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REPUBLIC OF SIERRA LEONE

ENVIRONMENT AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

**The West Africa Regional Disease Surveillance Systems Enhancement
(REDISSE) Project**

April 2016

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ACRONYMS

APCD	Air Pollution Control Device
BACT	Best Available Control Technology
BOD	Biological Oxygen Demand
CE	Combustion Efficiency
COD	Chemical Oxygen Demand
CSSD	Central Sterile Supply Departments
EHD	Environmental Health Division
EIA	Environmental Impact Assessment
EPA	Environmental Protection Act
HCW	Healthcare Waste
HCWM	Healthcare Waste Management
HF	Health Facility
HIV	Human Immunodeficiency Virus
IMSWM	Integrated Municipal Solid Waste Management
INWMP	Integrated National Waste Management Policy
ISO	International Standards Organization
LCA	Life Cycle Assessment
LDO	Light Diesel Oil
LLWAC	Local Liquid Waste Advisory Committee
LSWAC	Local Solid Waste Advisory Committee
LWM	Liquid Waste Management

LWMPs	Liquid Waste Management Plans
MoHS	Ministry of Health and Sanitation
MSW	Municipal Solid Waste
NGOs	Non-Governmental Organizations
NSIs	Needle Stick Injuries
OH&S	Occupational Health and Safety
PPE	Personal Protective Equipment
REDISSE	The West Africa Regional Disease Surveillance Systems Enhancement Project
SLI	Starting Light Ignition
SOPs	Standard Operating Procedures
TLWAC	Technical Liquid Waste Advisory Committee
VOC	Volatile Organic Compound
WC	Water Closet
WMP	Waste Management Plan

EXECUTIVE SUMMARY

Background

The West Africa Regional Disease Surveillance Systems Enhancement Project (REDISSE) will be implemented as an interdependent series of projects (SOP) that will eventually engage and support all 15 ECOWAS member countries. This is the first project in the series, REDISSE-SOP1 which targets both extremely vulnerable countries (Guinea, Sierra Leone and Liberia) and countries which have more effective surveillance systems and serve as hosts for important regional assets (Nigeria and Senegal). Phase 2 (REDISSE-SOP2) is expected to be delivered in the second quarter of Fiscal Year 17 (FY17). The estimated project financing for REDISSE-SOP2 is US\$102 million. FY17 delivery of this project will allow additional time for consultations, assessments and planning needed to ensure country readiness. REDISSE-SOP2 countries will include: Cote d'Ivoire, Guinea Bissau, Ghana, Togo, Benin and possibly The Gambia. Together, REDISSE SOP 1&2 constitute a block of equatorial, coastal countries with shared borders and similar epidemiologic profiles which extends from Senegal in the west to Nigeria in the east. The series of projects will be implemented in the context of the African Integrated disease surveillance and Response Strategy, international standards and guidelines of World Health Organization (WHO), World Organization for Animal Health (OIE), and Food and Agriculture Organization of the United Nations (FAO), fostering a One Health Approach.

The animal health sector in the ECOWAS region is characterized by a high incidence and prevalence of infectious diseases communicable diseases, both zoonotic and non-zoonotic, impacting veterinary and public health, trade, rural development and livelihoods. Among the most serious infectious diseases, contagious bovine pleuropneumonia (CBPP), foot and mouth disease (FMD), African Swine Fever (ASF), Rift Valley Fever (RVF), Peste des Petits Ruminants (PPR), African Animal Trypanosomiasis (AAT), highly pathogenic avian influenza (HPAI), and rabies are highlighted by ECOWAS and the GF-TADs for Africa.

Animal health is seen as a priority by the two regional economic communities in West Africa. ECOWAS and WAEMU have set a target of harmonizing national animal health systems. WAEMU, which covers 8 countries in the region, has moved forward on a number of fronts in particular on the harmonization of regulations on veterinary medicinal products, but progress has been slow due to administrative, human, organizational and financial constraints. In 2012, ECOWAS member countries declared the Regional Animal Health Center (RAHC)—an informal platform originally set up in 2006 by OIE, FAO and AU-IBAR as the ECOWAS specialized technical center for animal health. An operational plan for RAHC was developed in August 2014. However, delays in staff recruitment and establishment of a dedicated operational budget have kept the institution from implementing this plan and rolling-out activities in accordance with its mandate. The RAHC is currently supported through a limited number of initiatives with specific objectives, including to further develop the One Health agenda in the region, and to develop Integrated Regional Coordination Mechanisms for the Control of TADs and Zoonoses (IRCM). The WB-financed Regional Sahel Pastoral Support project (PRAPS),

which supports the improvement of animal health in 6 West African Sahel countries, also specifically aims at contributing to the operationalization of the RAHC.

The Development Partner landscape in the sub-region is complex, particularly in the three countries most affected by the 2014-2015 EVD epidemic. The Ebola outbreak triggered a significant international response that brought many partners together to address the crisis and support the post-Ebola agenda of health systems recovery and strengthening. It also highlighted the need to focus attention on building the capacity for disease surveillance and response in the sub-region for both human and zoonotic diseases. The development partners engaged on these issues in the sub-region include major donor organizations including development banks, multilateral and bilateral donors and private foundations; UN systems agencies; technical agencies such as the US and China Center for Disease Control and Prevention; academic and research institutions and large numbers of international and local non-governmental organizations. As noted in Annex 2, in this type of environment duplication of effort, inefficient use of resources and failure to address resource, policy and programmatic gaps is a substantial risk. It is expected that there will continue to be an influx of funds and other forms of support to the region, in particular, to the three EVD affected countries (Guinea, Sierra Leone, and Liberia) in the next three to five years. As a result, coordination of resources and activities offered by the various partner organizations will remain a significant challenge for national governments. Therefore, coordination mechanisms at both national and regional levels that engage both the human and animal health sectors need to be developed to maximize the impacts of the increasing support and foster sustainability of the anticipated outcomes. The World Bank's convening power will be highly instrumental in forging a coalition of national, regional, and global technical and financial institutions to support the disease surveillance and epidemic preparedness agenda in West Africa.

The World Bank is well placed to mobilize substantial financing for this multi-sector initiative and to convene premier technical and financial partners engaged in the field of disease surveillance and epidemic preparedness. The World Bank has strategically engaged with a core group of development partners including those implementing the Global Health Security Agenda (GHSA) in the development of the REDISSE project. The REDISSE project itself will provide resources to regional institutions and national governments to establish the needed coordinating mechanisms

Project Development Objective (PDO)

The project's development objective (PDO) is to strengthen national and regional cross-sectoral capacity for collaborative disease surveillance and epidemic preparedness in West Africa.

The REDISSE Project has four components as follows:

Component 1: Surveillance and Information Systems:

- support the enhancement of national surveillance and reporting systems and their interoperability at the different tiers of the health systems.

- support national and regional efforts in the surveillance of priority diseases (including emerging, re-emerging and endemic diseases) and the timely reporting of human public health and animal health emergencies in line with the IHR (2005) and the OIE Terrestrial Animal Health code.

Component 2: Strengthening Laboratory Capacity:

- establish networks of efficient, high quality, accessible public health, veterinary and private laboratories for the diagnosis of infectious human and animal diseases, and
- establish a regional networking platform to improve collaboration for laboratory investigation.
- address critical laboratory system weakness systems weaknesses across countries, fostering cross-country and cross-sectoral (at national and regional levels) collaboration.

Component 3: Preparedness and Emergency Response:

- support national and regional efforts to enhance infectious disease outbreak preparedness and response capacity.
- support (i) updating and/or development of cross-sectoral emergency preparedness and response plans (national and regional) for priority diseases, and ensuring their integration into the broader national all-hazards disaster risk management framework; (ii) regular testing, assessment, and improvements of plans; (iii) expansion of the health system surge capacity including the allocation and utilization of existing pre-identified structures and resources (at the national and regional level) for emergency response, infection prevention and control.

Component 4: Human resource management for effective disease surveillance and epidemic preparedness:

- Cross-cutting given that animal and human health workers form the backbone of Disease Surveillance (Component 1), Laboratories (Component 2) and Preparedness and Response (Component 3) ensure effective human resource management aims at bringing the right people with the right skills to the right place at the right time.

Component 5: Institutional Capacity Building, Project Management, Coordination and Advocacy:

- focus on project management which includes fiduciary aspects (financial management and procurement), M&E, knowledge generation and management, communication, and management (capacity building, monitoring and evaluation) of social and environmental safeguard mitigation measures.

Rationale for Preparation of Relevant Safeguard Documents

The REDISSE project which has placed in category B, triggers two World Bank safeguards policies dealing with Environmental Assessment (OP/BP 4.01) and Pest management (OP/BP

4.09) respectively. Thus three safeguards instruments would be required: (i) Medical waste Management Plan; (ii) Integrated Pest Management Plan; and (iii) Environment and Social Management Framework.

The REDISSE project is required to meet full compliance with safeguards and fiduciary policies, prior to the Board approval. To this end, this ESMF document has been prepared as one of the required safeguards documents to be prepared, consulted upon and disclosed in-country and at World Bank InfoShop.

Purpose of the ESMF

At this time of project preparation, the specific sites that the project would be implemented are not known in sufficient details. Hence the preparation of this framework document that outlines the principles and procedures that would be followed to ensure that implementation of REDDISSE meets with the existing EIA law in Sierra Leone and World Bank Safeguards policies.

The ESMF spells out the Environmental and Social (E&S) safeguards, institutional arrangements and capacity required to use the framework. The ESMF sets out basic principles and processes within which the sub-projects are implemented agreeable to all parties.

The other objectives of the ESMF include:

- Assessment of potential adverse E&S impacts commonly associated with the sub-projects and the way to avoid, minimize or mitigate them;
- Establishment of clear procedures and methodologies for the E&S planning, review, approval and implementation of sub-projects;
- Development of an ESA screening/initial assessment system to be used for sub-projects; and
- Specification of roles and responsibilities and the necessary reporting procedures for managing and monitoring sub-project E&S concerns.

Environmental and Social Screening and Assessment Process

The screening process is the first step in operationalizing the ESMF process. The objective of screening is to identify the environmental and social safeguards category of sub-projects on the basis of the type of environmental or social concerns and expected impacts. As the overall project is category B no sub-projects could be category A. A checklist of items that are required to be adhered to conform to the provisions of this ESMF has been developed. Thus the various subprojects shall be cleared for implementation after undertaking the necessary environmental and social assessments, as mandated by the Environmental laws of Sierra Leone Governments (national and regional) and conforming to the safeguard policies of the World Bank. The process for conformance to these procedures is defined in this framework and the criteria established as per the checklist of items to enable the identification of such projects.

The report on the outcome of the screening, scoping and EA category exercises for the first five sub-projects will be sent to the World Bank for review and clearance. In addition, all EAs/ESMP prepared will be sent to the World Bank for review and clearance to ensure compliance with OP4.01 and any other relevant safeguard policies, procedures and guidelines.

Potential Environmental and Social Impacts and Mitigation Principles

The project is envisaged to have a range of positive environmental and social impacts. Some of these are a function of the objectives of the project, while others are a function of the way in which the project is designed to meet its objectives. The project beneficiaries are the population of poor rural communities living aside in the vicinity of intervention areas. Specifically, the following are some of the benefits that could be due to the project: improved infrastructure, improved health care, etc.

As a rule of the thumb, conversely, it is anticipated that the project would exert some negative impacts on the social and physical environment within which they are implemented. These impacts have been identified, albeit, generically but contains issues relevant to or applicable to the local environments of the proposed project area as outlined in the ES Tables a. In the Table, the corresponding mitigation principles have been identified as well and this would be made more robust by the ESIA/ESMP that shall be prepared for each subproject when the sufficient details are known.

Cumulative Environmental and Social Impacts

No long term or cumulative adverse environmental and social impacts of sub-projects are envisaged.

However, the combination of multiple impacts from existing projects, the proposed project, and/or anticipated future subprojects may result in significant negative and/or positive environmental and social impacts that would not be expected in case of a standalone project.

The cumulative impacts of the project may potentially affect other areas coterminous to the project area but the mitigation measure for this risk is that in depth technical and spatial analysis will be conducted to model the impact of the proposed subprojects once sufficient details are known and thus limit the risks. In addition, the proposed screening of subprojects with the site specific ESIA/ESMPs for the various potential subprojects would give priority to assessing cumulative impacts stemming from each proposed undertakings or subproject activities.

The plan to put in place ESMFs for each of the five countries. The ESMFs will provide guidance on managing the environmental impacts of building/rehabilitating facilities.

Potential environmental and social impacts

The activities being financed on the ground are not expected to involve large scale construction, land acquisition or involuntary displacement of people. However, there are environment and social impacts resulting from infection control interventions and use and disposal of chemicals and management of healthcare waste within and from healthcare facilities. The small-scale

construction of infrastructure may have minor, short-term direct impacts on vegetation and local species-mainly due to soil excavation, dust, and noise. Issues related to labour and worker safety and safety and access of patients will also need to be managed.

The social impacts of the REDISSE are expected to be positive, and the likelihood of negative social impact is nil. Positive impacts can be expected from the increased awareness of a healthy lifestyle and the risk factors for chronic disease. This would not lead to the isolating stigma that sometimes results from greater awareness about communicable diseases; rather, it could increase social encounters, especially for the elderly, women and children. Moreover, addressing substance use and abuse by bringing it out of the shadows and providing counselling services could contribute to de-stigmatization. Indirect social benefits are expected from the effort to make the health system more efficient and to increase the capacity of health workers to provide better quality services in a friendlier work environment. Health workers themselves are expected to benefit from the attention to the workload, which could increase as a result of the additional requirements involved in providing preventive and other screening services at the primary level. This would be analyzed, and provisions have already been made for additional workers at the primary care level under the ongoing MoHS reforms. There could be negative impacts associated with poor management of healthcare waste and also disruption of healthcare services during construction activities; disruption of access to patients and communities etc. These negative impacts are to be mitigated through implementation of the measures detailed in this document.

On the basis of the anticipated impacts the project is classified as environmental category B in compliance with the World Bank Operational Policy 4.01 on environmental policy.

Table 4: Potential environmental and social impacts

Planning Phase	Impacts	Mitigation Measures
Physical Restrictions on building space.	<p>The size of the health care facilities premises are either too small, with little room to expand outwards or on steep slopes with high erosion potentials.</p> <p>All construction is expected to be within the existing premises and therefore there is no requirement for land acquisition.</p>	<p>Relevant construction, climatic and environmental elements shall be considered in the engineering designs for facilities before procurement approval</p>
Construction Phase		
Flora and Fauna	<p>The rehabilitation, refurbishment and upgrading of existing healthcare facilities could result in some clearing and depletion of vegetation that could result in loss of tree/plant cover within the existing premises</p>	<p>There is no likelihood of Greenfield project in REDISSE; however, where the need arises, vegetation stripping shall be restricted to the size of land needed for construction. Re-vegetation and tree planting will be carried out as necessary</p>
Soil and Land Pollution	<p>Earth-moving equipment such as excavators will be used in excavation work. This could potentially/temporarily decrease the drainage of the area resulting in water logging.</p> <p>The risk of accidental discharge of hazardous products, leakage of hydrocarbons, oils or grease from construction machinery also constitutes potential sources of soils and water pollution.</p>	<p>Proper supervision will be carried out to ensure that contractors adhere to good construction practices. Excavated soils will be sandfilled. Trucks and heavy duty machines must be properly maintained to ensure no oil leakage, while treatment and disposal of contaminated soil shall be carried out immediately, once leakage of oil is reported</p>
Vehicular Traffic	<p>Construction works will result in a higher volume of traffic around the healthcare facilities and within the neighborhood. This could result in obstruction of normal traffic, disruption of access of the community and road safety around the construction site. The noise and movement could also affect normal hospital operations while impacting patient well-being through noise and dust.</p>	<p>Soundproof machines shall be used when carrying out rehabilitation work in the healthcare facilities. Hospital security/traffic control unit shall be strengthened to efficiently control traffic</p>

Waste Management	Activities at construction sites will produce construction wastes such as excavated soils and cement bags, paint drums, brick and concrete rubble, metal, broken glass, timber waste and debris. Excavated wastes could obstruct the general public, the movement of the workers and vehicles as well as affect the aesthetics of the environment. Old buildings may have asbestos and PCBs, which if dismantled or disposed haphazardly, can result in serious pollution and health impacts.	Construction waste protocol has been developed for this project. This will guide the handling and management of all construction debris/waste that will result from REDISSE construction activities
Ambient air quality	(ii) Air Quality will be impacted by emissions from vehicles, earthmoving equipment and released particulate matters. Demolition to modify the built environment will lead to considerable levels of cement dust which can affect workers and patients. Deteriorated indoor air quality will be of critical effect to especially asthmatic construction workers, patients and health workers, with either minor or severe health impact depending on level and duration of exposure.	(iii) Use of sound and well maintained vehicles shall be ensured to eliminate or at least reduce to barest minimum the chances of air pollution.
Water pollution	(v) Wastewater discharges from construction activities or onsite sewage system and rainwater run-off can run into surface waters will impact water quality by causing changes to its physical, chemical and biological properties.	(vi) Waste (liquid or solid) will not be discharged indiscriminately for all aspects of this project. Management protocol and medical waste management plan developed for this project provide guidance for good waste management.
SOCIAL AND HEALTH IMPACTS		
Planning Phase		Mitigation Measures
	Impacts	
Disruption of Services	Healthcare services can get disrupted, and there is need for clear agreement on when and how the promised extension and refurbishments will be undertaken.	Alternative and adequate arrangement for healthcare services will be in place and submitted for WB no objection before going ahead with refurbishment and rehabilitation works
Construction Phase		Mitigation Measures
	Impacts	

Disruption of Utilities Service	The excavation and civil works may cause temporary disruptions of utility services such as electricity communication and water. This could impact the provision of services and also the neighborhood communities.	Refurbishment and rehabilitation works will be minimal and not expected to disrupt utility services installations. In the event of any changes, adequate consultation and collaboration with utility service provider shall be worked out before removal of their auxiliary installations
Temporary disruption of healthcare services	Since facilities under renovation will not be closed, they will experience shortages of working space. Thus modifications of buildings in which medical services are provided may entail moving patients or equipment from one area or room to another. This may cause temporary disruption in delivery of health services to patients.	Alternative and adequate arrangement for healthcare services will be in place and submitted for WB no objection before going ahead with refurbishment and rehabilitation works. This will ensure no disruptions in services
Occupational Safety and Health	The safety of the local population may be at risk during construction activities. The movement of trucks to and from the site, the operation of various equipment and machinery and the actual construction activities will expose the workers to work-related accidents and injuries. Pollutants such as dust and noise could also have negative implications for the health of workers and near-by communities.	Refurbishment work shall not be large scale. However, the use of personal protective equipment (PPEs) shall be enforced for all workers at construction site and laboratories
Impacts of construction activities on patients, healthcare staff and other stakeholders.	(i) Refurbishment work undertaken in the same buildings having patients has potential to cause injuries to patients or health workers. At all sites, renovation works will have the following potential hazards to staff and patients:	In the event of refurbishment of hospital building, proper arrangement will be made upfront to ensure no disruption in services and no adverse impacts on patients.
	Exposure to asbestos containing materials. (Old Buildings with asbestos roofs).	Construction safety plan including use of PPEs shall eliminate all construction related safety and health risk
	Falling from tripping on building materials.	
	Noise and vibrations during demolition	
	Injury from falling or flying debris when demolishing walls	
Cracking of existing structures from vibrations		

	Spillages and dust during transportation of materials	
Noise	Noise and vibration caused by machines, site vehicles, pneumatic drills etc during construction activities can be a nuisance to patients and the community.	
Traffic	Communities around the rehabilitation sites will experience heavier human and vehicular traffic. Construction related activities will be a nuisance to road users e.g. storage of construction stones by the roadside.	Hospital security/traffic control unit shall be strengthened to efficiently control traffic
Operational Phase		
Veterinary waste	Impacts	Mitigation Measures
Animal wastes	Wastes from treatment of animals including pathological and anatomical wastes (tissues, organs, etc) and material medical wastes from treatment such as syringes, sharps and cotton wools constitute bio-hazards which could infect other animals and humans	Proper management of medical waste will be followed. Protocol and guideline for medical waste management is attached in this ESMF as annex 6, while Medical Waste Management Plan has been prepared as a stand-alone document to complement the ESMF.

Stakeholders Consultation

Public consultation and disclosure

In accordance with World Bank safeguards policy governing EA, the GoS recognizes that stakeholder consultation is an important element of the REDDISEE and the EA process.

The objectives of the consultations were to:

- Inform the affected communities within the project affected area on the project development objective;
- Give them opportunity to express their perceptions and concerns about the project impact;
- Collect useful local data/information/solutions that will help in the ESMF/ESMP/ESIA project preparation (e.g. Local grievance redress procedures).
- Receive from, and deliberate with the stakeholders on measures to avoid or mitigate impacts as well as facilitate rehabilitation of affected persons; and
- Empower their voice by mainstreaming their inputs into ESMF/ESIA implementation plan.

Consultations were carried out between March 2nd and March 24th among agro chemical dealers, farmers associations and healthcare institutions in Freetown, Kenema, Makari and Kailahun.

The outcomes of the consultations are insightful as it reveals the expressed happiness of the people for the REDDISEE project. The gain also includes findings on general approach to pest control and use of pesticides. The agro dealers and farmers expressed their willingness to embrace IPM for pest control.

Public consultation is a continuum throughout the life cycle of this project, and therefore, at various stages of project implementation stakeholders will be consulted and continued to be engaged in planning, participation and collaboration. Media of communication shall be through radio jingle, community town hall meeting, and fliers and also via the public disclosure of prepared safeguard documents at designated centers as required by the law.

Stakeholders for the purpose of this project include all those people and institutions that have an interest in the successful planning and execution of the project. This includes those likely to be positively and negatively affected by the project. The key stakeholders include individuals suffering from epidemics, affected communities, healthcare workers, the donor community, the implementing Ministries and related government agencies specially set up to help implement the joint disease outbreak response plan within the three hardest hit countries. The draft ESMF that will be prepared during implementation, will be publicly consulted on and disclosed in-country (and globally through the World Bank Info Shop) in a form and language appropriate for public comprehension prior to its finalization. All comments provided during these consultations will be recorded, and included in the final ESMF and any subsequent safeguard instruments which will be developed as required.

In accordance with World Bank safeguards policy governing EA Category A projects the GoS recognizes that stakeholder consultation is an important element of the REDDISEE and the EA process.

The objectives of the consultations were to:

- Inform the affected communities within the project affected area on the project development objective;
- Give them opportunity to express their perceptions and concerns about the project impact;
- Collect useful local data/information/solutions that will help in the ESMF/ESMP/ESIA project preparation (e.g. Local grievance redress procedures).
- Receive from, and deliberate with the stakeholders on measures to avoid or mitigate impacts as well as facilitate rehabilitation of affected persons; and
- Empower their voice by mainstreaming their inputs into ESMF/ESIA implementation plan.

Grievance Management Process

There is no ideal model or one-size-fits-all approach to grievance resolution- *localized mechanisms that take into account the specific issues, cultural context, local customs, and project conditions and scales that works better. Nevertheless*, an outline of the Grievance Redress Flow Path/process that could be followed includes:

- Receive, register and acknowledge complaint;
- Screen and establish the foundation of the grievance;
- Implement and Monitor a redress action;
- Advise for a judicial proceedings as a last resort if necessary; and
- Document the experience for future reference through the registration of complaints, acknowledgement, follow-ups and the presenting mediation and corrective actions..

Environmental and Social Monitoring

Monitoring is a key component of the ESMF during project implementation. Monitoring verifies the effectiveness of impact mitigation measures, including the extent to which mitigation measures are successfully implemented. Monitoring specifically helps to:

- Improve environmental and social management practices;
- Check the efficiency and quality of the ESMP processes;
- Establish the scientific reliability and credibility of the ESMP for the project and;
- Provide the opportunity to report the results on safeguards and impacts and proposed mitigation measures implementation.

Some indicators that could be used to ensure participation process involved in subproject activities include:

- Number and percentage of affected households/individuals/institutions consulted during the planning stage;
- Levels of decision-making of affected people;
- Level of understanding of project impacts and mitigation;
- Effectiveness of local authorities to contributing and making relevant decisions;
- Frequency and quality of public meetings;
- Degree of involvement of women or disadvantaged groups in discussions.

ESMF implementation responsibilities:

The Ministries of Health and Agriculture in Collaboration with Environmental Protection Agency (EPA) has the overall responsibility for ensuring that environmental and social issues are adequately addressed within the sub-project cycle, and also to develop and collate the environmental Safeguard document. The sub-project implementers are responsible for actual preparation and implementation of required safeguard procedures and measures. The project will finance workshops on the safeguard policies for stakeholders, staffs, implementers and other MDA's. The World Bank will carry out general supervision of implementation.

Monitoring and evaluation I take it the IPMP/IVMP will also have to be printed etc?

Item	unit	unit type	unit	unit type	unit cost	total cost per month	Total cost per year	Total cost for 3 years	Total cost in dollars
Printing of checklist & supervision tools	3	pages	40	copies	5000	600000	7200000	21600000	4320
Replicating checklist	3	pages	40	copies	5000	600000	7200000	21600000	4320
Printing of ESMF&HCWMP Document	80	pages	80	copies	10000	64000000	84000000	84000000	16800
Staff DSA for supervision of construction and Rehabilitation	3	staff	13	days	350000	13650000	163800000	491400000	98280
Top up cards	1	top up	3	staff	200000	600000	7200000	21600000	4320
Fuel for field visits	3	staff	13	staff	250000	9750000	117000000	351000000	70200
DSA for Drivers	3	Drivers	13	Days	150000	5850000	70200000	210600000	42120
External Auditor	1	person	35	days	1000000	35000000	35000000	105000000	21000
Laptop for data collection/report writing	2	Laptop	2	Laptop	6000000	12000000	12000000	36000000	7200
Internet	1	modem	1	modem	1000000	1000000	1000000	3000000	600
internet running cost	1	modem	1	modem	400000	400000	4800000	14400000	2880
				Total	9370000	143450000	509400000	1528200000	305640

Disclosure

The ESMF has been prepared in consultation with the relevant stakeholders. Copies of this ESMF and other safeguard instruments (ESIA/EMP) that would be subsequently prepared for the subprojects shall be disclosed in compliance with relevant regulations in Sierra Leone and the World Bank operational policy. It will be disclosed in-country designated sites at Ministry of Health, Ministry of Environment and designated project communities and at World Bank InfoShop.

1.0 INTRODUCTION

1.1 Project background

Project Context:

The West Africa Regional Disease Surveillance Systems Enhancement Project (REDISSE) will be implemented as an interdependent series of projects (SOP) that will eventually engage and support all 15 ECOWAS member countries. This is the first project in the series, REDISSE-SOP1 which targets both extremely vulnerable countries (Guinea, Sierra Leone and Liberia) and countries which have more effective surveillance systems and serve as hosts for important regional assets (Sierra Leone and Senegal). Phase 2 (REDISSE-SOP2) is expected to be delivered in the second quarter of Fiscal Year 17 (FY17). The estimated project financing for REDISSE-SOP2 is US\$102 million. FY17 delivery of this project will allow additional time for consultations, assessments and planning needed to ensure country readiness. REDISSE-SOP2 countries will include: Cote d'Ivoire, Guinea Bissau, Ghana, Togo, Benin and possibly The Gambia. Together, REDISSE SOP 1&2 constitute a block of equatorial, coastal countries with shared borders and similar epidemiologic profiles which extends from Senegal in the west to Sierra Leone in the east. The series of projects will be implemented in the context of the African Integrated disease surveillance and Response Strategy, international standards and guidelines of World Health Organization (WHO), World Organization for Animal Health (OIE), and Food and Agriculture Organization of the United Nations (FAO), fostering a One Health Approach. It will support the countries to establish a coordinated approach to detecting and swiftly responding to regional public health threats. Cooperation among West African countries to prevent and control potential cross-border diseases is a regional public good. The regional benefits and positive externalities of effective disease surveillance and response are substantial. The West African Health Organization (WAHO) and the Regional Animal Health Center (RAHC) (Centre Régional de Santé Animale-CRSA, based in Bamako), both of which are affiliated with ECOWAS, will be responsible for the regional coordination, as well as implementation of specific regional activities and day-to-day oversight of the Project. Collective action and cross-border collaboration are emphasized throughout the Project: (i) the Project will support countries' efforts to harmonize policies and procedures; (ii) countries will be empowered to engage in joint planning, implementation and evaluation of program activities across borders at regional national and district levels, and; (iii) the Project will promote resource sharing of high cost specialized assets such as reference laboratories and training center and pooled procurement of difficult to access commodities.

Most recent estimates show that communicable diseases (CDs) account for more than one third of the global disease burden and that most of this burden falls on the countries of West Africa. Countries in this region are at high-risk for infectious disease outbreaks including those of animal origins (zoonotic diseases). The World Health Organization (WHO) has documented that of the 55 disease outbreaks that were reported in Africa over the last decade, 42 took place in West Africa. Some common outbreaks in the region include Cholera, Dysentery, Malaria,

Hemorrhagic fevers (e.g. Ebola virus disease, Rift Valley fever, Crimean-Congo fever, Lassa fever, and Yellow fever), and Meningococcal Meningitis. West Africa also bears a disproportionate burden of malaria, TB, HIV and neglected tropical diseases, many of which are at risk of resurgence due to drug and insecticide resistance.

Over the last four decades, the world has witnessed one to three newly emerging infectious diseases annually. Of infectious diseases in humans, the majority has its origin in animals (“zoonotic” diseases), with more than 70% of emerging zoonotic infectious diseases coming from wildlife. Recent outbreaks such as Ebola Viral Disease (EVD), H7N9 avian influenza, Middle East Respiratory Syndrome (MERS-CoV), Marburg virus, Nipah virus infection, bovine spongiform encephalopathy and HIV/AIDS showcase the catastrophic health and economic effects of emerging zoonotic diseases. The West Africa region is both a hotspot for emerging infectious diseases (EIDS) and a region where the burden of zoonotic diseases is particularly high. In this region, emerging and re-emerging diseases at the human-animal-ecosystems interface are occurring with increased frequency. As evidenced by the recent Ebola epidemics in Guinea, Sierra Leone, and Liberia, and the re-occurrence and spread in of Highly Pathogenic Avian Influenza (HPAI) (H5N1), highly contagious diseases can easily cross borders in the region through the movements of persons, animals and goods.

The major drivers of the emergence of novel infectious diseases are human behavior, demographic change, technology and industry, economic development, land use, international travel and trade, microbial adaptation and change, breakdown of public health measures and bioterrorism. The population of sub-Saharan Africa has doubled between 1975 and 2001, and the African Population and Health Research Center predicts a further increase, up to 1.9 billion by 2050. Urban population densities have dramatically increased, by 223%, 178%, and 275% respectively in Guinea (1960-2012), Sierra Leone and Liberia (1961-2013) due largely to migration from rural to urban areas. The link between deforestation and infectious disease outbreaks is well documented; deforestation and encroachment into natural habitats is also claimed to be responsible for EVD outbreak in West Africa. According to FAO data, Western Africa is suffering deforestation at twice the world rate approximately. Deforestation has been particularly severe in Sierra Leone with much of the landscape being replaced with forest-agricultural mosaics. Civil war and social turmoil have also been common in West Africa. The social instability and its consequential population relocation and breakdown of governments provide fertile ground for the rampant spread of infectious diseases.

The impacts of infectious disease outbreaks can be devastating to the fragile social and economic situation of countries. The WB estimated a global cost of US\$3 trillion in the case of a severe pandemic such as the 1918 Spanish Flu; an estimate that is comparable to the impact of the 2008 global financial crisis. In the West Africa region, the recent Ebola Virus Disease outbreak clearly eroded hard-won gains in the fight against poverty, including gains in human development and economic growth in Guinea, Liberia and Sierra Leone, as well as in the entire region. In these three countries, the estimated forgone output reached US\$1.6 billion, which represents over 12% of the countries’ combined outputs. The outbreak also resulted in school closure for at least 6

months and over 16,600 children lost one or both parents to the epidemic. Overall, the estimated loss in Gross Domestic Product (GDP) for the 15 countries in the ECOWAS region was approximately US\$1.8 billion in 2014, and was expected to rise to US\$3.4 billion in 2015 and US\$4.7 billion in 2016. These add to the ongoing burden of neglected and endemic human and animal diseases, including zoonoses.

Animal health is critical to public health and to the sustainable growth of the livestock sector. Livestock farming plays an important role in the ECOWAS region, contributing an average of 44% to its agricultural GDP. Livestock farming concerns virtually all rural households and is a crucial factor in combating rural poverty (see map below), both directly, through the income it generates, and indirectly, in allowing agriculture intensification and contributing to food security, nutrition and broader economic development. ECOWAS as a whole has a trade deficit in animal products and this trade deficit is particularly acute in the coastal countries. Demand for livestock products is expected to continue to grow significantly in the next decades, based on demographic trends, and propelled by increased urbanization and incomes. This evolution implies higher risks of occurrence of disease (frequency and/or severity), and higher impact of these diseases.

Sectoral and institutional Context

Like in other developing countries, the performance of health systems in many countries in West Africa is weak. They suffer from chronic insufficient financial and human resources, limited institutional capacity and infrastructure, weak health information systems, prevailing inequity and discrimination in availability of services, absence of community participation, lack of transparency and accountability, and a need for management capacity building. Public sector spending on health is generally low. Only Liberia exceeded the Abuja target of 15% of Gross Government Expenditure (GGE) allocated to health. Out of pocket spending on health was high ranging from a low of 21% in Liberia to a high of 76% of total health expenditure in Sierra Leone. Guinea, Liberia and Sierra Leone have low density and inequitable distribution of health services and health workers as a result of low production, low motivation, inadequate training, lack of quality supplies and the loss of health workers, particularly physicians and nurses to emigration (a.k.a. brain drain). This was further aggravated during the EVD outbreak, which took a high toll on the lives of health workers.

Country led self-assessment on disease surveillance, preparedness and response capacity in Guinea, Liberia, Sierra Leone, Senegal and Sierra Leone as well as the lessons learnt from the EVD outbreak revealed some key weaknesses of health systems in terms of infectious disease surveillance, epidemic preparedness and response. These include: (i) a fit for purpose health workforce for disease surveillance, preparedness and response is lacking at each level of the health pyramid; (ii) community level surveillance and response structures either do not exist or need significant improvement; (iii) there is limited availability of laboratory infrastructure in place for timely and quality diagnosis of epidemic-prone diseases; (iv) lack of interoperability of different information systems hampers analysis and utilization of information for decision making and actions for disease mitigation measures; (v) infection prevention and control standards, infrastructure and practices are generally inadequate; (vi) management of the supply

chain system is weak and inefficient; and (vii) there are significant gaps in regional level surge capacity for outbreak response, stockpiling of essential goods, information sharing and collaboration. Similar findings were also documented by the Global Health Security Agenda baseline assessments in a number of countries including Liberia, and Sierra Leone.

After the EVD outbreaks, health system recovery and strengthening plans were developed for at least the next five years in Guinea, Liberia and Sierra Leone. Building up a resilient health system to effectively respond to health emergencies has universally been identified as one of the strategic pillars in the plans. At the national level, broad-based health system strengthening committees or similar structures have been established to lead and coordinate the efforts for strengthening the national health system in the three countries. With the help from USAID, a plan for health system strengthening was also developed in Senegal. In all five countries REDISSE will build on and complement the ongoing health system strengthening initiatives of the national governments that are supported by the Bank and other development partners.

Animal Health

The animal health sector in the ECOWAS region is characterized by a high incidence and prevalence of infectious diseases communicable diseases, both zoonotic and non-zoonotic, impacting veterinary and public health, trade, rural development and livelihoods. Among the most serious infectious diseases, contagious bovine pleuropneumonia (CBPP), foot and mouth disease (FMD), African Swine Fever (ASF), Rift Valley Fever (RVF), Peste des Petits Ruminants (PPR), African Animal Trypanosomiasis (AAT), highly pathogenic avian influenza (HPAI), and rabies are highlighted by ECOWAS and the GF-TADs for Africa. A recent summary of evaluations of Veterinary Services by the World Organization for Animal Health (OIE) in ECOWAS countries highlighted the services' lack of budgetary resources and mismatch between the human resources required and those actually available for preventing and controlling animal diseases. In terms of the strategic action required to sustain animal health, all of the countries identified the need to improve the coverage of their surveillance programs as well as the control of high-priority animal diseases. Lack of preparedness, insufficient human, physical and financial resources, and the lack of cross-sector collaboration were again emphasized by the FAO and OIE as causes for failure to address promptly and efficiently the resurgence of highly pathogenic avian influenza in the region.

Improvement of animal health requires increased and sustained investments in national Veterinary Services to meet international standards of quality defined by the OIE. Any country failing to prevent, detect, inform, react and control sanitary issues, such as infectious diseases or antimicrobial resistance places other countries at risk, hence the importance of regional approaches. All countries in the region have engaged in the OIE Performance of Veterinary Services (PVS) Pathway, a program which provides independent qualitative (PVS evaluation) and quantitative (PVS Gap Analysis) evaluations of Veterinary Services, identifying their strengths and weaknesses, prioritizing interventions and costing activities needed to address deficiencies. Some countries have also received support to review their veterinary legislation.

Insufficient government funding and limited interest from donors to support Veterinary Services have not allowed significant progress to date in addressing systemic issues. Some important programs are worth noting though in the animal health sector, such as the EPT2 program, financed by USAID and implemented in many of the ECOWAS countries, through FAO and other implementing agencies; FAO support to HPAI infected countries; and, AU-IBAR support through the Vet-Gov program. In the last 15 years, two main regional and global programs significantly contributed to strengthening national Veterinary Services, namely the PACE program and the World Bank financed Avian Influenza Global Program which were implemented in many countries of the region. The lessons and best practices derived from these two programs are reflected in this project. The RESEPI and RESOLAB networks were also supported and facilitated by FAO under different projects and handed over in 2012 to ECOWAS.

Animal health is seen as a priority by the two regional economic communities in West Africa. ECOWAS and WAEMU have set a target of harmonizing national animal health systems. WAEMU, which covers 8 countries in the region, has moved forward on a number of fronts in particular on the harmonization of regulations on veterinary medicinal products, but progress has been slow due to administrative, human, organizational and financial constraints. In 2012, ECOWAS member countries declared the Regional Animal Health Center (RAHC)—an informal platform originally set up in 2006 by OIE, FAO and AU-IBAR as the ECOWAS specialized technical center for animal health. An operational plan for RAHC was developed in August 2014. However, delays in staff recruitment and establishment of a dedicated operational budget have kept the institution from implementing this plan and rolling-out activities in accordance with its mandate. The RAHC is currently supported through a limited number of initiatives with specific objectives, including to further develop the One Health agenda in the region, and to develop Integrated Regional Coordination Mechanisms for the Control of TADs and Zoonoses (IRCM). The WB-financed Regional Sahel Pastoral Support project (PRAPS), which supports the improvement of animal health in 6 West African Sahel countries, also specifically aims at contributing to the operationalization of the RAHC.

Tackling multisectoral issues efficiently requires working across sectors and disciplines. Yet, very few countries have adopted coordinated approaches, along the lines of the “One Health” concept. The response to the HPAI crisis since 2005 contributed to enhancing cooperation between the human and veterinary health sectors in many countries in the region, but in the absence of a dedicated program incentivizing such a joint approach, silos remain established. Nonetheless, important lessons have been learned and experience gained, and successful regional programs for the control of selected priority diseases, both within and outside the region, have demonstrated the efficiency of a regionally coordinated approach to diseases surveillance and response.

The Development Partner landscape in the sub-region is complex, particularly in the three countries most affected by the 2014-2015 EVD epidemic. The Ebola outbreak triggered a significant international response that brought many partners together to address the crisis and support the post-Ebola agenda of health systems recovery and strengthening. It also highlighted

the need to focus attention on building the capacity for disease surveillance and response in the sub-region for both human and zoonotic diseases. The development partners engaged on these issues in the sub-region include major donor organizations including development banks, multilateral and bilateral donors and private foundations; UN systems agencies; technical agencies such as the US and China Center for Disease Control and Prevention; academic and research institutions and large numbers of international and local non-governmental organizations. As noted in Annex 2, in this type of environment duplication of effort, inefficient use of resources and failure to address resource, policy and programmatic gaps is a substantial risk. It is expected that there will continue to be an influx of funds and other forms of support to the region, in particular, to the three EVD affected countries (Guinea, Sierra Leone, and Liberia) in the next three to five years. As a result, coordination of resources and activities offered by the various partner organizations will remain a significant challenge for national governments. Therefore, coordination mechanisms at both national and regional levels that engage both the human and animal health sectors need to be developed to maximize the impacts of the increasing support and foster sustainability of the anticipated outcomes. The World Bank's convening power will be highly instrumental in forging a coalition of national, regional, and global technical and financial institutions to support the disease surveillance and epidemic preparedness agenda in West Africa.

The World Bank is well placed to mobilize substantial financing for this multi-sector initiative and to convene premier technical and financial partners engaged in the field of disease surveillance and epidemic preparedness. The World Bank has strategically engaged with a core group of development partners including those implementing the Global Health Security Agenda (GHSA) in the development of the REDISSE project. The REDISSE project itself will provide resources to regional institutions and national governments to establish the needed coordinating mechanisms

Project Development Objective(s)

The project's development objective (PDO) is to strengthen national and regional cross-sectoral capacity for collaborative disease surveillance and epidemic preparedness in West Africa.

Project Description

Component 1: Surveillance and Information Systems: The first component will support the enhancement of national surveillance and reporting systems and their interoperability at the different tiers of the health systems. This component will support national and regional efforts in the surveillance of priority diseases (including emerging, re-emerging and endemic diseases) and the timely reporting of human public health and animal health emergencies in line with the IHR (2005) and the OIE Terrestrial Animal Health code.

Component 2: Strengthening Laboratory Capacity: The objective of this component is to establish networks of efficient, high quality, accessible public health, veterinary and private laboratories for the diagnosis of infectious human and animal diseases, and to establish a

regional networking platform to improve collaboration for laboratory investigation. The project seeks to address critical laboratory system weaknesses across countries, fostering cross-country and cross-sectoral (at national and regional levels) collaboration.

Component 3: Preparedness and Emergency Response: This component will support national and regional efforts to enhance infectious disease outbreak preparedness and response capacity. Activities under this component will support the (i) updating and/or development of cross-sectoral emergency preparedness and response plans (national and regional) for priority diseases, and ensuring their integration into the broader national all-hazards disaster risk management framework; (ii) regular testing, assessment, and improvements of plans; (iii) expansion of the health system surge capacity including the allocation and utilization of existing pre-identified structures and resources (at the national and regional level) for emergency response, infection prevention and control.

Component 4 Human resource management for effective disease surveillance and epidemic preparedness: Component 4 is cross-cutting given that animal and human health workers form the backbone of Disease Surveillance (Component 1), Laboratories (Component 2) and Preparedness and Response (Component 3). Effective human resource management aims at bringing the right people with the right skills to the right place at the right time.

Component 5: Institutional Capacity Building, Project Management, Coordination and Advocacy: This component focuses on all aspects related to project management. It includes fiduciary aspects (financial management and procurement), M&E, knowledge generation and management, communication, and management (capacity building, monitoring and evaluation) of social and environmental safeguard mitigation measures. It also provides for critical cross-cutting institutional support, meeting capacity-building and training needs identified in the five countries and at WAHO and RAHC on top of specific technical capacity-building activities undertaken within the four technical components. It will support the routine assessment of critical animal health and human health capacities of national systems using reference tools (such as OIE PVS and JEE) to identify weaknesses and monitor progress

1.2 Objectives of the ESMF

The objective of this Environmental and Social Management Framework (ESMF) is to ensure that adverse environmental and social impacts are avoided or appropriately mitigated and compensated for. The ESMF is based on the World Bank's environmental and social safeguard policies as well as EPA and MOHS policies. A key principle is to prevent and mitigate any harm to the environment and to people by incorporating environmental and social concerns as an intrinsic part of project cycle management. Environmental and social issues will be tracked during all stages of the sub-project cycle to ensure that supported activities comply with the policies and guidelines laid out in the ESMF.

The projects components are to be designed and implemented by integrating the national policies, guidelines, codes of practice and procedures proposed in this ESMF. The objectives are to ensure that the activities undertaken in the project:

- (i) Enhance positive environmental outcomes;
- (ii) Prevent negative environmental impacts;
- (iii) Identify and mitigate with appropriate measures, the adverse impacts that might arise;
- (iv) Obtain EIA licenses from EPA SL; and
- (v) Ensure compliance with the World Bank's environmental safeguards policies.

The ESMF also provides an overview of relevant World Bank and MOHS policies and describes the planning process concerning environmental and social issues, including for screening, preparation, implementation, and monitoring of sub-projects.

1.3 Justification for the ESMF

Since the exact locations and types of civil works is not known, the project has developed an Environment and Social Management Framework which provides overall guidance on environmental screening and management for various sub-projects. This ESMF provides guidance on managing the environmental impacts of building/rehabilitating facilities. The ESMF contains useful information on the procedures for environmental and social screening for sub-projects, potential environmental and social impacts; measures for addressing the negative impacts, recommended environmental and social rules for contractors.

1.4 Approach and methodology for the ESMF preparation

The aim of the ESMF is to establish procedures for initial screening of the negative impacts which would require attention, prior to site-specific project implementation. Key specific objectives for the assessment are:

- (i) To assess the main potential environmental and social impacts of the planned and future project activities;
- (ii) To recommend environmental and social screening process for project sites and sub-project activities;
- (iii) To review environmental policies of Government for project implementation and relevant World Bank Operational Policies to be triggered by the project.
- (iv) To develop an environmental management plan for addressing negative impacts during sub-project implementation;
- (v) To recommend appropriate further environmental work, including preparation of the site-specific ESIA/ESMPs for sub-projects; and
- (vi) To recommend appropriate capacity building for environmental planning and monitoring in the project activities.

The ESMF outlines an environmental and social screening process, focusing on the following steps:

- (i) completion of the Environmental and Social Screening Form (ESSF);
- (ii) carrying out the appropriate level of environmental work;
- (iii) review and clearance of the screening results;
- (iv) preparation of EIA reports, where this may be necessary; and
- (v) Preparation of Environmental Management Plan

Environmental and Social Screening should be undertaken for each of the proposed sub-project in order to ascertain specific environmental and social impacts. Environmental and social management plans will be prepared to identify, assess and mitigate, as appropriate, all potential negative impacts.

This ESMF also includes an Environmental and Medical Waste Management Plan (EMWMP). The intent of an EMWMP is to recommend feasible and cost-effective measures to prevent or reduce significant adverse impacts to acceptable levels.

2.0 LEGAL, REGULATION AND ADMINISTRATIVE FRAMEWORK

2.1 Sectoral policies and strategies

The project will support the completion of the Environmental Health Policy and Strategy. Other policies and strategic framework include:

2.2 Legal framework

The Environmental Protection Agency Act, 2008

The Act was signed as a legal document in September 2008 and amended in July 2010. Following the enactment of this Act, a National Environment Protection Board was established within the Environment protection Agency. The Board facilitates coordination, cooperation and collaboration among Government Ministries, local authorities and other governmental agencies, in all areas relating to environmental protection. The Agency, subject to the Act, also coordinates environmentally related activities and acts as the focal point of national and international environmental matters, relating to Sierra Leone.

The act empowers a separate environmental protection Agency with the overall mandate of setting and monitoring environmental standards.

In compliance with the third schedule of the EPA Act, 2008 and EIA is required to contain a true statement and description of the following:

- (i) Location of the project and its surroundings;
- (ii) Principle, concept, and purpose of the project;
- (i) Description of the possible impacts on the ecosystem and its locality;
- (ii) Direct or indirect effects the project is likely to have on the environment;
- (iii) Social, economic, and cultural effects that the project is likely to have on people and society
- (iv) Consultation with the communities, interested parties, and Government Ministries
- (i) Actions or measures taken to avoid , prevent, change, mitigate, or remedy the likely effect on people and society;
- (ii) Any alternatives to the project;
- (iii) Natural resources and the localities to be used in the project;
- (iv) Plans for decommissioning the project; and
- (v) Other information for proper review of the potential environmental impact of the project.

The second schedule of this Act, gives several factors for determining whether a potential project requires the preparation of an EIA. These factors are given below as stated in the schedule.

- (i) The impact on the community
- (ii) The location of the project

- (iii) Whether the project transforms the locality
- (iv) Whether the project has, or is likely to have, a substantial impact on the ecosystem.
- (v) Whether the project results in the diminution of the aesthetic, recreational, scientific, historical, cultural or other environmental quality of the locality.
- (vi) Whether the project endangers any species of flora or fauna or the habitat of the flora and fauna of the locality.
- (vii) The scale of the project.
- (viii) The extent of degradation of the environment.
- (ix) Whether the project will result in an increased demand for natural resources in the locality.
- (x) The cumulative impact of the project together with other activities or projects on the environment.
- (xi) The contents of the EIA.

Public Health Act, 1960

The Public Health Act (1960) Consistent with the current legislation, Local Councils (and other local level structures) section 121 gives a clear mandate for implementation of premises inspection, and provide strategic direction and back up support to enable council to perform their roles effectively. With the adoption of the Expanded Sanitary Inspection Compliance, Monitoring and Enforcement (ESICOME), MoHS seeks to: (i) target the owners and occupants of domiciles and commercial premises; and (ii) ensure that they develop and maintain good sanitation on their properties and environs. The project will support the reviewing Public Health Ordinance (1960).

The Persons with Disability Act, 2011

Establish the National Commission for Persons with Disability, to prohibit discrimination against persons with disability, achieve equalization of opportunities for persons with disability and to provide for other related matters.

The Right to Access Information Act, 2013

The Act provided for the disclosure of information held by public authorities or by persons providing services for them and to provide for other related matters.

2.3 The World Bank safeguard policies

2.3.1 Environmental assessment

The World Bank has keen interest in protection of the environment, for investment projects they support, in line with its ten environmental safeguards policies. These policies provide guidelines, aimed at preventing and mitigating undue harm to people and the environment, when

implementing development projects. The environmental safeguard policies, which provide a platform for the participation of stakeholders in project design and implementation, are:

- (i) Environmental Assessment (OP/BP 4.01) (TRIGGERED)
- (ii) Forests (OP/BP 4.36)
- (iii) Involuntary Resettlement (OP/BP 4.12)
- (iv) Indigenous Peoples (OP/BP 4.10)
- (v) Safety of Dams (OP/BP 4.37)
- (vi) Pest Management (OP 4.09)
- (vii) Physical Cultural Resources (OP/BP 4.11)
- (viii) Natural Habitats (OP/BP 4.04)
- (ix) Projects in Disputed Areas (OP/BP 7.60)
- (x) Projects on International Waterways (OP 7.50)

Interventions with any of the attributes listed below will be ineligible for support under the proposed emergency support:

1. ***Sub-projects concerning significant conversion or degradation of critical natural habitats,*** including, but not limited to, any activity within:

- (i) Wildlife reserves
- (ii) Ecologically-sensitive marine and terrestrial ecosystems
- (iii) Parks or sanctuaries
- (iv) Protected areas, natural habitat areas
- (v) Forests and forest reserves
- (vi) Wetlands
- (vii) National parks or game reserves
- (viii) Any other environmentally sensitive areas
- (ix) Any areas near disposal sites or requiring significant expansion into an existing disposal site.
- (x) Use of pesticides that fall in WHO classes IA, IB, or II.

2. ***Sub-projects requiring land acquisition or resulting in involuntary resettlement*** and/or permanent or temporary loss of access to assets or loss of assets for the project affected populations.

The project triggers operational policy OP 4.01 on Environmental Assessment, as construction of new facilities and rehabilitation of facilities have potential of some negative impacts, which requires that appropriate mitigation measures are put in place. The REDISSE program also triggered the policy on Pest Management (OP4.09) as the program would involve the procurement and use of pesticides. However, the Policies on Natural Habitats (OP 4.04) and Forests (OP4.36) are not triggered as the Project activities will not involve conversion or degradation of critical or sensitive natural habitats and forests. The Policies on Indigenous Peoples (OP 4.10) and Involuntary Resettlement (OP4.12) are also not triggered as the project does not involve any involuntary land acquisition.

2.3.2 World Bank's categorization of projects

Environmental consequences should be recognized early in the project cycle; and taken into account in project selection, siting, planning and design. In so doing, adverse environmental and social impacts may be prevented, minimized, mitigated and/or compensated for; and positive impacts may be enhanced. The World Bank's Environmental Assessment includes the process for mitigating and managing environmental and social impacts throughout project implementation and the Environmental Assessment Sourcebook (1993) and its updates (1996, 1997) provide technical guidance. The World Bank's categorization of projects, with respect to significance of environmental impacts is as follows:

- (i) Category "A": A proposed project is classified as Category "A" if it is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subjected to the physical works. Environmental Assessment for a Category "A" project examines the project's potential negative and positive environmental and social impacts, compares them with those of feasible alternatives (including the "without project" situation), and recommends any measures needed to prevent, minimize, mitigate or compensate for adverse impacts and improve environmental performance. For a Category "A" project, the borrower is responsible for preparing a report, normally an EIA (or a suitably comprehensive or sectoral EIA) that includes as necessary, elements such as environmental audits or hazard or risk assessments.
- (ii) Category "B": A proposed project is classified as Category "B" if its potential adverse environmental and social impacts (on human populations or environmentally important areas including wetlands, forests, grasslands, and other natural habitats) are less adverse than those of Category "A" projects. These impacts are site-specific; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than for Category "A" projects. The scope of EIA for a Category "B" project may vary from project to project, but it is narrower than that of Category "A" EIA. Like Category "A" EIA, it examines the project's potential negative and positive environmental and social impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.
- (iii) Category "C": A proposed project is classified as Category "C" if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category "C" project.
- (iv) Category "FI": A proposed project is classified as Category "FI" if it involves investment of Bank funds through a financial intermediary, in subprojects that might result in adverse environmental impacts.

Most of the sub-projects being financed under the project falls under B: because the environmental impacts are easily identified and can be mitigated. Any category A sub-project will not be financed under this project. All of the identified negative impacts can be reduced or in some cases avoided, with timely implementation of the mitigation measures through the following system:

- (i) Environmental and social screening of sub-projects using a screening form attached as annex 3. The screening process will be done to appraise environmental and social risks and identify potential mitigation measures in advance.
- (ii) Preparation of Environmental and Social Management Plan (ESMP) for individual sub-projects to guide the implementation of mitigation measures.
- (iii) Preparation of other relevant instruments based on the findings of the screening exercise. For example, under this project, an Integrated Pest Management Plan (IPMP) is prepared as a stand-alone document (for addressing Pest Management) while a Medical Waste Management Plan (MWMP) is prepared as an addendum to the ESMF for implementation in each healthcare facility.

3.0 ENVIRONMENT AND SOCIAL IMPACT PROCESS

3.1 Impact Identification Methodology

The REDISSE Project falls under the World Bank Category B; therefore requiring an Environmental and Social Assessment. This ESMF has identified and assessed generic potential environmental and social impacts and outlined measures for addressing the negative impacts as follows.

The project implementers is required provide a brief description of any activities that may involve environmental impacts, any known environmental sensitivities, and any sites with known or potential archeological, paleontological, historical, religious or unique natural values. In the event of sub-projects with potential minor and manageable environmental impacts, an environmental review should be undertaken (for more guidance; contact Environmental Protection Agency).

The review examines the sub-project's potential negative and positive environmental impacts and defines any measures needed to prevent, minimize or mitigate adverse impacts and improve environmental performance. This would in most cases be a simple review through reference to existing reports and studies (if available), and through discussions with local communities and other stakeholders, if needed. In some cases a more detailed review may be needed.

The findings and results of environmental review are described in the sub-project full proposal. Applications that do not provide adequate environmental data should not be considered for financing until they meet the requirements. Sub-project proposals with minor and manageable environmental impacts should include the following basic elements in the application:

- (i) A description of the possible adverse effects that specific sub-project activities may occur (for some basic guidance on potential environmental impacts contact EPA);
- (ii) A description of any planned measures to avoid or mitigate adverse impacts, and how and when they will be implemented;
- (iii) A system for monitoring the environmental effects of the project;
- (iv) A description of who will be responsible for implementing and monitoring the mitigation measures; and
- (v) A cost estimate of the mitigation measures (the costs for environmental management will be included in the assessments of sub-projects).

The scope of any environmental review and mitigation measures will be determined by the EPA in consultation with the project implementer through the sub-project screening and approval process. If needed, the EPA may request further information or a more detailed environmental review prior to approving a project. Guidance may be sought from the World Bank, if needed.

3.2 Assessment of a No Project and Go Ahead Project Alternatives

The Analysis of Alternatives is an analytical comparison of multiple alternatives and has long been a part of environmental assessment practice. The purpose of the analysis of the alternatives is to determine which alternative best meets the threshold criteria of sustainable development. The following alternative actions were considered in relation to the proposed project-

In all ESIAs/ESMPs should contain an analysis of alternatives is done to establish the preferred or most environmentally sound, financially feasible and benign option for achieving project objectives. This requires a systematic comparison of proposed investment design in terms of site, technology, processes etc in terms of their impacts and feasibility of their mitigation, capital, recurrent costs, suitability under local conditions and institutional, training and monitoring requirements. For each alternative, the environmental cost should be quantified to the extent possible and economic values attached where feasible, and the basic for selected alternative stated. The analysis of alternative should include a NO ACTION alternative.

The two scenarios should be considered herewith are with the preferred or most environmentally sound, financially feasible and benign option for achieving project objectives and ensuring economic growth and sustainable development being the option to choose.

3.3 Summary of Significant Generic Impacts and Mitigation Measures

3.3.1 Potential environmental and social impacts

The activities being financed on the ground are not expected to involve large scale construction, land acquisition or involuntary displacement of people. However, there are environment and social impacts resulting from infection control interventions and use and disposal of chemicals and management of healthcare waste within and from healthcare facilities.

The small-scale construction of infrastructure may have minor, short-term direct impacts on vegetation and local species-mainly due to soil excavation, dust, and noise. Issues related to labour and worker safety and safety and access of patients will also need to be managed.

The social impacts of the REDISSE are expected to be positive, and the likelihood of negative social impact is nil. Positive impacts can be expected from the increased awareness of a healthy lifestyle and the risk factors for chronic disease. This would not lead to the isolating stigma that sometimes results from greater awareness about communicable diseases; rather, it could increase social encounters, especially for the elderly, women and children. Moreover, addressing substance use and abuse by bringing it out of the shadows and providing counselling services could contribute to de-stigmatization. Indirect social benefits are expected from the effort to make the health system more efficient and to increase the capacity of health workers to provide better quality services in a friendlier work environment.

Health workers themselves are expected to benefit from the attention to the workload, which could increase as a result of the additional requirements involved in providing preventive and other screening services at the primary level. This would be analyzed, and provisions have already been made for additional workers at the primary care level under the ongoing MoHS reforms. There could be negative impacts associated with poor management of healthcare waste and also disruption of healthcare services during construction activities; disruption of access to patients and communities etc. These negative impacts are to be mitigated through implementation of the measures detailed in this document. See annex 7 for Protocols and procedures for managing veterinary wastes and handling of debris resulting from the rehabilitation of existing buildings including laboratories.

Table 5: Potential environmental and social impacts

Planning Phase	Impacts	Mitigation Measures
Physical Restrictions on building space.	<p>The size of the health care facilities premises are either too small, with little room to expand outwards or on steep slopes with high erosion potentials.</p> <p>All construction is expected to be within the existing premises and therefore there is no requirement for land acquisition.</p>	Relevant construction, climatic and environmental elements shall be considered in the engineering designs for facilities before procurement approval
Construction Phase		
Flora and Fauna	The rehabilitation, refurbishment and upgrading of existing healthcare facilities could result in some clearing and depletion of vegetation that could result in loss of tree/plant cover within the existing premises	There is no likelihood of Greenfield project in REDISSE; however, where the need arises, vegetation stripping shall be restricted to the size of land needed for construction. Re-vegetation and tree planting will be carried out as necessary
Soil and Land Pollution	<p>Earth-moving equipment such as excavators will be used in excavation work. This could potentially/temporarily decrease the drainage of the area resulting in water logging.</p> <p>The risk of accidental discharge of hazardous products, leakage of hydrocarbons, oils or grease from construction machinery also constitutes potential sources of soils and water pollution.</p>	Proper supervision will be carried out to ensure that contractors adhere to good construction practices. Excavated soils will be sandfilled. Trucks and heavy duty machines must be properly maintained to ensure no oil leakage, while treatment and disposal of contaminated soil shall be carried out immediately, once leakage of oil is reported

<p>Vehicular Traffic</p>	<p>Construction works will result in a higher volume of traffic around the healthcare facilities and within the neighborhood. This could result in obstruction of normal traffic, disruption of access of the community and road safety around the construction site. The noise and movement could also affect normal hospital operations while impacting patient well-being through noise and dust.</p>	<p>Soundproof machines shall be used when carrying out rehabilitation work in the healthcare facilities. Hospital security/traffic control unit shall be strengthened to efficiently control traffic</p>
<p>Waste Management</p>	<p>Activities at construction sites will produce construction wastes such as excavated soils and cement bags, paint drums, brick and concrete rubble, metal, broken glass, timber waste and debris. Excavated wastes could obstruct the general public, the movement of the workers and vehicles as well as affect the aesthetics of the environment. Old buildings have asbestos and PCBs, which if dismantled or disposed haphazardly, can result in serious pollution and health impacts.</p>	<p>Construction waste protocol has been developed for this project. This will guide the handling and management of all construction debris/waste that will result from REDISSE construction activities</p>
<p>Ambient air quality</p>	<p>(ii) Air Quality will be impacted by emissions from vehicles, earthmoving equipment and released particulate matters. Demolition to modify the built environment will lead to considerable levels of cement dust which can affect workers and patients. Deteriorated indoor air quality will be of critical effect to especially asthmatic construction workers, patients and health workers, with either minor or severe health impact depending on level and duration of exposure.</p>	<p>(iii) Use of sound and well maintained vehicles shall be ensured to eliminate or at least reduce to barest minimum the chances of air pollution.</p>
<p>Water pollution</p>	<p>(v) Wastewater discharges from construction activities or onsite sewage system and rainwater run-off can run into surface waters will impact water quality by causing changes to its physical, chemical and biological properties.</p>	<p>(vi) Waste (liquid or solid) will not be discharged indiscriminately for all aspects of this project. Management protocol and medical waste management plan developed for this project provide guidance for good waste management.</p>
<p>SOCIAL AND HEALTH IMPACTS</p>		

Planning Phase		Impacts	Mitigation Measures
Disruption of Services		Healthcare services can get disrupted, and there is need for clear agreement on when and how the promised extension and refurbishments will be undertaken.	Alternative and adequate arrangement for healthcare services will be in place and submitted for WB no objection before going ahead with refurbishment and rehabilitation works
Construction Phase		Impacts	Mitigation Measures
Disruption of Utilities Service		The excavation and civil works may cause temporary disruptions of utility services such as electricity communication and water. This could impact the provision of services and also the neighborhood communities.	Refurbishment and rehabilitation works will be minimal and not expected to disrupt utility services installations. In the event of any changes, adequate consultation and collaboration with utility service provider shall be worked out before removal of their auxiliary installations
Temporary disruption of healthcare services		Since facilities under renovation will not be closed, they will experience shortages of working space. Thus modifications of buildings in which medical services are provided may entail moving patients or equipment from one area or room to another. This may cause temporary disruption in delivery of health services to patients.	Alternative and adequate arrangement for healthcare services will be in place and submitted for WB no objection before going ahead with refurbishment and rehabilitation works. This will ensure no disruptions in services
Occupational Safety and Health		The safety of the local population may be at risk during construction activities. The movement of trucks to and from the site, the operation of various equipment and machinery and the actual construction activities will expose the workers to work-related accidents and injuries. Pollutants such as dust and noise could also have negative implications for the health of workers and near-by communities.	Refurbishment work shall not be large scale. However, the use of personal protective equipment (PPEs) shall be enforced for all workers at construction site and laboratories
Impacts of construction activities on patients, healthcare staff and other stakeholders.		(i) Refurbishment work undertaken in the same buildings having patients has potential to cause injuries to patients or health workers. At all sites, renovation works will have the following potential hazards to staff and patients:	In the event of refurbishment of hospital building, proper arrangement will be made upfront to ensure no disruption in services and no adverse impacts on patients.
		Exposure to asbestos containing	Construction safety plan

	materials. (Old Buildings with asbestos roofs).	including use of PPEs shall eliminate all construction relates safety and health risk
	Falling from tripping on building materials.	
	Noise and vibrations during demolition	
	Injury from falling or flying debris when demolishing walls	
	Cracking of existing structures from vibrations	
	Spillages and dust during transportation of materials	
Noise	Noise and vibration caused by machines, site vehicles, pneumatic drills etc during construction activities can be a nuisance to patients and the community.	
Traffic	Communities around the rehabilitation sites will experience heavier human and vehicular traffic. Construction related activities will be a nuisance to road users e.g. storage of construction stones by the roadside.	Hospital security/traffic control unit shall be strengthened to efficiently control traffic
Operational Phase		
Veterinary waste	Impacts	Mitigation Measures
Animal wastes	Wastes from treatment of animals including pathological and anatomical wastes (tissues, organs, etc) and material medical wastes from treatment such as syringes, sharps and cotton wools constitute bio-hazards which could infect other animals and humans	Proper management of medical waste will be followed. Protocol and guideline for medical waste management is attached in this ESMF as annex 6, while Medical Waste Management Plan has been prepared as a stand-alone document to complement the ESMF.

3.3.2 Mitigation measures

Since only sub-projects with minor impacts are eligible, these are easily mitigated through the application of sensible site selection criteria, good construction practices and diligent management practices in the operational phase. This may include proper siting of infrastructure to avoid and minimize impacts, control of dust generation and prevention, waste management and technology for toilet facilities like leaching fields, organic composting, and septic tanks .

There is a possibility that sub-project activities may result in damage to physical cultural property unless these are identified. Sub-project proposals with activities that may occur in

areas with possible physical cultural resources will specify procedures for identifying physical cultural property and for avoiding impacts on these, including:

- (i) Consultations with the appropriate authorities and local inhabitants to identify known or possible sites during sub-project planning;
- (ii) Siting of sub-project activities to avoid identified sites (including identifying such areas in protected and natural resource management planning and zonation);
- (iii) “Chance finds” procedures will include cessation of work until the significance of a “find” has been determined by the appropriate authorities and local inhabitants, and until fitting treatment of the site has been determined and carried out;
- (iv) Construction contract procedures will include the same procedures for dealing with “chance finds; and
- (v) Buffer zones or other management arrangements to avoid damage to cultural resources such as “sacred” forests and graveyards. Local communities to which these areas belong should decide access procedures and should not be excluded from accessing these areas.

The ESMF stresses community participation since local knowledge is important in identifying, designing and planning the implementation of practical mitigation measures. It is especially important where the success depends on community support and action, both in implementing mitigation measures and in monitoring their success.

4.0 ENVIRONMENTAL AND SOCIAL SCREENING

4.1 Application of the Screening Processes

Environmental and Social Screening will be undertaken for each of the proposed sub-project in order to:

- (i) assess whether sub-projects are likely to have potential negative environmental and social impacts;
- (ii) determine appropriate mitigation measures for activities with significant adverse impacts, for incorporating them into the sub project design;
- (iii) review and approve sub-project proposals; and
- (iv) monitor environmental parameters during project implementation.

An Integrated Health Project Administrative Unit (IHPAU) will be housed in the office of the Permanent Secretary, Ministry of Health as secretariat for the overall management, operation and implementation of project activities in Sierra Leone. The IHPAU with the assistance of a consultant team/safeguard specialist that will be hired by the IHPAU , will determine appropriate instruments for mitigating environmental and social safeguards impacts. This will allow the IHPAU to:

- (i) Determine the level of environmental work required (i.e. whether an ESMP is required; whether the application of simple mitigation measures will suffice; or whether no additional environmental work is required);
- (ii) Determine and incorporate appropriate mitigation measures for addressing adverse impacts

The Consultant with the help of the IHPAU will prepare a Safeguard Screening Summary which includes:

- (i) a list of micro-projects and sub-projects that are expected to have environmental and social safeguards impacts;
- (ii) the extent of the expected impacts;
- (iii) the instruments used to address the expected impacts; and
- (iv) timeline to prepare the instruments.

The Safeguard Screening Summary, when completed, will provide information on the assignment of the appropriate environmental and social category to a particular activity for construction of new facilities or rehabilitation of existing structures.

The PMU, with the assistance of a consultant team (where required), will determine and prepare appropriate instruments for mitigating environmental and social safeguards impacts identified in the screening process. During the preparation of sub-projects, the IHPAU will ensure that technical design can avoid or minimize environmental and social impacts, avoiding land acquisition. A Matrix of Mitigation measures for potential environmental impacts is attached as Annex 2.

The Consultant will carry out the initial screening in the field, through the use of the Environmental and Social Screening Form – Part 1 of the Environment Management Plan – Checklist (Annex 3). The IHPAU/EPA will retain a copy of the Safeguards Screening Summary for possible review by the Implementing Agency and the World Bank. The review, which may be conducted on sample basis, will verify the proper application of the screening process, including the scoping of potential impacts and the choice and application of instruments.

4.2 Preparation of safeguards instruments

The environmental and social impact assessment process will identify and assess the potential environmental and social impacts of the proposed construction activities, evaluate alternatives, as well as design and implement appropriate mitigation, management and monitoring measures. These measures will be captured in the Environmental and social Management Plan (EMP) which will be prepared.

This ESMF includes an EMP-checklist which can be used as the Environmental Management Plan (EMP) for individual sub-activities once identified during the scoping identification phase. (Annexes 3 and 4) For each sub-activity in which the specific buildings/sites for rehabilitation, and/or demolition and complete reconstruction is known, the EMP-checklist is completed. The checklist has three parts:

- (i) Part 1 includes the descriptive part that describes the project specifics in terms of the physical location, institutional arrangements, and applicable legislative aspects, the project description, inclusive of the need for a capacity building program and description of the public consultation process.
- (ii) Part 2 includes the environmental and social screening of potential issues and impacts, in a simple Yes/No format followed by mitigation measures for any given activity. Currently, the list provides examples of potential issues and impacts. This list can be expanded to specific site issues and /or impacts; and good practices and mitigation measures. (Annex 4)
- (iii) Part 3 will include the monitoring plan for activities during project construction and implementation. It retains the same format required for current ESMPs. It is the intent of this checklist that Part 2 and Part 3 be included as bidding documents for contractors.(Annex 4)

The ESMP-checklist which is to be filled out for each sub-project will be used to determine the type and scope of the environmental and social safeguards impacts. The practical application of the ESMP-checklist would include filling in of Part 1 to obtain and document all relevant site characteristics. In Part 2 the type of foreseen works, would be checked, and the completed tabular ESMP is additionally attached as integral part to the works contract and, analogous to all technical and commercial terms, that is signed by the contract parties. Part 3 of the ESMP-checklist, the monitoring plan, is designated for the Contractor responsibility, to be supervised by the PMU.

The Consultant with the help of the IHPAU will prepare the ESMPs in consultation with affected peoples and with relevant NGOs, as necessary. The ESMP will be submitted to the Implementing Agency, for review, and the approved ESMPs must be well maintained for subsequent review by the Bank. If there are any sites, which are seen to have potentially larger risks and impacts, or if there are social issues or those sites where land will need to be acquired, the draft ESMPs must be sent to the Bank for approval prior to finalization and starts of construction works.

All such site-specific ESMPs will be disclosed at the sites (translated in local language) and consulted with neighboring communities, project affected persons and key community representatives before the mitigation actions are finalized and the contractor starts civil works on the ground. The record of such consultations must be documented and maintained by the Implementing Agency.

4.3 Application and review of safeguards instruments

The IHPAU and other relevant body will supervise and monitor the overall safeguards implementation process and prepare a progress report on the application of safeguards policies during the planning, design, and construction phases of the Project. The Monitoring and evaluating officer will develop the reporting requirements and procedures to ensure compliance of the contractors. Environmental consultants will be hired by the World Bank to support the IHPAU, in conducting public consultation and public awareness programs; and carry out periodic training for field engineers and contractors as appropriate.

Appropriate mitigation measures will be included in the bidding documents and contract documents to be prepared by the IHPAU. Compliance by the contractors will be monitored in the field by the project field observers, working under close supervision. The performance of the contractors will be documented and recorded for possible later review. Sample Environmental Safeguards procedures for inclusion in the technical specifications of construction contracts are provided in Annex 6.

5.0 ENVIRONMENTAL MANAGEMENT AND MONITORING

5.1 Institutional and implementation responsibilities

5.1.1 Project implementation responsibilities

REDISSE project implementation will be coordinated by WAHO of ECOWAS which will host the regional secretariat of the project. An Integrated Health Project Administration Unit (IHPAU) will be located in Sierra Leone and the project will be implemented using the following structure:

a. Inter-ministerial Committee

Mandate: Policy orientation, overall oversight & decision making on funding allocations of the project. **Membership:** Not yet defined but presumably Minister of Finance, Minister of Health and Minister of Agriculture.

b. One Health Committee

Mandate: Approve project work plans (overall and yearly), monitor technical progress, provide guidance for project implementation, and ensure regular reporting and dissemination of outputs.

Chair: co-chaired by Chief Medical Officer and Chief Agricultural Officer.

Membership: Senior technical officers from MoHS; MAFFS; OFFICE OF NATIONAL SECURITY, EPA (Police); RSLAF (Army); training institutions, partners (senior representatives).

c. Project Secretariat /IHPAU

Mandate: Day to day planning & monitoring of project implementation, liaison with TWGs, follow up of funding management and accountability, oversee production of technical reports.

Membership: Lead project Manager; 2 Project Officers (MoHS-1, MAFF-1), Secretariat support staff.

d. Technical Working Groups (IDSR, Lab and P&R)

Mandate: Develop operational plans, produce technical reports, review and validate guidelines and standard operating procedures.

Membership: Competent technical officers from relevant ministries & departments, technical experts from partners.

e. Directorates Units

Directorates and departments from the two ministries will be responsible for implementation of the project country wide in liaison with district implementation officers.

f. District level

The existing MoHS and MAFFS structures will be utilised to facilitate implementation of the project at district level. Working groups will be established at this level.

5.1.2 World Bank/Partners

The role of partners in REDISSE IPMP implementation amongst others shall be to:

Provide technical and financial support, support the establishment of REDISSE resource center at the Federal and State Ministries of Health, support research on new trends in REDISSE, serve on the REDISSE Technical Advisory Committee and Disease Surveillance and Response Committee, collaborate with all tiers of government for improving disease surveillance activities, mobilize resources from other interested parties to support REDISSE implementation

6.0 ESMF IMPLEMENTATION AND MANAGEMENT

6.1 Introduction

The successful implementation of the ESMF depends on the commitment of the IHPAU and other institutions relevant to it. In addition, the capacity within the institutions to apply or use the framework effectively, and the appropriate and functional institutional arrangements, among others will go a long way to ensure the adherence to the framework.

This chapter addresses the key ESMF areas relevant to its successful implementation:

- Institutional arrangements;
- Participation/consultation Framework;
- ESMF Communication Plan in the Project Cycle;
- Measures for Strengthening Organizational Capability - Capacity building;
- Environmental and Social Mitigation Principles and Clauses;
- Environmental and Social Monitoring;
- Budgets for the ESMF;
- Update and Revision of ESMF; and
- Disclosures of Safeguard Instruments.

6.2 Institutional Arrangements

Since one of the main purposes of the ESMF is to establish roles and responsibility for the activities that have to be undertaken, this sub-section details below, institutional arrangements and the roles and responsibilities of the various institutions relevant to the successful implementation of the ESMF as outlined in Table 6.1

6.2.1 *Integrated Health Project Administration Unit (IHPAU)*

As a point of emphasis, the IHPAU to be established in the office of the Permanent Secretary, Ministry of Health with a Project Coordinator (PC) as the head, shall serve as the implementing body with the mandate to:

- Co-ordinate the project programmes and actions Plan, coordinate, manage and develop the various sub-project activities safeguard sections and parts
- Prepare plans for effective project development and management.
- Coordinate all environmental and social issues through a Safeguard unit.

Nevertheless, the IHPAU shall liaise with the various levels of government and other identified stakeholders ministries department, agencies, communities, NGOs/CSOs, Traditional Rulers; Trade Unions/Local social and professional groups, and the general Public.

6.2.2 Environmental and Social Safeguards Unit

To ensure sustainability in all sub-project activities, an environmental and social development safeguards unit shall be formed which includes the environmental and social development safeguards officers that reports directly to the IHPAU PC.

The paramount objective of the environmental/social safeguards officers is to ensure the effective consideration and management of environmental and social concerns in all aspects from the design, planning, implementation, monitoring and evaluation of initiatives. Thus, a key function of the environmental and social development safeguard officers is to engender a broad consensus, through participatory methods and extensive dialogue on the potential environmental and social concerns from project civil works as incorporated into the World Bank's environmental and social safeguards policies triggered by the project and environmental compliance with the EA.

With this, particular attention is directed at minimizing environmental and social risks associated with the development of sub-project initiatives, as well as the identification and maximization of social development opportunities arising from investments thus, the recruitment of assistant environmental and social officers.

In the implementation of the project, and for or all environmental and social issues the safeguard unit, shall work closely with other relevant MDAs in preparing a coordinated response on the environmental and social aspects of the sub-projects.

The roles and responsibilities of the environmental and social safeguards officers to anchor environmental and social issues distinctively are described below.

- Review all ESIA/ESMPs documents prepared by environmental and social consultants and ensure adequacy under the World Bank Safeguard policies.
- Ensure that the project design and specifications adequately reflect the recommendations of the ESIA/ ESMPs;
- Co-ordinate application, follow up processing and obtain requisite clearances required for the project, if required;
- Prepare compliance reports with statutory requirements;
- Develop, organize and deliver training program for the IHPAU staff, the contractors and others involved in the project implementation, in collaboration with the IHPAU;
- Review and approve the Contractor's Implementation Plan for the environmental measures, as per the ESIA and any other supplementary environmental and social studies that may need to be carried out by the IHPAU;
- Liaise with the Contractors and the IHPAU / MDAs on implementation of the ESMPs;
- Liaise with various Central and Regional Government agencies on environmental, resettlement and other regulatory matters;
- Continuously interact with the NGOs and community groups that would be involved in the project

- Establish dialogue with the affected communities and ensure that the environmental and social concerns and suggestions are incorporated and implemented in the project;
- Review the performance of the project through an assessment of the periodic environmental and social monitoring reports; provide a summary of the same to the Project Manager, and initiate necessary follow-up actions;
- Provide support and assistance to the National and Regional Government Agencies and the World Bank to supervise the implementation.

S/No	Category	Roles
1	IHPAU	<p>Implementing authority, has the mandate to ensure:</p> <ul style="list-style-type: none"> - Compliance with World Bank Safeguards Policies and other relevant laws in Sierra Leone in line with this ESMF - Smooth and efficient implementation of the project - Faithful implementation of the ESMF and other safeguard instruments developed for each subproject
2	IHPAU Safeguards Unit/Safeguards Officer	<ul style="list-style-type: none"> - Assists IHPAU to comply with and fully implement World Bank Safeguards Policies and other relevant laws in Sierra Leone. - Take lead in ensuring adequate screening and scoping of project for the appropriate safeguard instrument. - Ensure adequate review of all safeguard reports before it is sent to the Bank - Supervision of the contractors, supervisors, training of contractors and workers, monitoring of the implementation of the ESMF and other safeguard instruments.
3	Ministry of Environment and her agencies (Such as EPA	<ul style="list-style-type: none"> - Lead role -provision of advice on screening, scoping, review of draft EA/ESMP report (in liaison with Regional Ministry of Environment), receiving comments from stakeholders, public hearing of the project proposals, and convening a technical decision-making panel, Project categorization for EA, ensuring conformity with applicable standards, Environmental and social liability investigations, Monitoring and evaluation process and criteria
4	Regional Ministry of Environment/EPA	<ul style="list-style-type: none"> - Collaborate with MEnv and participate in the EA processes and in project decision-making that helps prevent or minimize impacts and to mitigate them and ensures conformity with applicable standards, environmental and social liability investigations, monitoring and evaluation process, etc.
5	Ministry of Health	<ul style="list-style-type: none"> - Provides overall leadership and direction to the other MDAs by engaging all the critical stakeholders to support, cooperate with and participate in established policy direction; and

Table 6.1: Safeguard Responsibilities		
S/No	Category	Roles
		<ul style="list-style-type: none"> - Pursues an agenda of encouraging and ensuring investors comply with all environmental laws and policies
6	Regional Ministry of Health	<ul style="list-style-type: none"> - Coordinates Region-wide emergency response programmes including creation of awareness on the appropriate pesticides to use in consonance with this ESMF and IPMP
7	World Bank	<ul style="list-style-type: none"> - Provides guidance on the compliance of safeguards policies - Will be involved in monitoring compliance with its safeguard policies via its oversight missions - Maintains an oversight role, review and provide clearance and approval for the ESMF and other relevant safeguard instruments developed for subprojects. - Conducts regular supervision for satisfactory ESMF/ESMP implementation, fulfillment of community liaison and provide support role throughout the project implementation, and monitor the progress of the project implementation. - Recommend additional measures for strengthening the management framework and implementation performance. - capacity building of the proponent as needed
8	Regional Government	<ul style="list-style-type: none"> - Appoints Regional Desk Officers (RDOs) who visit communities on a regular basis to facilitate intensive participatory process and compliance to the local environmental laws - Support and work with the IHPAU by participating in environmental and social screening and scoping process of subprojects and public review of ESIA and ESMPs
9	NGOs/CS Os/CDA	<ul style="list-style-type: none"> - Assist to ensure effective response actions to relevant environmental and social issues, - Conducts scientific researches alongside government groups to evolve and devise sustainable environmental strategies and rehabilitation techniques, - Organizing, coordinating and ensuring safe use of chemicals and pesticides through awareness creation - Providing wide support assistance helpful in management planning, institutional/governance issues and other livelihood related matter, Project impacts mitigation and monitoring
10	Waste	<ul style="list-style-type: none"> - Provide logistics for waste management

Table 6.1: Safeguard Responsibilities		
S/No	Category	Roles
	Management Agencies	

6.3 ESMF Communication Plan

The ESMF Communication Plan refers to specific guidelines and protocols consistent with the principles of participation that will govern the project and which will be reflected in the Communication Plans, including the Communication Plans of the Social Safeguard Frameworks of the Project.

They are:

- I. establishment of feasible participation mechanisms ;
- II. establishment of participation mechanisms prepared with the basic objectives of transparency, responsibility of delivery of public service and an anticorruption approach;
- III. promotion of arenas of dialogue based on realistic and objective data avoiding the creation of expectations that cannot be met; and
- IV. positive discrimination for the most vulnerable groups, such as women, young persons, children, older persons and indigenous communities.

6.4 Measures for Strengthening Organizational Capability - Capacity Building and Training

Based on the public consultation, the capacity assessment of implementing National and Regional level Ministries, Departments and Agencies (MDAs) as well as the PMU, were carried out. The effective functioning of the MDAs is hindered by limited technical skills and resource constraints. Thus, institutional barriers include:

- Limited knowledge of the relationship between World Bank Safeguards policies and the extant environmental and social laws in Sierra Leone;
- Lack of enforcement of development control regulations;
- Limited knowledge on EIAs and Environmental and Social Audits during construction/rehabilitation of buildings;
- Limited knowledge on Strategic Environmental and Social Assessment; and
- Limited technical capacity on waste management;

In order to achieve the goal of the ESMF, there is the need for capacity building and strengthening of relevant competencies on environmental and social management at National and Regional level MDAs –. It involves organizational development, the elaboration of management structures, processes and procedures, not only within organizations but also the management of relationships between the different organizations and sectors (public, private and community). The environmental and social management requirements and provisions outlined in this ESMF, competencies and capacity building will be required in the following areas:

- Environmental Impact Assessment Process - screening, scoping, impact analysis, mitigation measures and monitoring, reviewing ESIA reports;

- Environmental Due Diligence - types of due diligence, screening projects for liabilities, scoping due diligence investigations and reviewing due diligence reports; and
- Monitoring and Evaluation - understanding the importance of monitoring and evaluation (M&E) in project implementation, M&E requirements for environmental and social sustainability of projects.

Specific areas for effective institutional capacity needs are given in Table 6.2.

Table 6.2.: Training/Capacity Building Needs							
Programme/Description	Participants	Form of Training	Duration	When	Conducted by	Agency Coordinating	Estimated Costs USD
Environmental and Social Accountability							
WB Safeguards Awareness Training of Environmental Safeguards Policies triggered	PMU, Ministry of Environment and , project affiliated MDAs,	Workshop	½ Working day	During project preparatory stage	World Bank	World Bank	Not inclusive
World Bank Social Accountability System	PMU, Ministry of Women Affairs, Community Development, Social Welfare and Poverty reduction, Project affiliated MDAs	Workshop	½ Working day	During project preparatory stage	World Bank	World Bank	Not inclusive
Sierra Leone environmental Guidelines Introduction to Environment Basic Concept of Environment Environmental Regulations and Statutory requirements as per Government.	PMU, Ministry of Environment and project affiliated MDAs,	Workshop	½ Working day	During project preparatory stage	Relevant Consultant	PMU, Ministry of Environment and	

Table 6.2.: Training/Capacity Building Needs

Programme/Description	Participants	Form of Training	Duration	When	Conducted by	Agency Coordinating	Estimated Costs USD
Environmental Considerations in subproject activities: Environmental components affected during construction and operation stages; Environmental management and Best practice; Stakeholder participation	PMU, Ministry of Environment and project affiliated MDAs	Workshop	1 Working day	During project preparatory stage	Relevant Consultant	PMU, Environmental specialist, Ministry of Environment and	
Project Screening and Scoping	PMU, Ministry of Environment and project affiliated MDAs,	Training of Trainers	½ Working day	During project preparatory stage	Relevant Consultant	PMU, Environmental specialist, Ministry of Environment and	
Review of EIA and its integration into designs EIA methodology; Environmental provisions Implementation arrangements	PMU, Ministry of Environment and project affiliated MDAs	Lecture and Field visit	½ Working day			PMU, Environmental specialist,	
Preparation of ESIA, EA and		Training of	½ Working day	During project	Relevant Consultant	PMU, Environmental	
EMP Term of Reference/Implementation		Trainers		preparatory stage		specialist, Ministry of Environment and	
Preparation and administration of questionnaires and stakeholders consultation/FGD	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers	½ Working day	During project preparatory stage	Relevant Consultant	PMU, Environmental specialist, Ministry of Environment and	

Table 6.2.: Training/Capacity Building Needs

Programme/Description	Participants	Form of Training	Duration	When	Conducted by	Agency Coordinating	Estimated Costs USD
Project Management (scope, implementation, time, budget, costs, resource, quality, procurement, monitoring and evaluation)	PMU, Ministry of Environment and project affiliated MDAs	Training of Trainers	½ Working day	During project preparatory stage	Project Management Consultant	PMU, Environmental specialist, Ministry of Environment and	
Environmental and Social Audits	PMU, Ministry of Environment and project affiliated MDAs	Training of Trainers	½ Working day	During project preparatory stage	Relevant Consultant	PMU, Environmental specialist, Ministry of Environment and	
Strategic Environmental and Social Assessment (SESA)	PMU, Ministry of Environment and project affiliated MDAs	Training of Trainers	½ Working day	During project preparatory stage	Relevant Consultant	PMU, Environmental specialist, Ministry of Environment and	
Logistic and planning	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers	½ Working day	During project preparatory stage	Relevant Consultant	PMU, Environmental specialist, Ministry of Environment and	
Total							15,000

Table 6.2.: Training/Capacity Building Needs							
Programme/Description	Participants	Form of Training	Duration	When	Conducted by	Agency Coordinating	Estimated Costs USD
Pesticides Use, Storage and Disposal of containers	PMU, Project affiliated MDAs	Training of Trainers	½ Working day	During project preparatory stage	Relevant Consultant	PMU, Ministry of Agriculture	
Total							10,000
Training program (Health Impact Assessment) – HIA							
Overview of HIA	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers		During project preparatory stage	Relevant Consultant	PMU, Ministry of Health	7,500
Screening—How to Decide Whether to Conduct an HIA	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers		During project preparatory stage	Relevant Consultant	PMU, Ministry of Health	
Environmental Health Areas	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers		During project preparatory stage	Relevant Consultant	PMU, Ministry of Health	
Scoping—How Comprehensive Should the HIA Be	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers		During project preparatory stage	Relevant Consultant	PMU, Ministry of Health	
Baseline Data—What, When, and How Much?	PMU, Ministry of Environment and , project	Training of Trainers		During project preparatory stage	Relevant Consultant	PMU, Ministry of Health	

Table 6.2.: Training/Capacity Building Needs

Programme/Description	Participants	Form of Training	Duration	When	Conducted by	Agency Coordinating	Estimated Costs USD
	affiliated MDAs						
Risk Assessment— Assessing and Ranking Impacts	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers		During project preparatory stage	Relevant Consultant	PMU, Ministry of Health	
Health Action Plan	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers		During project preparatory stage	Relevant Consultant	PMU, Ministry of Health	
Monitoring and Verification							
Monitoring and Verification	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers		During project preparatory stage	Relevant Consultant	PMU, Ministry of Health	
Resourcing	PMU, Ministry of Environment and , project affiliated MDAs	Training of Trainers		During project preparatory stage	Relevant Consultant	PMU, Ministry of Health	
Training Programs [Occupational Health and Safety Management Plan (OHSMP)]							
Occupational Health and Safety(OHS) Leadership Management	PMU, Ministry of Environment and , project affiliated	Training of Trainers		During project initiation stage (Before commencement of civil works)	Relevant Consultant	PMU, Ministry of Environment and	7, 500

Table 6.2.: Training/Capacity Building Needs

Programme/Description	Participants	Form of Training	Duration	When	Conducted by	Agency Coordinating	Estimated Costs USD
	MDAs Contractors, Project affected Community representatives						
Safety performance assessment	PMU, Ministry of Environment and , project affiliated MDAs, Contractors	Training of Trainers		During project initiation stage (Before commencement of civil works)	Relevant Consultant	PMU, Ministry of Environment and Habitat	
Hazard Analysis and Control	PMU, Ministry of Environment and Habitat, project affiliated MDAs, Contractors	Training of Trainers		During project initiation stage (Before commencement of civil works)	Relevant Consultant	PMU, Ministry of Environment and	
Hazard Communication Program	PMU, Ministry of Environment and , project affiliated MDAs Contractors	Training of Trainers		During project initiation stage (Before commencement of civil works)	Relevant Consultant	PMU, Ministry of Environment and	

Table 6.2.: Training/Capacity Building Needs

Programme/Description	Participants	Form of Training	Duration	When	Conducted by	Agency Coordinating	Estimated Costs USD
Effective Accident Investigation	PMU, Ministry of Environment and , project affiliated MDAs Contractors	Training of Trainers		During project initiation stage (Before commencement of	Relevant Consultant	PMU, Ministry of Environment and	
Programme/Description	Participants	Form of Training		When	Training to be conducted by who	Training Conducting Agency	Training Costs USD
				civil works)			
Conducting Health and Safety Audits	PMU, Ministry of Environment and , project affiliated MDAs Contractors	Training of Trainers		During project initiation stage (Before commencement of civil works)	Relevant Consultant	PMU, Ministry of Environment and	
Job Hazard Analysis	PMU, Ministry of Environment and , project affiliated MDAs Contractors	Training of Trainers		During project initiation stage (Before commencement of civil works)	Relevant Consultant	PMU, Ministry of Environment and	

Table 6.2.: Training/Capacity Building Needs

Programme/Description	Participants	Form of Training	Duration	When	Conducted by	Agency Coordinating	Estimated Costs USD
Occupational Health Risk Assessment	PMU, Ministry of Environment and , project affiliated MDAs Contractors	Training of Trainers		During project initiation stage (Before commencement of civil works)	Relevant Consultant	PMU, Ministry of Environment and	
Work Stress Risk Assessment	PMU, Ministry of Environment and , project affiliated MDAs, Contractors	Training of Trainers		During project initiation stage (Before commencement of civil works)	Relevant Consultant	PMU, Ministry of Environment and	
Pesticides and other Chemicals Management and Waste Management	s	Hands on		During project initiation stage (Before farming activities)	Relevant Consultant	PMU, Ministry of Environment and Ministry of Agriculture	
Emergency Planning and Management	PMU, Ministry of Environment and Habitat, project affiliated MDAs, Contractors			During project initiation stage (Before commencement of civil works)	Relevant Consultant	PMU, SEMA	
GRAND TOTAL							35,700

6.4 Grievance Mechanism

The Grievance Redress Mechanism (GRM) is part of the broader process of stakeholder engagement, accountability, quality and compliance assurance designed to solving disputes at the earliest possible time, which is in the interest of all parties concerned. This shall further be made tighter in all future ESIA/ESMPs once the specific sites of the various project/subproject investments are known since there are different communities affected.

The objectives of the grievance redress mechanism are to:

- Provide an effective avenue for aggrieved persons to expressing their concerns and resolving disputes that are caused by the project;
- Promote a mutually constructive relationship among s, community members, project affected persons, government and investors;
- Prevent and address community concerns;
- Assist larger processes that create positive social change; and
- Identify early and resolve issues that would lead to judicial proceedings

6.4.1 Grievance Management Process

There is no ideal model or one-size-fits-all approach to grievance resolution- *localized mechanisms that take account the specific issues, cultural context, local customs, and project conditions and scales that works better. Nevertheless, in Figure 8.1, an outline of the Grievance Redress Flow Path/process that could be followed includes,*

- Receive, register and acknowledge complaint
- Screen and establish the foundation of the grievance
- Implement and Monitor a redress action
- Advise for a judicial proceedings as last resort if necessary

Document the experience for future reference through the registration of complaints, acknowledgement, follow-ups and the presenting mediation and corrective actions This is further amplified in Table 8 .3 which describes the steps in the grievance management process irrespective of the size and nature of the grievance.

In all these, the existing traditional mechanism for dispute resolution in the communities structured after the order of the administrative command described Section 4 in which an aggrieved person is required to lodge his/her complaint to the head of the ward or clan a matter that is not adjudicated satisfactorily at this level is taken to the village/community head shall not be in any way not reckoned with.

6.4.2 Composition of Grievance Redress Committee

A functional Grievance Redress Committee shall be constituted by the IHPAU in conjunction with the local community to monitor and review the progress of implementation of the scheme or plan of rehabilitation and resettlement of the affected people and to carry out post implementation social audits. The IHPAU will incorporate the use of existing

local grievance redress process available in the community to addressing disputes that may result from this project. This will entail co-opting the traditional council and some local leaders as members of the GRC. The specific composition of these committees will vary depending upon location and context. The main functions of the Committee are:

- Publicize within the list of affected persons and the functioning of the grievance redressed Procedure established;
- Verify grievances and their merits;
- Recommend to the solutions to such grievances;
- Communicate the decisions to the Claimants;
- Ensure that all notices, forms, and other documentation required by Claimants are made available in local language understood by people
- Ensure documentation of all received complaints and the progress of remediation.

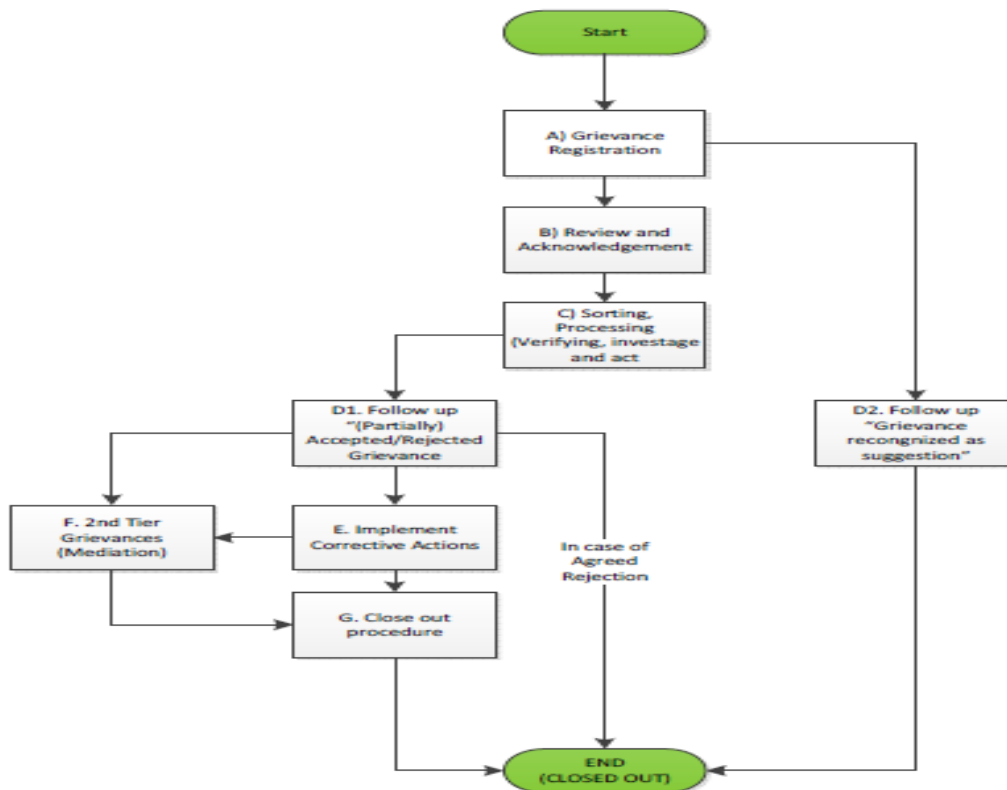


Figure 8.1: Grievance Redress Flow Path

S/N	Description	Timeline
1	Receipt of the grievance	1/2day
2	Completion of the grievance form	1/2day
3	Entry of the complaint into the grievance database	1/2day
4	Preliminary assessment of grievance: internal evaluation of the severity of the complaint (or “Community Impact Ranking,”))	2days
5	Written acknowledgement of the receipt of the grievance. If key information is missing from the grievance, request for further information	7days
6	Investigation and resolution of grievance	2-4weeks
7	Response letter and registration in database. If the solution is accepted, resolution (including any payments) and closure of the case	Within 6weeks
8	If the proposal is not accepted by the complainant, referral to the Independent Mediation Committee	6-8weeks after registration of grievance
	Resort to judicial measures	At any stage in the process though complainant would be persuaded to exercised patience until thorough utilization of this mediation path

* If this time limit cannot be met, the IHPAU through the GRM advises the complainant in writing that they require additional time.

6.4.3 Independent Mediation Committee

The Independent Mediation Committee (or IMC) is a structure that is to be established by the IHPAU to independently and impartially resolve grievances through mediation and dispute resolution. Mediation by the IMC is only to take place in case the complainant is not satisfied with the initial resolution proposed by the GRC. The Committee uses mediation to resolve disputes or complaints submitted to it.

The Mediation Committee shall operate independently from the IHPAU but has access to any information that the IHPAU and or its implementation partners have regarding the complaint. The determinations of the GRC are non-binding on either party. The IMC meets as needed, depending on registered complaints and disputes, and its members receive a stipend from the IHPAU to cover costs of attending meetings. If a solution that is acceptable to all parties emerges out of the meeting with the IMC, the grievance may be considered resolved and closed out; all parties are then notified. If no acceptable solution is agreed upon, either party has the option of taking legal action.

The composition of the IMC shall be established and will include three people of high reputation as impartial mediators in the region such as Elders, retired judges etc.

6.5 Environmental and Social Monitoring

Monitoring is a key component of the ESMF during project implementation. Monitoring verifies the effectiveness of impact mitigation measures, including the extent to which mitigation measures are successfully implemented. Monitoring specifically helps to:

- Improve environmental and social management practices;
- Check the efficiency and quality of the ESMP processes;
- Establish the scientific reliability and credibility of the ESMP for the project and
- Provide the opportunity to report the results on safeguards and impacts and proposed mitigation measures implementation.

Monitoring will be one of the principal activities of environmental and social management of the activities/projects once environmental permit is secured for a sub-project, contract is awarded and the project implementation commences. The IHPAUSafeguard Units will commence monitoring as an important feedback mechanism. This ensures that the environmental and social mitigation measures in this ESMF are:

- Adhered to in implementation and are strengthened by arising situations;
- Identified in the planning phase (contained in the EA report), and incorporated in the project design and cost are being implemented;
- Maintained throughout the construction and operation phases through to the decommissioning of sites, facilities and equipment; and
- Where inadequate, additional remedial actions are identified (including corrective measures or re-design of mitigation measures).

Methods for monitoring the implementation of mitigation measures or environmental and social impacts should be as simple as possible, consistent with collecting useful information, so that the sub project implementer can apply them. For instance, they could just be regular observations of the sub project activities or sites during construction and then when in use.

- Are plant/equipment being maintained and damages repaired?
- Does a water source look muddier/cloudier and different than it should, if so, why and where is the potential source of contamination.

Some indicators that could be used to ensure participation process involved in subproject activities include:

- Number and percentage of affected households/individuals/institutions consulted during the planning stage;
- Levels of decision-making of affected people;
- Level of understanding of project impacts and mitigation;
- Effectiveness of local authorities to contributing and making relevant decisions;

- Frequency and quality of public meetings;
- Degree of involvement of women or disadvantaged groups in discussions

Most observations of inappropriate behaviour or adverse impacts should lead to common sense solutions. In some cases, there may be need to require investigation by a technically qualified person.

The monitoring roles and responsibilities would be carried out by the following:

- PMUs Safeguard Units monitor effectively the investors/contractors engaged to ensure adherence to the environmental and social clauses and principles for all the activities, not readily identified now. The monitoring results from the executing agencies are reported to the MoE/EPA, for necessary action.
- MoE/EPA (National and Regional levels) as usual, play the leading oversight role as it relates to safeguard issues, will carry out its own compliance monitoring to satisfy itself that the permit conditions and relevant standards and mitigation measures are being fulfilled by operators in the sub-projects.
- MDAs (relevant ones) would participate in the monitoring giving consideration to specific components as they relate to their areas of statutory responsibility.
- The Regional Government traditionally would participate in the monitoring to ensure and verify adequacy of implementation of various measures.
- Communities as well as the CBOs/NGOs will be useful agents in collection of data that will be vital in monitoring and realigning the project to the part of sustainability as such they will play a role in the monitoring framework.
- World Bank will continually assess the implementation of the ESMF and other safeguard instruments and suggest additional measures as the need may be for effectiveness and efficiency.

Environmental Code of Conduct, Social Integration and Participation

An indicative Environmental Code of Conduct for contractors that shall work on the project is shown in Annex 8. These procedures, if followed, would yield benefits for longer period in terms of financial and environmental sustainability.

Furthermore, all activities as a matter of principle will promote the avoidance of any activity/subproject that

- Overlooks the rights and special provisions of vulnerable groups in the communities
- Causes any conflict among community or groups
- Restricts the participation of women and/or marginalized any group.

It is considered necessary to include in contract clauses the idea of holding Contractors financially and in some cases criminally liable for adverse impact that result from failure to implement contracted required mitigated measures.

As a matter of principles, Social inclusions or community participation in various aspects of the project/subprojects shall be managed, in particular through the inclusion of clauses that involve the following measures:

<i>1. Community participation</i>	<ul style="list-style-type: none"> • Participation in decision- making built into the planning and implementation of all subprojects to allow local people a voice in matters concerning them. • Involvement of affected people for consultation with and participation of in the preparation and implementation • A summary of the views expressed and how these views were taken into account in preparing the ESMP • A review of the alternatives presented and the choices made by affected persons wherever options available to them, including choices related to mitigation measures
<i>2. Integration with host populations & promotion of social inclusion</i>	<ul style="list-style-type: none"> • Use existing local groups rather than form new ones • Reduce social exclusion by increasing access to opportunities, goods, services and facilities for all stakeholders, especially the marginalized and women; • For close social integration to occur, socially marginalized groups and individuals must fully participate in social and economic opportunities. • Target women and youths, who have often been left out of efforts to increase sustainable livelihoods.
<i>3. Social Inclusion & Avoidance of elite Capture/ Vulnerable groups</i>	<ul style="list-style-type: none"> • Encouragement of programmes that meet peoples felt needs and reduce the feeling of alienation, which creates not only the perception but also the actual situation of being socially excluded. • Include special efforts (affirmative action) to fully integrate socially marginalized people into the society • Ensure access to information on all project/subproject activities through participatory village focus groups. • Partnerships could go far in removing the barriers to social inclusion. • Where different groups or individual have different views or opinions, particularly emphasis will be put on the views and needs of the vulnerable groups
<i>4. Gender issues</i>	<ul style="list-style-type: none"> • The empowerment of women groups is essential for public good, so ensure for every project opportunities at least 60% are targeted at women. A gender study that strives to mainstream gender concerns is relevant. Annex 10 outlines some information that should be provided in an assessment of the challenges and opportunities for the gender concerns.
<i>5. Avoidance of promotion of any conflict among community groups</i>	<ul style="list-style-type: none"> • Ensure an agreement on expectations • faithful implementation of memorandums of understanding • Service delivery, equitable • Ensure development benefits to all communities and groups, regardless of ethnicity, gender, generation, health conditions or socio-economic status. • Design subproject activities in manner that encourage cross-cultural

	communication systems that facilitate human coexistence, harmony and mutual partnerships.
6. <i>Implementation Arrangements:</i>	<ul style="list-style-type: none"> • Include and ensure community participation and oversight of projects in their domains
7. <i>Accountability in the use of public funds</i>	<ul style="list-style-type: none"> • Ensure public information dissemination • Collective embracement of the tenets of probity, accountability and transparency.
8. <i>Grievance procedures</i>	<ul style="list-style-type: none"> • To resolving conflict in the communities use existing traditional methods that are affordable and accessible procedures for redressal of disputes such as: • community meetings, elders-in-council, dialogue, council of chiefs, appeals and summons, elders assembly, religious leaders, youth council, women groups, and ultimately the police and courts.
9. <i>Project Monitoring</i>	<ul style="list-style-type: none"> • Ensure local communities/CBOs/NGOs play a role in the monitoring framework.

6.5.1 ESMF implementation responsibilities: overview

The Ministries of Health and Agriculture in Collaboration with Environmental Protection Agency (EPA) has the overall responsibility for ensuring that environmental and social issues are adequately addressed within the sub-project cycle, and also to develop and collate the environmental Safeguard document. The sub-project implementers are responsible for actual preparation and implementation of required safeguard procedures and measures. The World Bank will finance workshops on the safeguard policies for stakeholders, staffs, implementers and other MDA's. The World Bank will be responsible for general supervision of implementation.

Ministry of health and sanitation

- (i) Responsible for carrying out EI
- (ii) Consults project-affected groups and local NGOs
- (iii) Provides relevant information in timely manner prior to consultation in a form and
- (iv) language understandable and accessible to groups being consulted

Project implementing unit

- (i) Have key processes in Operational Manual
- (ii) Provide technical support for safeguard screening to implementers
- (iii) Review safeguard documentation
- (iv) Maintain safeguard documents for all subprojects

(v) Monitor subproject compliance with mitigation plans

Table 6: Responsibilities for ESMF implementation

Project Phase	MOHS/EPA	Implementers
Screening	<p>Inform and advise applicants and other stakeholders of the ESMF procedures</p> <p>Review Letter of Interest and screen for potential safeguard issues, and advise applicants regarding the nature and content of the safeguard documents and measures to be prepared</p>	<p>Assess any potential safeguard issues early in the preparation process, including screening for the presence of indigenous peoples</p> <p>Describe potential safeguard issues in the Letter of Interest</p>
Preparation	<p>Advise applicants on safeguard issues, as needed</p>	<p>Undertake safeguard required processes, such as consultations with local communities, environmental review, and social assessment</p> <p>If needed, design safeguard measures and prepare safeguard documents, such as an Indigenous Peoples Plan (IPP) and a Process Framework (PF) with the participation of local communities</p> <p>If applicable, disclose draft safeguard documents with the sub-project proposal to affected communities prior to final review of proposal by the project</p>
Review and approval	<p>Review sub-project proposal for safeguard impacts and social risks</p> <p>Assess the adequacy and feasibility of the safeguard assessment and consultation process. If needed, request further steps</p> <p>Assess the adequacy and feasibility of the safeguard measures and documents. If needed, request appropriate changes to these and re-assess prior to final approval</p> <p>If indigenous peoples are affected, ascertain that they have provided their free, prior and informed consent to sub-project activities affecting them. Sub-projects affecting indigenous peoples cannot be approved without such agreement</p> <p>Assess the capacity of the applicant to implement safeguard measures</p> <p>If applicable, publicly disclose safeguard related information on the web after sub-project approval</p>	<p>Submit sub-project proposal with safeguard measures and documents (e.g. social assessment, environmental review, IPP, PF), if required</p> <p>If requested by SOS, take additional steps to meet ESMF and safeguard policy provisions. Re-submit proposal with revised safeguard measures and documents, as needed</p>
Implementation	<p>Supervise and review environmental and social safeguard documents (IPP, PF) and issues during sub-project implementation. If needed, request changes to safeguard measures and/or implementation of these</p> <p>Review and approve Plan of Actions that are required to be prepared during implementation of sub-projects restricting access to natural resources (as will be described in the PF for sub-projects with potential impacts from such restrictions)</p>	<p>Disclose final safeguard documents (e.g. IPP, PF), if any, to affected communities</p> <p>Monitor and document the implementation of safeguard measures. When indigenous peoples are affected, include them in participatory monitoring and evaluation exercises</p> <p>Prepare Plan of Actions for sub-projects restricting access to natural resources (as per the PF prepared). Monitor and document implementation of these plans</p>
Evaluation	<p>Ensure inclusion and review of environmental and social safeguard issues and outcomes in mid-term and final sub-project evaluation and reporting, including concerning any lessons learned</p>	<p>Evaluate the implementation and outcomes of safeguard measures. When indigenous peoples are affected, include them in participatory evaluation exercises</p>

6.5.2 Environmental and social monitoring

Throughout the sub-project review process, the EPA will maintain contact with the implementers to obtain clarification on information provided and the preparation process in general. It may request additional steps, information and documentation as needed to meet the objectives of the ESMF. There are two key decision points during the sub-project preparation process. A screening of sub-project proposals will identify potential safeguard issues and ascribe preparation procedures to further assess potential impacts and design mitigation

measures, as needed. A review of the final sub-project proposal will, besides reviewing the general proposal against the project objectives and procedures, assess the adequacy of the sub-project's preparation process and implementation measures vis-à-vis the safeguard issues, including:

- (i) Compliance with this ESMF, EPA policies, and resolutions, and World Bank environmental and social safeguard policies
- (ii) Potential for the project to cause adverse environmental impacts
- (iii) Potential for the project to cause adverse social impacts
- (iv) Adequacy and feasibility of the proposed safeguard mitigation measures and monitoring plans, including any Indigenous Peoples Plan or Process Framework for restrictions of access to resources
- (v) Capacity of the applicant to implement any required safeguard-related measures during the preparation and implementation of the project

This review may find the safeguard process and measures satisfactory, or may find the need for further discussion with, and steps by, the applicant to achieve the objectives of this ESMF, including revising safeguard measures and documents as appropriate. If the risks or complexity of particular safeguard issues outweigh the benefits, the sub-project should not be approved as proposed. For sub-projects affecting indigenous peoples their free, prior and informed consent is required.

During sub-project implementation, safeguard issues are tracked along with performance toward sub-project objectives. At each performance reporting stage, EPA will revisit the safeguard issues to assess their status and address any issues that may arise. In cases where the implementers, to wit, the Ministries of Health and Agriculture and their designated PMUs implementing a safeguard instrument or other mitigation measures, they will report on the progress of such implementation similar to that which they are doing for other project elements. The intent of this process is to ensure that the environmental and social safeguard issues are continually monitored and mitigated throughout project implementation.

The EPA will monitor the implementation of safeguard issues during sub-project implementation. It will review and approve Plan of Actions that are required to be prepared during implementation of sub-projects restricting access to natural resources. The World Bank will include supervision of safeguard issues in its regular supervision of the project. The key responsibilities of the project implementers and stakeholders are described in further detail.

Implementation and Supervision undertaken by Ministries of Health and Agriculture and PMUs implementing the various sub-project includes:

- (i) Preparing contracts with environmental clauses for Ministries of Health and Agriculture as well as communities executing subprojects
- (ii) Undertake site visits to ensure that environmental criteria and mitigation measure, as required by contracts, have been incorporated into subprojects
- (iii) Require changes to subproject design and/or implementation if unforeseen impacts occur

- (iv) Approval required to issue final payment for subproject implementation

Monitoring of the ESMF by the EPA:

- (i) Identify potential problems at an early stage of implementation of the project and propose possible solutions.
- (ii) Provide constant feedback on the extent to which the projects are achieving their goals.
- (iii) Evaluate the extent to which the project is able to achieve its general objectives and deadlines.
- (iv) Monitor the efficiency with which the different components of the project are being implemented and suggest improvements.
- (v) Evaluate the extent to which the project is able to achieve its general objectives and deadlines. Site visits during subproject execution and operation to assess how environmental screening and mitigation measures are succeeding or have succeeded in minimizing impacts
- (vi) ESMF and EMWMP monitoring will be done quarterly joint at central level and Annually at central and district level.
- (vii) Visit sites during subproject execution and operation to assess how environmental screening and mitigation measures are succeeding or have succeeded in minimizing impacts

The co-ordination structure should be set up by the project implementing unit The EPA should take the lead in developing the ESMF regulations and technical guidelines.

6.6 Budgets for the ESMF

To effectively implement the environmental and social management measures suggested as part of the ESMF, necessary budgetary provisions has been be made as shown in Table 3. It is important to identify financial resource requirements even if indicative. This ensures upfront appreciation of the financial requirements and allows early planning and budgeting accordingly.

6.6.1 Monitoring and evaluation budget

Table 7: Monitoring and evaluation budget

Item	unit	unit type	unit	unit type	unit cost	total cost per month	Total cost pe year	Total cost for 3 years	Total cost in dollars
Printing of checklist & supervision tools	3	pages	40	copies	5000	600000	7200000	21600000	4320
Replicating checklist	3	pages	40	copies	5000	600000	7200000	21600000	4320
Printing of ESMF&HCWMP Document	80	pages	80	copies	10000	64000000	84000000	84000000	16800
Staff DSA for supervision of construction and Rehabilitation	3	staff	13	days	350000	13650000	163800000	491400000	98280
Top up cards	1	top up	3	staff	200000	600000	7200000	21600000	4320
Fuel for field visits	3	staff	13	staff	250000	9750000	117000000	351000000	70200
DSA for Drivers	3	Drivers	13	Days	150000	5850000	70200000	210600000	42120
External Auditor	1	person	35	days	1000000	35000000	35000000	105000000	21000
Laptop for data collection/report writing	2	Laptop	2	Laptop	6000000	12000000	12000000	36000000	7200
Internet	1	modem	1	modem	1000000	1000000	1000000	3000000	600
internet running cost	1	modem	1	modem	400000	400000	4800000	14400000	2880
				Total	9370000	143450000	509400000	1528200000	305640

6.7 Public consultation and disclosure

Public consultation and disclosure

In accordance with World Bank safeguards policy governing EA, the GoS recognizes that stakeholder consultation is an important element of the REDDISEE and the EA process.

The objectives of the consultations were to:

- Inform the affected communities within the project affected area on the project development objective;
- Give them opportunity to express their perceptions and concerns about the project impact;
- Collect useful local data/information/solutions that will help in the ESMF/ESMP/ESIA project preparation (e.g. Local grievance redress procedures).
- Receive from, and deliberate with the stakeholders on measures to avoid or mitigate impacts as well as facilitate rehabilitation of affected persons; and
- Empower their voice by mainstreaming their inputs into ESMF/ESIA implementation plan.

Consultations were carried out between March 2nd and March 24th among agro chemical dealers, farmers associations and healthcare institutions in Freetown, Kenema, Makari and Kailahun.

The outcomes of the consultations are insightful as it reveals the expressed happiness of the people for the REDDISEE project. The gain also includes findings on general approach to pest control and use of pesticides. The agro dealers and farmers expressed their willingness to embrace IPM for pest control.

Public consultation is a continuum throughout the life cycle of this project, and therefore, at various stages of project implementation stakeholders will be consulted and continued to be engaged in planning, participation and collaboration. Media of communication shall be through radio jingle, community town hall meeting, and fliers and also via the public disclosure of prepared safeguard documents at designated centers as required by the law.

Stakeholders for the purpose of this project include all those people and institutions that have an interest in the successful planning and execution of the project. This includes those likely to be positively and negatively affected by the project. The key stakeholders include individuals suffering from epidemics, affected communities, healthcare workers, the donor community, the implementing Ministries and related government agencies specially set up to help implement the joint disease outbreak response plan within the three hardest hit countries. The draft ESMF that will be prepared during implementation, will be publicly consulted on and disclosed in-country (and globally through the World Bank Info Shop) in a form and language appropriate for public comprehension prior to its finalization. All comments provided during these consultations will be recorded, and included in the final ESMF and any subsequent safeguard instruments which will be developed as required.

6.8 Conclusion

The West Africa Regional Disease Surveillance Systems Enhancement Project (REDISSE) will be implemented as an interdependent series of projects (SOP) that will eventually engage and support all 15 ECOWAS member countries. This is the first project in the series, REDISSE-SOP1 which targets both extremely vulnerable countries (Guinea, Sierra Leone and Liberia) and countries which have more effective surveillance systems and serve as hosts for important regional assets (Sierra Leone and Senegal). Phase 2 (REDISSE-SOP2) is expected to be delivered in the second quarter of Fiscal Year 17 (FY17). The estimated project financing for REDISSE-SOP2 is US\$102 million. The series of projects will be implemented in the context of the African Integrated disease surveillance and Response Strategy, international standards and guidelines of World Health Organization (WHO), World Organization for Animal Health (OIE), and Food and Agriculture Organization of the United Nations (FAO), fostering a One Health Approach.

The animal health sector in the ECOWAS region is characterized by a high incidence and prevalence of infectious diseases communicable diseases, both zoonotic and non-zoonotic, impacting veterinary and public health, trade, rural development and livelihoods.

Animal health is seen as a priority by the two regional economic communities in West Africa. ECOWAS and WAEMU have set a target of harmonizing national animal health systems.

The Ebola outbreak triggered a significant international response that brought many partners together to address the crisis and support the post-Ebola agenda of health systems recovery and strengthening. It also highlighted the need to focus attention on building the capacity for disease surveillance and response in the sub-region for both human and zoonotic diseases. The development partners engaged on these issues in the sub-region include major donor organizations including development banks, multilateral and bilateral donors and private foundations; UN systems agencies; technical agencies such as the US and China Center for Disease Control and Prevention; academic and research institutions and large numbers of

international and local non-governmental organizations. As noted in Annex 2, in this type of environment duplication of effort, inefficient use of resources and failure to address resource, policy and programmatic gaps is a substantial risk. It is expected that there will continue to be an influx of funds and other forms of support to the region, in particular, to the three EVD affected countries (Guinea, Sierra Leone, and Liberia) in the next three to five years. As a result, coordination of resources and activities offered by the various partner organizations will remain a significant challenge for national governments. Therefore, coordination mechanisms at both national and regional levels that engage both the human and animal health sectors need to be developed to maximize the impacts of the increasing support and foster sustainability of the anticipated outcomes. The World Bank's convening power will be highly instrumental in forging a coalition of national, regional, and global technical and financial institutions to support the disease surveillance and epidemic preparedness agenda in West Africa.

The World Bank is well placed to mobilize substantial financing for this multi-sector initiative and to convene premier technical and financial partners engaged in the field of disease surveillance and epidemic preparedness. The World Bank has strategically engaged with a core group of development partners including those implementing the Global Health Security Agenda (GHSA) in the development of the REDISSE project. The REDISSE project itself will provide resources to regional institutions and national governments to establish the needed coordinating mechanisms

In the course of implementation, however, negative environmental and social impacts have been identified at a cursory assessment which requires adequate and careful attention for this proposed project which has been categorised as 2 in the light of the yardstick of the World Bank Safeguard EA Policy.

Since at present, during this preparatory stage, no sufficient details are available with regard to the exact locations for each subproject activities, it became most helpful to prepare this ESMF. The ESMP outlined the principles and procedures that would be followed to ensure that implementation of project activities satisfy the requirements of the existing relevant environmental assessment in Sierra Leone and that of World Bank Safeguards policies.

This ESMF did not attempt to address any site specific impacts related to individual undertakings (in any specific form) as the locations and extent of impacts or activities are not known at this preparatory stage.

Nevertheless, it spelt out the basic principles and processes within which the project/sub-projects shall be implemented, agreeable to all parties that would operate in the REDISSE. Specifically, it provides guidance for environmental and social safeguards requirements for each subproject, subproject environmental and social screening and scoping, institutional arrangements and capacity required to use this framework and overall, the processes of ensuring all undertaking in the REDISSE meet the national and local environmental & social requirements that also consistent with World Bank safeguards policies.

In conclusion, it is heavily considered that adherence to the principles set out in this ESMF by all parties that would operate in the REDISSE is one sure way of making the proposed investment activities profitable sustainably in every sense. This EMSF is a document that provides guidelines as to how the environmental safeguard issues can be addressed. As discussed in the earlier sections, the proposed sub-projects under the project will have rather small scale environmental impacts that can be managed if the procedures given in this EMSF are followed. The project staff and other relevant persons should be trained so that they can fully implement the actions needed under the EMP. Provision for adequate funding must be made in the project's operational budget for this purpose.

ANNEX 1: Minutes of the ESMF validation meeting and stakeholder consultation

To date, the Bank-financed Ebola Emergency Response Project (EERP) has provided support to the Government's Post Ebola Recovery Strategy and the Ministry of Health and Sanitation's (MoHS) post-Ebola Health Sector Recovery Plan (2015-2020). The former focuses on three sequential steps: (i) getting to and maintaining zero cases of Ebola, (ii) implementing immediate recovery priorities and (iii) transitioning into the Agenda for Prosperity. The strategy's immediate priority for the health sector is to restore health services and plan towards building a robust health care system that is resilient and strengthened to ward off emergencies and recurring tropical diseases. Linked to this overarching Government strategy, the MoHS's plan comprises three overlapping phases: Early Recovery (July 2015-March 2016), Recovery (April 2016-December 2017), and health system strengthening and resilience building (2018-2020) and addresses five key priorities: (i) patient and health worker safety; (ii) health workforce; (iii) essential health services; (iv) community ownership; and (v) and information and surveillance.

The Health Service Delivery and System Support Project (HSDSSP) is a three-year US\$ 35Million (IDA: \$30 Million and Ebola Recovery and Reconstruction Trust Fund and ERRTF: \$5 Million) project designed to: (i) maintain the momentum of support by the EERP; and (ii) contribute to the flagship programs proposed by the Health Sector Recovery Plan. The project will also be complementary to ongoing efforts by the Development Partners in Sierra Leone to support the post Ebola recovery efforts and to the regional project proposed by the Bank (Regional Disease Surveillance).

The project also relates to sub-national support to improve service delivery via the rehabilitation or construction of primary health care facilities, provision of medical equipment, strengthening management and supervision, and health promotion in communities. This output will support sub-national governments to build an enabling environment for rural and urban health service delivery. It will include staffing, and sanitation. It is proposed that health facilities in the district will be supported with medical equipment to meet national standards and supervision. The executing agency for the project is the Ministry of Health and Sanitation while the implementing directorate responsible for all the components are Environmental Health and sanitation, Primary health Care, Hospital and laboratory and planning and information.

The Environmental safe guard document will presents a general assessment of the project's environmental impacts, proposed mitigations, monitoring, consultation disclosure, and grievance redress mechanism, institutional responsibilities, and reporting. The document will be carried out in compliance with the World Bank Safeguard Policy Statement. The main purpose of this Document is to provide a practical example for implementing agencies to follow during implementation.

Purpose of validation

The main purpose of the validation workshop was for partners to go through the document and make necessary corrections where necessary before the actual implementation process starts.

The meeting started with individual silence prayer which was led by Mrs. Juliana Kamanda. Dr Sillah gave the welcoming address and Christiana M. Fortune gave the over view and objectives of the Environment and social management framework and health care waste management plan. She stated that World Bank is supporting five Directorates in the implementation of projects in the Ministry of Health and Sanitation and the Directorate of Environmental Health and Sanitation happens to be one of the beneficiaries.

The participants were divided into groups based on the document and there were three groups in all. The groups were to go through the document and make corrections where necessary. Some key findings and recommendations got from the sub-groups are as follows:

- (i) Impacts should be put alongside mitigation measures.
- (ii) Some mitigation measures should be time bound.
- (iii) Annex 1-Land(point 6)-Needs expert advice (or the responsible agency together with implementing partners/contractor shall take an inventory of all large trees in the vicinity of the construction activity.....
- (iv) Annex 1-Air quality-PPE should be provided to further strengthen occupational Health and Safety (e.g. Face mask, Helmet, aprons, rubber boots etc.)
- (v) Annex 1-Waste (point c)-All wastes generated during construction should be collected and disposed properly by licensed waste collectors or companies.
- (vi) Routine monitoring should be done to ensure the quality of the water.
- (vii) Appropriate disposal options should be put in place and operational.
- (viii) After validation of the document, all sub projects within the document that have potential impacts on the environment should have a valid environmental impact assessment license.
- (ix) Use of specialized trolleys to move wastes from point of generation to storage and final disposal sites.
- (x) Waste handlers should not carry waste bags on their shoulders or on their bodies.
- (xi) Burial pits should at least be two (2) meters above water table. Hydro geo physical survey should be done to determine the water table of disposal sites.
- (xii) Disposal pits should be properly lined to avoid seepage.
- (xiii) The project should address the availability of water in Health Facilities.
- (xiv) Wastes should be disaggregated at collection point. There should be a structure in every facility to prepare waste and the contractor to come and collect it.

Conclusion

The workshop ended with a vote of thanks given by Dr. Ansumana R.M Sillah, the Director of Environmental Health and Sanitation on behalf of Ministry of Health and Sanitation.

Recommendations

- (i) The first ESMF Document for the EERP project to be shared
- (ii) The ESMF document to be implemented as the EERP project has already commenced
- (iii) Ensure that the HSDSSP safe guard document be implemented / act upon in time
- (iv) Routine monitoring should be done to ensure the quality of the water.
- (v) Appropriate disposal options should be put in place and operational.
- (vi) Ensure that all Burial pits should at least be two (2) meters above water table. Hydro geo physical survey should be done to determine the water table of disposal sites.
- (vii) PPE should be provided to further strengthen occupational Health and Safety (e.g. Face mask, Helmet, aprons, rubber boots etc.)

List of participants

Name	Organization
Dr Ansumana Sillah	MOHS
Lovetta Juanah	EPA
Josephe Mansaray	
Meredith Dyson	HSSHUB-MOHS
Lucky Chikayra	WHO/ENV
George Bundu	UNOPS
Francis Moses	CHEW
Patrick Pokawa	WASH-NET
David J Allieu	HFAC-SL
Michaela S. Kargbo	MOHS
Thanya Pratt	YOUTH ADVOCACY
Charles Ngombo	MOHS
Mohamed Bangura	MWR
Daniel Ah Coopers	MOHS
Christian Fortune	MOHS
Juliana Kamanda	ASI/MOHS
Abdulai I Jalloh	MOHS
Elizabeth Tejan	DHSPPI
Mohamed Marah	PHC
Joseph Benjamin Bancura	MOHS/DPHC
Bockarie P. Sesay	MOHS
Kottor K. Kamara	MOHS
Tamba Charles	MOHS
Doris Bah	MOHS
Agness Kuyateh	
Anita Caulkool	EHO/MOHS
Solomon A Sogbeh	MOHS
Saffa Koroma	PHS/MOHS
Sellu Dabor	EHO
Korkor L. Nyamu	PHS/MOHS
Siomn F. Dumbuya	EHO/MOHS
Sorie I Koroma	MOHS
Sarah Rogers	PHS/MOHS
Isata T Kamara	PHS/MOHS
Joshua M Kanukin	PHS/MOHS
Anthony D Foday	PHS/MOHS
Alie M Kamara	EHO/MOHS

ANNEX 2: Matrix of mitigation measures

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
General Conditions	Land	<p>The local construction and environment inspectorates and communities have been notified of upcoming activities</p> <p>The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works)</p> <p>All legally required permits have been acquired for construction and/or rehabilitation</p> <p>The Contractor formally agrees that all work will be carried out in an environmentally friendly manner designed to minimize impacts on neighboring residents and environment.</p> <p>All recognized natural habitats, wetlands and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities.</p> <p>An inventory shall be made of large trees in the vicinity of the construction activity, large trees shall be marked and cordoned off with fencing, their root system protected, and any damage to the trees avoided; Tree replanting should be undertaken to replace those which need to be cut</p> <p>There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.</p> <p>Adjacent wetlands and streams shall be protected from construction site run-off with appropriate erosion and sediment control feature to include by not limited to hay bales and silt fences</p> <p>If there are any religious or cultural artifacts on site, these must be identified in site-specific EMP, and recommended actions must be agreed in consultation with local community.</p>
Building-related Specifications		<p>Building designs must be in compliance with national standards for energy efficiency, water and sewerage and healthcare waste management</p> <p>Facility design features must ensure adequate space and equipment for health service delivery</p> <p>As far as possible, local material must be used to reduce the energy consumption in transport</p> <p>Asbestos must not be used; Low-cost lead-based paints should be avoided and building materials should be fire resistant.</p> <p>Proper ventilation and natural lighting should be ensured in the building design</p> <p>In case archaeological or religious site exists in the vicinity, the site-specific EMP must include all due diligence measures to avoid any harm or impact on those structures.</p> <p>The drainage pattern should be studied to determine whether the site would be subject to flooding and stagnant water. The building designs must include systems for drainage of excess water</p> <p>Alternative sources of power for lighting and heating options must be</p>

		<p>assessed for each site and the assessment and recommendations must be clearly documented in the site-specific EMP.</p> <p>The contractor shall ensure that construction materials such as sand, quarry stone, soils or any other construction materials are acquired from approved suppliers</p>
General Rehabilitation and/or Construction Activities	Air Quality	<p>Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust</p> <p>During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site</p> <p>The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust.</p> <p>Dust and noise barriers are specially required where construction faces hospital wards and patient movement</p> <p>There will be no open burning of construction / waste material at the site</p> <p>There will be no excessive idling of construction vehicles at sites</p> <p>PPE should be provided to further strengthen occupational Health and Safety (eg. Nose mask, helmet etc)</p>
	Noise	<p>Construction noise will be limited to restricted times agreed to in the permit</p> <p>During operations the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed as far away from residential areas as possible</p>
	Waste management	<p>Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.</p> <p>Construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.</p> <p>All wastes generated during Construction should be collected and disposed properly by licensed collectors or companies.</p> <p>The records of waste disposal will be maintained as proof for proper management as designed.</p> <p>Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)</p>
	Water Supply and Quality	<p>If piped water can be accessed, review possibility of linking the facility to the water source. In case of extending pipeline, environmental due diligence must be conducted with regard to the infrastructure required, materials used, layout of pipes within the facility etc. These must be clearly assessed and recorded in the site-specific EMP.</p> <p>If there is no piped water, possibility of having a shallow-well/tube-well within the facility premises. In case of this option, environmental due diligence will involve assessment of the quality of groundwater and type of aquifers, availability of materials and equipment required to install the pumps etc. These must be clearly assessed and recorded in the site-specific EMP.</p> <p>All laid pipes must be preferably copper, cast-iron sewer pipes to avoid Polyvinyl chloride (PVC) venting. Open pipes and insulation should be of non-toxic materials.</p>

		<p>The quality of the water must be assessed for usage (drinking, sanitation etc). Specific plans to address any particular issues of water quality, such as arsenic and fluoride contamination, should be made if required.</p> <p>Instructions must be included with regard to usage of the water, especially how to make it potable/drinkable.</p> <p>Adequate provision for storage of sufficient volumes of water should be provided to ensure continuous availability of water within the building.</p> <p>Routine monitoring should be done to ensure the quality of the water.</p>
	Sewerage and Sanitation	<p>The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities and technical agencies.</p> <p>Assessment will be made of conditions of sewerage facility and where there is no system in place, options for constructing pit latrines must be assessed. Pit latrines must be installed downhill from water sources/wells and should be at least 2 meters</p> <p>Above the water-table and about 6m away from the building. The design of the pit must follow international standards (WHO, WSP etc).</p> <p>A users and management manual must be prepared and disseminated to the users and healthcare staff. The assessment must be clearly documented in the site-specific EMP.</p> <p>In case of infectious wastewater, the EMP must document what systems are being put in place for treatment and discharging of such waste water.</p> <p>Construction vehicles and machinery will be washed only in designated areas where runoff will not pollute natural surface water bodies.</p> <p>Appropriate disposal options should be put in place and operational.</p>
		<p>The contractor shall provide all necessary protective clothing for workers exposed to hazardous and dangers work activities.</p> <p>Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots)</p> <p>Appropriate signposting of the sites will inform workers of key rules and regulations to follow</p> <p>All workers shall be regularly sensitized on safety regulations on the site.</p> <p>The construction shall maintain on the site first aid kits for male and female workers.</p> <p>Workers shall be provided with clean potable water on the site and safety cooking places, wash rooms and ventilated pit latrines.</p>
Toxic Materials	Asbestos management	<p>If asbestos is located on the project site, it shall be marked clearly as hazardous material; it is to be stored temporarily, it securely contained and sealed to minimize exposure and marked appropriately</p> <p>The removed asbestos will not be reused and should be secured so it cannot be pilfered by (worse yet, sold to) local people seeking building material. The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust</p> <p>Workers dealing with asbestos removal must be provided with protective equipment as per OSHA guidelines (glove bags, protective</p>

		<p>clothing and approved respirators); Asbestos will be handled and disposed by trained workers.</p> <p>All asbestos containing materials (ACM) ACM should be transported in leak-tight containers to a secure landfill in a manner that precludes air and water contamination that could result from ruptured containers. In case where there is no secured landfill, the preferred alternative solution is secure burial.</p> <p>The ACM could be buried under the foundations of the new construction but precautions must be taken that it is not broken or crushed</p> <p>All measures will be documented in site-specific EMPs</p>
	Toxic / hazardous waste management	<p>Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information</p> <p>The containers of hazardous substances shall be placed in an leak-proof container to prevent spillage and leaching</p> <p>The wastes shall be transported by specially licensed carriers and disposed in a licensed facility.</p> <p>Paints with toxic ingredients or solvents or lead-based paints will not be used</p>
Disposal of medical waste	<i>Addressed in Medical Waste management Plan</i>	<p>In compliance with national regulations the contractor will ensure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to:</p> <p>Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal; and</p> <p>Appropriate storage facilities for medical waste are in place; and</p> <p>If the activity includes facility-based treatment, appropriate disposal options are in place and operational</p>
Use of pesticides /chemical for pest control	<i>Addressed in Integrated Pest Management Plan</i>	<p>In compliance with the provisions and guidelines of OP 4.09 of the Bank, the contractor, practitioner or anyone concerned with the implementation of activities of crop or animal farming under this project is expected to use integrated pest/vector management approaches that are described in the IPMP. Use of pesticides must conform with the guidelines and in no case shall banned and obsolete pesticides be procured or used. IPMP is prepared as a stand-alone document.</p>
Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	<p>In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to</p> <p>Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards</p> <p>Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes.</p> <p>Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement</p> <p>Active traffic management by trained and visible staff at the site, if</p>

		required for safe and convenient passage for the public. Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.
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ANNEX 3: Environmental and Social Screening forms

INSTITUTIONAL & ADMINISTRATIVE				
Project title				
Scope of project and activity				
Institutional arrangements (Name and contacts)	WB (Project Team Leader)	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements (Name and contacts)	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate Supervision	Contactors
SITE DESCRIPTION				
Name of site				
Describe site location			Attachement 1: Site Map <input type="checkbox"/> Y <input type="checkbox"/> N	
Who owns the land?				
Description of geographic, physical, biological, geological, hydrographic and socio-economic context				
Locations and distance for material sourcing, especially aggregates, water, stones?				
LEGISLATION				
Identify national & local legislation & permits that apply to project activity				
PUBLIC CONSULTATION				
Identify when / where the public consultation process took place				
INSTITUTIONAL CAPACITY BUILDING				
Will there be any capacity building? <input type="checkbox"/> N or <input type="checkbox"/> Y if Yes. Attachment 2 includes the capacity building program				

This Form is to be used by the IHPAU for screening sub-project proposals. One copy of this form and accompanying documentation will be kept in the PIU office, and one copy to be sent to the World Bank Task Team Leader.

ANNEX 4: ESMF checklist and monitoring plan

Phase	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Cost (if not included in project budget)	Who (Is responsible for monitoring?)
During activity preparation							
During activity implementation							
During activity supervision							

Checklist

No	Issues	Yes	No	Proposed Mitigation Measures
A.	Zoning and Land Issues			
1	Will the sub-project affect land use zoning and planning or conflict with prevalent land use patterns?			
2	Will the sub-project involve significant land disturbance or site clearance?			
3	Will the sub-project land be subject to potential encroachment by urban or industrial use or located in an area intended for urban or industrial development?			
4	Is the sub-project located in an area susceptible to landslides or erosion?			
5	Will the sub-project involve the disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes)?			
6	Is the sub-project located on prime agricultural land?			
7	Does the sub-project have access to potable water?			
8	Is the sub-project located far (1-2 km) from accessible roads?			
9	Will the sub-project need to change the vegetation and /or cutting of trees on site			
10	Is the sub-project located in an area with a wastewater network?			
11	Is the sub-project located in the urban plan of the city?			
12	Is the sub-project located in a polluted or contaminated area?			
13	Is the sub-project located in an area with designated natural reserves or protected areas? [Note: If YES, the sub-project cannot be financed]			
14	Will the sub-project involve the disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes)?			

B	Construction related Issue			
1	Will the sub-project require the setting up of ancillary production facilities?			
2	Will sub-project require sourcing of building and construction materials and equipment			
3	Will the sub-project require construction workforce who will need to be provided accommodation or service amenities			
4	Will the sub-project generate solid (construction, rubble, cement etc) and liquid waste (chemicals, oils, wastewater etc)			
5	Will the sub-project require raw materials or construction materials?			
6	Will the sub-project lead to an increase in suspended sediments in streams affected by road cut erosion, decline in water quality and increased sedimentation downstream?			
7	Will the sub-project involve the use of chemicals or solvents?			
8	Will the sub-project lead to the creation of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors?			
9	Will the sub-project increase the levels of air emissions during construction or equipment movement?			
10	Will the sub-project generate dust and noise during construction?			
11	Will the sub-project increase ambient noise levels?			
12	Will the sub-project involve the storage, handling or transport of hazardous substances?			
13	Will the sub-project have an impact on on religious monuments, structures and/or cemeteries, archaeological or historical sites?			
14	Will the sub-project lead to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles?			
15	Will the sub-project result in dismantling or removal of asbestos			
16	Will the sub-project involve demolition of existing structures?			
C	Design Issues			
1	Does the sub-project need provision of water supply			
2	Does the sub-project need provision of electricity			
3	Will the sub-project generate large amounts of residual wastes, construction material waste or cause soil erosion?			
4	Will the sub-project result in potential soil or water contamination (e.g., from oil, grease and fuel from equipment yards)?			
5	Will the sub-project lead to an increase in suspended sediments in streams affected by road cut erosion, decline in water quality and increased sedimentation downstream?			
6	Will the sub-project involve the use of chemicals or solvents?			

7	Will the sub-project involve the storage, handling or transport of hazardous substances?			
8	Does the sub-project need provision of wastewater treatment			
9	Safety Issues			
10	Will the sub-project lead to inflow of labour and temporary construction camps?			
11	Is the -project or sub-project located in an area from which people have been displaced?			
12	Is the sub-project located in an area where people will be temporarily relocated?			
13	Is the sub-project located in a densely populated area?			
14	Does the sub-project require land acquisition? [Note: If YES, the sub-project cannot be financed]			
15	Will the sub-project negatively impact livelihoods? [Note: Describe separately if YES]			

ANNEX 5: Environmental guidelines for civil work contracts

The contractors are required to use environmentally acceptable technical standards and procedures during the implementation of construction of works. All construction contracts will contain the following requirements:

Take precautions against negative influence on environment, any environmental damage or loss through prevention or suppression measures (where it is possible) instead of liquidation or mitigation of negative consequences.

Observe all national and local laws and rules on environmental protection. Identify officers responsible for the implementation of activities on environmental protection conforming to instructions and directions received from the construction and design or environmental protection agencies.

Store and dispose of construction waste consistent with national regulations and the sub-project (site-specific) EMP

Minimize dust emission to avoid or minimize negative consequences influencing air quality.

Provide pedestrian crossing and roads and access to the public places.

Provide markets with light and transient roundabout connections to assure safety and convenience.

Prevent or minimize vibration and noise from vehicles during explosive activities.

Minimize damages and assure vegetation recovery.

Protect surface and underground water from soil pollution. Assure water collection and distribution.

Safeguards Procedures for Inclusion in the Technical Specifications of Contracts

(for rehabilitation/repairs activities)

I. General

The Contractor and his employees shall adhere to the mitigation measures set down and take all other measures required by the Engineer to prevent harm, and to minimize the impact of his operations on the environment.

Remedial actions which cannot be effectively carried out during construction should be carried out on completion of each subproject and before issuance of the "Taking over certificate":

these subproject locations should be landscaped and any necessary remedial works should be undertaken without delay, including grassing and reforestation;

water courses should be cleared of debris and drains and culverts checked for clear flow paths;
and

borrow pits should be dressed as fish ponds, or drained and made safe, as agreed with the land owner.

The Contractor shall limit construction works to between 6 am and 7 pm if it is to be carried out in or near residential areas.

The Contractor shall avoid the use of heavy or noisy equipment in specified areas at night, or in sensitive areas such as near a hospital.

To prevent dust pollution during dry periods, the Contractor shall carry out regular watering of earth and gravel haul roads and shall cover material haulage trucks with tarpaulins to prevent spillage.

To avoid disease caused by inadequate provision of water and sanitation services, environmentally appropriate site selection led by application of the environmental and social screening form provided in this ESSAF, design and construction guidance, and a procedure for ensuring that this guidance is followed before construction is approved. Ensure engineering designs include adequate sanitary latrines and access to safe water.

To prevent unsustainable use of timber and wood-firing of bricks, the contractor should replace timber beams with concrete where structurally possible. In addition, the contractor should ensure fired bricks are not wood-fired. Where technically and economically feasible, substitute fired bricks with alternatives, such as sun-dried mud bricks, compressed earth bricks, or rammed earth construction.

The Contractor shall conduct appropriate disposal of waste materials and the protection of the workforce in the event of asbestos removal or that of other toxic materials.

Prohibitions

The following activities are prohibited on or near the project site:

Cutting of trees for any reason outside the approved construction area;

Hunting, fishing, wildlife capture, or plant collection;

Use of unapproved toxic materials, including lead-based paints, asbestos, etc.

Disturbance to anything with architectural or historical value;

Building of fires;

Use of firearms (except authorized security guards);

II. Transport

The Contractor shall use selected routes to the project site, as agreed with the Engineer, and appropriately sized vehicles suitable to the class of road, and shall restrict loads to prevent damage to roads and bridges used for transportation purposes. The Contractor shall be held responsible for any damage caused to the roads and bridges due to the transportation of excessive loads, and shall be required to repair such damage to the approval of the Engineer.

The Contractor shall not use any vehicles, either on or off road with grossly excessive, exhaust or noise emissions. In any built up areas, noise mufflers shall be installed and maintained in good condition on all motorized equipment under the control of the Contractor.

Adequate traffic control measures shall be maintained by the Contractor throughout the duration of the Contract and such measures shall be subject to prior approval of the Engineer.

III. Workforce

The Contractor should whenever possible locally recruit the majority of the workforce and shall provide appropriate training as necessary.

The Contractor shall install and maintain a temporary septic tank system for any residential labor camp and without causing pollution of nearby watercourses.

The Contractor shall establish a method and system for storing and disposing of all solid wastes generated by the labor camp and/or base camp.

The Contractor shall not allow the use of fuel wood for cooking or heating in any labor camp or base camp and provide alternate facilities using other fuels.

The Contractor shall ensure that site offices, depots, asphalt plants and workshops are located in appropriate areas as approved by the Engineer and not within 500 meters of existing residential settlements and not within 1,000 meters for asphalt plants.

The Contractor shall ensure that site offices, depots and particularly storage areas for diesel fuel and bitumen and asphalt plants are not located within 500 meters of watercourses, and are operated so that no pollutants enter watercourses, either overland or through groundwater seepage, especially during periods of rain. This will require lubricants to be recycled and a ditch to be constructed around the area with an approved settling pond/oil trap at the outlet.

The Contractor shall not use fuel wood as a means of heating during the processing or preparation of any materials forming part of the Works.

The Contractor shall conduct safety training for construction workers prior to beginning work. Material Safety Data Sheets should be posted for each chemical present on the worksite.

The Contractor shall provide personal protective equipment (PPE) and clothing (goggles, gloves, respirators, dust masks, hard hats, steel-toed and –shanked boots, etc.) for construction and pesticide handling work. Use of PPE should be enforced.

IV. Quarries and Borrow Pits

Operation of a new borrow area, on land, in a river, or in an existing area, shall be subject to prior approval of the Engineer, and the operation shall cease if so instructed by the Engineer. Borrow pits shall be prohibited where they might interfere with the natural or designed drainage patterns. River locations shall be prohibited if they might undermine or damage the river banks, or carry too much fine material downstream.

The Contractor shall ensure that all borrow pits used are left in a trim and tidy condition with stable side slopes, and are drained ensuring that no stagnant water bodies are created which could breed mosquitoes.

Rock or gravel taken from a river shall be far enough removed to limit the depth of material removed to one-tenth of the width of the river at any one location, and not to disrupt the river flow, or damage or undermine the river banks.

The location of crushing plants shall be subject to the approval of the Engineer, and not be close to environmentally sensitive areas or to existing residential settlements, and shall be operated with approved fitted dust control devices.

V. Earthworks

Earthworks shall be properly controlled, especially during the rainy season.

The Contractor shall maintain stable cut and fill slopes at all times and cause the least possible disturbance to areas outside the prescribed limits of the work.

The Contractor shall complete cut and fill operations to final cross-sections at any one location as soon as possible and preferably in one continuous operation to avoid partially completed earthworks, especially during the rainy season.

In order to protect any cut or fill slopes from erosion, in accordance with the drawings, cut off drains and toe-drains shall be provided at the top and bottom of slopes and be planted with grass or other plant cover. Cut off drains should be provided above high cuts to minimize water runoff and slope erosion.

Any excavated cut or unsuitable material shall be disposed of in designated tipping areas as agreed to by the Engineer.

Tips should not be located where they can cause future slides, interfere with agricultural land or any other properties, or cause soil from the dump to be washed into any watercourse. Drains may need to be dug within and around the tips, as directed by the Engineer.

VI. Historical and Archeological Sites

If the Contractor discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor shall:

Stop the construction activities in the area of the chance find.

Delineate the discovered site or area.

Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities take over.

Notify the supervisory Engineer who in turn will notify the responsible local authorities and the Ministry of Culture, Youth and Sports immediately (less than 24 hours).

Contact the responsible local authorities and the Ministry of Information, Culture and Communication who would be in charge of protecting and preserving the site before deciding on the proper procedures to be carried out. This would require a preliminary evaluation of the findings to be performed by the archeologists of the relevant Ministry of Information, Culture and Communication (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage, including the aesthetic, historic, scientific or research, social and economic values.

Ensure that decisions on how to handle the finding be taken by the responsible authorities and the Ministry of Information, Culture and Communication. This could include changes in the layout (such as when the finding is an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage.

Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the Ministry of Information, Culture and Communication; and

Construction work will resume only after authorization is given by the responsible local authorities and the Ministry of Information, Culture and Communication concerning the safeguard of the heritage.

VII. Disposal of Construction and Vehicle Waste

Debris generated due to the dismantling of the existing structures shall be suitably reused, to the extent feasible, in the proposed construction (e.g. as fill materials for embankments). The disposal of remaining debris shall be carried out only at sites identified and approved by the project engineer.

The contractor should ensure that these sites: (i) are not located within designated forest areas; (ii) do not impact natural drainage courses; and (iii) do not impact endangered/rare flora. Under no circumstances shall the contractor dispose of any material in environmentally sensitive areas.

In the event any debris or silt from the sites is deposited on adjacent land, the Contractor shall immediately remove such, debris or silt and restore the affected area to its original state to the satisfaction of the Supervisor/Engineer.

Bentonite slurry or similar debris generated from pile driving or other construction activities shall be disposed of to avoid overflow into the surface water bodies or form mud puddles in the area.

All arrangements for transportation during construction including provision, maintenance, dismantling and clearing debris, where necessary, will be considered incidental to the work and should be planned and implemented by the contractor as approved and directed by the Engineer.

Vehicle/machinery and equipment operations, maintenance and refueling shall be carried out to avoid spillage of fuels and lubricants and ground contamination. An oil interceptor will be provided for wash down and refueling areas. Fuel storage shall be located in proper bounded areas.

All spills and collected petroleum products shall be disposed of in accordance with standard environmental procedures/guidelines. Fuel storage and refilling areas shall be located at least 300m from all cross drainage structures and important water bodies or as directed by the Engineer.

ANNEX 6: Protocols for Handling Animal Wastes and Principles for Managing Debris Resulting from Rehabilitation of Buildings

The REDISSE program is not expected to have any large-scale, significant and/or irreversible impacts as it is focused largely on public sector capacity building and strengthening readiness for dealing with , including prevention of outbreaks of diseases, as well as preventing or reducing possible human infections by strengthening emergency preparedness and response. In addition, the project design incorporates other beneficial measures such as improved biosecurity in farms and live markets. The project's preventive activities (funding of facilities, equipment, laboratories, procedures, and training programs), aimed at improving the effectiveness and safety over the existing practices, will have positive human health and environmental impacts. As such the project is assigned an Environmental Category B.

This annex depicts Principles for Managing Debris Resulting from Rehabilitation of Buildings and Protocols for handling Animal wastes. All of these mitigation measures have been incorporated into the design of the project.

Protocol for Managing Animal Wastes under the REDISSE Program.

Segregation of regulated veterinary waste at the point of generation is essential to ensure proper handling and worker safety. Waste generators are responsible for ensuring that regulated veterinary waste is discarded directly into clearly identifiable containers and labeled as described below. Regulated veterinary waste must be packaged and labeled before it is stored, treated, transported or disposed of. Persons packaging regulated veterinary waste shall wear heavy gloves of latex (22 mil gauge minimum) or equivalent material and other items consistent with level of hazard.

Management of wastes generated at the animal laboratory: The project will provide funds in this area to ensure that the infectious wastes-sharps generated at the animal laboratory are properly managed. This involves collection of the infectious wastes-sharps separately from common wastes, on-site treatment of these wastes by autoclaving, and collection of the treated wastes along with garbage by the municipality for disposal. Procurement of another autoclave may become necessary if the existing treatment capacity is exceeded from infectious wastes generated as a result of the analysis of potential specimens/ samples.

Response to outbreaks by the veterinarians and livestock officers. The information contained in the Department of Livestock and Fisheries (DLF) manual will be updated for different audiences, including: (i) veterinarians and livestock officers, (ii) the commercial farm owners, (iii) backyard farm owners, and (iv) the general public. The manual for the veterinarians and livestock officers will be presented in the form of Standard Operating Procedures (SOPs).

Transportation of animal carcasses and farm wastes (if necessary). If proper measures are not taken, transportation of infected animal carcasses and farm wastes would likely spread the virus outside of the infected farm areas. Under this project, transportation of carcasses and farm wastes to another site for disposal will be avoided to the maximum extent possible.

However, if transportation is required, then the SOPs will specify the specific requirements for vehicle design and operation as well as containment of carcasses and farm wastes for transportation. These SOPs will also include decontamination of vehicle surfaces (e.g. tires) prior to exiting the farm. The IATA Regulations for packaging of biological specimen will be adopted and included in the SOPs.

Culling of animals/poultry: It is important that culling of animal/poultry be conducted in a humane, safe, and efficient manner. The following methods for culling poultry were identified from the FAO guidelines: (i) neck breaking (manual), (ii) neck cutting (using mechanical devices), (iii) gassing with inhalation agents (e.g. carbon dioxide), and (iv) culling following electrocution or poisoning. The SOPs will specify the criteria for using one versus the other method; and will provide the design and operating requirements on of the gassing systems (e.g. specific locations and quantities of stocked carbon dioxide).

Personal hygiene: If proper hygiene measures are not taken, virus may spread to human. For this reason, for each of the above-mentioned activities to be conducted during outbreaks, the SOPs will specify the level of protection (e.g. gloves, masks, overalls, boots) to be used.

Selection of disinfectants: It is important that the disinfectants to be selected for the disinfection of farm surfaces, equipment, materials, and wastes do not have adverse impact on human health and the environment. The selection of disinfectants in this project will be based on such criteria as impacts of disinfectants on human health and the environment, and availability and cost of disinfectant, and compatibility of the disinfectants with the disposal methods of the wastes. The selected disinfectant, which will comply with the World Bank's Pest Management Policy (OP4.09), will be specified in the SOPs.

Disinfection of farm surfaces, equipment, materials, and wastes. Based on selected disinfectant, the type of equipment and procedures for preparing (e.g. dilution with water) and applying the disinfectant will be specified in the SOPs.

Disposal of carcasses and farm wastes: It is important that the selected disposal method does not have adverse impacts on human and the environment. For example, improper burial practices may cause contamination of ground or surface water, and poorly designed and/or operated cremation or incineration systems may create particulate emissions and objectionable odors to neighbors. The following options for the disposal of animal carcasses and farm wastes were considered: (i) burial in a pit, (ii) open air burning (cremation), (iii) composting, (iv) incineration at a fixed location or mobile incineration. However, criteria will be developed and included in the SOPs for the applicability of this disposal option for specific sites. This criteria will include: (i) height of the water table (the base of the burial pit must be at least 1 meter above the water table), (ii) dry weather conditions (dry season), (iii) distance to watercourses, bores, and wells, (iv) slope of the land at the burial site to the nearest watercourse (drainage to and from the pit), (v) type of soil (or soil permeability), (vi) distance to human settlements and public lands (including roads), (vii) prevailing wind direction (for odor emissions), (viii) availability of space for temporary storage of excavated soil, and (ix) accessibility of burial site by digging equipment (e.g. excavator). For those situations where the burial criteria are not met (wet weather conditions, high water table), the SOPs will

specify the most appropriate, environmentally-safe, and cost-effective disposal option. The SOPs will provide detailed design (depth of the pit), construction, and operating requirements (how the pit will be filled).

Disposal of used PPE: It is important that the selected PPE and disinfectant be compatible with the disposal method of the PPE to avoid generation of hazardous wastes (used PPE will be incinerated). As incineration of chlorine-bearing material with organics might generate emissions of dioxins and furans, care will be exercised in selecting PPE and disinfectants. First of all, all PPE procured under this project will be chlorine-free. In addition, best effort will be made to select a chlorine-free disinfectant. However, if this is not possible, then before incineration, used PPEs will be washed before incineration and the washed water needs to be disinfected and waited before discharge. The SOPs will describe these procedures in detail.

Personal hygiene at hospitals: If proper hygiene measures are not taken, epidemics may spread to humans. For this reason, guidelines regarding personal hygiene procedures will be developed at designated reference health facilities. Specifically, for each of the above-mentioned activities to be conducted during disease outbreaks, the SOPs will specify the level of protection (e.g. gloves, masks, overalls, boots) to be used.

Healthcare waste management at hospitals to be receiving potentially infected patients: Animal virus may spread to humans if proper waste management measures are not taken at hospitals treating potentially infected patients. Under this project, only designated hospitals will receive infected (or potentially infected) patients.

Rehabilitation of existing laboratory: Rehabilitation and refurbishment of existing laboratories will be financed through the REDISSE program. The adverse impacts during rehabilitation would include dust and noise emissions, generation of construction waste, disturbance of traffic, and discharge of untreated sewage. These adverse impacts will be mitigated by including in the construction contract a clause regarding observation of standards for good construction practices.

Health laboratory-related personal hygiene measures: If proper hygiene measures are not taken, animal epidemics may spread to humans. For this reason, SOPs will be prepared for the collection, handling, and transportation of suspected specimens to the laboratory as well as handling of these specimens at the laboratory. In addition, PPE will be procured and supplied to the staff collecting, handling, and analyzing the suspected AI specimens. Training and then refresher training courses will be given to the staff on personal hygiene measures.

Waste management at the laboratory: Infectious wastes from the serology/virology, bacteriology and toxicology laboratories will be collected separately from the garbage and treated on site by autoclaving. The treated wastes and garbage are stored in an open-top basket and collected by the municipality twice a week for disposal. A consultant will be engaged to identify the quantity of infectious waste generated from the laboratory. The consultant will evaluate alternative options for waste management. The consultant will prepare a waste management plan for the laboratory solid (this plan will address all waste types, including infectious wastes, sharps, liquid wastes, and common wastes). In addition, various supplies

(e.g. bins, bags, labels) will be procured. The laboratory staff will be provided training on waste management.

Protocol for Debris and Construction Waste Management in Sierra Leone

Rehabilitation of existing Buildings: Rehabilitation and refurbishment of existing buildings, including laboratories will be financed through the REDISSE program. The adverse impacts during rehabilitation would include dust and noise emissions, generation of construction waste, disturbance of traffic, and discharge of untreated sewage. Others include Sources of construction wastes such as: Waste wood, concrete rubble and tiles, Asbestos materials, Paints, Pesticides, PCBs, Excavated soil piles and demolition debris, Planks, Empty cement and plastic bags, etc. These adverse impacts will be mitigated by including in the construction contract a clause regarding observation of standards for good construction practices.

This waste management protocol will follow the standard principles of waste management consistent with the policies and regulations for Debris and Construction Waste Management in Sierra Leone. The steps shall involve waste minimization, collection, segregation, recycling, and disposal to approved dumpsites.

The protocol for debris and construction waste management is a requirement that is aptly contained in the construction contract agreements for sustainable construction project implementation in Sierra Leone. The responsibility for waste management is that of the developer or project proponent. In a situation where the proponent carries out the construction work through contracting, the responsibility for compliance to the protocols/standards in debris waste management is transferred to the contractor by the proponent and is regulated through the contract agreement, while the proponent monitors the implementation to ensure that the contractor complies fully to the waste management obligations.

The protocols are presented as follows:

1) General:

- Contractor shall implement all measures necessary to avoid undesirable adverse environmental and social impacts wherever possible, restore work sites to acceptable standards, and abide by any environmental performance requirements specified in an Environmental management plan or in the environmental clause of the contract. In general these measures include but not be limited to:
- Minimize the effect of dust on the surrounding environment resulting from earth mixing sites, asphalt mixing sites, dispersing coal ashes, vibrating equipment, temporary access roads, etc. to ensure safety, health and the protection of workers and communities living in the vicinity of dust producing activities.
- There should be adequate number of garbage bins and containers made available at strategic areas of the site. The use of plastic bin liners should be encouraged.
- Solids, sludge and other pollutants generated as a result of construction or those removed during the course of treatment or control of wastewaters will be disposed

of in a manner that prevents their direct or indirect re-entry into any watercourse or ground waters.

- Any waste material that is inadvertently disposed in or adjacent to watercourses will be removed immediately in a manner that minimizes adverse impacts, and the original drainage pattern should be restored original drainage pattern should be restored.

2) *Campsite Waste Management*

- All vessels (drums, containers, bags, etc.) containing oil/fuel/surfacing materials and other hazardous chemicals shall be banded in order to contain spillage. All waste containers, litter and any other waste generated during the construction shall be collected and disposed off at designated disposal sites in line with applicable government waste management regulations.
- All drainage and effluent from storage areas, workshops and camp sites shall be captured and treated before being discharged into the drainage system in line with applicable government water pollution control regulations.
- Used oil from maintenance shall be collected and disposed off appropriately at designated sites or be re-used or sold for re-use locally.
- Entry of runoff to the site shall be restricted by constructing diversion channels or holding structures such as banks, drains, dams, etc. to reduce the potential of soil erosion and water pollution.
- Construction waste shall not be left in stockpiles along the road, but removed and reused or disposed of on a daily basis.
- If disposal sites for clean spoil are necessary, they shall be located in areas, approved by the SE, of low land use value and where they will not result in material being easily washed into drainage channels. Whenever possible, spoil materials should be placed in low-lying areas and should be compacted and planted with species indigenous to the locality.

3) *New extraction sites:*

- Shall not be located in the vicinity of settlement areas, cultural sites, wetlands or any other valued ecosystem component, or on high or steep ground or in areas of high scenic value, and shall not be located less than 1km from such areas.
- Shall not be located adjacent to stream channels wherever possible to avoid siltation of river channels. Where they are located near water sources, borrow pits and perimeter drains shall surround quarry sites.
- Shall not be located in archaeological areas. Excavations in the vicinity of such areas shall proceed with great caution and shall be done in the presence of government authorities having a mandate for their protection.

- Shall not be located in forest reserves. However, where there are no other alternatives, permission shall be obtained from the appropriate authorities and an environmental impact study shall be conducted.
- Shall be easily rehabilitated. Areas with minimal vegetation cover such as flat and bare ground, or areas covered with grass only or covered with shrubs less than 1.5m in height, are preferred.
- Shall have clearly demarcated and marked boundaries to minimize vegetation clearing.
- Stockpile areas shall be located in areas where trees can act as buffers to prevent dust pollution. Perimeter drains shall be built around stockpile areas. Sediment and other pollutant traps shall be located at drainage exits from workings.
- The Contractor shall deposit any excess material in accordance with the principles of these general conditions, and any applicable ESMP, in areas approved by local authorities and/or the SE.

4) Rehabilitation and Soil Erosion Prevention

- To the extent practicable, the Contractor shall rehabilitate the site progressively so that the rate of rehabilitation is similar to the rate of construction.
- Always remove and retain topsoil for subsequent rehabilitation. Soils shall not be stripped when they are wet as this can lead to soil compaction and loss of structure.
- Topsoil shall not be stored in large heaps. Low mounds of no more than 1 to 2m high are recommended.
- Revegetate stockpiles to protect the soil from erosion, discourage weeds and maintain an active population of beneficial soil microbes.
- Locate stockpiles where they will not be disturbed by future construction activities.
- To the extent practicable, reinstate natural drainage patterns where they have been altered or impaired.
- Remove toxic materials and dispose of them in designated sites. Backfill excavated areas with soils or overburden that is free of foreign material that could pollute groundwater and soil.
- Identify potentially toxic overburden and screen with suitable material to prevent mobilization of toxins.
- Ensure reshaped land is formed so as to be inherently stable, adequately drained and suitable for the desired long-term land use, and allow natural regeneration of vegetation.
- Compacted surfaces shall be deep ripped to relieve compaction unless subsurface conditions dictate otherwise.

- Revegetate with plant species that will control erosion, provide vegetative diversity and, through succession, contribute to a resilient ecosystem. The choice of plant species for rehabilitation shall be done in consultation with local research institutions, forest department and the local people.

5) Water Resources Management

- The Contractor shall avoid conflicting with water demands of local communities.
- Abstraction of both surface and underground water shall only be done with the consultation of the local community and after obtaining a permit from the relevant Water Authority.
- Abstraction of water from wetlands shall be avoided. Where necessary, authority has to be obtained from relevant authorities.
- No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses.

6) Blasting & Quarrying

- Blasting activities shall not take place less than 2km from settlement areas, cultural sites, or wetlands without the permission of the SE.
- Blasting activities shall be done during working hours, and local communities shall be consulted on the proposed blasting times.
- Contractor shall obtain appropriate licenses/permits from relevant authorities to operate quarries or borrow areas.
- The location of quarries and borrow areas shall be subject to approval by relevant local and national authorities, including traditional authorities if the land on which the quarry or borrow areas fall in traditional land.

7) Disposal of Unusable Elements

- Unusable materials and construction elements such as electro-mechanical equipment, pipes, accessories and demolished structures will be disposed of in a manner approved by the SE. The Contractor has to agree with the SE which elements are to be surrendered to the Client's premises, which will be recycled or reused, and which will be disposed of at approved landfill sites.
- Unsuitable and demolished elements shall be dismantled to a size fitting on ordinary trucks for transport.

Principles and Protocols for Rehabilitating Existing Buildings

The matrix below summarizes types of construction and demolition wastes and procedures for their management

S/N	Type of Waste	Principle for Recycling Disposal Method
1	<i>Site Clearing and dredging materials</i> – These are materials or objects that are displaced during the preparation of a construction or demolition site. They include vegetation stripping, trees & tree stumps, rubble, dirt, rocks and excavated soil piles	<p>1) Minimize/reduce waste by planning and sticking to appropriate engineering design and specification such as the size of land area to be cleared and depth of earth to be excavated.</p> <p>2) Re-use soil materials for backfilling and wood as materials for construction</p> <p>3) non-recyclable should be separated and regularly disposed in approved dumpsites</p>
2	<i>Building material waste</i> - insulation, nails, electrical wiring, rebar, wood, plaster, scrap metal, cement, and bricks, Concrete, asphalt and waste tiles	These materials may be damaged or unused, but can be recycled or reused in other forms. Waste wood can be recovered and recycled into wood for new building projects. Cement, bricks, plaster and asphalt can be crushed and reused as aggregate materials in other construction or building projects.
3	<i>Electronic wastes and Aluminum materials</i> – desktop computer, television, mobile devices, air conditioners, rail	Electronic wastes and aluminum materials shall be recycled after dismantling and crushing;
4	Timber and Furniture from Buildings	Re-use materials or recycle as appropriate. Potential usages include: 1) particle board, charcoal, papermaking material; 2) use as fueling cement kilns; 3) energy recovery from incineration
5	<i>Hazardous waste</i> – such as Asbestos-containing buildings materials (roofs and ceilings); paints, PCB, lead, pesticides, batteries, insulated materials for asbestos, etc	<p>1) Controlled management undertaken as necessary for each type of waste.</p> <p>2) An inspection of building materials for the presence of asbestos and lead hazards must be conducted prior to initiating renovation and demolition.</p> <p>3) Handling of hazardous wastes must follow proper procedures regarding collection, storage, transportation and disposal in approved landfill</p>
6	Waste water, Waste oil, lubricant, sludge	<p>1) Ensure effluent collection measures and treatment of effluent before discharging into sewage system</p> <p>2) Establish and enforce daily site clean-up</p>

		<p>procedures, including maintenance of disposal facilities for construction debris.</p> <p>3) Ensure that all equipment maintenance activities, including oil changes, are conducted within demarcated maintenance areas designated for such.</p> <p>4) Ensure that oil or other lubricants are never dumped on the ground, in designated areas.</p>
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