Republic of Sierra Leone

MINISTRY OF HEALTH AND SANITATION

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

FOR THE

INSTALLATION OF A CONTAINERIZED COLD ROOM AT THE PORT LOKO GOVERNMENT HOSPITAL.

UNDER THE

REGIONAL DISEASE SURVEILLANCE SYSTEMS ENHANCEMENT (REDISSE) PROJECT

FINAL REPORT

August 2022

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LIST OF ABBREVIATIONS

AF	Additional Financing
AIDS	Acquired Immune Deficiency Syndrome
ARAP	Abbreviated Resettlement Action Plan
CHW	Community Health Workers
CMO	Chief Medical Officer
COVAX	COVID-19 Vaccines Global Access Facility
COVID-19	Coronavirus Disease 2019
E&S	Environmental and Social
EHSG	Environmental Health and Safety Guidelines
EPA	Environmental Protection Agency
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
FSU	Family Support Unit (of the Sierra Leone Police Force)
GoSL	Government of Sierra Leone
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
GRS	Grievance Redress System
HCF	Health Care Facility
HCU	Health Care Unit
HCW	Health Care Waste
MoHS	Ministry of Health and Sanitation
NA	Not Available
NGO	Non-Governmental Organizations
ODCH	Ola During Children's' Hospital
OHS	Occupational Health and Safety
OPD	Out Patients Department
PBSL	Pharmacy Board of Sierra Leone
PCMH	Princess Christian Maternity Hospital
PDO	Project Appraisal Document
POE	Port of Entry
PPE	Personal Protection Equipment
RAP	Resettlement Action Plan
REDISSE	Regional Disease Surveillance Systems Enhancement (REDISSE) Project

SARS COV 2	2019 Novel Coronavirus
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SL	Sierra Leone
SOP	Standard Operating Procedure
WHO	World Health Organization

EXECUTIVE SUMMARY

Background

Sierra Leone is part of the West African countries implementing the West Africa Regional Disease Surveillance Systems Enhancement Project (REDISSE). 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 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 components are as follows:

- Component 1: Surveillance and Information Systems
- Component 2: Strengthening Laboratory Capacity
- Component 3: Preparedness and Emergency Response:
- Component 4: Human resource management for effective disease surveillance and epidemic preparedness
- Component 5: Institutional Capacity Building, Project Management, Coordination and Advocacy

Under Sub-Component 2.1 Review, upgrade, and network laboratory facilities of Component 2 (Strengthening Laboratory Capacity), the project is financing the construction of a cool room container at the Port Loko Government Hospital. The World Bank recommended an Environmental and Social Management Framework upon screening and categorising the sub-project based on the screening template provided in the Parent Project Environmental and Social Management Framework (ESMF). The ESMP is prepared in line with the World Bank's Environmental Assessment Policy (B.P/O. P 4.01) together with relevant Sierra Leonean laws such as the environmental protection Act, 2008, WHO COVID-19 guidelines and World Bank Good Practice Notes informs this document.

The sub-project involves the installation of a containerized cold room at Port Loko Government Hospital. The estimated size of the land is 2,400 sq. ft. (approximately 233sq.m). The site

(Latitude 8°45'55.91"N; Longitude 12°47'7.02"W) is located within the premises of Port Loko Government Hospital, north of the Port Loko Town Roundabout. The Hospital is accessible via the Hospital Road. The project activities involve demolishing existing corridor to allow the container to be placed on the proposed site, site preparation.

It is estimated that a maximum of ten (10) workers will be working on the project. These will include skilled labour e.g., engineers, semi-skilled labour (masons and welders) and unskilled labour such as labourers will be working on-site at any point in time. Workers will commute to work on-site daily. This is minor civil work and simple machines like shovels and compactors will be used to prepare the foundation and platform to host the container. A haulage truck will transport the container from the Port to the proposed Project Site. A forklift will be used to transport the container from the haulage truck to the proposed site, once the container arrives at the hospital. The dimensions of the container are Length: 40ft, width: 10ft, and Height: 8.6ft. It is estimated that the density of Polyurethane (PU): 40+ - 2kg/m3. Thickness of PU: 100mm Thickness of Metal: 0.3mm Fireproof: B2 Package: PVC film; 2 cold room doors Two (2) Leaf Hinge Door Open way: Left and Right Size: 1800mm (H)*800mm (W) Density of PU: 40+ - 2kg/m3 Thickness of PU: 100mm Thickness of Metal: 0.4mm. The Cold room will be connected to grid electricity and a standby generator at the hospital. Within three (3) months, the works will be completed.

The site is in Port Loko district. The hospital is in a built-up area and is fully functional. The elevation and topography of the site and adjoining area are flat. The district experiences high temperatures throughout the year. The hottest month is April just before the main rainy season, with a mean temperature of 31.2˚ C over the past decade, while the coolest month is August (23 ˚C over the past decade). The rainy season is from May to November while the dry spell lasts from December to April. The average annual rainfall is 2945.3mm. There are no economic activities within the enclave of the hospital. Although the facility is in Port Loko town, its sphere of influence in terms of its core functions extends to the entire Port Loko District. The total population of Port Loko is currently estimated to be 615,376 of which males constitute 294,954 (47.9%) while females are 320, 422 (52.1%).

The ESMP identifies anticipated project risks and impacts during the construction, operational and decommissioning phases of the project. These include accidents during transportation of the container from the Port and installing it on site. This may involve transporters, loading and off-loading personnel, site workers, patients and workers at the facility and visitors. Other risks include exposure of site workers, patients, health care workers and visitors to SARS COV-2 virus and other pathogens, generation of construction waste during the construction phase. Operational phase adverse impacts/risks include reagents spillage during transit from the cold room to the hospital laboratory during handling and in storage putting patients and workers

(including laboratory technicians and cleaners) at risk of exposure to hazardous chemicals and injury. Other risks hypothermia and lock system failure cause temperature excursion and/or emergencies.

Mitigation measures have been proposed in the ESMP including training programmes for waste handlers and staff of the facility, enforcement of the use of Personnel Protective Equipment (PPEs), implementation of SL-SOPs for laboratory and Good International Industry Practices. A focal person to receive GVB/SEA/SH complaints and other grievances have been proposed in the ESMPs together with other preventive, accountability, and reporting measures for GBV/SEA in line with the survivor centred approach. Other mitigation measures include reinstatement of the corridor at a cost to the Project. These mitigations have been costed and responsible parties for implementation have been included in the Environmental and Social Management Plan (see Table 4.1 -4.5 for ESMP).

The Ministry of Health and Sanitation (MoHS) will be responsible for environmental and social monitoring and reporting during the construction phase. The Ministry has the Integrated Health Project Administration Unit (IHPAU) charged with the responsibility of judiciary and procurement under Bank-funded projects. The Unit is also responsible for ensuring environmental and social management, monitoring, and reporting of Bank-funded projects under the Ministry. IHPAU has a Safeguards Unit staffed with a Social Safeguards Specialist, Environmental Safeguards Specialist, and a Waste Management Specialist.

The cold room will be part of the assets of the Port Loko Government Hospital. The hospital has a Laboratory Scientific Officer who is the technical head of the Laboratory Unit. He reports to the Medical Superintendent-who heads the hospital. Ensuring that the cold room is clean will be the responsibility of the Laboratory Scientific Officer. The provision of PPEs, cleaning and sanitation material will be the responsibility of the Ministry of Health and Sanitation. Supply reagents will also be the responsibility of the Ministry of Health and Sanitation.

The estimated cost for implementing this ESMP and environmental and social monitoring, outside the works contract price is estimated as Fourteen Thousand and Twenty-Eight United States Dollars (USD 14,028.00). Table 5.5 presents the summary cost estimates and the proposed sources of funding.

A grievance redress mechanism for the patients, site workers and GBV survivors and emergency response procedures for routine hazards have also been prepared as part of the ESMP. Contractual clauses to be inserted into the contract/bid documents as well as a sample code of conduct for site workers have also been attached in the appendices (see Appendix E and F respectively).

In conclusion, the negative environmental and social impacts associated with the execution of the project are not significant enough to offset the benefits, if the ESMPs implemented. The safeguard unit at IHPAU will take cognizance of all negative impacts/risks identified in this report and ensure that the project is executed to meet the requirements of Sierra Leone's environmental and social laws, Ministry and Sanitation Standard Operating Procedures (SOPs) as well as the relevant World Bank Operational Policies, Environmental Health and Safety Guidelines (EHSGs) and other Good international Industry Practices (GIIPs).

CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND

Sierra Leone is part of the West African countries implementing the West Africa Regional Disease Surveillance Systems Enhancement Project (REDISSE). 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 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 components are as follows

- Component 1: Surveillance and Information Systems
- Component 2: Strengthening Laboratory Capacity
- Component 3: Preparedness and Emergency Response:
- Component 4: Human resource management for effective disease surveillance and epidemic preparedness
- Component 5: Institutional Capacity Building, Project Management, Coordination and Advocacy

Under sub-Component 2.1 Review, upgrade, and network laboratory facilities of Component 2 (Strengthening Laboratory Capacity), the project is financing the construction of a cool room container at the Port Loko Government Hospital.

The construction of the Cool Room at the Port Loko Government Hospital is expected to carry risks and adverse impacts on the environment, social systems and human health during the construction and the operational phase. An environmental and social screening exercise concluded that the project is categorised as one carrying a category B risk under the World Bank policies. The Bank, subsequently, recommended the preparation and approval of an Environmental and Social Management Plan (ESMP) prior to commencement of works. Hence, the preparation of this plan.

1.1 Sub Project Description

The sub-project involves the installation of a containerized cold room at Port Loko Government Hospital. The cool room is a prefabricated container that will be used as cold storage area to store reagents for the hospital laboratory. No samples will be stored in this unit. The estimated size of the land is 2400 sq. ft. (approximately 233sq.m). The project activities involve demolishing existing corridor to allow the prefabricated container to be placed on the proposed site, site preparation (site

clearing, excavation and establishing a concrete platform including formwork; (see Appendix C: Plate 1) for a picture of the proposed site).

Other aspects of the civil works are blockwork, installation of a container; installation of electrical fittings and cooling system including refrigerants, roofing of the structure, fixing doors and windows; and establishing an apron and concrete drain. It is estimated that the construction will be completed within three (3) months.

1.2 Site Location/Access

The site (Latitude 8°45'55.91"N; Longitude 12°47'7.02"W) is located within the premises of Port Loko Government Hospital, north of the Port Loko Town Roundabout. The Hospital is accessible via the Hospital Road. Within the hospital, the site is in between the Children Ward and the Hospital Laboratory (see Appendix A for Location Map and Appendix B for the site and its environs).

1.3 Site Description

The elevation and topography of the site and adjoining area are flat. The site is located between the Children's Ward and the Laboratory Block. There is no infrastructure on the proposed site for the installation of a cold room (see Appendix C: Plate 2). However, the site has access to grid electricity as well as solar panels. The hospital is connected to the national grid, which is relatively reliable, especially during the raining season. Stand-by generators provide backup power for facilities for the hospital. Furthermore, the facility is connected to the Sierra Leone Water Company (SALWACO) pipeline within the hospital premise. Water supply is available. The cold room will be connected to these energy and water sources.

1.3.1 Sub Project Activities and Labour Force

Machines like shovels and compactors will be used. A forklift will be used to transport the container from the haulage truck to the proposed site once the container arrives at the hospital. Activities to be undertaken as part of the construction are as follow:

- Demolishing of the existing corridor to allow the prefabricated container to be placed on the proposed site
- Site preparation (site clearing, excavation and establishing a concrete platform including formwork);
- Blockwork;
- Installation of a prefabricated container;
- Installation of electrical fittings and cooling system;
- Roofing of the structure;
- Fixing doors and windows; and
- Establishing an apron and concrete drain.

There will be about 10 workers on the site. These will include semi-skilled labour (masons, wielding technicians, carpenters, steel benders painters) and unskilled such as labourers. Health care workers such as laboratory technicians employed in the hospital will operate the facility. Other workers who will be working at the facility include ancillary workers and service providers including waste handling and transporters already employed at the hospital.

1.4 Objective of Study

The main objective of the study is to critically examine the installation of a containerized cold room at the Port Loko Government Hospital to identify its environmental and social impacts/risks and prepare an Environmental and Social Management Plan (ESMP) to mitigate the adverse impacts of the proposed development in line with Sierra Leonean law, Environmental Protection Act, 2008 and World Bank BP/OP 4.01.

The ESMP also seeks to identify impacts/risks as well as define and outline the avoidance mitigation/management and monitoring measures to be undertaken during project implementation and in the post-construction phase of the project to prevent, minimize, mitigate, or compensate for the environmental and social impacts/risks associated with the project. In addition, the ESMP seeks to enhance the project's beneficial impacts.

1.5 Scope of the Assignment

The proposed sub-project involves the construction of a shed to cool room at the Port Loko Government Hospital. The scope of work for the assignment is to prepare an Environmental and Social Management Plan (ESMP) in line with Sierra Leonean law, Environmental Protection Act, 2008 and World Bank O.P. 4.01.

1.6 Methodology

The approach to the preparation of the ESMP is in accordance with the World Bank ESF, which contains environmental and social standards that borrowers must apply to all projects in order for the projects to be sustainable, non-discriminatory, transparent, participatory, environmentally and socially accountable as well as conform to good international practices and Sierra Leonean law, Environmental Protection Act, 2008. The assignment was carried out in four different phases, which are as follows:

1.6.1 Literature review

Documents reviewed as part of preparing this ESMP includes the World Bank OP/4.01 and Project Bill of Quantities and Sierra Leone SOPs as well as various Sierra Leone laws and policies.

1.6.2 Consultation and Site Visit

The Ministry of Health and Sanitation notified the Hospital Superintendent and Laboratory Scientific Officer of the hospital ahead of the safeguards team screening exercise. The Ministry's Engineer visited the hospital and the Engineer together with the Hospital Authorities jointly selected the site.

The safeguards team from IHPAU undertook a joint site visit with the District Health Sister 1 and a Laboratory Technician and discussed safeguards interventions that will be implemented as part of the project including health and safety issues and the GBV/SEA/SH issues and how they will be handled (see Appendix I).

CHAPTER TWO

2.0 LEGAL AND POLICYFRAMEWORK

2.1 National Legal and Policy Framework

There are several laws in Sierra Leone concerned with development, public health issues and the environment in general. The major environmental laws related to this project are listed below:

i. Environmental Protection Agency Act, 2008;
ii. The Freetown Improvement Extension (Amendment) Act, 1964;
iii. The Public Health Ordinance, 1960;
iv. Public Health Amendment Act, 2014;
v. Pharmacy and Drugs Act, 2001 (as Amended in 2007);
vi. National Medical Supplies Agency Act, 2017;
vii. The Factories Act of 1974;
viii. Regulation of Wages and Industrial Relations Act 1971 (No. 18);
ix. The National Fire Service Act, 1980;
x. Child Right Act, 2007;
xi. Sexual Offences Act, 2012 as Amended in 2019;
xii. The Hospital Boards Act 2003 (Amended in 2007);
xiii. Sierra Leone Health Service Commission Act, 2011; and
xiv. Local Government Act, 2004;

In addition to the above legislation, the proposed project will reflect aspects of the under listed national policies:

- National Health Policy; and
- Sierra Leone Local Content Policy of 2012.

2.2 World Bank Safeguards Policies

The World Bank has ten environmental and social safeguards policies, these include, Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Pest Management (OP 4.09), Physical Cultural Resources (OP/BP 4.11), and Safety of Dams (OP/BP 4.37) and Involuntary Resettlement (OP/BP 4.12) and Environmental Assessment (OP/BP.4.01). None of the above operational policies except for O.P. 4.01, Environmental Assessment, is triggered by this project.

2.2.1 Bank Operational Policy, OP/BP 4.01 Environmental Assessment

OP/BP 4.01 is the umbrella policy for the Bank's environmental safeguard policies. It is used to identify, avoid, and mitigate the potential negative environmental impacts associated with Bank lending operations as well as to improve decision making, to ensure that project options under

consideration are sound and sustainable, and that potentially affected people have been properly consulted.

2.4 World Bank Environmental Screening Categories

Screening of sub-projects prior to their implementation is a key requirement of World Bank-funded projects. Screening is carried out to determine the level of E&S risk of the activity, decide whether a sub-project requires assessment or not, and the level of assessment that may be required. Upon screening, a determination is made for the next step and the level of assessment that will be required for each sub-project.

The World Bank classifies projects into four (4) categories. Category 'A' projects are considered highly risky, contentious, or complex. Such projects require a full Environmental and Social Impact Assessment (ESIA).

Projects are categorised as 'B' according to the World Bank standards if the 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'. The impacts of projects under Category 'B' are site-specific, a few of them are irreversible, and mitigation measures are quite easier to be defined as compared to Category 'A' projects. Such projects require action plans such as Abbreviated Resettlement Action Plans (ARAP), Resettlement Action Plans (RAP) and Environmental and Social Management Plans (EMPs).

A project is classified as Category 'C' if it is likely to have minimal or no adverse environmental impacts.

Finally, by the World Bank classification, Category 'FI' projects involve investments of the Bank's funds through a financial intermediary, in projects that may result in adverse environmental impacts.

The World Bank rates this sub-project as Category B under Operational Policy 4.01. This implies that the expected environmental impacts are largely site-specific, and few if any, of the impacts are irreversible. Mitigation measures can be designed relatively readily. The environmental assessment for a Category B project includes:

- Examining the project's potential negative and positive environmental impacts
- Recommending measures to prevent, minimize, mitigate, or compensate for adverse impacts; and
- Recommending measures to improve environmental performance.

2.5 Relevant World Bank Group Guidelines, 2007

a. World Bank Group EHS Guidelines, 2007

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). The EHS Guidelines contain the performance levels and measures that are normally acceptable to IFC and that are generally considered achievable in new facilities at reasonable costs by existing technology. For World Bank-funded projects, application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets with an appropriate timetable for achieving them. The environmental assessment process may recommend alternative (higher or lower) levels or measures, which, if acceptable to IFC/World Bank, becomes project- or site-specific requirements. The World Bank Group EHS Guidelines for Water and Sanitation are relevant for this project.

b. World Bank Good Practice Note: Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works

The Good Practice Note operationalises and discusses the scope, prevention, minimization, and mitigation measures for Gender-based Violence risks that are associated with Bank Investment Project Financing. It covers Sexual Exploitation and Abuse (SEA)-exploitation of a vulnerable position differential power or trust for sexual favours and actual or threatened sexual intrusion, Workplace Sexual Harassment (SH) in the form of unwanted sexual advances, request for sexual favours and sexual physical contact as well as human trafficking (Sexual slavery, coerced transactional sex, illegal transaction people movement. Also presented in the guidance note are non-SEA issues-physical assault, psychological and physical abuse, denial of physical services and resources together with intimate partner violence. In responding to project-related GBV/SEA/SH risks, the document proposes adaptable survivor-centred as well as risk and evidence-based approaches that emphasize prevention and risk minimization-especially risks that harm girls and women. It also alludes to the importance of building on local knowledge through stakeholder engagement and continuous monitoring and learning.

Strategies to be implemented by various actors throughout the project cycle to identify GBV/SEA/SH risks on bank-financed projects include risk mapping, assessment, and stakeholder consultation. Mitigation and minimizing measures such as the use of Codes of Conducts, GBV Service Providers and Environmental and Social Management Plans in addition capacity assessment are discussed in the document. The guidance notes also layouts monitoring and evaluation requirements and stresses the need for sensitization and capacity building for stakeholders.

c. ESF/Safeguards Interim Note: Covid-19 Considerations in Construction/Civil Works Projects

This interim note emphasizes the importance of careful scenario planning, clear procedures and protocols, management systems, effective communication and coordination and the need for high levels of responsiveness in a changing environment due to the COVID 19 pandemic. It recommends assessing current situation of projects, putting in place mitigation measures to avoid or minimize the chances of infection (Coronavirus) and planning what to do, if either project workers become

infected or the workforce including workers from proximate communities are affected by COVID-19. The recommendation in this interim note covers cleaning and waste disposal, medical services, and general hygiene for the workforce together with management of site entry and exit points, work practices and medical supplies for site workers. There are also recommendations to ensure continuity in supply of materials and project activities amidst disruption supply chains because of COVID-19. The interim note is useful for both PIU staff, Project Consultants and Contractors.

2.6 Relevant Technical WHO Guidelines for COVID-19 Virus

The World Health Organization since the outbreak continues to issue a number of guidelines to prevent and contain the spread of infections among the population as well as frontline workers. These guidelines are updated as and when knowledge about SARS COV 2 improves. Relevant guidelines that relate to the project are discussed below.

a. Water, Sanitation, Hygiene, and Waste Management for the COVID-19 Virus

WHO has updated its technical brief for water and sanitation practitioners amidst the outbreak of the COVID-19. The guidelines cover water, sanitation and health care waste management. It presents strategies in WASH in the health care setting as well as the home/community environment. Thematic areas discussed under WASH in the health care setting include practices for hand hygiene, sanitation and plumbing, emptying latrines and holding tanks, transporting excreta off-site, toilets and handling faeces, cleaning practices and safely disposing of greywater or water from washing PPEs, surfaces and floors. https://www.who.int/publications/i/item/water-sanitation-hygiene-and-waste-management-for-the-covid-19-virus-interim-guidance

b. Rationale on the Use of PPE

This WHO technical reference document is relevant for both site workers and health personnel alike. The guidelines acknowledge disruption in the PPE supply chain as a result of the outbreak and spread of COVID-19 and outlines measures to minimize the overdependence on PPE amidst the global shortage. This notwithstanding, the guideline underscores the importance of the proper use of PPE as a measure against the spread of the disease. It also outlines activities and personnel requiring PPE, the type of PPE required and settings within which the PPEs will be required. It also emphasises the need for hand and respiratory hygiene as complementary measures to the use of PPE. https://apps.who.int/iris/handle/10665/331498

c. Getting Your Workplace Ready for COVID-19

The document presents simple measures to be implemented within the workplace to prevent the spread of COVID-19. These measures include activities to ensure that the workplace is clean and hygienic, things to be considered during travelling and when workers return from travel and getting your business ready in case COVID-19 arrives in the community (see https://www.who.int/docs/default-source/coronaviruse/getting-workplace-ready-for-covid-19.pdf?ua=1 for details).

Interim Note: Protection from Sexual Exploitation and Abuse (PSEA) During Covid-19Response (WHO, UNFPA, UNICEF, UNHCR, WFP, IOM, OCHA, CHS Alliance, Inter Action, UN Victims' Rights Advocate)

The Interim note underscores the potential for SEA/SH cases to be on the rise during the COVID-19 pandemic and the fact that health/frontline workers can be survivors or perpetrators of SEA/SH. It also recommends risk reduction and preventive measures such as building safeguards into the recruitment process for volunteer frontline workers and focal persons. Other measures focus on providing safe and accessible channels for reporting SEA/SH and GBV cases, promoting a culture of speaking up together with measures that provide protection and support for SEA/SH/GBV survivors and coordination with in-country initiatives (see https://reliefweb.int/report/world/interim-technical-note-protection-sexual-exploitation-and-abuse-psea-during-covid-19 for details).

CHAPTER THREE

3.0 BASELINE CONDITIONS

The baseline information covers the immediate project environs. Baseline information was acquired through the following means: site visits and inspections, literature reviews and consultations with stakeholders. The report considered the adjoining land uses, natural and socio-economic environment of the project zones.

3.1 Land Use Activities within the Project Zone

The site (Latitude 8°45'55.91"N; Longitude 12°47'7.02"W) is located within the premises of Port Loko Government Hospital, north of the Port Loko Town Roundabout. (Refer to Appendix A for Location Map). The site is located between the Children's Ward and the Laboratory Block. There is no infrastructure on the proposed site for the installation of a cold room

3.2 Natural Environment

3.2.1 Topography

The elevation and topography of the site and adjoining area are flat.

3.2.2 Climate

Port Loko Government Hospital is located in Port Loko district, within the Port Loko City. Port District experiences high temperatures throughout the year. The hottest month is April just before the main rainy season, with a mean temperature of 31.2˚ C over the past decade, while the coolest month is August (23˚C over the past decade). The rainy season is from May to November while the dry spell lasts from December to April. The average annual rainfall is 2945.3mm.

3.2.3 Ambient Air and Noise Levels

Ambient air quality is satisfactory at the premises. No activity generated noise and dust within the premises. The sources of noise and emission are moving vehicles and human activities. These are minimal as the project zone is largely civic. During the harmattan/dry season, dust levels may be elevated due to the influence of the northeast trade winds.

3.3 Socio-Economic Characteristics

3.3.1 Population of the Sphere of Influence

The containerized cold room will be located within the premises of the Port Loko Government Hospital, which is located in the Port Loko District. Its sphere of influence in terms of its core functions extends to the whole of Port Loko District. The total population of Port Loko is currently estimated to be 615,376 of which males constitute 294,954 (47.9%) while females are 320, 422 (52.1%).

3.3.2 Economic Activities on the Site

There are no economic activities within the premises of the Government Hospital.

CHAPTER FOUR

4.0 ENVIRONMENT AND SOCIAL MANAGEMENT PLAN

4.1 Introduction

This chapter provides a description of activities to avoid, minimize and/or mitigate the environmental and social risks and impacts of the proposed sub-project as well as an indication of responsibilities of organizations or individuals who will be involved in environmental and social monitoring of the project.

4.2 Implementation of Environmental and Social Management Plan (ESMP)

In general, environmental impacts that will occur during project implementation include both positive and negative impacts that may emerge in the short, medium and/or long term. Responsibility for most of the mitigation measures lies with the various works contractor who will be selected to implement the works and costs involved are expected to be part of and be included in the Works Contracts. Operational phase mitigation measures are the responsibility of the MoHS.

The ESMP is presented in Table 4.1 to 4.3 showing the:

i. Activity;
ii. Potential E&S Risks and Impacts;
iii. Proposed Mitigation Measures;
iv. Responsible Party; and
v. Budget.

There are also accompanying monitoring frameworks in Tables 4.4 and 4.5.

Table 4.1: Environmental and Social Risks and Mitigation Measures during Construction Stage

Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Responsible Party	Budget (USD)
General construction activities - Noise and Air Pollution	Intermittent noise will be generated during unloading and the mounting of the container on the foundation, roofing and site workers talking during working hours. It may adversely affect patients in the nearby wards.	- Concentrate noisiest types of work into a short period as much as possible, and during least disruptive times of the day (after 9.00 am). - Concrete mixers will be fitted with mufflers to minimize noise. - Turn off equipment when they are not in use.	Sub-project Contractor	**No Separate Cost** *(Cost captured as part of BoQ*)
	Exposure to cement dust, emissions from paints, thinners as well as delivery vehicles can reduce ambient air quality and put site workers and staff and patients and visitors within the project zone at the risk of dust and emission inhalation and respiratory tract diseases.	- Workers will be made to wear nose masks, gloves, overalls, and boots. - The project site will be barricaded with caution tape. - Equipment and vehicles will be turned off when not in use. - Debagging of cement will be done in an enclosed area by workers wearing appropriate Personal Protective Equipment (PPE) such as hard hats, reflector jackets, overalls, nose masks, hand gloves and earplugs as may be required. - Haulage and delivery trucks, as well as equipment on haulage routes, will be made to drive at a speed less than 20km/h. - Trucks carrying sand and fine particles will be covered with tarpaulin. - The site will be doused two (2) time day .		
General construction	Workers on-site will generate human waste	- One (1) mobile toilet and two (2) refuse colored bins will be provided on-site.	Sub-Project Contractor	**No Separate Cost***(Cost*

activities – General Pollution Management	and refuse notably food residue. Poor housekeeping will lead to littering on site, which can clog drainage channels as well as facilitate the outbreak and spread of sanitary related diseases like cholera.	- Mobile toilet will be dislodged after close of work every day. - Refuse will be collected by a private refuse collection company twice a day.		*captured as part of BOQ*)
General construction activities – Non-hazardous waste management	- The demolish corridor will generate non-hazardous waste such as concrete - Construction waste, if not collected, well stored and disposed of could cause accidents, obstruct the movement of workers, vehicles and equipment onsite and make the site untidy.	- Off-cuts from cables and electrical fittings will be reused by the Contractor for other civil works elsewhere. - Wood residue, cement blocks and other waste will be used as fill material. - Waste that cannot be re-used will be transported to the approved landfill site (Port Loko town dumpsite). - Debris from the demolishing exercise will be used to fill gullies within the hospital and the community.	Sub-Project Contractor	**No Separate Cost**(Cost captured as part of BoQ)
General construction activities – Labor issues	- The works will create employment for contractors, who will intend to employ professionals, artisans and laborers.	- Preference will be given to local community in terms of employment for semi-skilled and unskilled labor e.g. artisans.	Sub-Project Contractor	**No Separate Cost** (Cost captured as part of BoQ)
	- Workers may be paid rates below the stipulated national minimum wage or	- All workers will be given contracts specifying the type of work they are to undertake and their remuneration package as well as the conditions of service in line with		

	maybe working under poor service conditions without contracts - The Contractor may practice unfair/discriminatory recruitment practices (e.g., against women) and recruit unqualified persons to work on the site and subvert national labor laws, e.g., employ children and minors	the Regulation of Wages and Industrial Relations Act 1971 (No. 18). - A grievance mechanism will be made available to all workers to report any issues associated with labor and working conditions. - Contractual clauses (see Appendix E) against rape, defilement, and forms of Gender-based Violence as well as child and forced labor and discrimination by sex, ethnicity, etc. will be inserted in the Contractor's Contract document. - Contractual clauses (see Appendix E) will be inserted in the Contract document prohibiting the Contractor/Consultant and their employees from Child Labor, which also makes reporting all Child Labor cases to FSU office or the FSU representative on the Grievance Redress Committee binding on the Contractor and Supervising Engineer. - A Code of Conduct (see Appendix F for sample Code of Conduct) will be prepared for contractor's employees to inform them of the sanctions for Child Labor. - Workers will have access to an accessible participatory work-based grievance redress system with a focal point for reporting their grievance and receiving feedback (see Appendix I for a Sample Grievance Form).		
General construction activities – Occupational Health and Safety (OHS)	Work-related accidents such as burns, falls and cuts may also occur due to human errors, workers not wearing appropriate PPEs required for their assignments, poor installation of equipment	- Site workers will undergo medical screening before they are employed on site. - Site workers will be provided with PPEs (e.g. hard hats, safety boots, earplugs, reflectors, etc.). - The use of PPEs will be enforced at the site - Potable water will be always provided for site workers. - Daily toolbox meetings will be organized for construction workers.	Sub-Project Contractor	**No Separate Cost** (Cost captured as part of BoQ)

	like ladders and mechanical faults on equipment as well as well as poor housekeeping.	- A Site Supervisor will be employed to ensure compliance with occupational health and safety protocols on site e.g., wearing of PPEs and facilitating toolbox meetings and ensure good housekeeping, among other roles. - Prohibitive warning, and directional signs will be provided on-site. - The Contractor will be made to provide at least 2 fire extinguishers on site. - Contact numbers of the nearest fire station will be pasted at vantage points on site. - Clear sanctions and rewards for non-compliance and compliance respectively will be provided in the Code of Conduct to be signed by workers. - Training of site workers in OHS, fire prevention and combating (including fire drills) as well as hygiene will be undertaken once during the construction phase. - The Contractors will notify the Supervising Engineer and the relevant authorities including SL-Police, Factories Inspectorate Department, IHPAU and Local Council of any road accident within 12 hours of its occurrence.		
General construction activities – traffic and road safety	- Truck carrying the prefabricated container and those carrying construction materials and furnishes to be installed at the laboratory could also be involved in accidents leading to injuries, fatalities and/or loss of property including	- Ensure that delivery trucks and construction vehicles drive below the 20km/hr. speed limit. - Trucks transporting friable materials (e.g., sand) will be covered with tarpaulin. - The truck conveying the prefabricated container to the construction zone will carry appropriate warning signals such as red flags and rotating amber lights. - All construction vehicles will be embossed with identification numbers at the rear, front, and sides for easy identification.	Sub Project Contractor	**No Separate Cost** (Cost Captured as Part of BoQ)

	livestock as well as cause traffic congestion	- The Contractor will be responsible for cleaning up spillage on any road as well as fixing any damage to property, road and/or utilities within the road space to satisfaction of regulators and the Supervising within 24 hours of occurrence. - The Contractor will notify the Supervising Engineer and the relevant authorities including SL-Police, IHPAU and Local Council of any road accident within 12 hours of its occurrence.		
General Construction Activities- Community Safety issues	Site workers may be exposed to pathogens including the SARS COV-2 virus can contribute to community spread of infectious diseases such as COVID-19. Poor housing can litter the site and its immediate environs creating pools of stagnant water for the breading of mosquitoes that cause malaria and also other sanitary related diseases like cholera	- All employees of Project Consultants, Contractors and Sub-Contractors will be made to undergo sensitization on COV-19 preventive measures and symptoms based on the WHO. - The contractor is also required to ensure that construction workers and visitors who will come to the construction site are screened to prevent the spread of COVID-19 and maintain a social distance of 2 meters. - Interaction between contractors' workers and staff/patients at the hospital will be limited to the barest minimum. - Workers should observe social distancing among themselves during construction activities. - The Contractor is required to provide a veronica bucket with water, soap, hand sanitizer, tissue paper for use by the workers at the site daily. - Workers will be provided with nose masks and wearing will be enforced. - Pools of stagnant water will be pumped out daily. - A Site Supervisor will be employed to ensure good housekeeping and enforce COVID-19 protocols on site - 2 colored coded bins will be provided on-site which will be emptied once a day.	Sub Project Contractor	**No Separate Cost** (Cost Captured as Part of BoQ)

	Hospital staff and persons who access the site can slip and fall on the concrete platform. Such persons may also be at risk of getting injured or dying through cuts, hits and burns arising out of negligence by site workers, poor housekeeping on site.	- The site for the construction of the cold room will be cordon-off to prevent unauthorized persons from accessing the working zone. - Provide warning, mandatory, prohibitive, and directional signs to guide site workers, workers in the Port Loko Hospital and patients who will access the hospital during the construction phase. - Visitors on the site are provided with and made to wear the required safety gear e.g., reflector vests, hard boots and helmets before entering the premises.		
	Construction equipment and trucks could be involved in accidents leading to injuries, fatalities and loss of property or may cause traffic disruptions.	- Delivery trucks and construction vehicles will be made to drive below the 20km/hr. speed limit. - In addition to the formal vehicle registration numbers all construction vehicles, haulage trucks and equipment will be clearly embossed with two-digit identification numbers in front, at the back and sides for easy identification. - The contractor will emboss the company's phone contact boldly on all vehicles and equipment. - The Contractor will notify the Supervising Engineer and the relevant authorities including SL-Police, IHPAU and Local Council of any road accident within 12 hours of its occurrence.		
General construction activities - GBV/SEA/SH Issues	Site workers may lure young girls, children and defile or rape them. Workers may also abuse their wives, partners, children, hawkers, petty traders and food vendors physically or verbally over	- Contractual Clauses (refer to Appendix E) on mandatory and regular training for workers on required lawful conduct and legal consequences for failure to comply with laws on non-discrimination and GBV. - Contractual Clauses (see Appendix D) with a commitment to cooperate with law enforcement agencies (FSU) investigating cases of gender-based	Sub Project Contractor	**No Separate Cost** (Cost Captured as Part of BoQ)

	a misunderstanding over prices of goods and services and other issues.	violence will be inserted into the Contract documents of the contractor and supervising Consultant. - Contractual clauses (see Appendix D) against rape, defilement, and other Gender-based Violence as well as child and forced labor will be inserted into the contract of the Contractor and Supervising Consultant - Workers on-site will sign Code of Conduct (see Appendix E for sample Code of Conduct) with sanctions on rape defilement, abuse, and other gender-based violence. - One (1) sensitization workshop will be undertaken for employees of the Contractor/Supervising Consultant as well as persons working within the hospital. - The Ministry of Health and Sanitation will provide contact numbers of the nearest FSU office, FSU representative on the Grievance Redress Committee and GBV Service Providers within the immediate project zone. - Prohibition posters on sexual exploitation and harassment will be posted in and around the site. - The Contractor will paste the contact numbers FSU office, FSU representative on the Grievance Redress Committee and GBV Service Providers on site.		
General construction activities – Existing Corridor to be Temporary Demolished	The corridor between the existing laboratory and female wards will be temporarily demolished to provide access for the container to be placed on the proposed site	- The Contractor will be made to re-instate the corridor immediately after installing the container at a cost to the project. - The contractor will demolish corridor for the installation of the container at a cost to the project.	Project Project	**No Separate Cost** (Cost Captured as Part of BoQ)

Table 4.2: Environmental and Social Risks and Mitigation Measures during Operational Phase

Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Responsible Party	Budget USD
General Facility operation – Cold Room OHS issues	Workers at the cold room including cleaners of the cold room could be exposed to pathogens including SARS COV-2 virus as well as chemicals	-Appropriate PPEs including gloves, overalls, masks, face shields and boots will be provided according to their work requirements. -All workers will be vaccinated against communicable and infectious diseases such as SAR COV-2 and tetanus as recommended by the WHO guidelines. -Daily inspections will be undertaken to ensure that workers wear inappropriate PPEs. -Workers will be trained in the appropriate wearing and use of PPEs at least twice a year based WHO COVID-12 guidelines on appropriate use of PPEs and other GIIPs -Only EPA-SL approved refrigerants will be installed/used in the cold room.	MoHS	**USD 2,000.00** Cost covers the organization of four (4) occupational health and safety training for workers at the facility for two years USD 500.00 per year
General Facility Operation – Gender-Based Violence, Sexual Exploitation and Abuse, and Sexual Harassment	Staff of the laboratory may be perpetrators or survivors of rape and other GBV, SEA/SH incidents.	- A focal person will be appointed and trained in GBV/SEA/SH to receive GBV/SH/SEA complaints, sort and forward them to the appropriate agency. - Contact number of GBV/SEA//SH focal person will be pasted on the facility. -Survivors of GBV/SEA/SH will be given the option to report to the nearest GBV Service Provider/health facility for medical examination/report or otherwise. -Survivors of GBV/SEA/SH will be given the option to refer to the FSU for investigation and prosecution to commerce or otherwise. -Laboratory and hospital staff will be sensitized on GBV/SEA/SH issues, GBV Manual etc.	GBV/SEA/SH Focal Person at the Hospital MOHS*	**USD 2,000.00** Cost covers the sensitization on GBV/SEA/SH issues, GBV Manual etc. for laboratory workers including cleaners for two years $1000.00 per year

Cold room operation – cleaning	Inappropriate cleaning and disinfection methods can expose workers to infectious diseases, including COVID-19	-The hospital already has cleaners who are already on the government payroll these workers will also clean the cold room. -Cleaning staff will be provided adequate cleaning equipment, materials, and disinfectants e.g., Sodium hypochlorite. -SL-SOPs for health care waste management prepared for the COVID-19 Emergency Response and Health Systems Preparedness Project based on the WHO COVID-19 guidelines (see attached in Appendix E) will be implemented at the facility. -Cleaners will be provided with appropriate PPEs such as gowns or aprons, gloves, eye protection (masks, goggles, or face screens) and boots or closed work shoes. -Cleaners will be trained twice every year in proper hygiene (including handwashing prior to and after conducting cleaning activities; how to safely use PPE etc.	Laboratory Scientific Officer/ *Ministry of Health and Sanitation	**USD 200.00** (Cost covers the provision of PPEs e.g., gloves, overalls, masks, face shields and boots for two cleaners of the facility @ USD 50 per waste handler per year for two years**.** After two years, the cost of PPEs will be integrated into the operational cost of the Hospital. Cost of training has been captured above)
Spillage of reagents	Contaminated and non-contaminant reagents may spill in transit, during handling and/or testing putting technicians at risk	-Gloves and protective clothing, including face and eye protection will be worn when staff are cleaning spills. -The spill will be covered with cloth or paper towels to contain it. -An appropriate agent will be poured over the paper towels/cloth and the immediate surrounding area.	Laboratory Scientific Officer	**No Separate Cost (**Cost of training captured as part of workers

	to exposure of pathogens and hazardous material.	-Disinfectant will be poured concentrically beginning at the outer margin of the spill area, working toward the centre. -After the appropriate amount of time (like 30 minutes), the material will be cleared away. If there are sharps involved a dustpan, faucet or a piece of stiff cardboard will be used to collect the material and deposited into a puncture-resistant container for disposal. -The spill area will be cleaned and disinfected (if necessary, steps repeated until spill is cleaned. -The contaminated material will be disposed of in a leak-proof, puncture-resistant waste disposal container. -After successful disinfection, the hospital in-charge will be informed that the area has been cleaned and disinfected. -Training will be provided for staff of the facility and cleaners in spillage containment and clean up as part of OHS training.		OHS training cost above)
Storage of Reagents	Reagents may go bad due to temperature excursions, disasters, spillage, and physical damage reducing their efficacy	-The cold room will be stocked based on an inventory system to avoid overstocking and stock running out -Reagents will be kept at the appropriate temperature and humidity level away from direct sunlight under lock and key. Incompatible substances e.g., acids and alkalis will not be stored close to each other. -Material Safety Data Sheets (MSDS) for each chemical (reagent) in stock will be kept within the cold room and at the office of the Laboratory Scientific Officer and Medical Superintendent. -Volatile toxics and odoriferous reagents will be stored in ventilated cabinets. -Inflammable liquids will be stored in approved flammable liquid storage cabinets. -Only authorized persons in the required PPEs will be allowed to enter the cold room	MoHS	**No Separate Cost** (Cost of PPEs has been estimated above).

Sharp Waste	Sharp waste, notably, broken glasses, bottles can cause injuries and infections among health workers, sanitation workers and the general population	-Broken reagent bottles will be collected in puncture-resistant colour-coded bins with bin liners and paddles, transported -SL-SOPs for health care waste management prepared for the COVID-19 Emergency Response and Health Systems Preparedness Project will be implemented at the facility -All persons involved in the collection, storage, transportation, and disposal of chemical waste will be trained on the relevant WHO COVID-19 Guidelines, Emergency Response, Procedures Infection Prevention and Control Protocols and the Government of Sierra Leone COVID-19 SOPs as well as other GIIPs including the use of PPEs and reporting requirements once a year -Appropriate PPEs including hand gloves, nose mask, wellington boots, overalls and goggles will be provided for all persons involved in waste collection	MoHS	**USD 2,160.00** Cost includes USD 100.00 for two (2) colored bins @ USD 50.00 per bin, USD 60 for providing a two-wheeled trolley @ USD 30 per trolley and USD 2000.00 for training for two years @ USD 1000 per year for two years. Cost of PPEs has already been estimated above
Collection Storage, Transportation of Chemical/Pharmaceutical Waste	Expired reagents from the cold room, if not well stored and disposed-off can cause harm with the potential to cause morbidity or mortality e.g., organ failure and environmental pollution	-In the event that reagent shave expired, they will be separated from the other stock and kept in a different cabinet under lock and key. -The SL-Pharmacy Board will be notified of the collection of expired reagents in line with Sierra Leonean law for disposal under supervision.	Laboratory Scientific Officer	**No Separate Cost**

Procurement of Regents	Banned, fake or expired reagents may be procured and sent to the cold room	- Only reagents approved by SL-Pharmacy Board and World Health Organization will be procured. -Reagents procured will be inspected and sample tested by SL- Pharmacy Board and signed off by designated officials of SL-Pharmacy Board. -Unapproved and fake reagents will be destroyed by SL-Pharmacy Board. -All reagents supplied will be accompanied a Consignment Note with information including name and type of reagent, manufactured and expiry date, origin, batch numbers, quantity etc. -All reagents supplied to the cold room will be received by the Laboratory Scientific Officer-who will cross check the con-signment, complete and sign the Consignment Note.	Pharmacy Board Laboratory Scientific Officers	**No Separate Cost**

**Cost to borne by MoHS*
***Only for the supply of PPEs and cleaning materials*

Table 4.3: Environmental and Social Risks and Mitigation Measures during Decommissioning Phase

Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Responsible Party	Budget USD
Decommissioning	Failure to dismantle equipment and material residue after the execution of works can lead to accidents	- All temporary structures erected by Contractors will be dismantled. - Dismantled parts including wood pieces and sand Crete blocks will be arranged according to type and prepared for transportation to Contractor's workshops or sold to dealers for other civil works. - Unwanted wood residue and other waste will be hauled to the approved final disposal site. - All equipment and machinery that are usable will be moved to a new project site or sent to the Contractors packing yard.	Sub-Project Contractor	No Separate Cost *(Cost to be captured in BOQ)*

		- Non-usable equipment and metals will be sold as scrap to the scrap dealers		

4.3 Environmental and Social Monitoring

Ministry of Health and Sanitation has a project department IHPAU that will be solely responsible for the monitoring of the ESMP, other institutions, namely, SL-EPA, Pharmacy Board, and Ministry of Labour and Social Security (Factory Inspectors) may undertake ad-hoc monitoring of the environmental, social, health and safety performance of the project. Relevant legislative instruments such as the Factories Act of 1974, The Local Government Act, 2004 and Environmental Protection Agency Act, 2008 back the oversight and monitoring roles assigned to these agencies.

The World Bank will also undertake implementation support missions and recommend capacity strengthening and other measures in support of good environmental and social governance and industry practices. The monitoring roles of other non-state actors such as the public will also be complementary in ensuring smooth project implementation and sound environmental and social performance by the contractor.

The environmental and social monitoring roles are presented in Table 4.4 and 4.5 during constructional and operational phases respectively.

Table 4:4: Environmental and Social Monitoring Construction Phase

Item	Monitoring Indicators	Frequency of Monitoring	Means of Verification	Responsibility for Monitoring	Supporting Agencies
General construction activities - Noise and Air Pollution	• Number of times dust suppression through dousing is undertaken daily. • Compliance of equipment servicing requirement use of new equipment. • Number of complaints of elevated noise, smoke, and dust levels • Odor.	• Daily	• Site Visits • Inspections* • GRM Records	• MoHS (IHPAU Safeguards Unit)	• SL-EPA • Sub-Project Consultant • Council ESO/EHO
General construction activities – Occupational Health and Safety (OHS)	• Number, type, place, and time of accidents/incidents and/or near misses. • Number of OHS and hygiene training programmes provided for contractors' employees. • Number of workers on-site wearing the appropriate PPEs. • Presence of Health and Safety Officer on Site or otherwise. • Site workers level of compliance with OHS standards e.g., wearing of PPEs.	• Daily	• Site Visits • Contractors Accident Records books • Accident/Incident Reports	• MoHS (IHPAU Safeguards Unit)	• SL-EPA • Sub-Project Consultant

Item	Monitoring Indicators	Frequency of Monitoring	Means of Verification	Responsibility for Monitoring	Supporting Agencies
	• Presence of First Aid Kits on-site or otherwise • Presence of Fire Extinguishers on Site. • Presence of handwashing facilities and hand sanitizers on-site or otherwise. • Suspected and confirmed COVID 19 cases on site. • Number of severe accidents reported to appropriate authorities e.g., IHPAU/MoHS within 12 hours of occurrence.				
General construction activities – General Pollution management	• Presence of mobile toilets and refuse bins. • Incidence of open defecation on the site and its environs. • Presence of littering on the site and its immediate environs. • Number of times waste is lifted in a week. • Clean site.	• Daily	• Site Visits • Inspections	• MoHS (IHPAU Safeguards Unit)	• SL-EPA • Sub-Project Consultant
General construction activities –	• Clean site.	• Daily	• Site Visits • Inspections	• MoHS (IHPAU Safeguards Unit)	• SL-EPA • Sub Project Consultant

Item	Monitoring Indicators	Frequency of Monitoring	Means of Verification	Responsibility for Monitoring	Supporting Agencies
hazardous waste management					
General construction activities – Labor issues	• Number of Contractor employees with formal Contracts. • Presence of under-aged workers (18 years and below) or otherwise. • Number and type of employees recruited from the community by gender. • Average monthly income of project workers and informal workers by gender. • Presence of code of conduct.	• Monthly	• Site Visits • Inspection of Employees Contracts	• MoHS (IHPAU Safeguards Unit)	• SL-EPA • Sub Project Consultant
General construction activities – traffic and road safety	• Number of road accidents reported e.g., vehicle breakdowns. • Number of spills reported. • Response time.	• Monthly	• Accident Records books. • Accident/Incident Reports.	• MoHS (IHPAU Safeguards Unit)	• Sub Project Consultant • SL-Police
General Construction Activities-Community Safety issues	• Uptake points of complaints • Duration between case reporting, feedback, and case completion. • Average time taken for settlement of cases.	• Monthly	• Grievance Redress Register • ACC Grievance Redress Platform	• MoHS (IHPAU Safeguards Unit)	• Sub Project Consultant • ACC Community Monitors
General construction activities - GBV/SEA/SH Issues	• Uptake points of complaints • Number of GBV/SEA/SH cases reported by type. • Number of GBV/SEA/SH cases under investigation by type.	• Daily	• Grievance Redress Register • ACC Grievance Redress Platform	• MoHS (IHPAU Safeguards Unit)	• SL-EPA • Sub Project Consultant • GBV Service Providers

Item	Monitoring Indicators	Frequency of Monitoring	Means of Verification	Responsibility for Monitoring	Supporting Agencies
	• Number of cases under prosecution by type • Number of cases discharged by outcome • Sex and age of perpetuators and victims • Duration between case reporting, feedback and case completion		• Presence of Grievance Redress Register at the facility		• ACC Community Monitors • Sierra Leone - FSU

Table 4.5: Environmental and Social Monitoring Operational Phase

Item	Monitoring Indicators	Frequency of Monitoring	Means of Verification	Responsibility for Monitoring
General Facility operation – Workers OHS/labor issues	• Number of waste handlers and ancillary workers with Formal Contracts. • Presence of under-aged workers (18 years and below) or otherwise. • Availability and use of PPEs for health care and ancillary workers. • Knowledge of SL-Civil Service Code of Conduct or otherwise. • Arrears of allowances due health care and ancillary workers or otherwise. • Number of cases fraud and abuse of office cases reported. • Suspected or confirmed cases of COVID-19 cases on-site.	Monthly	• Snap Checks at the Facility	• MoHS Safeguards Unit
General Facility operation -Gender Based Violence, Sexual Exploitation and Abuse, and Sexual Harassment	• Presence of GVB/SEA/SH of COVID-19 Focal Person at the Port Loko Government Hospital. • Number of GVB/SEA/SH cases reported by type and location (community). • Number of GVB/SEA/SH cases under investigation by type. • Number of GVB/SEA/SH cases under prosecution by type.	Monthly	• ACC Platform • Grievance Redress Grievance Register at the Port Loko Government Hospital	• MoHS IHPAU Safeguards Unit

Item	Monitoring Indicators	Frequency of Monitoring	Means of Verification	Responsibility for Monitoring
	• Number of cases discharged by outcome. • Sex and age of perpetrators and survivors. • Duration between reporting, feedback, and case completion.			
Storage of reagents.	• Temperature readings (logs) in the cold room. • Numbers and types of reagents experiencing temperature excursion and physical damage. • Number and percentage of defective reagents etc. in each consignment that arrives at the Port Loko Government Hospital. • *Recording of Reagent Expiry date and batch numbers.	Monthly *When they are received at the Cold room	• Readings on drug Chain Monitor Cards. • Readings on Electronic Monitors placed the cold room. • Results of random quality test on each consignment of reagents etc.	• Pharmacy Board •
Health Care Waste Management	• Presence of colored coded bins with the appropriate material and clearly labelled appropriately at the Hospital. • Waste placed in appropriate receptacles. • Number of times waste is collected. • Presence of overflowing receptacles.	Daily	• Inspection	• Environmental Health and Sanitation Department- Ministry of Health and Sanitation

Item	Monitoring Indicators	Frequency of Monitoring	Means of Verification	Responsibility for Monitoring
	• Type and quantity of waste • Odor. • Availability and use of PPEs. • Presence of waste collection procedures pasted at relevant sections of the Port Loko Government Hospital • Number of waste collectors/staff trained in waste collection SOPs and GIIPs e.g., waste segregation and color codes. • Number of training programmes undertaken. • Number of spills, accidents and/or incidents. • Presence of flies and otherwise at collection points.			
Emergency Response	• Presence of fire installations e.g., fire extinguishers, smoke detectors etc. at the Cold Room. • Presence of spill kits at the facility etc. • Number of workers trained in relevant Emergency Response Procedures. • Number of training programmes undertaken.	Monthly	• Inspections	• Community Health Officer (In-Charge) at the Port Loko Government Hospital

Item	Monitoring Indicators	Frequency of Monitoring	Means of Verification	Responsibility for Monitoring
	• Number of fire drills undertaken • Number and type of accidents/incidents including asphyxiation, claustrophobia. • Accidents reported within 12 hours of occurrence.			

4.4 Institutional Arrangements for Implementing the ESMP

a. Construction Phase

The Ministry of Health and Sanitation will be responsible for construction phase environmental and social monitoring and reporting. The Ministry has the Integrated Health Project Administration Unit charged with the responsibility of judiciary and procurement under Bank-funded project. The Unit is also responsible for ensuring environmental and social management, monitoring, and reporting of Bank-funded projects. IHPAU has a Safeguards Unit staffed with a Social Safeguards Specialist, Environmental Safeguards Specialist, and a Waste Management Specialist. The IHPAU safeguards unit will be responsible for construction phase environmental and social monitoring and reporting. The Unit will be solely responsible for the implementation of ESMP during the construction phase. The team at IHPAU will be responsible for:

i. the inclusion of relevant mitigation measures (to cost) in the bidding documents prior to its advertisement;
ii. the inclusion of the environmental and social clauses in the construction and supervision contracts;
iii. review environmental reports submitted by the project contractors and supervising consultants during the construction phase on agreed template/frequency/mechanism;
iv. monitoring the environmental, social, health and safety performance (compliance and non-compliance) of works contractors during the implementation of the works; and
v. Enforcement of the requirements within the ESMP

b. Operational Phase

The facility belongs to the MoHS, and the ministry will be responsible for operational phase maintenance including ensuring the provision of PPEs and cleaning materials and sanitation facilities are provided and maintained at the facility as well as ensuring that safeguards requirements is met at all times. The ministry has IHPAU staff with safeguards specialists who will support the Hospital in-Charge to ensure that the environmental, social, health and safety requirements are met at all times.

4.5 Environmental and Social Reporting and Disclosure

The Ministry of Health and Sanitation will disclose the ESMP on its website once it is approved by the project and cleared by the World Bank. Hard copies of the ESMP shall also be placed at the Port Loko City Council, SL-EPA and MoHS Head Office for public

viewing throughout the construction phase of the project. The World Bank will disclose the ESMP at the World Bank's External Website.

As part of monitoring the ESMP, it is expected that the safeguards specialists at IHPAU will undertake a weekly visit to project site and prepare monthly reports covering environmental, social, health and safety issues identified on-site and immediate project environs using the risks/impacts identified in this report as thematic areas and other emerging ones. The monthly reports of the safeguard's specialists appointed by MoHS will also touch on the status of mitigation and management measures as well as areas of non-compliance, timelines and responsibility for compliance. The report should include but not limited to:

i. Contractors' performance on implementing environmental and social safeguards;
ii. Progress on implementing mitigation measures in relation to the identified impacts;
iii. Non-Compliance issues
iv. Emerging impacts and proposed mitigation measures (if encountered);
v. A presentation on parameters monitored in the reporting month;
vi. Complaints/Grievances and their state of resolution; and
vii. Activities to be taken in the next month.

The Contractor will also dedicate a chapter in their monthly progress report to the state of the environmental and social safeguards issues on the project. This will be reviewed and validated by the Safeguards Specialists at IHPAU. IHPAU will report on environmental and social issues as part of the quarterly reports to the Bank.

4.6 ESMP Budget and Sources of Funding

The estimated cost for implementing this ESMP and environmental and social monitoring, outside the works contract price is estimated as Fourteen and Twenty-Eight United States Dollars (USD 14,028.00). Table 5.5 presents the summary cost estimates and the proposed sources of funding.

Table 4.6: Budget for ESMP Implementation

Item	*Amount (USD)	Source of Funding
General construction activities – Temporary Demolition and Reinstatement	6000.00	**GoSL/Project
General Facility Operations – Workers OHS Issues	2,000.00	Project
General Facility Operations – GBV/SHE/SH	2,000.00	Project
General Facility Operations – Cleaning	200.00	Project
General Facility Operations – Storage of reagents,	900.00	Project

Item	*Amount (USD)	Source of Funding
General Facility Operations – Waste collection, storage and transportation (Cost of colour coded bins 2 trolleys) and Training	2,160.00	Project
General Facility Operations – Storage, Collection and Transportation of General Waste	768.00	Project
Total	**14,028.00**	

*Cost builds up details can be found in Table 4.1 to 4.5*GOSL will be responsible for the cost of demolition and reinstatement only*

CHAPTER FIVE

5.0 EMERGENCY RESPONSE PROCEDURES ON SITE

Response measures have been proposed for the following emergencies which may arise during project implementation:

- Fire;
- Medical or Accident; and
- Oil Spills.

5.1 Fire Emergency

5.1.1 Small Fires

Small fires are put out quite safely. A simple fire-fighting procedure to put out a small fire is provided below:

- The first person to sight the fire must sound the fire alarm at the premises of the health facility or shout, 'FIRE!! FIRE!! FIRE!'
- Workers trained to use fire extinguishers are permitted to fight fire on site;
- All others must evacuate the area;
- Tackle fire in its very early stages at the source;
- Always put your own and other people's safety first;
- Make sure you can escape if you need to and never let a fire block your exit;
- Never tackle a fire if it is from a position against the prevailing wind direction and if the source cannot be determined. If in an enclosed area such as workshop/office premises, never tackle a fire if it is starting to spread or has spread to other items in the room or if the room is filling with smoke;
- If the situation is solved, the Environment, Social Health and Safety Officer of the Contractor will investigate the reason for the fire and clean the place; and
- Report to the Supervising Engineer for the necessary precautionary measures to be undertaken.

5.1.2 Large Fires

These are fires that cannot be put out by the trained fire volunteers and the SNFS will have to be called to fight it. The evacuation procedures to follow include:

- The first person to sight the fire must sound the fire alarm if at the premises or shout, 'FIRE!! FIRE!! FIRE!'
- Evacuate the building or area and report at the ASSEMBLY POINT;
- Immediately notify the Environment, Social Health and Safety Officer of the Contractor and call the National Fire Force;
- Contact numbers of the nearest fire station will be conspicuously displayed at offices, storerooms, workshop, and security posts;

- The Environment, Social Health and Safety Officer of the Contractor has to check on remaining workers and carry out a fast, calm, and secured evacuation;
- A headcount will be conducted to ensure all workers are safe and present;
- If there have been any casualties, they will be conveyed to the nearest health facility; and
- Keep records of any injuries and the fire event and report to the Supervising Consultant

5.2 Medical or Accidents

In the event of an accident or injury, the procedures to follow include:

- If it is a minor accident/injury and the victim can move, he/she should report to the Environment, Social, Health and Safety Officer of the Contractor;
- The Environment, Social, Health and Safety Officer of the Contractor, who is trained in administering first aid, will treat the injury;
- He/ She will decide if the victim needs further treatment at the Medical Centre and if so will arrange for the victim(s) to be sent to the nearest health facility immediately;
- The Environment, Social Health and Safety Officer of the Contractor will investigate and take records of the accident/injury including the source and cause of the accident/injury;
- If the accident/injury is such that the victim cannot move by him/herself but can be moved, the workers present should assist the victim to the Environment, Social Health and Safety Officer of the Contractor to administer first aid and arrange for the person to be sent to the nearest health facility immediately. If the accident/injury is such that the victim cannot be moved, the workers present should put him in a stable condition and immediately call the Environment, Social Health and Safety Officer of the Contractor to immediately arrange for medical staff from the nearest health facility to be brought to the site to attend to the victim (s). All accidents and injuries will be recorded by the Environment, Social Health and Safety Officer of the Contractor and reported to Supervising Consultant.

5.3 Oil/Solvent Spills

Oil spills may involve spillages of fuel and lubricants which may occur while in storage or in use on hard surfaces (concreted/ tiled/paved floor) such as at storage sheds/rooms, workshops or on the ground.

5.3.1 Spillage on Hard Surface

Immediately contain the spillage using sawdust provided at the site to prevent it from spreading. Collect the used sawdust, wash the surface with a lot of water and disinfectant and report to the Environment, Social Health and Safety Officer of the Contractor who will decide the appropriate disposal of the used sawdust. If the spilled product gets into contact with any part of the body, quickly wash the body part with a lot of clean running water and immediately report to the Supervising Consultant.

5.3.2 Spillage on the Ground

The following should be undertaken in case of fuel/oil/lubricant or paint spillage on the ground:

- Immediately use a shovel to scoop the contaminated soil into a container.
- Ensure to scoop beyond the contaminated area to ensure no contaminated soil is left uncollected.
- Immediately report to the Environment, Social Health and Safety Officer of the Contractor and dispose of the contaminated soil at the approved landfill site;
- If the spilled product gets into contact with any part of the body, quickly wash the body part with a lot of clean running water and immediately report to the Environment, Health and Safety Officer (of the Contractor); and
- Report the incident to the Supervising Consultant.

CHAPTER SIX

6.0 BASIS FOR GRIEVANCE REDRESS MECHANISM

The consultation processes showed that the execution of the project will generate environmental and social concerns notably excessive noise and dust generation and accidents involving the workers and patients to the Port Loko Government Hospital. These will create some grievances that must be addressed.

6.1 Grievance Redress Process

There is no ideal model or one-size-fits-all approach to grievance resolution. The best solutions to conflicts are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs, and project conditions and scale. In its simplest form, grievance mechanisms can be broken down into the following primary components:

- Receiving and registering a complaint;
- Screening and assessing the complaint;
- Formulating a response;
- Selecting a resolution approach;
- Implementing the approach;
- Announcing the result;
- Tracking and evaluating the results;
- Learning from the experience and communicating back to all parties involved; and
- Preparing timely reports to management on the nature and resolution of grievances.

6.2 Management of Reported Grievances

The procedure for managing grievances should be as follows:

- The affected person will file his/ her/their grievance(s), relating to any issue, verbally, in writing or via telephone (number yet to be established)
- To the project environmental and social officer of MoHS (see Appendix F for a Sample Grievance Redress Form for recording grievances). Where such is written, the grievance note should be signed and dated by the aggrieved person. Where complaints are received via phone, the call recipient should document all details;
- Where the affected person is unable to write, the Environmental and Social Officer of MoHS will write the note on the aggrieved person's behalf;
- Any informal grievances will also be documented
- Anonymity and confidentiality of persons who lodge grievances will be protected.

6.3 Monitoring Complaints

The IHPAU Social Safeguards Specialist will be responsible for:

- Providing the Grievance Redress Reports detailing the number and status of complaints;
- Any outstanding issues to be addressed;
- Monthly reports, including analysis of the type of complaints, levels of complaints, actions to reduce complaints and initiator of such action.

6.4 Grievance Redress Institutions

A four-tier grievance redress mechanism has been designed in the event of dissatisfaction with any aspects of project implementation. These are:

6.4.1 Hospital/Medical Superintendent

The Medical Superintendent will be the first point of call in the event of any grievance arising out of the implementation of the works. He/she will receive, document, investigate and provide feedback on the lodged grievance within 3 working days upon receipt of a grievance. He/she will also provide project information to stakeholders.

6.4.2 Sub-Project Grievance Redress Committee (GRC)

A Sub-Project Grievance Redress Committee will be set up by the project. The committee will receive, investigate and provide feedback on grievances that are beyond the Focal Person or when aggrieved persons are not satisfied with the feedback, they receive from the Focal Person upon lodging a grievance with him/her. The committee will be made up of:

- A representative of the MoHS (DMO);
- The Supervising Engineer/Consultant;
- A representative of the Port Loko District Council;
- A representative of the Aggrieved Party;
- A representative of FSU; and
- A representative of a local GBV Service Provider;

The functions of the grievance redress committee will be to receive, investigate and resolve issues with the Contractor. The aggrieved party or parties is/are required to channel their grievances to the GRC through any means including verbal narration, telephone calls, text messages and letters. The Committee will sit as and when complaints are lodged. The grievance redress process, at this level, shall follow the chain below in resolving grievances, including introducing any other initiatives that could complement the effectiveness of the process:

i. Receive grievances (logging);
ii. Acknowledgement of grievances;
iii. Verification, investigation, negotiations, and actions;
iv. Monitoring and evaluation;

v. Provide Feedback to parties;
vi. Agreement secured, and
vii. Signing off.

Grievance will be received and transmitted on to an official form and the applicant will be duly notified within 3 days of lodging a complaint. If the grievance can be resolved by the Grievance Committee, corrective actions will be determined. After the case is evaluated and corrective action determined, the proposed solutions or corrective/preventive actions shall be discussed with the complainant together with the timeframe for the implementation of the corrective/compensation measures. If the resolution of the grievance requires a commitment beyond the Grievance Redress Committee, the members shall coordinate and consult with relevant authorities. The party responsible for implementing the corrective measures shall be recorded in the Grievance Closeout Form. Once an agreement has been reached between the applicant and the party responsible for the corrective actions, the applicant will be asked to sign off the grievance closeout form. If the applicant remains dissatisfied with the outcome, additional corrective action will be agreed on and carried out by the responsible party. The Grievance Redress Committee will have to address grievance it receives within 5 working days.

6.4.3 Project Level Grievance Redress Committee

If the Sub Project-Level Grievance Redress Committee fails to resolve a grievance, a second appeal shall be lodged at the Project Level GRC domiciled in the IHPAU. The Project Level Grievance Redress Committee shall follow similar processes as the Sub Project Level GRC. The Project Level GRC will consist of:

- The CMO-Chairman;
- A representative of the One Health Platform;
- Ahead of IHPAU;
- A representative of the Ministry of Women Children and Social Protection;
- Social Safeguards Specialist at IHPAU - Secretary and Focal Person;
- Representative FSU of SL-Police;
- National level GBV Service Provider; and
- Representative of the PAP.

If the Project Level Grievance Redress Committee fails to resolve an issue, then the aggrieved person can petition the Ministry of Health and Sanitation. Duration for resolving a grievance at the Grievance Redress Committee at the Emergency Operation Centre (EOC) shall normally be a maximum of twenty (20) working days. The Committee shall seek guidance and refer specialised cases to the relevant State Authorities. All

GBV/SEA/H issues will be reported to FSU of the SL-Police for investigation and prosecution.

6.4.4 Honourable Minister, Minister of Health and Sanitation

Aggrieved parties who are dissatisfied with the outcome of the first two processes can petition the Honourable Minister, Ministry of Health and Sanitation directly.

6.4.5 The Courts

It is anticipated that the number of cases, which may need to be referred for redress, will be relatively small and that only the first and second tiers of the redress mechanism may need to be activated. The mediation process shall be confidential, transparent, and objective, as well as accountable, easy, fast, accurate and participatory. However, if the aggrieved party is not satisfied with the outcomes from the three tiers he/she/they have the right to go to the law court at their own expense.

6.5 Anti-Corruption Commission (ACC) Platform

Grievance may also be filed via the ACC Report Centre. The Anti-Corruption Commission was created through the Anti-Corruption Act, 2000 as an independent commission to investigate government corruption. The establishing Act was amended in 2008 to provide protection for whistleblowers. The Commission investigates and provides feedback on matters of perceived corruption bribery and abuse of office. Although the headquarters is in Freetown, the Commission has District Coordinators, who act as focal persons in the various Councils as well as Community Monitors stationed in various communities-who receive and record complaints from aggrieved parties/whistleblowers and submit to their respective District Coordinators and receive feedback from same to aggrieved party/parties.

The Commission has a digital platform with a report centre that can be reached on a toll-free hotline (515) using text messaging, voice and video calls. The platform receives sorts and tracks grievances and provides feedback to aggrieved parties after investigations. The system can also generate status reports of lodged complaints on demand.

Persons with grievances/concerns or evidence of poor service delivery, discriminatory practices, bribery, GBV/SEA/SH, perceived corruption, and abuse of office under the project can also submit their grievance via the Commission's electronic platform (Report Centre) for the necessary investigations and actions to be taken by the appropriate government agencies and NGOs. The platform also provides feedback via its electronic loop or the District Coordinators and Community Monitors. The ACC Community Monitors have been trained under the COVID-19 Emergency Preparedness and Response Project on how to receive, sort and transmit grievances.

6.6 Grievance Redress Mechanisms for GBV Survivors

The proposal is to report any GBV/SEA/SH to the GBV/SEA/SH focal person at the facility, FSU representative on the Sub Project Grievance Redress Committee and or the representative of the GBV Service Provider or the nearest FSU office for the necessary investigations and survival support services. Contact numbers of the GBV Service Providers, FSU representatives as well as that of the nearest FSU offices will be displayed at various places on-site and within the project environs together with posters and flyers to encourage GBV survivors to come out and report cases of GBV. Reporting a GBV/SEA/SH incident will be at the discretion of the survivor.

IHPAU Social Specialist will follow up during case investigations and prosecutions and report on the status of the case as well as progress in counselling and the provision of other support services for survivors, they opt to report the incident, pursue investigation and prosecution.

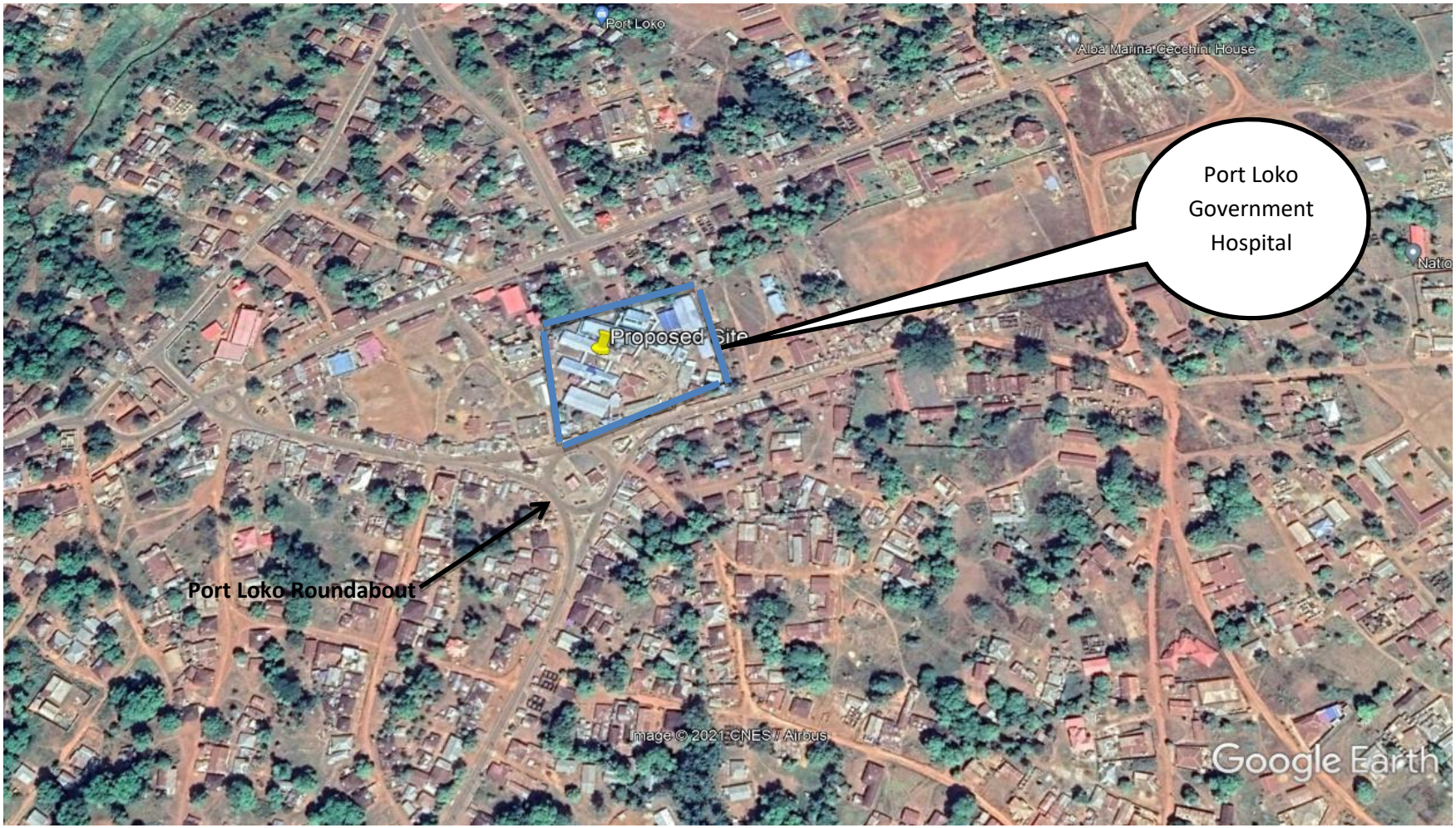
6.7 Grievance Redress Mechanisms for Workers on Site

The proposal is to establish a hot line that aggrieved workers can call to register their grievances directly to the management level personnel of the Construction Firm that will be implementing the works. This contact number must be advertised so that workers are aware of it and encourage to use it without being intimidated or targeted for negative feedback. Workers may also lodge their grievance through writing or verbally through the Environment, Social, Health and Safety Officer of the Contractor or to the Supervising Engineer.

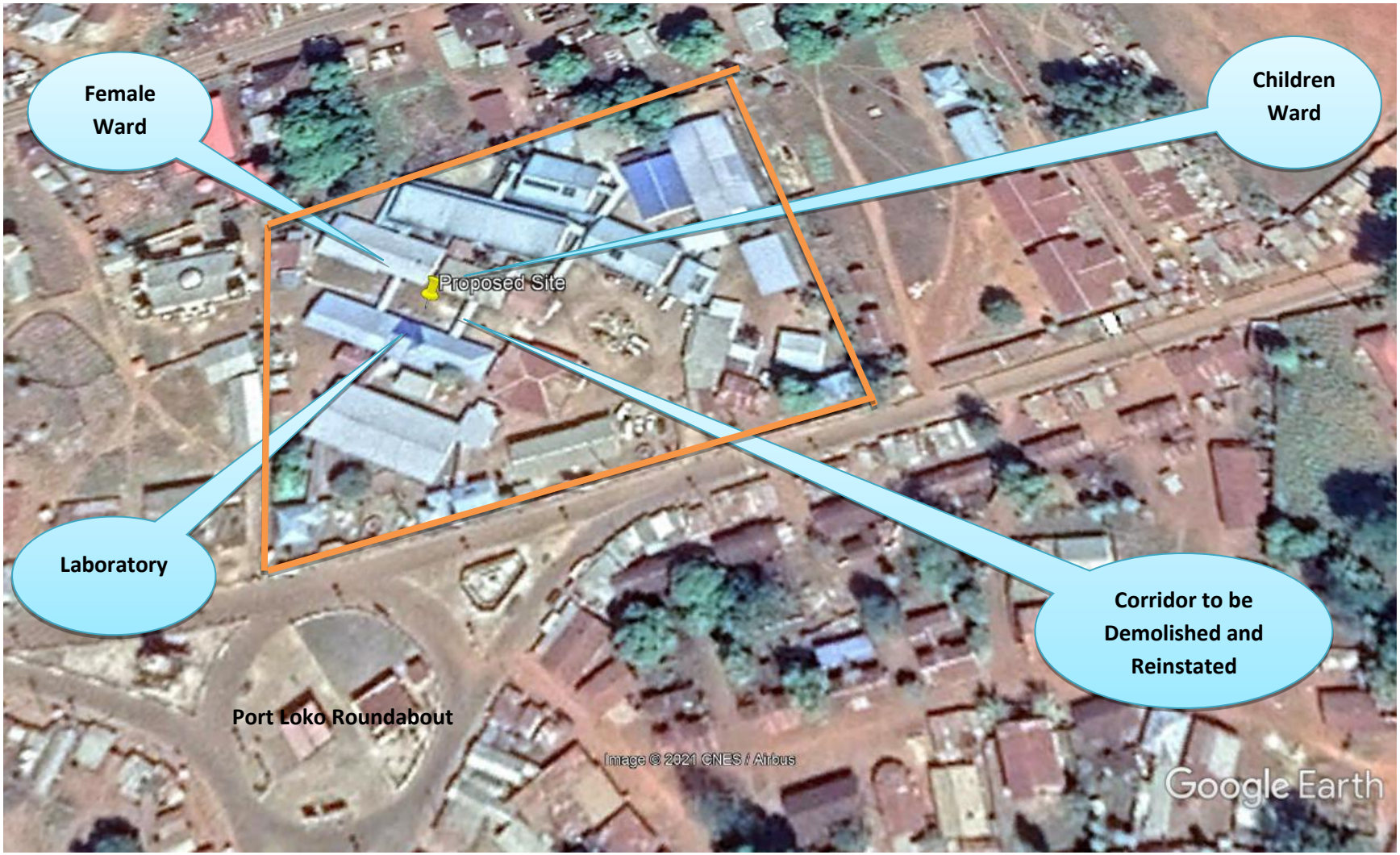
When aggrieved party/parties is/are not satisfied with the outcome from management, he/she/they can petition the Minister for Labour and Social Welfare. If the above institutions fail to deliver satisfactory outcomes for the aggrieved party/parties, he/she/they can proceed to the law court. Similar processes and timelines for resolving community grievances are proposed for the workers' grievance system.

APPENDICES

APPENDIX A: Locational Map – Port Loko Government Hospital



Appendix B: Site and its Environs



APPENDIX C: PICTURES

Plate 1: Proposed Site for Cold Room (Behind the Corridor)

Plate 2: Corridor between Laboratory and Female Wards to be Temporarily Demolished and Re-instated (Arrowed)

APPENDIX D: SOPs FOR LABORATORY

INTRODUCTION

On 30th January 2020, the Director-General declared that the outbreak of 2019-nCoV constitutes a Public Health Emergency of International Concern (PHEIC). By the end of February 2020, Sierra Leone activated the preparedness plan for Laboratory pillar as part of the 6 response pillars (Case Management, Surveillance, Psychosocial Mobilisation, Communication and Burial).

The Laboratory testing is recognised as a critical component to the national strategy that aims to protect the health system to save lives and thus the ultimate goal is to ensure that all those that need to be tested can access the service. The strategy set by the response is a phased approach starting with symptomatic patients and contacts, expanding to persons with increased vulnerability and exposure such as health care workers, and travellers, then ramp up to include secondary contacts and then expand to the community through enhanced surveillance.

AIM: To improve timely diagnosis of Corona Virus SARS COV2 Virus transmission through:

1. Detection of Viral Antigen/Protein/Particle by Ag-RDT and RT PCR of target population for Public Health intervention
2. Establishment of an effective Public health laboratory system and network governance structure
3. Instituting an Improved pre-analytical steps such as specimen management and data management
4. Improve Turn-around time that impact public health actions
5. A Standardized and effective post-analytical and data reporting systems that can be translated for actions by surveillance and all related Public Health Pillar structure

Oversight Structure

This is the setting up of an Integrated coordination effort of all emergency response pillars: Laboratory; Case Management, Surveillance, Communications and Logistics and Health Development Partners

Region	Operational Logistics support including partners	Assigned Regional Monitoring Leads	Coordination	Molecular Testing Capacity
NORTH and North West	• EOC - MOHS • RSLAF – China Military	Adama Sannoh & Alhaji Sankoh	Dr. Zikan Koroma	• Doris Harding- **Testing Team Lead** • CPHRL team • Connaught Team • Kenema VHF Lab team • Military 34 Lab team • China P3 Team • Makeni Molecular Laboratory Team • Lungi Airport Lab Team
SOUTH EAST	• WHO • CDC-US • AFENET	Mohamed G Koroma		
WESTERN – URBAN	• FCDO • World-Bank	Santique Kamara & Alhaji T Kamara		
WESTERN – RURAL		Mohamed Conteh & Tamba Sundufu		
Lungi Airport		Samuel Lavallie		

LTWG Policy Lead- DCMO-Clinical;

Dr Med Mustapha Kabba **(+232 88927869)**
Director Surveillance and Health Emergencies:

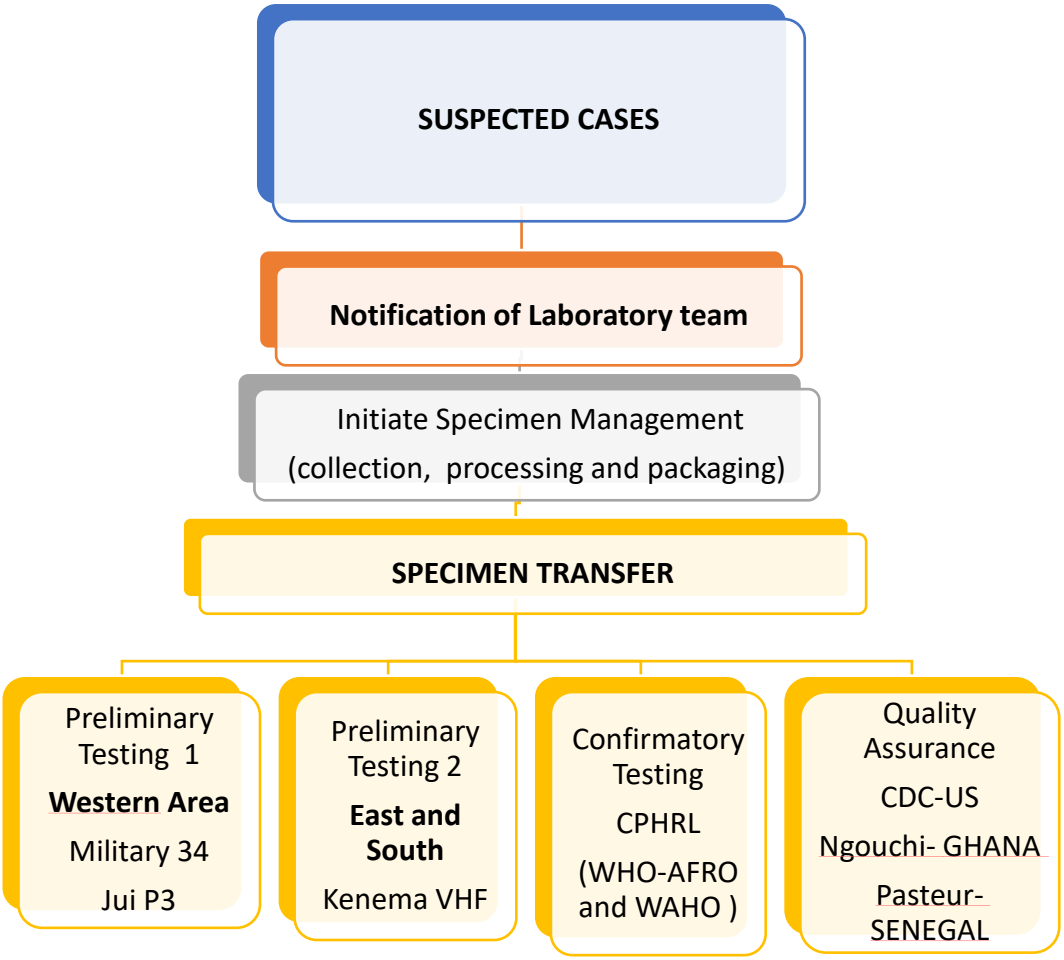
Dr Mohamed Vandi (+232 76657703)

<u>COVID-16 Laboratory Service Response - under the MOHS</u>

Laboratory Response Pillar Lead	Dr. Zikan Koroma (+232 78222401)
Coordination	Dr. Zikan Koroma

Laboratory Operational Lead	Doris Harding (+232 78432873)
Technical Laboratory Support	LTWG/ Partners

TESTING PROTOCOL



Laboratory Strategy and Implementation plan

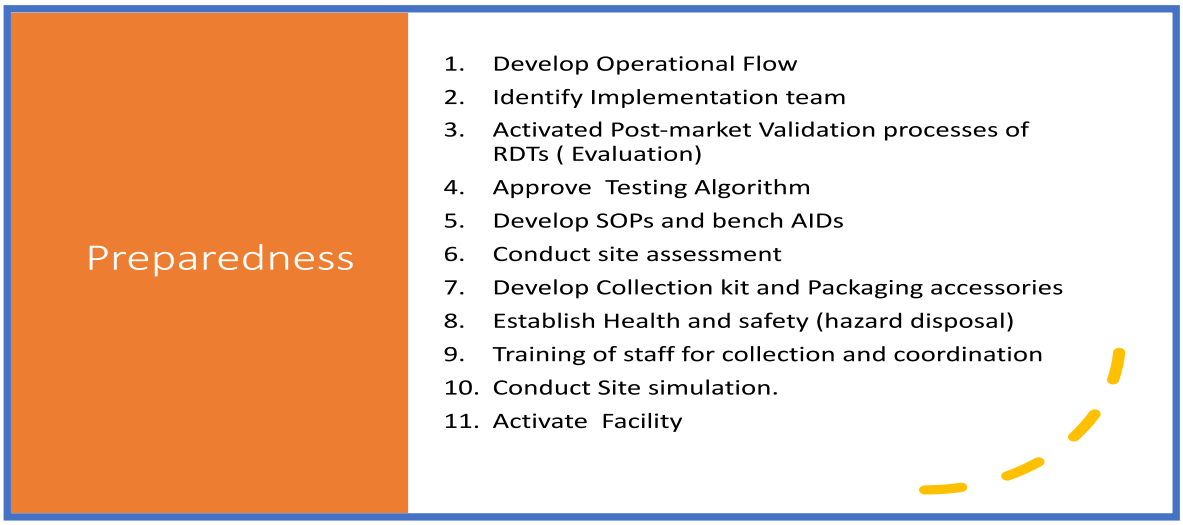
Recognising testing is a process to inform clinical decisions makers for patients care and health of the community at large, COVID Testing is performed within the context of a response pathway and purpose of stopping or at least mitigating the disease spread.

- Strategy 1: National Priority Level - 1 = Symptomatic (adult and paediatric)/ Primary Contact and prompt care of the infected to interrupt human to human transmission.
- Strategy 2: Priority Level - 2 = Testing of Secondary contacts to reduce secondary infections among close contacts of contacts in preventing transmission amplification events
- Strategy 3: Priority Level – 3 (surge) = Targeted communities: characteristic of risk level such as spike in a community, work place, learning institutions (schools, colleges and universities) etc.
- Strategy 4: Testing of Travelling Community-air-flight departure and arrival passengers, land borders and sea

Implementation

The Laboratory Pillar set out the implementation plan to address the strategic priorities in 3 phases as outlines in Table 2:

- Phase-0 Planning and Preparedness – Molecular Laboratory Capacity Activation plan:
  - Site specific assessment;
  - Equipment calibrations;
  - Staff Training and
  - Reagent and Kit distribution



- Phase 1 - Immediate Response at the start of the pandemic
  - High Risk sites determined: Due to risk associated to travelers from high prevalence countries
  - Activation of AIRPORT screening and test any symptomatic or passenger with any fever
  - Testing of at day 14 of all quarantine site

- Phase 2 – Short term: Prepare for specimen collection and testing for
    - District with Point of Entry (Land and sea borders) (High Risk Level)

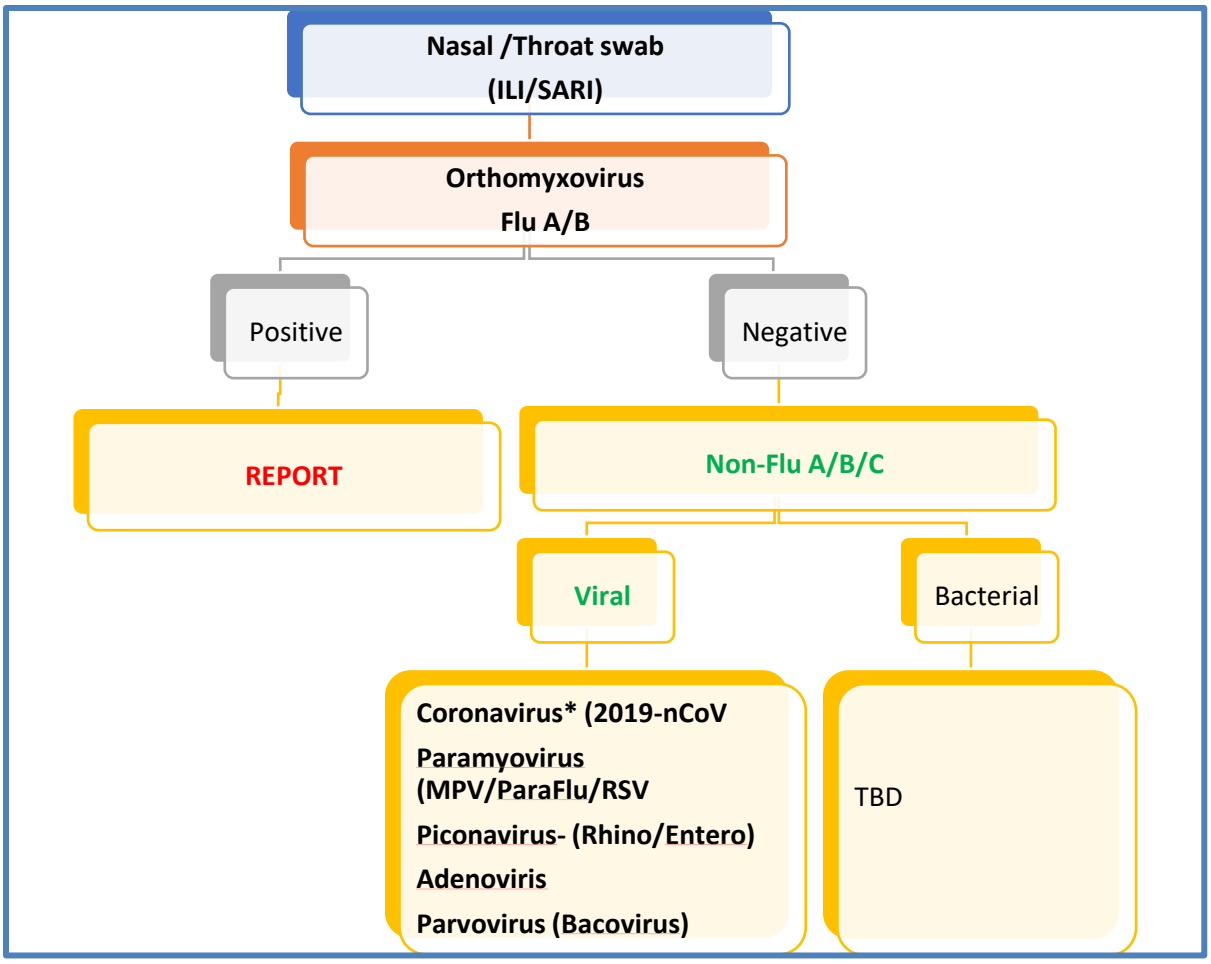
- Phase 3: Medium – Long term
    - Prepare testing for all Populated districts especially the Capital
    - Prepare for all other districts (Low to medium Risk level)

Laboratory Implementation plan

NORTH	Koinadugu	PoE	High	Phase 1 – short term
	Tonkolili	No border	Low	
	Kambia	PoE	High	Phase 1- short term
	Bombali	Populated	Medium	
	Port Loko	Air-PoE	High**	Immediate (lungi)
North West	Karene	POE		
			High	Phase 1 short term
	Falaba	PoE		
SOUTH	Bo	Populated	Medium	Phase 1- short term
	Moyamba	Mining town	Medium	Phase 2 -Medium
	Pujehun	PoE	High	Phase 1- short term
	Bonthe	Fishing	Medium	Phase 2- Medium
EAST	Kailahun	PoE	High	Phase 1- short term
	Kenema	Populated	Medium	Phase 2 -Medium
	Kono	PoE	High	Phase 1- short term
WEST (Eastern)	Connaught	Populated and Cosmopolitan	High	Phase 1- short term
	Macauley St			Phase 2 -Medium
			Medium	
	ODCH- PCMH			Phase 1 – short term
	Newton		High	Phase 1- short term
	Rokupa		Low	Phase 2- Medium term
			Medium	Phase 2- Medium
WEST (Western)	34th Military	Populated	High	Phase 1- short term
	Lumley	Populated	High	Phase 2 -Medium
	Lakka	Compromised	High	Phase 1- short term
				Phase 2- Medium Phase

Note: The above information is fluid and subject to change as issues evolve

Testing Algorithm



Primary level: these concern mainly health posts, private medical offices, clinics, and health checkpoints. The use of RDTs in primary health care centers is essential to alleviate the national need for RT-PCR tests. Details were provided on the conditions of use of Ag RDT tests, especially for training on the tests, the algorithm, and the interpretation of results.

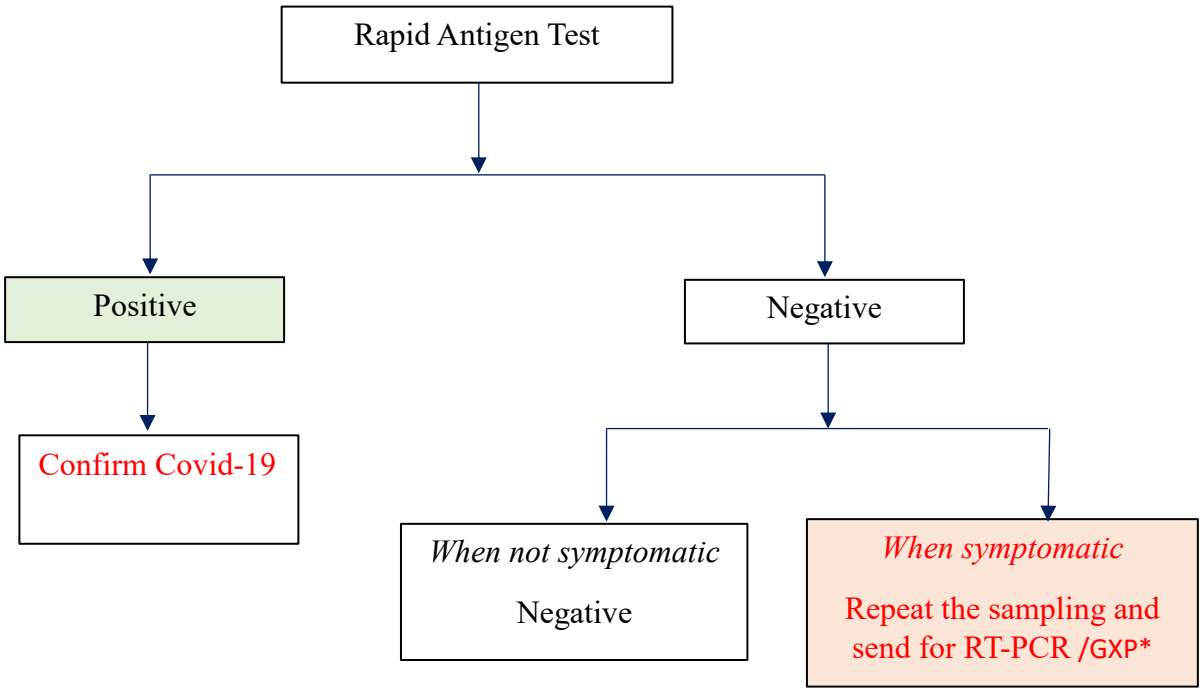


Figure 1: Algorithm for Primary Care Centers

- Negative, non-symptomatic cases may be requested for RT-PCR testing by health authorities if relevant.
- These testing facilities must be supervised by authorized laboratories.
- For all COVID-19 testing sites, supervisors must be trained in hygiene and safety.

Intermediate level: The Ag RDT test is offered at the district and health center levels. Details are provided in case the physician requests a repeat test and for symptomatic and non-symptomatic cases.

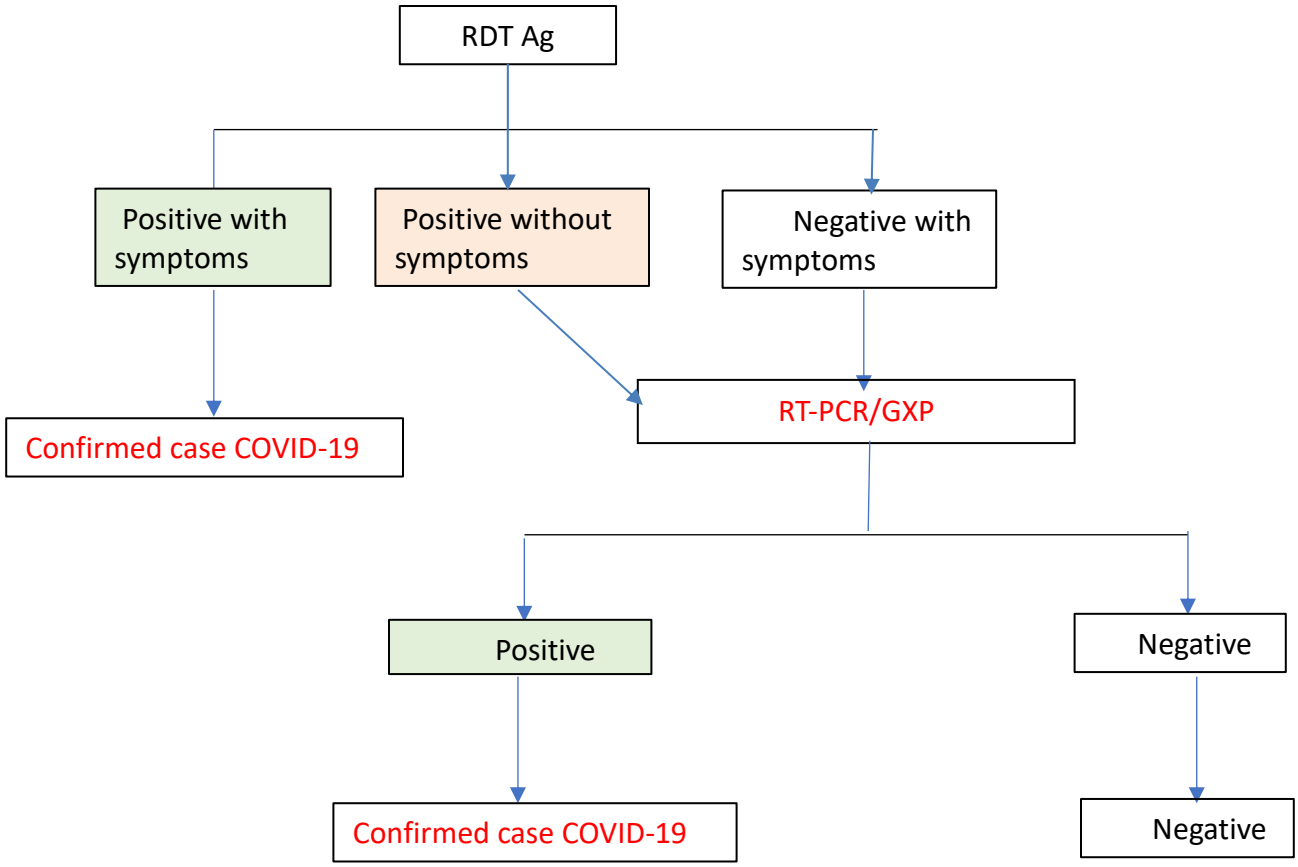
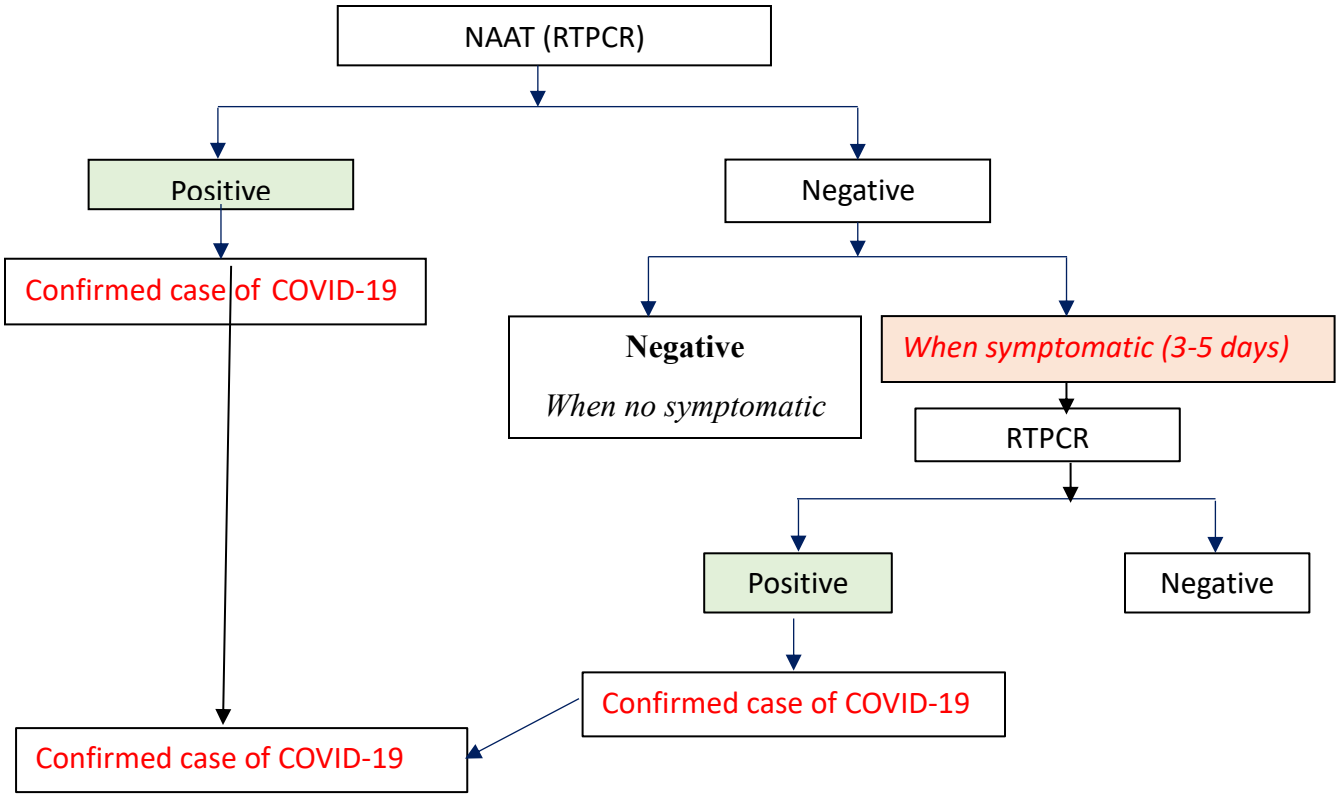


Figure 2: Algorithm for Health Districts and centers

- ❖ Patients with negative RT-PCR can be checked if relevant to clinician
- ❖ Asymptomatic cases
  - For negative, non-symptomatic cases may be subject to a request for RT-PCR testing by the health authorities if relevant.
- Negative RT-PCR at Day1 repeat at Day5, if negative consider the result
- ❖ For positive with RT-PCR case retest after 7 days
- ❖ Symptomatic cases
- Negative RDT do NAAT

- Reference laboratories: RT-PCR is proposed as a reference test. There are also specificities to consider, namely that reference laboratories are laboratories designated as references by the health authorities. They are equipped with automatic extraction and amplification of nucleic acids. They can be led to use the district algorithm under certain conditions.



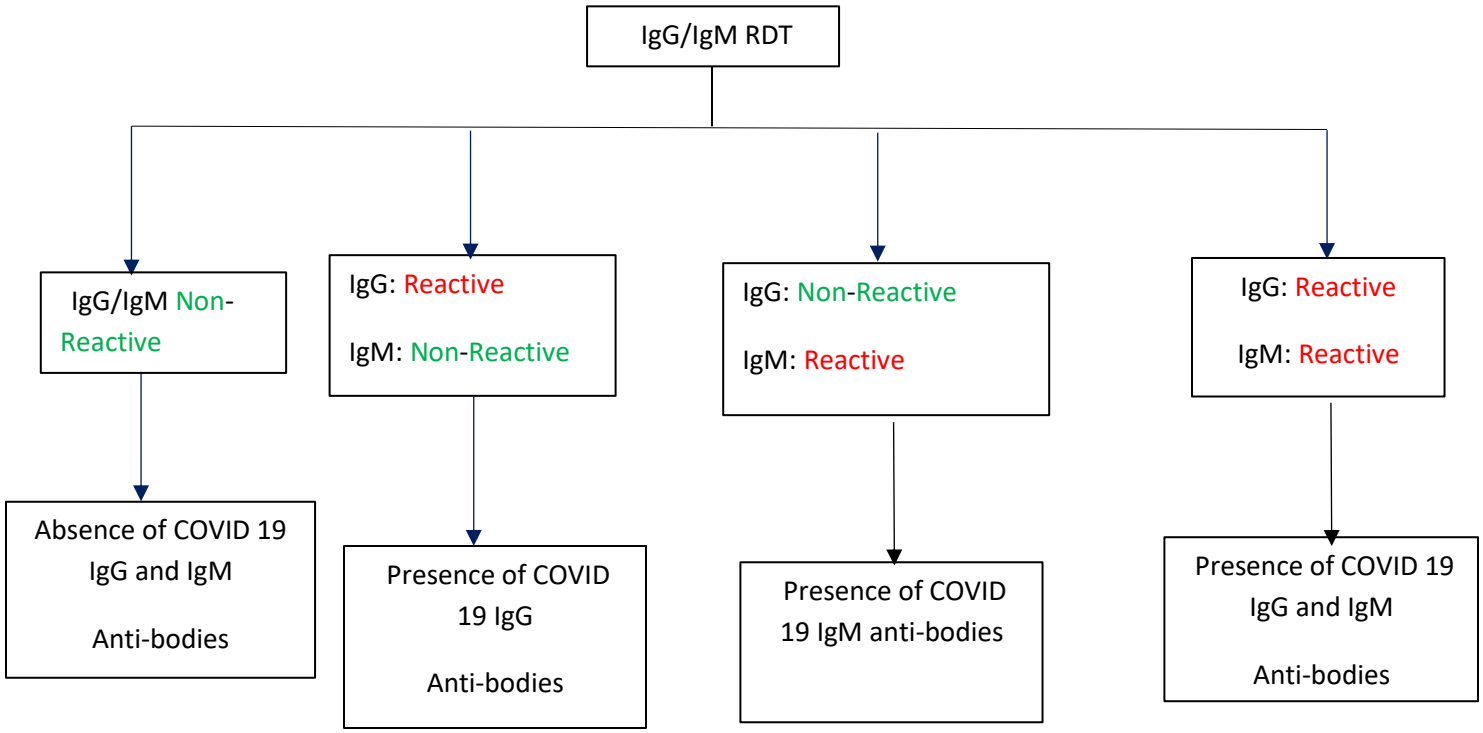
NB: *For inconclusive results, the laboratory must define a treatment procedure*

Conditions of use of serological tests (IgG/IgM): the rapid serology test IgG/IgM is considered as a detection test at the laboratory level. We limit ourselves only to the interpretation of the test because there can be a clinical interpretation. The objective in this case is to help biologists to interpret the results. It should be noted that in no case does this serological test allow the diagnosis of COVID 19 to be made or excluded. In addition, the simultaneous search for IgG and IgM will be the method used. Conditions for the use of serological tests have been provided:

- Serological testing is indicated:
  - When RDTAg is negative, and radiology appears to confirm COVID-19
  - To guide the clinician in deciding when there is a strong suspicion of COVID-19
  - When NAAT, Ag or radiology are not available. And if IgM positive refer for RT-PCR or Antigenic testing
- Immunoassay RDTs or TRODs should be ordered by physicians or any health care professional authorized by the Ministry of Health.
- RDTs must be performed in approved medical laboratories or by the surveillance team.

- TRODs can be performed by any authorized health care personnel in the health care units.

Figure 4: Algorithm for the use of serological tests (IgG/IgM)



This algorithm is supplemented by indications concerning possible but not exhaustive

Conclusions in the face of a serological result.

- INDICATION 1: COVID-19 serology for infectious syndrome (IgM/IgG)
  - Isolated presence of anti-SARS-CoV-2 IgM, profile may be compatible with a:
    - Recent infection (to be compared with the clinical-biological and imaging data)
    a polyclonal reaction not specific to SARS-COV-2 (cross-reaction)
    - Result to be checked in 7 to 14 days to follow antibody kinetics
  - Presence of anti-SARS-CoV-2 IgM/IgG, profile in favor of a recent infection.
    - Result to be compared with biological, clinical and CT scan data
- INDICATION 2: COVID-19 serology in case of infectious syndrome (IgM/IgG)
  - Isolated presence of anti-SARS-CoV-2 IgG, a profile that can evoke:
    - Either a long-standing infection with SARS-CoV-2 > 15 days

- Or a vaccination against SARS-CoV-2.

- Result to be compared with the clinical and epidemiological context of the subject.

- Negative serology, profile in favor of no contact with SARS-CoV-2.
- Negative serology, absence of post-infection immune antibodies.
- Positive serology, presence of post-infection immune antibodies.

❖ INDICATION 3: COVID-19 serology following vaccination (IgM/IgG)

- Positive serology, presence of post-vaccination immune antibodies: this test is qualitative, it does not allow to evaluate the degree of protection.
- Negative serology, absence of post-vaccination immune antibodies

Testing Laboratory Capacity

Laboratory	METHOD	# of staff (	# of Runs per day	Daily Capacity	Surge capacity	Maximum TAT
CPHRL	TIB Molbiol - Modular DX (Berlin Germany) Sansure- Biotech (China)	16 Local (RRTs -BSc and MSc)	4	300-400	500	12-14 hrs
RSLAF Infectious Disease Laboratory	Sansure- Biotech (China) Puruikang (China) Bioperectus (China)	6 Internation al (PHD-)	1	24	96	6 hrs
Kenema VHF lab	Integrated DNA Technologies (USA)	6 (BSC; MSc)	1	24	96	6hrs
Jui P3	JeiNuo- Shanghai (China) In-house (China)	11(6 China PHD + 16 Local (Dip and BSc)	4	300-400	500	12-14 hrs
ODCH/PCMH	TBD	2	TBD	TBD	TBD	
Connaught	TIB Molbiol – Modular DX (Berlin Germany)	10 Local(Dip, BSc, MSc and PHD	1	96		6 hrs
Makeni Molecular Lab	TIB Molbiol – Modular DX (Berlin Germany) Sansure- Biotech (China)	7 Local(BSc and PHD)	4	300-400	500	12-14 hrs
Bo Molecular Lab	TBD	2	TBD	TBD	TBD	
All facility laboratories	Ag-RDT	-	-	-	-	30 min

QUALITY ASSURANCE

All laboratories in operation

- Perform internal quality control protocol using kit control, in-house control and or Participate in inter-laboratory comparison and

Participate in regional quality assurance by sending all positive and 10% negative to

- Noguchi – Ghana
- Pasteur – Senegal
- CDC US Respiratory Virus Laboratory

When available it will be recommended that Laboratories subscribe to External Quality Assessment (EQA)- Proficiency Testing (PT) scheme from validated programs. The EQA PT will be coordinated by the MOHS National Technical QA officer

Specimen Management -

Safety Precautions

OBSERVE STRICT UNIVERSAL SPECIMEN MANAGEMENT PRECAUTIONS

1. All staff handling specimens should be appropriately trained on the use of PPE and safe handling and packaging of specimen
2. Appropriate PPE should be used during sample collection, packaging, and receiving at the lab and during testing.

Human Resource Workload Ratio

All collection will be done in collaboration with Surveillance Officers who completes case identification forms.

2 Laboratory Technologists / Scientists per Facility and 1 laboratory surveillance officers from DHMT will be trained to collect and package the sample for transfer.

All specimen collection will be coordinated through the National Specimen Management team

Specimen Management Requirements

The following list of items should be available for the correct labelling, storage and transport of specimens to the designated laboratories: (see check list for quantification)

Specimen Collection Requirements for Sample Collection (SWAB)

The following kit and consumables should be available:

1. Collection Kit
    a. Tongue depressor
    b. Swab and viral transport medium set
    c. Triple package pack
2. Data collection Kit
    a. CIF with sticker labels
    b. Pen
    c. Envelope
    d. Ziplock
3. Specimen Storage and Transportation Cold Chain
    a. Cold Transport box (qty 1) (Interchanged at lab or repository site)
    b. Cold packs and thermometer to maintain 4oC
4. Health and Safety Cupboard/ Storage
    a. PPE
    b. biohazard bags
    c. Decontamination set
    d. Spill Kit
    e. Disposal systems
5. Communications per facility
    a. CUG Phone for collection team (qty 1
    b. Vehicle to link to Zonal/Regional office (qty 1)
    c. Transport bikes (qty 1 per collection team)

Specimen Collection Working Hours

Working Hours	7am-7pm
Specimen Collection Cut-off time	On-call basis
Cold Chain storage log-off	7pm*

Specimen Collection, Packaging and Dispatch Order Flow

Packaging of specimens before dispatch

1. *Ensure that samples are appropriately labelled*
2. *The specimen should be placed into a secondary container i.e. 50ml conical tube, Decontaminate the outside of the conical tube once the specimen has been placed inside and the tube is closed.*
3. *Place the secondary tube into the triple packaging for transport to the lab*
4. *Ensure the CIF is included in the shipment, that unique identifiers match the specimen and CIF*

Procedure for Specimen Collection and Dispatch

Specimen Collection Timing

1. Specimens collected before and after normal work hours, will be stored in refrigerators at the collection facility until scheduled dispatch
    a. Specimens collected in the evening will be refrigerated at 4 degrees Centigrade (until pickup)

Specimen Transport Rejection Criteria

Transport courier will ask the point of contact at the facility how many specimens are being transported and how many forms are included.

Acceptance criteria for specimens to be transported to a laboratory

1. Case Identification Forms (CIF) are attached/included with the outer transport container
2. Cold chain maintained during transport
3. Chain of Custody (CoC) form is completed, signed and included

The courier MUST NOT open the secondary receptacle. He/she should ONLY check that the secondary receptacle has been inserted in the outer rigid transport container (not packed too full).

Rejection criteria to prevent the transport of specimens to a laboratory

Transport conditions that do not meet the requirements will be temporarily rejected until the problems can be corrected on site.

1. Cold packs are missing or not cold
2. Outer transport container/box is damaged
3. Chain of Custody (CoC) form is not completed or missing

Specimen Rejection Criteria for Lab

Receiving laboratory will inspect all incoming specimens and accept or reject specimens for testing based on the following criteria.

Acceptance Criteria at Laboratory

1. Specimen and CIF identification numbers match
2. Specimen/CIF arrived with at least ID, Name, Date of Collection and Date of Symptom Onset
3. Adequate volume
    a. 3ml for swab in VTM

Rejection criteria at Laboratory

The laboratory should immediately contact the submitting facility for clarification or request an additional specimen.

1. Specimen and CIF do not match
    a. Failed Chain of Custody
2. Lack of Cold Chain transport
    a. Unless lab is located at holding/treatment facility
3. Inadequate volume
4. Incorrect specimen collection device used

The laboratory will make all efforts to test a specimen even if the required information is not immediately available.

Results Dissemination

A multi prong result reporting system will be utilized to prevent the delay of results getting back to the facility/clinician.

- Level One: Laboratory data clerk to phone results to facility using three patient identifiers to match
- Level Two: Laboratory will distribute the results electronically to health facility lab command centre lead and DHSE who will then share to relevant partners
- Level Three: (Backup) Laboratory will send a paper copy of the results via courier to the facility

All recipient of result from lab should be in a position to take action to improve treatment access time and raise the level of infection control.

Guidelines for Laboratory Result Dissemination

The role of the testing laboratory in result dissemination is to send out validated results through MOHS/DHSE and Directorate of Laboratory Services to health facilities (treatment and Holding centres) for prompt and effective action.

Criteria for Inclusion in the Distribution List of the Laboratory:

1. MOHS decision-makers
    a. Case Management and Lab team leads
2. Clinician in Treatment and / Holding Centre
3. Development partners supporting Treatment and / Holding centres

TESTING LABORATORY CONTACT

LABORATORY	ORGANISATION	Region /LOCATION	Test Lead	CONTACT
CPHRL	MOHS	Western Urban	Samuel Sorie	+232 76412688
Connaught	MOHS	Western Urban	Santigie Kamara	+23276636590
MILITARY 34 HOSPITAL	RSLAF	Western Urban	Dr Yee	+23299976014
Jui P3	MOHs / China CDC	Western Rural	Prof.Zheng	+232 77436947
Kenema	MOHS	Eastern Province	Augustine Goba	+23276757859
Makeni	MOHS	Northern Province	Raoul Emeric Wadoum	+23278425924

All field collection specimen will make direct contact with DHMT or Directorate, whom will then reach-out and alert the Laboratory Team.

DISTRICT MEDICAL OFFICERS – MINISTRY OF HEALTH SIERRA LEONE

No.	NAME	DISTRICT	EMAIL	MOBLIE #
1	Dr. Joseph Sylvanus Bangura	Bombali	bangsylj@yahoo.com	075 - 858789
2	Dr. Mamud Idriss Kamara	Port Loko	kmamudi@yahoo.com	076-625-163
3	Dr. Foday Sesay	Western Area Urban	fsesay27@yahoo.com	076-534-298
4	Dr. Syllvia Sia Fasuluku	Western Rural	sylfas@yahoo.co.uk	076-454-400
5	Sahr Augustine Jimmisa	Falaba	augsjim@gmail.com	078-963-789
6	Dr. Abdul Mac Falama	Tonkolili	abdulmac14@yahoo.com	075-482-676
7	Dr Mohamed Sheku	Kono		076-241-882
8	Dr. Donald Grant	Kenema	donkumfel@yahoo.co.uk	078-350-065

9	Dr Francis Lansana	Kailahun		076-036-508
10	Dr. Bobson Sesay	Bonthe		076-757-468
11	Dr. Amara Stevens Ngigbal	Pujehun	dras88@gmail.com	078- 663-624
12	Dr. Prince.E.K. Masuba	Bo	mcsuba2000@yahoo.com	078-038506
13	Dr. Jongopie	Moyamba	jbjongopie@gmail.com	076-708-382
14	Dr. Steven Fonnie	Konaidugu	drstevenfonnie@gmail.com	078-626404
15	Dr. Chernor Jalloh	Karene	chernorsjalloh7@gmail.com	080-730212
16	Dr Yilla	Kambia		079-571-665

SPECIMEN MANAGEMENT CHECK LIST

Item	No. of supply used / day /personnel/ 10 per FACILITY	Comment
PPE		
Coverall, Gown and Aprons	2 + 10 Aprons	Laboratory Quality Officers will oversee at Facility level linking with Surveillance Officers
Face shield / nose mask	2	
Gloves	24	
Goggles	2	
Scrub Suit	2	
Collection Kit		
Alcohol swab	25	
Tongue Depressor	25	
VTM Tubes and Swab set	25	
Plaster Roll, 2.5mm	1	
Barcode or sticker labels	5	
Packaging box	1	
Sample rack	1	
Disposable tray / containers	2	
Data collection forms /storage		
Pen and Pencil	2	
A4 Paper pack/500	1	
Envelopes and Ziplock bags	25	
Ledger and Ruler	1	
Specimen Transportation cold chain per facility		
Refrigerator to keep samples at 4 degrees C	1	

Freezer -80 ^{o}C	NA	
Freezer -20^{o}C	1	
Cold transport box to maintain 4oC	2	
24 hrs power overnight (Generator)	1	
Health and Safety cupboard / storage		
Storage Cupboard	1	
Biohazard bags-large	2	
Sprayer	1	
Communication per facility		
Phone x 2 (CUG)	2	
COURIER ACCESS		
Vehicle -Toyota 4x4 (fuel for transportation)		
Motorcycles		
Incinerator		

SPECIMEN CHAIN OF CUSTODY

FACILITY /FIELD SUBMITTER (Releaser) INFORMATION (please fill out in its entirety)

Releaser Name: _____ Date: _____

Phone: _____ Email: _____

Site Name: _____ District: _____

FACILITY SPECIMEN PACKAGING (please fill out in its entirety)

Number of Specimens Included: _____ Forms Completed and Included: Yes / No

Packaged by: _____ Date:

_____

CHAIN OF CUSTODY (persons relinquishing and receiving specimens complete their respective section)

To be completed at Facility / FIELD in the present of Transport courier

Relinquished by (Specimen release)	Date/Time	Received by (Transport)	Date/Time
Signature: Print Name:		Signature: Print Name:	

To completed at Testing Laboratory with specimen reception personnel

Relinquished by (Transport) to Lab	Date/Time	Received by (Lab)	Date/Time
Signature: Print Name:		Signature: Print Name:	
		Sample condition upon receipt:	

Specimen Releaser SPECIMEN INFORMATION (must be completed for all specimens being transported to lab for testing by specimen packer at facility)

Serial Number	Case Identification Number	Collection Date	Symptom Onset Date	Lab ID (lab only)	Comment (Lab only)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

AIR/SEA TRANSPORT SPECIMEN MANAGEMENT GUIDELINES

Operational Guideline

AIM: To facilitate timely collection and transportation of swab specimen from Facilities/field/DHMT to testing laboratory.

Introduction: Swabs or Blood samples from suspected patients will be transported in the United Nations approved 4G/Class 6.2/13 GB/2815 container suitable for safe transportation of infectious substances by air, sea, and land. The packaging has been developed to exceed the I.C.A.O / I. A. T. O Packing Instruction 620 and I. A.T. A. Packing Instruction 650 for Biological Substances, Category B.

Packaging Procedure as per current national specimen packaging standard

1. Swabs will be placed in re-sealable plastic bags provided by.
2. A Safe Pak STP – 150 absorbent strip or absorbent product shall be placed in the plastic bag and sealed.
3. The sealed plastic bags will be placed in the yellow top plastic container, with an absorbent strip in the bottom. Bubble wrap or additional padding material shall be placed inside the container to reduce movement of the samples.
4. The sample container shall be screwed closed firmly, without damage to the plastic O-ring.
5. The sealed plastic container shall be placed in a zip lock bag and sealed.
6. The zip lock sealed plastic container shall then be placed in the BioPack-2 container and sealed following the directions on the box.

Packing the Cooler Box

- The sealed Bio-Pack container will be placed in the site specific "Coleman Cooler Box."
- The Case Investigation Form (CIF) for each sample shall be placed in a zip-lock bag within the cooler.
- The utilization of added packing materials to reduce the movement of BioPack-2 is recommended.

Sealing the Cooler Box

- The cooler box lid will be taped closed with duct tape horizontally to seal the box.
- The cooler box will be taped twice vertically around the whole case to ensure the case is well sealed.

Chain of Custody

- The Laboratory Chain-of-Custody form shall be completed and placed in a zip-lock bag, taped to the cooler box.

Acceptance of the Cooler Box for Air / Sea Transportation.

- Prior to the cooler box being accepted by the Laboratory Team, the courier shall visually inspect the cooler box, then spray the cooler box with a 5% chlorine / 70% ethanol solution to eliminate any remote chance of contamination.
    - Allow the container to air dry prior to loading the cooler box inside the aircraft.
- The cooler box must meet the standards listed above to be accepted for air transportation.

A Biohazard Infectious Substance label shall be placed on the cooler box prior to transportation

RESULT DISTRIBUTION LIST GUIDELINES

Goal: To ensure health facilities and communities receive result of patient within 24-36 hours.

Objective:

1. To ensure 3 levels of communications as per operational manual is functional
    a. Laboratory result are communicated directly to treatment or holding facilities within 24 hour of test completion
    b. Laboratory result are communicated to DHSE for linkage to case management
    c. Laboratory results are collated through the surveillance team
2. To maintain confidentiality of patients
    a. Development of distribution list of relevant leads for timely action on result (patient release, treatment or quarantines)
    b. Develop list of institutions that will receive result for action

Background and Rationale:

A distribution list will be developed by DHSE according to relevance in support the response.

Methodology:

1. Generate the list of Health facility leads as follows:
    a. MOHS Program
    b. PILLAR Leads
    c. Head of treatment facilities
    d. Head of Holding/Isolation facilities
    e. Head of Central Coordinating Unit, CCU

f. DMOs

2. Generate and validate List
    a. Laboratory or specimen handlers/management per site
    b. List of Specimen management team within community
3. Generate a password system to protect document
4. Criteria for Inclusion in the Distribution List:
    a. MOHS decision-makers
    b. Testing laboratory sharing results
    c. Clinician in Treatment and Holding Centre

FACILITY READINESS HORIZONTAL AUDIT Checklist

Treatment Centres

SN	ITEM	
1	Name of facility	
2	Type of facility	
3	Clinical Lead	
4	Hours of work	
5	#of Beds(isolation)	
6	Number of staff	
7	Number of staff for specimen management	
8	# of Specimen Collected per day	
9	Specimen management storage area	
10	Specimen management stocks availability (see supplies list)	
11	Specimen Packaging cold chain at site	
12	Specimen dispatch mode	
13	Chain of Custody usage	
14	Result Retrieval process	
15	Average Turn-Around-Time	
16	Challenges	

Testing Laboratory Horizontal Audit Tool

Name of Laboratory

SN	Item	Findings	Recommendation
1	Hours of Operation		
2	Human Resource and staff levels		
	Human Resource and staff levels		
3	Infrastructure (space)		
	Utilities (energy and Water)		
	Equipment		
4	Key Geographic coverage		
5	*Methodology*		
	Test 1 Brand and Origin		
	Test 2 Brand and Origin		
	Test Algorithm		
	Target Genes		
	Cycle Threshold (CT) Value		
6	*Quality Assurance*		
	Capacity tested /day		
	Surge Capacity		
	No. runs per day		
	Time of Run (TAT)		
7	*Specimen Management*		
	Types of Sample		

	Specimen Processing time		
	No of assays done so far		
	Training Capacity		
	Specimen storage / Archive –		
8	*Data Management*		
	Using National Laboratory Template		
9	*Challenges*		*Action*
	Supplies		
	Packaging		
	Communication		
	Data management		

Action Plan

	Immediate	Medium	Long term
	• Site specific specimen collection training • Assembly of specimen collection kits with distribution • Activation of courier service via REDISSE funding(Specimen referral) • Transportation of test kits through WAHO	• Vertical and horizontal audit • Base line audit on course • Weekly Laboratory audit Quality Assurance – Operationalization • Test Harmonization -convene a meeting of all 17 laboratory scientists. • Conduct test simulation exercise • Relocation of scientists to the regional testing labs • Characterization of Suspected cases negative for Flu • Expansion of testing capacity to the regions (Bo, Kenema, Makeni and EBOVAC (COMAHS) in Kambia	• Solarisation of CPHRL • Dedicated Audit Laboratory vehicle (3) • Continued courier service for outbreak and epidemic prone diseases • Specimen referral to international regional Labs(Within ECOWAS Region)

APPENDIX E: CONTRACTUAL CLAUSES

In order to ensure the proposed mitigation measures are implemented by the Contractor as well as other responsible parties, the following Contractual Clauses are to be inserted into the Works Contract for the Contractor executing the works:

General

1. In addition to these general conditions, the Contractor shall comply with any specific Environmental and Social Management Plan (ESMP) for the works for which he/she is responsible. The Contractor shall inform himself about such an ESMP, prepare his work strategy and plan to fully incorporate relevant provisions of that ESMP. If the Contractor fails to implement the approved ESMP after written instruction by the Supervising Consultant to fulfil his obligation within the requested time, the client reserves the right to arrange through the SE for execution of the missing action by a third party on account of the Contractor.
2. Notwithstanding the Contractor's obligation under the above clause, the 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 EMSP. In general, these measures shall include but not be limited to:
   - *Minimize the effect of dust on the surrounding environment resulting from earth mixing sites, vibrating equipment, temporary access roads, etc to ensure safety, health and the protection of workers and communities living in the vicinity dust producing activities.*
   - *Ensure that noise levels emanating from machinery, vehicles, and noisy construction activities (e.g., excavation) are kept at a minimum for the safety, health, and protection of workers within the vicinity of high noise levels and nearby communities.*
   - *Prevent oils, lubricants and wastewater used or produced during the execution of works from entering rivers, streams, and other natural water bodies/reservoirs, and also ensures that stagnant water in uncovered trenches is treated in the best way to avoid creating possible breeding grounds for mosquitoes.*
   - *Upon discovery of ancient heritage, relics or anything that might or believed to be of archaeological or historical importance during the execution of works,' immediately report such findings to the Site Engineer so that the appropriate authorities may be expeditiously contacted for fulfilment of the measures aimed at protecting such historical or archaeological resources.*

- *Implement soil erosion control measures in order to avoid surface run off and prevents siltation, etc.*
- *Ensure that garbage, sanitation and drinking water facilities are provided for construction workers.*
- *Ensure that, in as much as possible, local materials are used to avoid importation of foreign material and long-distance transportation.*
- *Ensure public safety and meet traffic safety requirements for the operation of work to avoid accidents.*

3. The Contractor shall indicate the period within which he/she shall maintain status on site after completion of civil works to ensure that significant adverse impacts arising from such works have been appropriately addressed.
4. The Contractor shall adhere to the proposed activity implementation schedule and the monitoring plan/strategy to ensure effective feedback of monitoring information to project management so that impact management can be implemented properly, and if necessary, adapt to changing and unforeseen conditions.
5. Besides the regular inspection of the sites by the SE for adherence to the contract conditions and specifications, the client will appoint an officer to oversee the compliance with these environmental, social, health and safety conditions and any proposed mitigation measures. State environmental authorities such as the Environmental Protection Agency and Sierra Leone Fire Force, Freetown City Council and Ministry of Works and Public Assets may carry out similar inspection duties. In all cases, as directed by the SE, the Contractor shall comply with directives from such inspectors to implement measures required to ensure the adequacy of rehabilitation/mitigation carried out on the biophysical and social environment resulting from implementation of any works.

Water Resources and Waste Management

6. All vessels (drums, containers, bags, etc.) containing oil/ fuel/ construction materials and other hazardous chemicals shall be bonded in order to contain spillage. All waste containers, litter and any other waste generated during construction shall be collected and disposed of at designated disposal sites in line with the Assembly's waste management regulations.
7. Wash water from washing equipment shall not be discharged into road drains
8. Used oil from maintenance works shall be collected and disposed-off appropriately at designated sites or be reused or sold for re-use locally.
9. Site spoils and temporary stockpiles shall be located away from the drainage system and surface run off shall be directed away from stockpiles to prevent erosion.

10. The Contractor shall at all costs avoid conflicting with water demands of local communities.
11. Abstraction of water from wetlands shall be avoided.
12No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses.

Traffic Management

13. Materials shall be delivered on site over the weekend or before 6-00am or after 4.00pm.

Disposal of Unusable Elements

14. Unusable materials and construction elements such as electro-mechanical equipment, pipes, cables, accessories, and demolished structures will be disposed of in a manner approved by the SC. The Contractor has to agree with the SC 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.
15. Unsuitable and demolished elements shall be dismantled to a size fitting on ordinary trucks for transport.
16. Unsuitable and demolished elements shall be dismantled to a size fitting on ordinary trucks for transport.
17. Left over materials will be collected and used for other purposes.

Health and Safety

18. In advance of the construction work, the Contractor shall mount an awareness and hygiene campaign.
19. Workers and local residents shall be sensitized on health and safety risks associated with the works including AIDS, Fire Prevention and Containment as well as Occupational Health and Safety
20. The Contractor shall make available all his/her employees for all OHS and Emergency Preparedness Training/Demonstration Programmes organized under the project.
21. Adequate warning, directional and prohibitory signs etc. shall be provided at appropriate locations on site.
22. Construction vehicles shall not exceed maximum speed limit of 20km per hour.

Gender Based Violence, Sexual Exploitation and Abuse/ Sexual Harassment, HIV/AIDs and STI Awareness

23. The Contractor shall clearly state in his contracts with employees and third-party suppliers that he does not condone physical abuse, rape, defilement, illicit sexual

behaviours and other gender based violence together with sanctions for breaching these provisions.

24. The Contractor shall report any incidence of rape, defilement or other Gender Based Violence and illicit sexual affairs to the nearest FSU, the SC and Environmental and Social Officer of MoHS within 12 hours of receiving such as a report.
25. The Contractor shall support (including availing employees to support GBV investigations and providing compensation for survivors) GBV/SEA/SH investigations, persecution, and survivor rehabilitation, if his/her employees are under investigation or found guilty of GBV/SEA/SH.
26. The Contractor shall make available all his/her employees for all HIV/AIDS and Gender Based Violence Sensitization Programmes organized under the project.
27. The Contractor shall have a Code of Conduct to be signed and explained to their workers in a language well understood. The Code of Conduct will include all punitive measures for any violations.

Contractor's Environment and Social Management Plan

28. Within 4 weeks of signing the Contract, the Contractor shall prepare an ESMP to ensure the adequate management of the health, safety, environmental and social aspects of the works, including implementation of the requirements of these general conditions and any specific requirements of an ESMP for the works. The Contractor's ESMP will serve two main purposes:
    - *For the Contractor, for internal purposes, to ensure that all measures are in place for adequate HSE management, and as an operational manual for his staff.*
    - *For the Client, supported where necessary by a SC, to ensure that the Contractor is fully prepared for the adequate management of the HSE aspects of the project, and as a basis for monitoring of the Contractor's HSE performance*.
29. The Contractor's ESMP shall provide at least:
    - *A description of procedures and methods for complying with these general environmental management conditions, and any specific conditions specified in the ESMP;*
    - *A description of specific mitigation measures that will be implemented in order to minimize adverse impacts;*
    - *A description of all planned monitoring activities and the reporting thereof; and*
    - *The internal organizational, management and reporting mechanisms put in place for such.*
30. The Contractor's ESMP will be reviewed and approved by the Environmental and Social Officer before start of the works. This review should demonstrate if the

Contractor's ESMP covers all the identified impacts and has defined appropriate measures to counteract any potential impacts.

Environmental and Social Reporting

31. The Contractor shall prepare bi-weekly progress reports to the SC on compliance with these general conditions, the project ESMP, and his own ESMP. A format for a contractor HSE report is given below. It is expected that the Contractor's reports will include information on:
    - *HSE management actions/measures taken, including approvals sought from local or national authorities;*
    - *Problems encountered in relation to HSE aspects (incidents, including delays, cost consequences, etc. as a result thereof)*
    - *Changes of assumptions, conditions, measures, designs, and actual works in relation to HSE aspects; and*
    - *Observations, concerns raised* and/or decisions taken with regard to HSE management during site meetings
32. Reporting of significant HSE incidents must be done within 24 hours. Such incident reporting shall, therefore, be done individually.
33. The Contractor shall keep his own records on health, safety and welfare of persons, and damage to property. These records shall include such records, as well as copies of incident reports, as appendixes to the bi-weekly reports.
34. Details on the environmental and social performance will be reported to the Client through monthly progress reports.

Labour Relations

35. The Contractor shall not employ minors (below 18 years) as part of his casual of permanent employees
36. The Contractor shall not engage in forced labour of kind including forcing employees to work on statutory holidays
37. The Contractor shall not procure good or services from third party suppliers that that engage child or forced labour
38. The Contractor in his recruitment shall not discriminate by gender, religion, and ethnicity etc.
39. The Contractor shall familiarise himself with the Regulation of Wages and Industrial Relations Act 1971 (No 18) and other labour related laws in Sierra Leone and work within these laws.
40. All workers shall be given contracts specifying their tasks, responsibilities, and Conditions of Service in line with Sierra Leone Labour Laws

41. The Contractor shall set up a fair and transparent work-based grievance redress system headed by a management member and protect aggrieved employees against discrimination and persecution.
42. The Contractor shall prepare a Code of Conduct to be signed by all employees, after it being explained to them in a language they understand, to guide employees inter and intra personal relationships. The Code of Conduct shall specify sanctions for assault, abuse, rape defilement and other gender-based violence as well as rewards and sanction for working with/out PPEs among others.

Community Relations

43. The Contractor shall inform organizations and households in the project zone of any impending power cuts or water supply disruptions at least a week ahead of the power outage/cut in water supply. The notice shall be repeated 24 hours ahead of the planned outage or shut down.

Cost of Compliance

44. It is expected that compliance with these conditions is already part of standard good workmanship and state of art as generally required under this Contract. The item “Compliance with Environmental Management Conditions" in the Bill of Quantities covers these costs. No other payments will be made to the Contractor for compliance with any request to avoid and/or mitigate an avoidable environmental and social impact.

Sanction

45. In application of the contractual agreements, the lack of respect of the environmental and social clauses, duly observed by the Contractor, could be a justification for termination of the contract.

APPENDIX F: SAMPLE CODE OF CONDUCT

All the employees of the Contractor and support staff of Supervising Consultant shall adhere to the following Code of Conduct during the execution of the project:

1. **Compliance with Applicable Laws, Rules and Regulations**
    a. All employees shall perform their duties in accordance with the Regulation of Wages Industrial Relation Act, 1971 (No.18) and other applicable labour laws in Sierra Leone.
    b. Employees/key experts will enjoy freedom of association and expression as defined in the Constitution of Sierra Leone and express in the Regulation of Wages Industrial Relation Act, 1971 (No.18) and other labor laws in Sierra Leone.
    c. The Organization will not condone the activities of employees who achieve results through violation of the law or unethical business dealings. This includes any payments for illegal acts, indirect contributions, rebates, and bribery.
    d. The Organization shall not permit any activity that fails to stand the closest possible public scrutiny.
    e. Employees uncertain about the application or interpretation of any legal requirements should refer the matter to appropriate line supervisor or the Ministry of Labor Social Security
    f. Workers/employees who falsify their ages will be summarily dismissed as the company does not tolerate child and forced labor.
    g. The company will not tolerate any form of child or forced labor from any sub-contractor/employee who practice forced or child labor
    h. Employees are required to report suspected cases of child or forced labor on site to the Site Supervisor, FSU or Ministry of Labor and Social Security

2. **Compliance with Applicable Health and Safety Requirements**
    a. All employees' have the right and duty to ensure safe working conditions to the extent of exercising control over tools, equipment, machinery, and processes and to express their views on working conditions that may affect their safety and health. Sub-contractors will do same for their employees
    b. Employees of the Contractor shall be responsible for removing themselves from danger as much as possible whenever they have good reason to believe that there is an imminent and danger to their safety or health. They should have the duty so to inform their supervisor immediately.

c. Employees/key experts will be provided with the appropriate protective gear for the operations or activities and request for same before engaging in any activity associated with the works.
d. No worker shall be allowed to undertake any work without wearing approved protective clothing/gear.
e. Workers shall use and take care of personal protective equipment, protective clothing and facilities placed at their disposal and not misuse anything provided for their own protection or the protection of others
f. First time offenders who are not in the appropriate protective gear will receive a verbal caution, second time offenders will receive a formal written caution, while multiple offenders will receive sanctions ranging from suspensions to dismissal.
g. Except in an emergency, employees, unless duly authorized, should not interfere with, remove, alter, or displace any safety device or other appliance furnished for their protection or the protection of others, or interfere with any method or process adopted with a view to avoiding accidents and injury to health.
h. Every employee shall take reasonable care for their own safety and health and that of other persons who may be affected by their acts or omissions at work.
i. Workers shall report to their immediate supervisor, and Health and Safety Officer, any situation which they believe presents a risk and which they cannot properly deal with themselves.
j. Damaged or faulty electrical equipment such as power sockets, leads and appliances are removed from service.
k. Damaged or faulty equipment should be replaced or repaired by a qualified person as soon as possible.
l. Power points should be protected by safety-shutters, or all vacant power points be covered by plastic plug protectors.
m. Electrical appliances and leads should be kept away from water.
n. All machines and vehicles should be turned off when not in use
o. All employees shall comply with all the safety and health measures prescribed by the employer. Employees should not operate or interfere with plant and equipment that they have not been duly authorized to operate, maintain or use.
p. Employees should not sleep or rest in dangerous places such as scaffolds, railway tracks, garages, or in the vicinity of fires, dangerous or toxic substances, running machines or vehicles and heavy equipment.

q. Supervisors should not assign employees to undertake activities that the later do not have necessary competence, training, or certification or that has not been stated in their contract with the Company.
r. Employees should not undertake any assigned activity for which you do not have necessary competence, training, or certification or that has not been stated in their contract with the Company.
s. Every employee is encouraged to contribute by integrating environmental sustainability issues as they relate to our industry into our business planning, strategies, and decision-making.
t. Employees shall avail themselves for all OHS, HIV/AIDS Gender Based Violence, Emergency Preparedness Training/Sensitization Programmes organized under the project.
u. All Company employees should strive to conserve resources and reduce waste through re-use and other energy conservation measures.

3. Use of Illegal Substances

a. No employee/key expert/sub-contractor shall report to work under the influence of alcohol, or any substance considered as illegal under the laws of Sierra Leone including marijuana.
b. No employee shall smoke, consume alcohol or illegal substances while on duty, including lunches and during overtime meals, or on company property.
c. Officers and directors *may* authorize, in advance, the consumption of alcohol for special occasions or for certain business meetings as long as such use is limited and does not violate other legal requirements.
d. No employee shall under any circumstance engage in any work related to the organization under the influence of Alcohol or illegal substances even if consumption is permitted under the exception described above.
e. Employees who violate this smoking and alcohol conduct standard may have their contract terminated.

4. Non- Discrimination

a. Discrimination against any job applicant or employee on the grounds of color, race, religion, age, nationality, sex, marital or family status, ethnic affiliation, pregnancy, sexual orientation, disability, or other reason is prohibited.
b. In certain cases, however, the requirements of safety regulations relating to specific positions/activities within a construction business will take precedence over clause 4(a).

c. We do not employ any person below the legal minimum age (18 years) and will require commitments from suppliers and subcontractors to refrain from such practices
d. Workers are not to undertake any assigned activity for which they do not have necessary competence, training, or certification or that has not been stated in their contract with the Company.
e. Recruitment, job transfer and progression, remuneration and training and award of discretionary bonuses when applicable are determined solely by the application of objective criteria, fair and unprejudiced opinion, personal performance, and merit.
f. Recruitments, transfers, training, maternity leave and standard terms and conditions will be done in accordance within line Sierra Leone Labor laws.
g. Employees who perceive that they have been discriminated against can seek redress through their supervisor, Environmental, Health and Safety Officer, management and/or the Ministry of Labor and Social Welfare

5. Interaction with Community

a. The Company strives to cultivate a local identity in each of its host communities by setting good corporate citizenship standards, while respecting local sensitivities.
b. The Company will regularly contribute to the economic and social development of communities and expects all employees to promote human rights and respectful community involvement anywhere it operates.
c. Employees should comply with the norms, laws, rules, and regulations applicable to the host communities except in cases where they are in conflict with that of Sierra Leonean laws.
d. In a case where an employee perceives that the laws, rules, and regulations of host communities are in conflict with that of the company, employees are to refer such cases to their supervisor, Environment, Health and Safety Officer or manager for further clarification at the Ministry of Labor and Social Security

6. Sexual Harassment

Sexual Harassment would be considered as unwelcome conduct of a sexual nature which makes a person feel offended, humiliated and/or intimidated. It includes situations where a person is asked to engage in sexual activity as a condition of that person's employment, as well as situations which create an environment which is hostile, intimidating or humiliating for the survivor

a. Sexual harassment is unlawful.
b. This company does not tolerate sexual harassment in any form.
c. Every employee has a responsibility to ensure that sexual harassment does not occur.
d. No employee shall under any circumstance sexually engage another either by the use of words or actions. Some acts that may be considered as sexual include:
    - *an unwelcome sexual advance*
    - *a request for sexual favors*
    - *unwelcome comments about someone's sex life or physical appearance*
    - *sexually offensive comments, stories, or jokes*
    - *displaying sexually offensive photos, pinups, or calendars, reading matter or objects*
    - *sexual propositions or continued requests for dates*
    - *physical contact such as touching or fondling, or unnecessary brushing up against someone*
    - *Indecent assault, defilement, or rape (these are criminal offences).*
e. Any employee who believes he or she has been a target/survivor of sexual harassment is encouraged to inform the offending person orally or in writing that such conduct is unwelcome and offensive and must stop or to report the unwelcome conduct as soon as possible to a supervisor, management or the Site Supervisor, FSU representative on the Project Grievance Redress Committee or the nearest FSU of the Sierra Leone Police Force
f. Reports of sexual harassment will be treated promptly, seriously and confidentially.
g. Complainants have the right to determine how a complaint will be treated and knowledge of the outcome of investigations.
h. Anyone found to have sexually harassed another person will be handed over to the Family Support Unit of the Sierra Leone Police Force.
i. No employee will be treated unfairly as a result of making a complaint of sexual harassment. Immediate disciplinary action will be taken against anyone who victimizes or retaliates against someone who has made a complaint of sexual harassment.
j. For the purposes of reporting and dealing with sexual harassment and crimes, the Company will provide a hot line to a management level personnel for reporting cases of sexual abuse and harassment.

k. Rape, defilement and assault cases shall be reported to FSU of the Sierra Leone Police Force by survivor or other employees'

7. Violence or Exploitation

a. No employee shall bear any weapon on site unless he/she has been authorized and have a legitimate business reason to do so. Even so, this will have to be with the permission of the appropriate supervisor, manager and conformity with the laws of Sierra Leone.
b. The company is committed to maintaining a safe and secure workplace and working environment. Acts or threats of physical violence, intimidation, harassment or coercion, stalking, sabotage, and similar activities are not tolerated.
c. Employees who engage in acts or threats of violence, outside of self-defense, shall be dismissed and handed over to the Sierra Leone Police Force.
d. Employees are expected to treat all individuals with respect, tolerance, dignity and without prejudice to create a mutually respectful and positive working environment.

8. Protection of Children

a. As much as possible, employees are to avoid bringing any person under 18 to work on the project site) unless with permission from Environment, Health and Safety Officer.
b. Every employee shall himself be responsible for the safety and wellbeing of any person under age 18 years brought to work by him or her. *Physical contact with children can be misconstrued both by the recipient and by those who observe it and should occur only when completely nonsexual and* otherwise appropriate, and never in private.
c. One-on-one meetings with a child or young person are best held in a public area; in a room where the interaction can be (or is being) observed; or in a room with the door left open, and another employee or supervisor is notified about the meeting.
d. Avoid any covert or overt sexual behaviors with children on site. This includes seductive speech or gestures as well as physical contact that exploits, abuses, or harasses.
e. Employees are to provide safe environments for children and youth at all times on site

9. Sanitation Requirement

a. The company shall provide and maintain sanitary facilities (according to building regulations) for all employees to ensure their total health and safety. All such facilities shall be labelled with inscription in English for the understanding of every employee.
b. Every employee/key expert shall be responsible for the appropriate use of sanitary facilities including toilets, bathrooms and refuse bins/skip containers where provided.
c. No employee shall resort to other inappropriate means of defecation or urination (open defecation or indiscriminate disposal of refuse or urination on the company's compound or project site) apart from what has been prescribed by the company.
d. Any act of indecency with respect to the use of sanitary facilities shall attract punitive actions including suspensions or even dismissals.

10. Avoidance of Conflict of Interest

a. The Company expects that employees will perform their duties conscientiously, honestly, and in accordance with the best interests of the organization.
b. Employees/key experts must not use their positions or the knowledge gained as a result of their positions for private or personal advantage.
c. Regardless of the circumstances, if employees sense that a course of action they have been pursued, or are presently pursuing, or are contemplating pursuing may make it difficult to perform the work objectively, they should immediately communicate all the facts to their supervisor.
d. An Employee or a member of his or her immediate family shall not receive improper personal benefits as a result of his or her position in the Company.
e. Any situation that involves, or may reasonably be expected to involve, a conflict of interest with the Company should be disclosed promptly to supervisors/ managers.

11. Protection and Proper Use of Property

a. All employees unless otherwise directed are responsible for the proper acquisition, use, maintenance and disposal of company assets (e.g., materials, equipment, tools, real property, information, data, intellectual property and funds) and services. Acquisition of assets should be in compliance with procurement standards of the company.

b. Any act of theft, carelessness, and waste on the part of an employee shall attract sanctions including the termination of one's work contract.
c. Every employee shall do their part to protect the company's assets and ensure their efficient use.
d. Unless otherwise permitted by management, Company guidelines and procedures, the appropriation of Company property by employees for personal use, or for resale is strictly prohibited.
e. Similarly, you are not permitted to use your authority over other employees to use Company resources for personal benefit.
f. On termination of and at any other time during your employment when requested you must hand over Company's assets and records stored in whatever format or medium.
g. The Company strictly prohibits any access, usage or disclosure of employees' personal data without legitimate authorization. Employees should note that the Company reserves the right to retrieve their e-mails transmitted via the Company e-mail accounts and to monitor your use of the Internet.
h. Every employee shall use company assets only for legal and ethical activities.

12. Report of Violation of Code of Conduct

a. Employees should promote ethical behavior and encourage other employees to talk to supervisors, managers or other appropriate personnel when in doubt about the best course of action in a particular situation.
b. In order to protect our organization from unethical or illegal activity, it is your duty and obligation at all times to be watchful of the practices that you see occurring around you, to take reasonable steps to prevent or detect improper conduct, and to report any suspicion of fraudulent, abusive, unethical or illegal activity.
c. All reports of misconduct or unethical behavior, conflict of interest, or illegal activity be are to handle such cases as confidential and be treated seriously and discreetly.
d. Employees may report anonymously should that be their preference.
e. In the event of a grievance being raised to a manager relating to discriminatory behaviour or harassment, the manager must notify Human Resources immediately, irrespective of how trivial the complaint may appear.

13. Non-Retaliation

a. The company will not tolerate any act of retaliation against anyone who, in good faith, reports known or suspected unethical or illegal misconduct, seeks

advice, raises a concern, or provides information in an internal or external investigation or legal proceeding pertaining to the company.

b. Allegations of retaliation will be investigated, as appropriate.
c. Acts of retaliation (which may include firing or laying off, demoting, denying overtime or promotion, disciplining, denying benefits, failing to hire or rehire, intimidation or making threats) may lead to disciplinary action against the person responsible for the retaliation, up to and including termination of contract.
d. Any employee who believes he/she has experienced retaliation, should report to his/her supervisor, manager or the Medical Superintendents.
e. Any false accusation of retaliation would attract disciplinary actions even to the extent of termination of contract.

Implementation of Code of Conduct

a. The Environment, Health and Safety Officer of the Contractor will be responsible for implementing and enforcing the Code of Conduct, while monitoring
b. The following measures will be adopted to implement the Code of Conduct:
    - *The Consultant will ensure that all employees/key experts and sub-contractors are given copies of the Code of Conduct for reference.*
    - *All employees on the assignment will be made to sign the Code of Conduct.*

APPENDIX G: STANDARD OPERATING PROCEDURES FOR HEALTH CARE WASTE MANAGEMENT-COVID-19: SIERRA LEONE

Introduction

COVID -19 spreads through direct contact and droplets to an infected person. One way of preventing the spread of the virus is by practicing proper waste management especially from respiratory excreta of the infected person.

There is no evidence that direct, unprotected human contact during the handling of health care waste has resulted in the transmission of the COVID-19 virus. However, all health care waste produced during the care of COVID 19 patients should be collected safely in designated containers and bags, treated, and then safely disposed of or treated, or both, preferably on-site.

The safe handling of waste generated through the care of patients with COVID- 19 is based on three main principles:

1) Segregation, safe containment and packaging of waste should be performed as close as possible to the point of generation.
2) Limit the number of personnel handling generated waste before and after primary containment.
3) Always use appropriate personal protective equipment (PPE) and procedures for handling waste until final treatment and disposal.

Objective of the SoP

The main objective of this SoP is to outline in a concise manner directives to personnel, charged with the responsibility of collecting, storage, transportation and disposal of health care waste to prevent the transmission of COVID -19 emanating from these wastes

SCENARIOS:

SCENARIO 1. Management of COVID-19 WASTE at the quarantine homes, Isolation, laboratory and treatment centres in phases one and two of the outbreak.

SCENARIO 2. Management of COVID-19 health care waste in the event of community spread of the disease.

SCENARIO 1.

A. WHAT NEEDS TREATMENT AND DISPOSAL
   - Respiratory secretion, used masks, paper tissues, gauze and any other materials used during cough and sneezing
   - Disposable needles and syringes and disposable or non-reusable protective clothing
   - Treatment materials and dressings

- Non-reusable gloves
- Laboratory supplies and biological samples
- Used disinfectants

SCENARIO 1.

B. AT COLLECTION POINTS

- Place non-sharps solid waste in the biohazard bag. Bags should not be filled beyond two thirds full to allow safe closure.
- Carefully place sharps waste in appropriate disposable sharps container and close the container. Containers should not be filled beyond three thirds full to allow safe closure.
- Prepare filled bags and sharps containers for onsite inactivation
- Place closed sharps containers in a biohazard bag.
- Close the bag with a method that will not tear or puncture the bag (e.g., tying the neck of bag with a goose-neck knot) and will ensure no leaks.
- Apply disinfectant (wipe or spray) to the outside surface of the closed bag.
- Place the wiped/sprayed closed bag into a second biohazard bag.
- Close the bag with a method that will not tear or puncture the outer bag and will ensure no leaks (e.g., tying the neck of bag with a knot).
- Apply disinfectant (wipe or spray) to the outside surface of the secondary bag.
- Store the disinfected closed bags in a designated area to await removal.
- Follow recommended procedures for disinfecting visibly soiled PPE and taking off PPE.
- The healthcare workers wearing PPE should spray or wipe the outside surfaces of double-bagged waste disinfectant immediately before removing waste from the room.
- Upon removing the double-bagged waste from the patient's room, the healthcare worker should place the double-bagged waste in a designated transport cart (for onsite inactivation or a rigid outer receptacle)
- The designated container should be located at the periphery of the area for taking off PPE so that removal from the area is efficient and does not create a risk of recontamination of the outer container.
- Environmental cleaning personnel removing the waste from the care area should only handle the outer container/transport cart and should never open the container or handle the double-bagged waste.
- For onsite treatment, disinfection personnel wearing appropriate PPE should
- Safely transfer waste in a transport cart to dedicated waste autoclave room or secured storage location or incineration area.

SCENARIO 1.

C. AT DISPOSAL POINTS

Select Site for disposal of COVID- 19 Contaminated solid Waste

- Select a disposal point (incinerator/burning pit) on the health facility grounds
- Disposal point should be fenced
- It should be located away from the normal traffic flow and should be fenced, should have a lockable door, the site should not be in public view or in an area where it will attract crowd

SCENARIO 1.

D. PROCEDURES FOR HANDLING LIQUID WASTE (BODY FLUIDS INCLUDING BLOOD, URINE, VOMIT, FAECES)

- Primary handling of liquid waste should occur in the patient's room and be performed by the primary healthcare workers wearing recommended PPE as designated in the guidance for Isolation, Treatment and Quarantine Facilities.
- Pour waste, avoiding splashing by pouring from a low level, into the toilet.
- Close the lid first, and then flush toilet.
- Clean and disinfect flush handles, toilet seat, and lid surfaces with chlorine
- Discard cleaning cloths in biohazard bags.
- Discard emesis and portable toileting containers as solid waste.
- Follow recommended procedures for disinfecting visibly soiled PPE and removal of PPE.

SCENARIO 1.

E. **ON-SITE TRANSPORTATION**

1) Wear an appropriate set of PPE and heavy duty/rubber gloves and goggles when handling infectious waste.
2) Infectious solid waste should not be transported by hand due to the risk of accident or injury from infectious material or incorrectly disposed sharps.
3) Use a covered trolley or a wheeled bin with a lid to reduce the potential for exposure
4) Collect wastes including sharp containers (puncture resistant safety boxes) from all generating points at least twice a day or when containers are ¾ full or whenever necessary
5) For infectious waste generated in laboratories (e.g. specimens and specimen's containers, pipettes, etc.), pre-treat by autoclaving or chemical disinfection prior to transporting it for final treatment/disposal
6) Start with non- infectious waste followed by infectious waste

7) After each use, all surfaces of the trolleys or bins should be disinfected with 0.5 % chlorine solution
8) Wash hands properly after removing PPE

SCENARIO 1.

G. **TREATMENT OF COVID 19-CONTAMINATED WASTE**

- Wear appropriate PPE
- Recommended Disposal Methods: Disinfect liquid waste (including patient reparatory excreta) with 2% chlorine solution and then dispose of in an isolated latrine or toilet set aside for COVID 19 cases. (NB: Avoid splashing when disposing of liquid infectious waste)
- Burning is the recommended method for disposal of other COVID 19-contaminated waste. Using an incinerator or a pit for burning can make a safe and inexpensive disposal system.
- There should be well trained staff to manage waste generated at Isolation, Treatment and Quarantine Facilities.
- Decontaminate the area in case of spillage around the incinerator/burning pit with 0.5% chlorine solution
- Conduct regular cleanliness, decontamination, maintenance and repairs of the incinerator
- Decontaminate any used receptacles
- Remove ashes from the incinerator and put in the ash pit
- Put a layer of soil on top of ashes
- Wash hands after removal of PPE

SCENARIO 2.

Management of COVID-19 waste at community level

- If the number of positive COVID-19 cases increases and there is evidence of community spread and where there is widespread use of face masks and proper disposal is observed within communities, all households and citizenry should be encouraged to segregate waste at all point of generation.
- Risk communication
- Training and Selection of Youth Groups and waste collectors should be conducted across the country.
- Locally made incinerators should be utilised at the designated dump sites for incineration of used masks and PPEs

APPENDIX H: INFECTION PREVENTION AND CONTROL PROPOTOL

(Adapted from the Centre for Disease Control *Interim Infection Prevention and Control Recommendations for patients with confirmed COVID-19 or persons under investigation for COVID-19 in Healthcare Settings*)

HEALTH CARE SETTINGS

1. **Minimize Chance of Exposure (to staff, other patients, and visitors)**
    - Upon arrival, make sure patients with symptoms of any respiratory infection to a separate, isolated and well-ventilated section of the health care facility to wait, and issue a facemask
    - During the visit, make sure all patients adhere to respiratory hygiene, cough etiquette, hand hygiene and isolation procedures. Provide oral instructions on registration and ongoing reminders with the use of simple signs with images in local languages
    - Provide alcohol-based hand sanitizer (60-95% alcohol), tissues and facemasks in waiting rooms and patient rooms
    - Isolate patients as much as possible. If separate rooms are not available, separate all patients by curtains. Only place together in the same room patients who are all definitively infected with COVID-19. No other patients can be placed in the same room.
2. **Adhere to Standard Precautions**
    - Train all staff and volunteers to undertake standard precautions - assume everyone is potentially infected and behave accordingly
    - Minimize contact between patients and other persons in the facility: health care professionals should be the only persons having contact with patients and this should be restricted to essential personnel only
    - A decision to stop isolation precautions should be made on a case-by-case basis, in conjunction with local health authorities.
3. **Training of Personnel**
    - Train all staff and volunteers in the symptoms of COVID-19, how it is spread and how to protect themselves. Train on correct use and disposal of personal protective equipment (PPE), including gloves, gowns, facemasks, eye protection and respirators (if available) and check that they understand
    - Train cleaning staff on most effective process for cleaning the facility: use a high-alcohol based cleaner to wipe down all surfaces; wash instruments with soap and water and then wipe down with high-alcohol based cleaner; dispose of rubbish by burning etc.
4. **Manage Visitor Access and Movement**
    - Establish procedures for managing, monitoring, and training visitors
    - All visitors must follow respiratory hygiene precautions while in the common areas of the facility, otherwise they should be removed

- Restrict visitors from entering rooms of known or suspected cases of COVID-19 patients Alternative communications should be encouraged, for example by use of mobile phones. Exceptions only for end-of-life situation and children requiring emotional care. At these times, PPE should be used by visitors.
- All visitors should be scheduled and controlled, and once inside the facility, instructed to limit their movement.
- Visitors should be asked to watch out for symptoms and report signs of acute illness for at least 14 days.

CONSTRUCTION SETTINGS IN AREAS OF CONFIRMED CASES OF COVID-19

1. Minimize Chance of Exposure

- Any worker showing symptoms of respiratory illness (fever + cold or cough) and has potentially been exposed to COVID-19 should be immediately removed from the site and tested for the virus at the nearest local hospital
- Close co-workers and those sharing accommodations with such a worker should also be removed from the site and tested
- Project management must identify the closest hospital that has testing facilities in place, refer workers, and pay for the test if it is not free
- Persons under investigation for COVID-19 should not return to work at the project site until cleared by test results. During this time, they should continue to be paid daily wages
- If a worker is found to have COVID-19, wages should continue to be paid during the worker's convalescence (whether at home or in a hospital)
- If project workers live at home, any worker with a family member who has a confirmed or suspected case of COVID-19 should be quarantined from the project site for 14 days, and continued to be paid daily wages, even if they have no symptoms.

2. Training of Staff and Precautions

- Train all staff in the signs and symptoms of COVID-19, how it is spread, how to protect themselves and the need to be tested if they have symptoms. Allow Q&A and dispel any myths.
- Use existing grievance procedures to encourage reporting of co-workers if they show outward symptoms, such as ongoing and severe coughing with fever, and do not voluntarily submit to testing
- Supply face masks and other relevant PPE to all project workers at the entrance to the project site. Any persons with signs of respiratory illness that is not accompanied by fever should be mandated to wear a face mask
- Provide hand washing facilities, hand soap, alcohol-based hand sanitizer and mandate their use on entry and exit of the project site and during breaks, via the use of simple signs with images in local languages

- Train all workers in respiratory hygiene, cough etiquette and hand hygiene using demonstrations and participatory methods
- Train cleaning staff in effective cleaning procedures and disposal of rubbish

3. Managing Access and Spread

- Should a case of COVID-19 be confirmed in a worker on the project site, visitors should be restricted from the site and worker groups should be isolated from each other as much as possible
- Extensive cleaning procedures with high-alcohol content cleaners should be undertaken in the area of the site where the worker was present, prior to any further work being undertaken in that area.

APPENDIX I: GRIEVANCE REDRESS FORM

GRIEVANCE REGISTRATION FORM (FORM A) – For Complainant

Confidentiality Required: Yes ☐ No: ☐

Name (Complainant) Optional:.....

Contact Information (house number/ mobile phone):.....

Nature of Grievance or Complaint:.....

Details of Grievance:.....

.....

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Name (Receiver):..... Signature:..... Date:.....

Name (Filer):..... Signature:..... Date:.....

Relationship of Filer to Complainant (if different from Complainant):

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