse environmental and social impacts during implementation of sub-projects.

Since target sites and subprojects will only be identified during project implementation, the Government is required to develop and disseminate an ESMF as well as Resettlement Policy Framework (RPF) to spell out distinct arrangements for addressing environmental and social issues associated with the implementation of this project, as well as arrangement for resettlement of person if required.

**5.2.1. General environmental and social impacts**

Overall, in relation to these activities work, all the negative or harmful environmental impacts that are likely to be generated by the Project will be *limited in time and space.*

➔ The activities planned under the Project *exclude any form of land or property Acquisition or resettlement or physical displacement of populations* (works will be done in land belonging to the Government or rightfully donated (with relevant documentation presented).
Table 3 Construction of new infrastructures such as classrooms, teacher housing, toilets, and wells will be undertaken.

<table>
<thead>
<tr>
<th>Components</th>
<th>Activities with potential Environmental and Social Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1: Improving the teaching workforce</td>
<td></td>
</tr>
<tr>
<td>Subcomponent 1.1: Modernizing the Pre-Service Teacher Training System</td>
<td>Potential refurbishment/rehabilitation of an existing structure to upgrade for technology capabilities</td>
</tr>
<tr>
<td>Component 2: Closing the access gap in secondary education</td>
<td></td>
</tr>
<tr>
<td>Sub-Component 2.1: Improving equitable access to senior secondary education</td>
<td>(1) adding a total of five schools in areas where the SCR is higher than the national average of 64:1, (2) expanding 24 junior secondary schools by adding a senior high school annex in districts currently without access; and (3) expanding 24 junior secondary schools by adding a senior high school annex in districts where the SCR is higher than the national average.</td>
</tr>
<tr>
<td>Sub-Component 2.2: Increasing access to qualified mathematics and science teachers in target schools</td>
<td>Construction of teacher housing units at 50 rural high schools that lack qualified science and/or math teachers.</td>
</tr>
</tbody>
</table>
Risks or negative impacts during the pre-construction phase

During the pre-construction phase (preparation of the bidding documents), the main risk is neglect of the environmental and social aspects and their low consideration during the technical studies and / or the preparation of unsatisfactory environmental studies. This risk can be compounded if the information aspects and public participation are not taken into account.

Furthermore, site selection could include some potential environmental and social concerns and impacts: for example, in the siting of works on sections of campuses where they could conflict with adjoining land use outside the campus land, or on areas prone to soil erosion or damage.

Key mitigation measures for these risks will be: (i) public and stakeholder consultation during site selection and preparation and validation of studies; (ii) quality control and implementation of validation procedures for environmental studies and their dissemination; and (iii) regular supervision of the building sites by environmental experts (in addition to the control of the relevant national institutions in relation to contractual specifications).

- The effects of *climate change* will be taken into account in the choice of materials, the overall design of buildings and the technological options for construction (e.g., energy efficiency). The building will be in consonance with local climatic, environmental, and meteorological conditions and will incorporate proper ventilation and provision of sunshine, air movement, and maximum usage of daylight.
- *Location and design of new buildings* should also take into account site-specific risks (such as location near gullies which are prone to flooding and erosion; near water bodies and designated forests etc.).
- *Sourcing of construction materials* should be considered, especially given the risk of
• contractors using non-registered quarries, illegal sand-mining or creating new quarries through illegal extractions
• The design of the buildings under Project will take into account the gender dimension, especially in relation to the provision of a sufficient number of separate male and female washrooms (with the installation of lavatories, washbasins and urinals, etc.).
• All facilities, whether to be built or rehabilitated, will be properly designed in strict compliance with national standards for the protection and promotion of persons with disabilities, by removing barriers for their inclusion and improving their accessibility to physical infrastructure.

5.2.2 Pre-Construction Phase

Risks or negative impacts at the construction phase

Construction phase risks and impacts at the construction phase will be site specific. Despite the fact that they are manageable and small, this phase will have low to moderate impacts and could be a source of inconvenience for workers and all those living or working near the site. Of these impacts, the most important are:

• Air quality, noise, water and sanitation, waste
  • Pollution and nuisance (noise, dust) due to the construction of facilities.
  • Occasional forms of pollution generated in construction sites by waste.
  • Solid and liquid waste from construction sites.
  • Impact of some works on sources of drinking water.
  • Damage to some underground networks and even temporary suspension of certain services (water, electricity, etc.).
• Emissions of greenhouse gas (GHG) related to the exhaust gases of construction vehicles, as well as olfactory nuisances, health risks and pollution.

○ **Vegetation and soils**
  • Uprooting of trees and cutting of shrubs made necessary by certain activities, with reduction of green spaces.
  • Risks of localized soil degradation, despite the fact that washout works will be limited in depth.
  • Certain forms of soil erosion due to the construction activities.
  • Risk of subsidence and landslides due to possible excavation work.
  • Risks of floods, without the adoption of soil waterproofing techniques.

○ **Hygiene, health and safety of workers, residents and users**
  • Accidents caused by construction machinery traffic and possible non-compliance with safety instructions.
  • Risk of accidents around unreported excavations and open trenches, unmarked and poorly lit.
  • Safety of schools staff and students due to poor organization of work sites and work areas.
  • Accidents of workers (scaffolding falls, misuse of equipment, electrocutions, etc.).

○ **Natural risks**
  • Some of the proposed developments could be affected by the risks associated with the effects of climate change (in particular, the risks associated with floods caused by heavy rains).

○ **Risks of conflicts between the workers and local populations**
The works may have impacts on staff and students, with the likely restriction of vehicle and pedestrian traffic in the vicinity of construction sites, noise and dust-related inconvenience, space congestion caused by building materials, construction and construction waste, not to mention negative impacts due to the transformation of the landscape.

- To avoid social tension, it is desirable to recruit a local workforce.
- Although it is expected that selected contractors would recruit a local workforce, it can be expected that skilled and unskilled workers may be brought in for temporary periods from outside the community. This would potentially increase risks of sexual harassment, prostitution and underage sex on vulnerable sections of the local population, especially women and minors.

5.2.3 Construction or Expansion Phase

General environmental and social impacts

Overall, in relation to these activities work, all the negative or harmful environmental impacts that are likely to be generated by the Project will be limited in time and space.

➔ The activities planned under the Project exclude any form of land or property Acquisition or resettlement or physical displacement of populations (works will be done in land belonging to the Government or rightfully donated (with relevant documentation presented).

Otherwise, construction phase risks and impacts at the construction phase will be site specific. Despite the fact that they are manageable and small, this phase will have low to moderate impacts and could be a source of inconvenience for workers and all those working or attending the schools. Of these impacts, the most important are:
Air quality, noise, water and sanitation, waste

• Pollution and nuisance (noise, dust) due to the construction of facilities.
• Occasional forms of pollution generated in construction sites by waste.
• Solid and liquid waste from construction sites.
• Impact of some works on sources of drinking water.
• Damage to some underground networks and even temporary suspension of certain services (water, electricity, etc.).
• Emissions of greenhouse gas (GHG) related to the exhaust gases of construction vehicles, as well as olfactory nuisances, health risks and pollution.

Vegetation and soils

• Uprooting of trees and cutting of shrubs made necessary by certain activities, with reduction of green spaces.
• Risks of localized soil degradation, despite the fact that washout works will be limited in depth.
• Certain forms of soil erosion due to the construction activities.
• Risk of subsidence and landslides due to possible excavation work.
• Risks of floods, without the adoption of soil waterproofing techniques.

Hygiene, health and safety of workers, residents and users

• Accidents caused by construction machinery traffic and possible noncompliance with safety instructions.
• Risk of accidents around unreported excavations and open trenches, unmarked and poorly lit.
• Safety of students and staff due to poor organization of work sites and work areas.
• Accidents of workers (scaffolding falls, misuse of equipment, electrocutions, etc.).

Natural risks

• Some of the proposed developments could be affected by the risks associated with the effects of climate change (in particular, the risks associated with floods caused by heavy rains).
Risks of conflicts between the workers and local populations

• The works may have impacts on students and staff with the likely restriction of pedestrian traffic in the vicinity of construction sites, noise and dust-related inconvenience, space congestion caused by building materials, construction and construction waste, not to mention negative impacts due to the transformation of the landscape.

To avoid social tension, it is desirable to recruit a local workforce where financially and logistically appropriate

Although it is expected that selected contractors would recruit a local workforce, it can be expected that skilled and unskilled workers may be brought in for temporary periods from outside the community. This would potentially increase risks of sexual harassment, prostitution and underage sex on vulnerable sections of the local population, especially women and minors.

Physical cultural resources

• Some historic buildings may be affected by the work and some excavations may reveal archaeological and cultural remains.

5.2.3 Maintenance Phase

During the occupancy and maintenance phase, project activities should not pose any particular environmental or social problems. Potential negative impacts might generally be due to: inadequate design; lack of a system for the collection and transfer of waste, in particular domestic waste; a possible lack of an effective, regulatory and adapted sanitation system; lack of regular maintenance procedures; insufficient enforcement of security measures; and lack of appropriate measures for people with disabilities.

Appropriate measures of the National Building Regulations will be strictly respected, mainly in terms of fires or explosions, with the installation of smoke detectors, extinguishers, and alarm devices.
In compliance with national regulations, building companies working under the Secondary Education Teaching for Results Project will be required to regularly monitor compliance with safety and health standards, and to periodically carry out measurements, analyses and assessments of environmental conditions and, where appropriate, undertake collective or individual protection measures to prevent damage to the safety and health of workers.

Different measures (identified in this report) will be planned to reduce the potential impacts during implementation of the various activities planned under the Secondary Education TforR Project:

<table>
<thead>
<tr>
<th>Types of risk</th>
<th>Assessment</th>
<th>Level of risk (°)</th>
<th>Main Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tendering process (preconstruction phase)</td>
<td>Neglecting environmental and social issues</td>
<td>Low to moderate</td>
<td>Preparation of appropriate Terms of Reference, which will be validated by EPA and approved by the WB. All mitigation measures must be included into the contractor bid documents.</td>
</tr>
<tr>
<td>2. Constructions</td>
<td>Risks related to large deep excavations; opening of trenches for laying extension and densification pipes.</td>
<td>Moderate</td>
<td>Selection of specialized companies Conduct of prior technical studies. Preparation of detailed technical specifications for contractors</td>
</tr>
</tbody>
</table>
| 3. Demolitions or extensions of building | Safety of workers, residents and users | Moderate | Preparation of detailed technical specifications for contractors
During indoor demolition activities, debris must be kept in a controlled area. Water must be sprayed to reduce dust from debris.
Eliminate dust during pneumatic drilling and destruction of walls by continuous vaporization of water and/or installation of dust screens on the site
Maintain the surrounding environment (sidewalks, roads) free of debris, in order to minimize the amount of dust
No open fire of construction/waste materials will be carried out on the site. |
| 4. Soils | Pollution risks or accidental soil erosion (at the site and neighborhood level) | Low | Conducting preliminary geotechnical studies. Anti-erosion measures |
| 5. Waters | Potential groundwater pollution and groundwater contamination (accidental spills of hydrocarbons and lubricating oils) | Low to moderate | Use of small structures allowing the flow of rainwater
Wastewater management: Sanitary sewage disposal (or sealed and fenced pit) Quality control of drinking water
Implementation of appropriate erosion and sediment control measures, such as hay bales and/or silt barriers to prevent the movement of sediments from the site and the generation of excessive turbidity in the yards, water and nearby rivers. |
| 6. Debris | Construction debris | Moderate | Correct management of debris, according to the standards established in the contractor's ESMP-W |
| 7. Waste | Construction site waste (during construction)  
Domestic waste (during maintenance) | Low to moderate | Adequate storage of products and waste (waterproof storage); Disposal of waste to authorized public landfills.  
Hygiene in construction sites  
Prohibition of waste in the open air  
Roadways and sites for waste collection and disposal will be identified for the main types of waste typically generated by demolition and construction activities.  
Mineral construction and demolition waste will be segregated from general waste, organic, liquid and chemical waste through on-site sorting and placed in appropriate containers.  
Construction waste will be collected and disposed of appropriately by licensed collectors  
Waste disposal records will be maintained as evidence for the appropriate management planned.  
Where appropriate, the contractor will reuse and recycle suitable and viable materials (with the exception of asbestos)  
All these provisions must be reported in the Contractor's ESMP-W |
<table>
<thead>
<tr>
<th>8. Hazardous toxic waste (including medical waste)</th>
<th>Management of hazardous toxic waste</th>
<th>Low</th>
</tr>
</thead>
</table>

Temporary on-site storage of any hazardous or toxic substances will be conducted in secure containers that provide compositional data, properties and handling information for those substances. Containers of hazardous substances must be placed in a leakproof container to prevent spillage and leakage.

The waste is transported by specially authorized carriers and is disposed of at a site authorized for this purpose.

Paints containing toxic ingredients or solvents or lead-based paints will not be used.

In accordance with national regulations, the contractor will ensure that newly constructed and/or rehabilitated health care facilities have sufficient infrastructure for the management and disposal of medical waste; this includes and is not limited to: (i) Special facilities for separate health care waste (including "sharps instruments" for soiled instruments and human residues or liquids) from other waste disposal systems, clinical waste: yellow bags and containers; special boxes resistant to perforation; household waste (non-organic): black bags and containers (ii) appropriate storage facilities for medical waste are in place; and (iii) If the activity includes institutional treatment, appropriate elimination.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Asbestos</td>
<td>Management of asbestos</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td>If asbestos is detected at the project site (demolition work), it must be clearly marked as a hazardous substance. If possible, asbestos will be suitably contained and sealed to minimize exposure. Before removal (if such removal is necessary), asbestos will be treated with a wetting agent to minimize the amount of asbestos dust. Asbestos will be treated and eliminated by qualified and experienced professionals. If asbestos-containing materials are to be stored temporarily, the waste must be safely placed in closed containers and reported in an appropriate manner. Asbestos removed will not be reused.</td>
<td></td>
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</tbody>
</table>

| 10. GHG emissions | Exhaust gas | Low to moderate |
|   |   |   |
| Regular maintenance of construction machinery and vehicles |   |   |
| 11. Vegetation | Some works involve the cutting or removal of vegetation (trees, shrubs) and the reduction or destruction of green spaces. This will be minimal as construction works will be carried out mainly at pre-existing facilities. | Low | Establishment of a green zone
Search for alternative solutions (to avoid cutting trees)
Tree planting to compensate for the possible destruction of green spaces and the shortfall in terms of CO₂ sequestration capacities |
| 12. Air quality | Negative potential impact of heavy machinery on | Moderate | Air pollution control system (compliance with standards for exhaust emissions from construction equipment (work phase). Watering of construction sites; |
| construction sites and vehicles | | | Systematic removal of unused embankments |
| 13. Atmospheric pollution | The sites could contribute to increase air pollution and dust generation. Increased pollution and improper storage of materials and displacement and use of materials | Low to moderate | Adoption of strict safety standards in areas close to construction sites. Use of techniques to mitigate this risk in construction sites Organization of public awareness and information campaigns Watering the building sites |
| 14. Noise pollution | Increased noise and vibration (rolling stock, jackhammers, air compressors) | Low to moderate | Establishment of regular control measures of the intensity of noise pollution Sound measurements according to NT 48.04 (ISO.1996 / 1) in case of complaints or perception of exceedance by controllers Respect of working hours on construction sites Noise from construction activities will be restricted to the schedule agreed in the permit During operation, the engine covers of generators, air compressors and other mechanical equipment shall be closed and the equipment will be placed as far as possible from the residential areas. |
| 15. Health and safety of workers, residents and users | Accidents in construction sites Workers falling from scaffolding (the most common of accidents) | Moderate | Establishment of safety rules in construction sites and application of instructions and rules of hygiene. Staff management Helmets door by workers Warning signs for places at risk |
| 16. Building safety | Risk of fires and explosions | Low | In accordance with the National Building Regulations LI 1630 (building safety and prevention of fire and explosion risks). Installation of smoke detectors, fire extinguishers and alarm devices. |
| 17. Traffic and pedestrian safety | Direct or indirect hazards to public traffic and pedestrians through construction activities | Low to moderate | In accordance with national regulations, the contractor must ensure that the construction site is properly secured and that traffic related to the construction is regulated. This includes, but is not limited to, signage, warning signs, gates and diversions: the site will be clearly visible and the public warned of all potential dangers Traffic management system and staff training, particularly for site access and dense traffic near the site. Provide safe crossings and passages for pedestrians when construction traffic interferes. |
| 18. Child labor | Use by contractors of child labor | Low | Adjustment of working hours to local traffic patterns. Active management of traffic by trained and visible staff on the site, if necessary for a safe passage and convenient for the public. Provide safe and continuous access to offices, stores and residences during renovation activities, if the buildings remain open to the public. Strict compliance with national regulations on child labor by works contractors |
| 19. Disabled people | Neglecting disabled people in building plans and rehabilitation of buildings | Low to moderate | Accessibility mechanisms for persons with disabilities in public buildings (access ramps, sanitary blocks, etc.) |
| 20. Restauration of historic buildings | Neglecting the historic value of buildings | Low to moderate | Notify the local competent authorities and obtain the authorizations / permits. Full compliance with heritage management regulations regarding buildings of historical value. |
| 21. Archaeological, cultural and historical heritage | Neglecting historic heritage | Low | Ensure that arrangements are in place to ensure that artefacts or other "finds" encountered during excavation or construction are noted, that officials are contacted, and that work is delayed or altered to accommodate these discoveries. Compliance with national regulations for the protection of historical and cultural property. Possible involvement of the National Heritage Department and specialized centers. See Annex 2 for ‘Chance Find’ procedures. |
6. ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCEDURES

6.1 Screening of sub-projects
Under the Project, all the activities (sub-projects) will be subjected to an environmental and social screening, a procedure aimed to:

i) Determine the nature and the extent of their anticipated adverse environmental and social impacts;

ii) Define and develop the most appropriate safeguard instrument, depending on the nature and extent of these impacts; and

iii) Establish and implement appropriate mitigation measures.

A screening of each proposed intervention or project will be undertaken. The MOE with assistance from the EPA will:

a. Screen the intervention in accordance with OP4. 01 and the EPML depending on type, location, and scale of the interventions, and the nature and extent of its potential environment impacts. This will give particular attention to any activities that are likely to have potential to result in non-compliance with WB OPs and will consider the mitigation measures identified through the Environmental Assessment process;

b. Ensure compliance with the national EIA screening process with both the EPA and World Bank safeguards processes;

c. Determine and formally agree with the EPA on the level of assessment required (e.g Project Brief or ESMP, full scale ESIA will be required) or whether a FONSI can be granted.

To facilitate this process, the MOE will develop a standard screening checklist form that incorporates:
a. The Liberian National EIA Screening Form;
b. Criteria that reflects the WB, including whether the site and proposed intervention presents risks to natural habitats, water quality and water resource availability and use, natural hazards, cultural property, involuntary resettlement, and pesticide use;
c. Process for checking whether the mitigation measures identified through the ESMF process apply; and
d. Identification of stakeholders, including groups that may be affected by the project (to be appended to the checklist).

6.2 Preparation of the ESMF and Approval Procedures

The conduct of an environment assessment (EA) for this proposed project is a requirement of the World Bank and the Government of Liberia as per the nature of the project. The EA was initiated by the Ministry of Education as Government Implementing Agency with stakeholders’ consultations. The implementation of this framework will involve preparation of an Environmental Impact Assessment Report (EIA), Resettlement Action Plan (RAP) Environmental Impact Statement (EIS) and Environmental Management Plan for the project.

The ESMF will be a public document. This disclosure is a requirement from the World Bank safeguard policies as well as from national environmental assessment procedures, and therefore the report will be available to project affected groups, local NGOs, and the public at large. The MOE will make copies of the ESMF available in selected public places as required by law for information and comments as well as in the media. The ESMF will be announced and published on an official Government website.
7. PROJECT IMPLEMENTATION ARRANGEMENTS

7.1 Overall Project Implementation Arrangements
The Ministry of Education will serve as the main implementation agency to ensure the Project achieves expected results. In that regard, it will ensure contributions required of its own bureaus, the CSA, and the MDFP are timely and of quality. Through Component 4, accommodations have been implemented to help build the MoE’s capacity to effectively oversee the project.

Day-to-Day operations will be delegated by the MoE to a Project Delivery Team dedicated exclusively to the Project. This team will be embedded in the MoE, reporting to the Senior Management Team and will liaise with entities inside and outside the Ministry to deliver Project intermediate results and execute the IPF component of the Project. It is envisioned that this team will comprise of Project Coordinator, M&E Specialist, Program Specialist, Program Assistant, plus additional consultancies to meet the financial and procurement needs of the Project. During appraisal, the Project Delivery Team and relevant roles will be finalized with TORs included in the Project Implementation Manual.

At the national level, the Ministry of Finance and Development Planning will manage project funds through its Project Financial Management Unit. Guidance on works, environmental and health policies implementation will be driven by the Ministries of Public Works and Health, and Social Welfare. Legal matters will be handled by the Ministry of Justice.

The office of the President of Liberia will be updated on a quarterly basis through the President Delivery Unit (PDU).

7.2 ESMF Implementation Arrangements
The Project Delivery Team will have overall responsibility for the ESMF Implementation. A focal person to oversee the overall implementation of the ESMF and other project safeguard instruments, including the RPF, will be appointed. Similar arrangements will also be established at the county level. At county level, a designated project staff will carry out the day-to-day implementation and monitoring of safeguard instruments. The construction contractors will also have ESMF implementation responsibilities. The contractors, depending on the nature of their undertakings, will
be required to develop appropriate contractor’s environmental and social management plans to manage the environmental and social risks and impacts of their activities. The project implementation manual will further clarify these roles and responsibilities.
**Table 5. Role and responsibilities (focus on the PDT)**

<table>
<thead>
<tr>
<th>No</th>
<th>Steps/Activities</th>
<th>Responsible entity</th>
<th>Collaboration</th>
<th>Service Provider/Technical Assistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Identification and/or siting of the sub-project</td>
<td>MOE</td>
<td>local authority, MIA, MPW, EPA</td>
<td>To be identified</td>
</tr>
<tr>
<td>2.</td>
<td>Screening, categorization and identification of the required instrument</td>
<td>Environmental safeguards specialist (ESS) hired under PDT</td>
<td>beneficiaries; local authority, Social Safeguards Specialist (SSS) on the PDT</td>
<td>To be identified</td>
</tr>
<tr>
<td>3.</td>
<td>Approval of the classification and the selected instrument by the Public EA Agency</td>
<td>Project Coordinator</td>
<td>ESS-PDT, SSS-PDT</td>
<td>Public EA Agency (PEA), The World Bank</td>
</tr>
<tr>
<td>4.</td>
<td>Preparation of the safeguard document/instrument (ESIA, Environmental Audit, simple ESMP, etc.) in accordance with the national legislation/procedure (taking into account the Government and Bank policies requirements)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>MOE ESS-PDT</td>
<td>EPA</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>------------------------------------------</td>
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<tr>
<td>Preparation and approval of the ToRs</td>
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<tr>
<td>Preparation of the report</td>
<td></td>
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<tr>
<td>Report validation and issuance of the permit (when required)</td>
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<tr>
<td>Publication of document</td>
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<tr>
<td>5. (i) Integrating the construction phase mitigation measures and E&amp;S clauses in the bidding document prior they’re advertised; (ii) ensuring that the constructor prepares his ESMP (C-ESMP), gets it approved and integrates the relevant measures in the works breakdown</td>
<td>Works Contract Management Specialist in the PDT and other Technical staff in charge of the sub-project (TS-PDT)</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Control Firm (Supervisor) PEA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Implementation of the other safeguards measures, including environmental monitoring (when relevant) and sensitization activities</td>
<td>ESS-PDT</td>
<td>SSS-PIE, PS-PIE, TS-PIE, Financial Management Officer (FMO-PDT), Local authority</td>
<td>Consultant, National specialized laboratories, NGOs</td>
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<tr>
<td></td>
<td>7. Oversight of safeguards implementation (internal)</td>
<td>SSES</td>
<td>Monitoring and Evaluation specialist (M&amp;E-PDT), FS-PDT, Local authority</td>
<td>Control Firm (Supervisor), Other Independent Verification Agents</td>
</tr>
<tr>
<td></td>
<td>Reporting on project safeguards performance and disclosure</td>
<td>Project Coordinator (PDT)</td>
<td>M&amp;E-PDT, ESS-PDT, SSS-PDT</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>External oversight of the project safeguards compliance</td>
<td>PEA</td>
<td>M&amp;E-PDT, ESS-PDT, SSS-PDT, PS-PDT, Supervisor</td>
<td>To be determined</td>
</tr>
<tr>
<td></td>
<td>8. Building stakeholders capacity in safeguards management</td>
<td>ESS-PDT</td>
<td>SSS-PDT, PS-PDT</td>
<td>Consultant, Other qualified public institutions (EPA, etc)</td>
</tr>
</tbody>
</table>
### 8. ESMF MONITORING AND EVALUATION

#### 8.1 Objectives of Environmental and Social Monitoring and Control

Environmental and Social monitoring & control is a crucial component of the ESMF during project implementation. The Project’s Environmental and Social Management Monitoring System aims to describe: (i) the elements to be monitored; (ii) monitoring methods and tools; (iii) the responsibilities for monitoring and reporting; and (iv) the periodicity of monitoring. The system aims to ensure that: identified mitigation measures are appropriate and affectively implemented and produce the anticipated results; any additional impacts not identified in the analysis of the potential environmental and social impacts of the rehabilitation and/or construction of facilities are captured as early as possible and are modified, discontinued or replaced if they prove to be inadequate.

### 9. CONSULTATION OF STAKEHOLDERS

The preparation of the ESMF will be participatory as key relevant stakeholders are to be consulted (for examples EPA, LLA, MoE, MCSS, MIA, MPW, Affected counties Legislative Caucus, UL etc.) and provide meaningful inputs to the project and ESMF design and report. In addition, the Safeguards team will visit the five selected sites for schools under the project as well as the 24 rural expansions to respectively to assess current condition and expansion possibilities with potential risks and impacts on sight.

The main outcomes of these consultations were the need to involve stakeholders in project implementation and allow county authorities and community elders to make decision on project sites to avoid confusion with communities and claim for property. The Ministry was already proactive on these as all project sites selections were driven first by data using agreed criteria, and then working with the local structure and
relevant authorities. It is from this background we can almost be certain that the works component of the project has no negative environmental impact.

10. ESTIMATED COSTS FOR ESMF IMPLEMENTATION

An indicative budget for ESMF implementation is given below in Table 6. The budget will be revised once the subproject locations and activities are clearly defined. The estimate cost provided does not include cost of mitigation activities, including provision of personal protective equipment and proper disposal of construction wastes, that will be carried out by the contractor.

Table 6 Indicative ESMF Budget

<table>
<thead>
<tr>
<th>No</th>
<th>Activity</th>
<th>Cost (US Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Environmental and Social Safeguard awareness and sensitization sessions for project communities</td>
<td>50,000</td>
</tr>
<tr>
<td>2</td>
<td>Capacity building for safeguard implementation for safeguard focal persons and other relevant project staff</td>
<td>50,000</td>
</tr>
<tr>
<td>3</td>
<td>E&amp;S screening activities at subproject level and preparation of subproject ESMPs as and when required</td>
<td>150,000</td>
</tr>
<tr>
<td>4</td>
<td>Environmental &amp; social safeguard monitoring including annual environmental audit</td>
<td>150,000</td>
</tr>
<tr>
<td></td>
<td>Total Cost</td>
<td>400,000</td>
</tr>
</tbody>
</table>
(1) Project Briefs will vary in individual costs and will be expected to be absorbed into construction costs.

11. PROJECT GRIEVANCE REDRESS MECHANISM (GRM)

The Grievance Redress Mechanism (GRM) will provide a way to provide an effective avenue for expressing concerns and achieving remedies for communities. The goal is to promote a mutually constructive relationship and enhance the achievement of project development objectives. The GRM is to ensure that complaints are directed and expeditiously addressed by the relevant agencies which is to enhance responsiveness and accountability.

11.1 Typical Grievances

Likely common grievances that may arise during implementation areas may be related to:

a) Concerns about environmental pollution (noise, air, water, and soil);
b) Construction related accidents;
c) Non-payment of work done;
d) Obstruction of community access routes;
e) Non-payments of infrastructure construction materials;
f) Extraction of local materials for construction works;
g) Employment opportunities offered by the projects activities; and
h) Land acquisition or encroachment on private or community lands

It is therefore important to have structures at the community level where grievances can be processed and resolved if possible. In order to be effective, the GRM should adhere to the following principles:

a) it should be scaled to address the risks and impacts on affected communities;
b) be culturally appropriate;
c) be clear and accessible for any individual or group at no cost (vulnerable groups); and

d) be transparent and including regular reporting, and preventive of retribution and should not impede access to other remedies.
11.2 GRM Structure

The project GRM will ensure that grievances are tracked and resolved at all levels of the project. Local Grievance Redress Committees (LGRC) will be initiated at the village level, to record grievances and also help in mediation. This committee will comprise the area local chief or a trusted village elder, a religious representative, and specific vulnerable group representatives of relevance to the village i.e. women and the disabled. Disputes will be resolved at the village level as far as possible. The GRC at the district and county levels will be resolved under a County/District GRM constituted by the Project. At the County Level, the Grievance Redress Committee will be established to deal with any grievances unsettled at the village level. Serious grievances, including assault, rape cases, and gender-based violence, that cannot be handled at the project level will be referred to the relevant authority.

Annexes

Annex 1: General Outline for Project Brief

Section 8 of the Environmental Protection Management Law of Liberia prescribes the outline of the project brief as follow:

a) The nature of the project in accordance with the categories specified in the annex I of this Law;

b) The location of the project and the county under whose jurisdiction it is situated and reasons for proposing the project in the area;

c) The activities that shall be undertaken during and after the development of the project; d) The design of the project;

e) The materials to be used in the project, including during construction;

f) The possible products or by-products anticipated and their environmental consequences including the potential mitigation methods and measures;

g) The number of people the project shall employ;
h) The projected areas of land, air and water that may be affected;
i) Findings of the scooping activities; and
j) Any other pertinent evidence and analysis which the Agency may require for decision-making.

Annex 2 Chance Finds Procedure

Project-supported civil works could impact sites of social, sacred, religious, or heritage value. "Chance finds" procedures would apply when those sites are identified during the actual construction period.

1. Cultural property includes monuments, structures, works of art, or sites of significant points of view, and are defined as sites and structures having archaeological, historical, architectural, or religious significance, and natural sites with cultural values. This includes cemeteries, graveyards and graves.

2. The list of negative subproject attributes which would make a subproject ineligible for support includes any activity that would adversely impact cultural property.

3. In the event of finding of properties of cultural value during construction, the following procedures for identification, protection from theft, and treatment of discovered artefacts should be followed and included in standard bidding documents;
   a. Stop the construction activities in the area of the chance find;
   b. Delineate the discovered site or area;
   c. Secure the site to prevent any damage or loss of removable objects;
   d. Notify the Supervising Engineer who in turn will notify the responsible authorities;
   e. The Ministry of Information, Cultural Affairs, and Tourism, in collaboration with responsible local authorities (where applicable), would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures;
   f. Decisions on how to handle the finding shall be taken by the Ministry of Cultural Affairs or other responsible authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance), conservation, restoration and salvage;
   g. Implementation of the authority decision concerning the management of the finding shall be communicated in writing by the Ministry of Cultural Affairs; and
h. Construction work could resume only after permission is given from Ministry of Cultural Affairs or other responsible authorities concerned with safeguarding the cultural heritage. These procedures must be referred to as standard provisions in construction contracts. During project supervision, the Supervising Engineer shall monitor the above regulations relating to the treatment of any chance find encountered. Relevant findings will be recorded in World Bank Supervision Reports and Implementation Completion Reports will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.

Annex 3: Environmental and Social Screening Form

<table>
<thead>
<tr>
<th>Project Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project Title</td>
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<tr>
<td>2. Project Number</td>
</tr>
<tr>
<td>3. Project Location</td>
</tr>
</tbody>
</table>

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?

Briefly describe in the space below how the Project mainstreams the protection of human rights
Part B. Identifying and Managing Social and Environmental Risks

**QUESTION 2**: What are the Potential Social and Environmental Risks?

*Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.*

<table>
<thead>
<tr>
<th>Risk Description</th>
<th>Impact and Probability (1-5)</th>
<th>Significance (Low, Moderate, High)</th>
<th>Comments</th>
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<tr>
<td>Risk 1: ....</td>
<td>1</td>
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**QUESTION 3**: What is the level of significance of the potential social and environmental risks?

*Note: Respond to Questions 4 and 5 below before proceeding to Question 6*

**QUESTION 6**: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?

Description of assessment and management measures as reflected in the Project design. If ESIA is required note that the assessment should consider all potential impacts and risks.
<table>
<thead>
<tr>
<th>Risk</th>
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<tr>
<td>4:</td>
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</table>

[add additional rows as needed]

**QUESTION 4: What is the overall Project risk categorization?**

<table>
<thead>
<tr>
<th>Select one (see ESMP for guidance)</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Low Risk</td>
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<tr>
<td>Moderate Risk</td>
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<tr>
<td>High Risk</td>
<td>[ ]</td>
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</table>

**Final Sign Off**

<table>
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<tr>
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<th>Date</th>
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<tr>
<td>QA Assessor</td>
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<tr>
<td>QA Approver</td>
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</tr>
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</table>
Annex 4: Outline for Environmental and Social Management Plan

Executive Summary
   ES.1 Project Summary
   ES. 2 Environmental and Socio-economic conditions
   ES. 3 Key Findings of Stakeholder Engagement
   ES. 4 Key Mitigation Measures
   ES. 5 ESMP Organization

1 Introduction
   1.1 Purpose
   1.2 Background
   1.3 ESMP Contents
   1.4 Project Summary

2 Mitigation Management and Monitoring Plan
   2.1 Overview
   2.2 Mitigation Measures

3 Roles and Responsibilities
   3.2 Project Steering Committee
   3.3 Contractors

4 Implementation and Verification Procedures

5. Institutional Capacity and Capacity Building

Annex 5: Terms of Reference for Environmental and Social Specialist

Terms of Reference
The Ministry of Education has received funding from the World Bank to implement the Improving Results in Secondary Education (IRISE) Project for supporting the Government of Liberia in implementing a defined strategy in senior secondary education. In doing so, it will support implementation of the Government’s Education Sector Plan 2017-2021, as well as the strategic roadmap for education transformation outlined in the National Education Summit, over five years (2019-2023) with the overall intention of removing barriers that are impeding access to services and quality learning outcomes. It aims to improve student learning outcomes by addressing the main challenges facing particularly senior secondary education in teacher quality, girls’ completion, accessibility and digital skills. Specifically, it aims to (a) modernize and improve teacher development and management, (b) reduce gaps and inequality in accessing senior secondary education, (c) support girls’ transition to and completion of senior secondary education, (d) provide opportunities for students to learn digital skills, and (e) strengthen the capacity of education institutions and systems. Through the interventions carried out under the project, a good system foundation will be put in place for continuing development of human capital to meet Liberia’s growth needs. The project comprises five components – 1) Improving Teaching in Senior Secondary Education, 2) Closing the Access Gap in Secondary Education, 3) Increasing Completion Prospects in Secondary Education for Girls, 4) Technology for learning and digital skills, and 5) Capacity building, technical Assistant, program coordination, monitoring and management.

**Objective**
The objective of the assignment is to ensure compliance with environmental and social safeguard requirements in carrying out construction works under the project.

**Scope of Services**
Facilitate implementation of activities towards compliance with the legal requirements of Liberian legislation and the World Bank policies (safeguards) on environmental and social aspects during implementation of the Project.

**Duties and responsibilities of Environmental and Social Specialist (ESS)**
The ESS is responsible for implementing the environmental/social related activities as outlined in the Environmental and Social Management Framework (ESMF)/ Environmental and Social Management Plan (ESMP) of the project.

Specifically, the ESS is also responsible for the following duties:

**Develop environmental management documents through:**

- Involvement in updating relevant environmental sections of the Project Implementation Manual when necessary;
- Ensuring including necessary activities related to the environmental and social safeguards, such as trainings, studies, etc. in the project procurement plan if relevant;
- Arrangement and conduction of environmental assessment, monitoring of compliance with site-specific Environmental and Social Management Plans (ESMPs);

**Ensure inclusion of environmental requirements in construction contracts through:**

- During pre-bid meeting, informing bidders about the full list of environmental requirements to be followed by the Contractors, and ensuring including the environmental requirements in the bidding package;
- Review of the work plans provided by a Contractor and identification of bottlenecks not included in the proposed mitigation measures and environmental and social activities and/or budget;
- Prepare environmental and social requirements to be included in the construction contracts;
- Verify that sub-contractors have relevant valid licenses and environmental and Health & safety certification compliant with the national environmental requirements (in particular, regarding to construction materials, equipment etc.).

**Supervision and monitoring of compliance with environmental activities through:**

- Supervise both, individually and in conjunction with supervising engineers, the compliance with mitigation measures envisaged in the site-specific Environmental and Social Management Plan for each objective included in the project;
- Ensure fulfillment of monitoring plan for each objective included in the project, including baseline data, regular field check and the efficiency of mitigation measures;
- Develop requirements to Contractor’s reports and monitor the implementation of planned mitigation measures and environmental activities; review the Contractor’s reports provided regularly.
During the project implementation assess the need of relevant environmental trainings for the project partners, and provide the necessary arrangements if required;

Ensure compliance with other social requirements through:

- Carry out screening of potential social impacts; findings of the screening will determine the need for development of further mitigation measures for each objective included in the project;
- Review and give acceptance of including relevant chapters on social protection in the detailed design, technical specifications, and Bills of Quantities;

Other duties:

- Prepare guidelines and recommendations for monitoring and reporting on safeguards during project implementation.
- Prepare training materials related to environmental and social safeguards (assessment, management and implementation tools) and deliver training to selected staff from relevant agencies, and contractors.

V. Qualification requirements:

The ESS should be an individual, having the following required qualifications:

Qualifications and skills:

- University degree in relevant area (environmental management, social sciences, constructions engineer, geology, environment, etc.);
- Knowledge of the Liberia’s legislation for environmental protection and the World Bank environmental/social policies;
- Excellent writing skills, ability to prepare clear and attainable reports;
- Strong facilitation skills, ability to conduct discussions and to respond to various feedback/questions.
- Good command of English language
- Computer literate in Microsoft Office (Word and Excel).

General Professional experience:

- at least five (5) years of professional experience in assignments for environmental and social assessment and environmental management in wide range of activities;
- Demonstrated experience for supporting, advising and/or collaborating with public institutions on environmental and social safeguards / sustainable development etc.;
- Practical experience in the field of monitoring and evaluation.