



ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

FOR

**VACCINE ADDITIONAL FUNDING FOR THE RWANDA COVID-19 EMERGENCY
RESPONSE PROJECT**

(P178282)

JANUARY 2022

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EXECUTIVE SUMMARY

Third Vaccine Additional Funding for the Rwanda COVID-19 Emergency Response Project

The Rwanda COVID-19 Emergency Response Project (US\$14.25 million, P173855) was approved on April 7, 2020 and became effective on April 20, 2020. The project aims to strengthen the Government of Rwanda's capacity to be prepared to respond to the COVID-19 outbreak and delivered at record speed to support the government to prevent, detect and respond to the threat posed by the pandemic and strengthen national systems for public health preparedness. Two additional financing projects have been subsequently approved. The first Additional Financing (P175252) of US\$0.94 million, financed from the insurance window of the Pandemic Emergency Financing Facility (PEF), to support procurement of test kits, was approved on November 30, 2020 with the funds fully utilized by February 28, 2021. The second Additional Financing (P176304) of US\$45 million, financed from IDA Credit (US\$15 million), IDA Grant (US\$15 million) and GFF Grant Funds (US\$15 million), was approved on April 16, 2021. The AF would be part of the COVID19 Strategic Preparedness and Response Program (SPRP) using the Multiphase Programmatic Approach (MPA), approved by the Board on April 2, 2020, and the vaccines AF to the SPRP approved on October 13, 2020.

The project has contributed to the implementation of important health measures to curb the spread of the virus, such as risk communication and community engagement including carrying social distancing, face mask wearing, hand washing, and isolation of presumed cases; means to strengthen contact tracing, enhanced testing, case management, program coordination, management and monitoring; and recently, the roll out of COVID-19 vaccines. A total of US\$40 million representing 61% of the total WB financed COVID-19 Operation (US\$60.18 million has been made available for the implementation of the project work plan through disbursements to RBC or through direct payment to the Government clients/partners for the payment of health products and supplies. Of this, US\$24.85 million (83% of the US\$30 million provided as Additional Financing for COVID-19 vaccines deployment) have been so far disbursed mainly for the payment of vaccines. The share of the budget allocated to vaccines increased from US\$18.6 million (62% of vaccine deployment operation) to US\$24.7 million (82.4% of total cost). According to the initial design, the project was to cover vaccines for 10% of the population. However, during the implementation the government requested to allocate more on vaccines doses. Consequently, the Project will cover up to 14% of the population.

Third Vaccine Additional Financing

The parent project with the PDO “to prevent, detect and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness in Rwanda” and its four components have remained unchanged as shown below. The proposed third AF will be directed to Component 2. It will support Vaccine Procurement; Vaccine Deployment; Vaccine Communications; as well as Health Systems Strengthening subcomponents. No new activities are propose in components 1 and 3.

Component 1. Case Detection, Confirmation and Contact Tracing - This component supports the government to enhance disease surveillance, improve sample collection and ensure rapid laboratory confirmed diagnoses to promptly detect all potential COVID-19 cases and carry out contact tracing to quickly contain COVID-19. This component will continue focusing on: (i) screening travelers at 31 Ports of Entry as well as priority communities and targeted health facilities; (ii) diagnosing cases and referring them for treatment; (iii) carrying out contact tracing to minimize risk of transmission; (vi) conducting risk assessments to identify hot spot areas of transmission; and (v) carrying out multi-sectoral simulation exercises for COVID-19 and other disease outbreaks. Technical assistance and operating costs will continue to be funded for disease surveillance activities to monitor the impact of the vaccination program and make corrections during implementation. ***No new activities are proposed under this component.***

Component 2: Public Health Measures and Clinical Care Capacity - This component supports the reinforcement of public health measures and establishment of critical clinical care capacity at a network of

public sector district hospitals. Continuing activities under this component include vaccine deployment, vaccine communication campaign and screening high-risk groups.

Proposed New Activities under Component 2 entail the following:

- Vaccine Procurement and deployment¹ (US\$54.65 million) and Health Systems Strengthening (US\$6.61 million). The Project will include **retroactive and perspective financing** to help the government purchase and deploy COVID-19 vaccines that meet the Bank's vaccine approval criteria (VAC).
- Reallocation of pre-existing funds within Component 2. A total of US\$5.98 million will be reallocated to cover the gap on funding of the bilateral agreement signed between the manufacturer (Pfizer) and the client, as well on the Framework Agreement signed between Gavi and the client under the AMC cost sharing arrangement. Granular detail of the new activities that will increase development effectiveness and the impact of COVID-19 response will be discussed during appraisal.

Component 3. Program/Project Implementation and Monitoring & Evaluation - The third component supports program coordination, management and monitoring; operational support and logistics; and project management. This component will continue focusing on: support for the COVID-19 Incident Management System Coordination Structure; operational reviews to assess implementation progress and adjust operational plans; and provide logistical support. Technical assistance and operating costs will continue to be funded for COVID-19 vaccination specific M&E and surveillance strengthening will continue, including: (i) monitoring coverage, effectiveness and safety; and (ii) providing vaccination certificates to all people vaccinated. ***No new activities are proposed under this component.***

Component 4. Contingent Emergency Response Component (CERC) (US\$.0)

The Contingent Emergency Response Component CERC is a zero cost component that will provide support in case of future emergency responses. As stipulated in the Environmental and Social Commitment Plan (ESCP), a CERC Manual shall be prepared that includes a description of the Environmental, Health and Safety (ESHS) assessment and management arrangements for its implementation in accordance with the World Bank Environmental and Social Standards (ESSs). The project shall also prepare, disclose, consult and adopt any environmental and social (E&S) management plans or instruments which may be required for activities under the CERC, in accordance with the CERC Manual, the Emergency Action Plan and the ESSs, and thereafter implement the measures and actions required under said E&S management plans or instruments, within the timeframes specified in said E&S management plans or instruments. ***No new activities are proposed under this component.***

Component 5. Protecting Essential Health Services - (US\$15 Mill, GFF Grant) to minimize the risk of further disruptions in essential health services, the AF will strengthen and protect essential health and nutrition services which remain vulnerable to shocks during the ongoing pandemic. To this end, the grant would include support for the following activities: (i) conducting outreach activities and catch up campaigns, especially for immunization and reproductive, maternal and child health services; (ii) providing nutrition commodities to prevent an exacerbation of stunting, and expand coverage; (iii) reducing bottlenecks faced by patients and providers by organizing transport systems to ensure safe and timely access; (iv) incentivizing eligible CHWs to play a pivotal role in enhancing awareness, mobilizing the population, and conducting basic screening for both RMNCH and COVID-19; (v) building capacity of health providers and CHWs to use innovative technologies and approaches for delivering essential health services; (vi) testing a new multi-disciplinary competence-based approach to the delivery of services by CHWs; (vii) strengthening the health resources tracking system and promote interoperability for improved data visualization and analytics and enhanced data for decision making, including Geographical

¹including syringes, supplies and in-country logistics

Information system (GIS) tools; (viii) screening for chronic conditions (such as hypertension and diabetes) using innovative strategies that leverage maternal, reproductive, and child health services, including during community mobilization campaigns; couple screening during antenatal care visits or pre-conception care visits; and/or workplace programs; and (ix) performing periodic monitoring of the impact of COVID-19 on essential health and nutrition services and institutionalize the production of monthly and quarterly reporting. *No new activities are proposed under this component.*

Environmental and Social Risk Management

The Project is classified according to the World Bank Environmental and Social Risk Classification as Substantial risk based on the activities' type, location, sensitivity, scale, and nature, magnitude of potential risks and capacity of the implementing entity and commitment of the Government of Rwanda. The latest ISR of Nov 3, 2021 rated the Overall ESS Performance as Substantial. The Rwanda Biomedical Centre (RBC) has implemented all agreed Environmental and Social (ES) follow-up actions including the assessment of waste streams.

A healthcare waste stream status report was prepared featuring medical waste types, volumes, transportation arrangements and disposal methods as well as availability or lack of wastewater treatment facilities. The information included the state of third-party commercial and hospital owned incineration services from monitoring data of the Rwanda Environment Management Authority (REMA) that is responsible for their operational regulations and pollution management. The report indicates that medical waste from all public healthcare facilities in the City of Kigali is treated in a third-party commercial incineration facility at Mageragere while COVID-19 related waste is incinerated by the same third-party operator at Gatsata both located within the city's jurisdiction. The healthcare waste stream status report makes the following observations: (i) Infectious and sharps waste is produced in large quantities and essentially needs incineration for appropriate disposal; (ii) REMA indicates that the majority of hospitals incinerators in the country (29 of 31) are in working order; (iii) Medical waste generated in state owned health facilities in the City of Kigali is transferred to third-party commercial incineration services; (iv) Cost generally limits the utilization of incineration services; (v) Health facilities resort to burning of medical waste; (vi) Cost of maintenance limits the proper functioning of incinerators; and (vii) Health Centers deploy inappropriate transportation of medical waste to hospital incinerators (mostly motorcycle services). The report recommends further research to gain an understanding of reasons for the observed differences in types and quantities of medical waste generated in healthcare facilities. Further research should also explore innovations to overcome medical waste transportation challenges in resource-poor healthcare facilities, based on homegrown solutions (e.g. based on electric-motorcycle transport); as well as exploring sustainable cost-recovery mechanisms in the currently costly incinerations services. The Health Systems Strengthening of the Project includes the installation of a solar PhotoVoltaics (PVs) system at the recently constructed treatment center for emerging infectious diseases (including COVID-19). The PVs installation will contribute to the off-setting of Rwanda's greenhouse gas emissions produced by thermal electricity generation from Heavy Fuel Oil (diesel) currently at 27% of the national energy generation mix.

A grievance registration and resolution mechanism has been established at Health Centers (HCs) and District Hospitals (DHs). Grievances are handled by existing and operational Health and Safety Committees at health care facility (HCF) level under the supervision of a Health Facility Specialist in the Ministry of Health (MoH) at national level. The Health and Safety Committee Structure comprises a Chairperson, Focal Person, Committee Secretary and committee members appointed from both Referral/District and HC staff for each level. The HCF Specialist monitors the work of Health and Safety Committees through regular reviews of HCF "Incident Reporting Forms" in lieu and reports on grievance and resolutions taken. While no grievances have so far arisen in the Rwanda Covid-19 ERP, the WB team emphasized the importance of reporting and following up on grievances expeditiously as they arise. The RBC will share with the WB a summary of grievances received through the existing mechanism as part of the progress reporting mechanism. Environmental Health Officers (EHOs) at DHs and Community Environmental Health Officers (CEHOs) at HCs were trained in ES risk management in effective implementation of GRMs.

The proposed third AF will be directed to Component 2 to support Vaccine Procurement scaling up cold chain equipment, medical supplies and consumables (e.g. PPEs, syringes and safety boxes, vaccine sharp disposal containers); Vaccine Deployment; Vaccine Communications; as well as Health Systems Strengthening subcomponents. The latter subcomponent will include the installation of a solar PVs system at the treatment center for emerging infectious diseases (including COVID-19). Under the third AF, increased medical waste due to testing and treatment of COVID-19 cases will generate biological waste and hazardous bi-products. Inadequate adherence to occupational health and safety standards can lead to illness and death among healthcare workers. Furthermore, the facilities to be supported by the project may cause potential harm of serious illness to the laboratory staff and to the community. The Systematic Operations Risk-Rating Tool (SORT) therefore rates the project E&S risks as Substantial.

The potential adverse environmental, health and safety risks and negative impacts associated with the COVID-19 vaccination campaign and related health system strengthening activities include: Adverse Events Following Immunization (AEFIs) which may be caused by the vaccine or by an error in the administration or handling of the vaccine; Unsafe injection practices that can result in disease transmission; Inappropriate collection, transportation and disposal of medical waste; COVID-19 infections due to inadequate adherence to occupational health and safety standards that can lead to illness among healthcare workers; and Shortcomings in the cold chain system that could compromise the potency of the vaccines.

All parent project activities and activities proposed under this third AF will meet the requirements of relevant Environmental and Social Standards (ESSs) of the World Bank. This revised ESMF is in line with WHO provisions “Guidance on developing a national deployment and vaccination plan for COVID-19 vaccines. Geneva: World Health Organization (WHO/2019-nCoV/NDVP/2020). The Project is designed to be environmentally and socially sound in order to prevent, avoid, mitigate or compensate direct, indirect, cumulative environmental and social impacts.

The following ESSs are relevant to the implementation of the Rwanda COVID-19 ERP and its Vaccine AFs:

ESS1: Assessment and Management of Environmental and Social Risks and Impacts,
ESS2: Labor and Working Conditions,
ESS3: Resource Efficiency and Pollution Prevention and Management,
ESS4: Community Health and Safety,
ESS8: Cultural Heritage, and
ESS10: Stakeholder Engagement and Information Disclosure.

Based on the requirements of these ESSs the following ESF documents were prepared, consulted on and disclosed for the parent project:

- Environmental and Social Commitment Plan (ESCP)
- ESMF (with integrated LMP): Environmental and Social Framework (this document revised with AF considerations)
- SEP: Stakeholders Engagement Plan

The Environmental and Social Commitment Plan (ESCP) was updated for this third Vaccine AF of the Rwanda COVID-19 ERP and sets out measures and actions that the project would institute to meet ESSs requirements.

This Environmental and Social Management Framework (ESMF) is intended to guide the RBC Single Project Implementation Unit (SPIU) as the project implementation team and project component activity proponents on the required Environmental and Social screening and subsequent project component activity assessment during implementation, including component activity-specific plans in the emergency nature of the project including the Vaccine AF.

A Stakeholder Engagement Plan (SEP) was developed in accordance with the requirements of ESS10 to ensure all Project stakeholders are adequately engaged in all stages of Project activities. The Stakeholder Engagement Plan provides for identification, means and methods applied to approach and engage each group into the Project activities. Continuous consultation and monitoring at all levels will be done during the entire project implementation period. A Grievance Redress Mechanisms (GRM) as prescribed by the ESS10 has also been included in this ESMF (with an integrated Labor Management Plan) and Stakeholder Engagement Plan to ensure all Project stakeholders' grievances are heard and addressed in accordance to the laid down procedures. Capacity building is planned to address capacity constraints at all levels to ensure environmental and social issues are properly managed during planning, design and implementation of the Project.

Vaccine Additional Funding for the Rwanda COVID-19 Emergency Response Project

1. Introduction

The World Bank provided support to the Government of Rwanda (GoR) for preparedness planning to provide optimal medical care, maintain essential health services and to minimize risks for patients and health personnel (including training health facilities staff and front-line workers on risk mitigation measures and providing them with the appropriate protective equipment and hygiene materials). As COVID-19 places a substantial burden on inpatient and outpatient health care services, support is provided for a number of different activities, all aimed at strengthening national health care systems, including systems for the deployment of a safe and effective vaccine.

This ESMF includes templates for the *Environmental and Social Management Plan (ESMP)* (Annex III) and the *Infection Control and Waste Management Plan (ICWMP)* (Annex IV). The ESMP template identifies potential environmental, social, health and safety issues associated with the construction and operation of healthcare facilities in response to COVID-19. The ICWMP template focuses on infection control and healthcare waste management practices during the operation of healthcare facilities. The ESMP and ICWMP should set out appropriate measures for infection control and waste management during operation of the relevant healthcare facility.

Other ESF instruments include a separate Stakeholder Engagement Plan (SEP) of the Rwanda COVID-19 ERP that has been revised for Vaccine AFs. Required updates have been made on the Labor Management Procedures (LMP) that is an integral part of this ESMF in Section 7.4 as well as a description of the national Medical Waste Management Plan and its implementation arrangements in Section 4.3.

1.1. Background

In March 2020, the World Health Organization (WHO) declared the ongoing coronavirus outbreak a global pandemic with the outbreak spiraling out of control and putting strains on health systems across several continents. Rwanda reported the first case of COVID-19 on 14 March 2020 when the government moved swiftly to put in place measures to minimize infection cases and fatalities.

The government of Rwanda has demonstrated high-level leadership and taken swift action to tackle the risks associated with the ongoing pandemic and bend the curb on COVID-19. The Rwanda Biomedical Centre (RBC) information of Jan 17, 2021 indicated 125,568 confirmed cases, 45,522 recoveries (36%) and 1,411 fatalities, a rate of 1.1%. Similar to other countries, males are disproportionately affected by COVID-19 and represent over 60 percent of total confirmed cases compared with the WHO global statistics of the same date that indicated confirmed cases at almost 331million with over 5.55million deaths. The effort to contain the potential spread of COVID-19 is led by the Office of the Prime Minister under the National Epidemic Preparedness & Response Coordination Committee (NEPRCC), in collaboration with the Ministry of Health, Ministry of Local Government and Ministry of Foreign Affairs.

1.2. Rationale of the ESMF

The parent project involved minor civil works to refurbish and/or rehabilitate existing structures and adapt them as COVID-19 isolation units. The refurbishments would re-equip isolation units at national and district hospitals established for other infectious diseases to make efficient use and include triaging and treating COVID-19 cases. Project works included installation of medical and laboratory equipment and supplies as well as waste management equipment and supplies. Video conferencing equipment would be installed for telemedicine.

This Environmental and Social Management Framework (ESMF) for the parent project assessed all issues in broad terms and identified potential impacts and possible mitigation measures that would guide project component or sub-project screening and in determining whether or not any further assessment is required. ES screening results determine whether or not there is a need to procure and commission site specific Environment and Social Impact Assessments (ESIAs). These documents are required to guide compliance of the Vaccine AF with the relevant laws and regulations of Rwanda and the World Bank Environment and Social Framework (ESF).

1.3. Purpose of the ESMF

The purpose of this ESMF is to guide the RBC Single Project Implementation Unit (SPIU) as the project implementation team and project component activity proponents on the ES screening and subsequent project component activity assessment during implementation, including component activity-specific plans in the emergency nature of the project including the Vaccine AF.

1.4. Scope of the ESMF

The ESMF for the parent project was prepared in accordance to applicable Rwanda environmental assessment law and regulations and the World Bank ESF. The preparation process involved the following steps and have also been applied to this ESMF version for the Vaccine AF:

- a) Desktop research on the biophysical and social baseline and the state of emergence response for COVID-19 risks within the project coverage;
- b) Only minimal consultations public authorities and health experts were held on the parent project ESMF because of the restrictions imposed by the COVID-19 pandemic. Most of these limitations are expected to remain in place until the vaccinations roll out is completed;
- c) Development of screening procedure for negative environmental and social impacts for proposed project sites and project activities;
- d) Identification of appropriate mitigation measures for the predicted impacts and compilation of a management plan for addressing environmental and social impacts during implementation, operation and maintenance of the project activities and;
- e) Development of guidance for sub-project level Environmental and Social Management Plans and Infection Control and Waste Management Plans.

2. Project Description

2.1. Rwanda COVID-19 ERP

The Rwanda COVID-19 Emergency Response Project (US\$14.25 million, P173855) was approved on April 7, 2020 and became effective on April 20, 2020. The project aims to strengthen the Government of Rwanda's capacity to be prepared to respond to the COVID-19 outbreak and delivered at record speed to support the government to prevent, detect and respond to the threat posed by the pandemic and strengthen national systems for public health preparedness. Two additional financing projects have been subsequently approved. The first Additional Financing (P175252) of US\$0.94 million, financed from the insurance window of the Pandemic Emergency Financing Facility (PEF), to support procurement of test kits, was approved on November 30, 2020 with the funds fully utilized by February 28, 2021. The second Additional Financing (P176304) of US\$45 million, financed from IDA Credit (US\$15 million), IDA Grant (US\$15 million) and GFF Grant Funds (US\$15 million), was approved on April 16, 2021. The AF would be part of the COVID19 Strategic Preparedness and Response Program (SPRP) using the Multiphase Programmatic Approach (MPA), approved by the Board on April 2, 2020, and the vaccines AF to the SPRP approved on October 13, 2020.

The project has contributed to the implementation of important health measures to curb the spread of the virus, such as risk communication and community engagement including carrying social distancing, face mask wearing, hand washing, and isolation of presumed cases; means to strengthen contact tracing, enhanced testing, case management, program coordination, management and monitoring; and recently, the roll out of COVID-19 vaccines. A total of US\$40 million representing 61% of the total WB financed COVID-19 Operation (US\$60.18 million has been made available for the implementation of the project work plan through disbursements to RBC or through direct payment to the Government clients/partners for the payment of health products and supplies. Of this, US\$24.85 million (83% of the US\$30 million provided as Additional Financing for COVID-19 vaccines deployment) have been so far disbursed mainly for the payment of vaccines. The share of the budget allocated to vaccines increased from US\$18.6 million (62% of vaccine deployment operation) to US\$24.7 million (82.4% of total cost). According to the initial design, the project was to cover vaccines for 10% of the population. However, during the implementation the government requested to allocate more on vaccines doses. Consequently, the Project will cover up to 14% of the population.

Implementation during pandemic has proved challenging but with the GoR commitment, it has been possible to move ahead the measures for prevention, provision of care and the NVDP with the introduction and deployment of a new vaccine. Particularly challenging has been the collection of data and therefore the reporting data under the Project's umbrella. These indicators will be revised and adjusted during appraisal.

2.2. Vaccine Additional Financing

The parent project with the PDO "to prevent, detect and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness in Rwanda" and its four components have remained unchanged as shown below. The proposed third AF will be directed to Component 2. It will support Vaccine Procurement; Vaccine Deployment; Vaccine Communications; as well as Health Systems Strengthening subcomponents. No new activities are propose in components 1 and 3.

Component 1. Case Detection, Confirmation and Contact Tracing - This component supports the government to enhance disease surveillance, improve sample collection and ensure rapid laboratory confirmed diagnoses to promptly detect all potential COVID-19 cases and carry out contact tracing to quickly contain COVID-19.

- ***Continuation:***

The focus will continue to be on: (i) screening travelers at 31 Ports of Entry as well as priority communities and targeted health facilities; (ii) diagnosing cases and referring them for treatment; (iii) carrying out contact

tracing to minimize risk of transmission; (vi) conducting risk assessments to identify hot spot areas of transmission; and (v) carrying out multi-sectoral simulation exercises for COVID-19 and other disease outbreaks. Technical assistance and operating costs will continue to be funded to conducting disease surveillance activities to monitor the impact of the vaccination program and make corrections during implementation.

- ***No new activities under this component.***

Component 2: Public Health Measures and Clinical Care Capacity - This component supports the reinforcement of public health measures and establishment of critical clinical care capacity at a network of public sector district hospitals.

- ***Continuation:***

The main public health policies to be enforced include social distancing measures; personal hygiene promotion; and risk communication to disseminate messages about the risks associated with COVID-19. Clinical care and isolation capacity is being strengthened at select national and district hospitals responsible for triaging and treating COVID-19 cases to ensure health personnel are well protected and work in a safe environment.

Vaccine deployment will continue, including: procurement support for vaccines; cold chain equipment; vehicles; medical supplies and consumables (e.g. PPE, syringes and safety boxes, vaccine sharp disposal containers); technical assistance; and operating costs.

Vaccine communication campaign will continue, to ensure acceptance and uptake, and take into account lessons learned from Rwanda's pioneer work on the HPV and Ebola vaccine, through support to the Rwanda Health Communication Center to: (i) conduct communication campaigns which are well targeted to increase awareness, foster demand, and address hesitancy through mass media, radio, social media and outreach; (ii) track and monitor correct knowledge of COVID-19 vaccination, and identify views, perceptions, attitudes in order to continually improve implementation strategies and tailor communications; and (iii) facilitate citizen engagement mechanisms for feedback and grievance redressal. To this end, the AF will fund technical assistance; and operating costs.

Screening high-risk groups will continue, to maximize the impact of the COVID-19 vaccination program, it will be critical to identify and reach individuals living with NCDs, as a sizable proportion are not aware of their condition(s) and go undiagnosed including: (i) conducting community sensitization and mobilization to encourage people to be screened and vaccinated; (ii) screening for hypertension and diabetes (two key NCDs) which together affect over one-third of the population; and (iii) referral and initial treatment for these conditions. To this end, the AF will fund: equipment, drugs and supplies; staff training; and operating costs.

Oxygen therapy will continue to be made available, given the mutation of the virus in into variants of unpredictable behaviors and impacts entailing: (i) procurement of basic respiratory therapy equipment and supplies (i.e. oxygen cylinders and concentrators, pulse oximeters, patient monitors, and additional ventilators) for district hospitals located in remote, rural areas and medicalized health centers operating in high population density locations; and (ii) related training. The AF will fund equipment and supplies and staff training.

- ***Proposed New Activities:***

- a. **Component 2 will increase from US\$37.25 million to US\$69.25 million**, including Vaccine Procurement and deployment ² (US\$54.65 million) and Health Systems Strengthening (US\$6.61 million). The Project will include **retroactive and perspective**

²including syringes, supplies and in-country logistics

financing to help the government purchase and deploy COVID-19 vaccines that meet the Bank's vaccine approval criteria (VAC).

- b. **Reallocation of pre-existing funds within Component 2.** A total of US\$5.98 million will be reallocated to cover the gap on funding of the bilateral agreement signed between the manufacturer (Pfizer) and the client, as well on the Framework Agreement signed between Gavi and the client under the AMC cost sharing arrangement. Granular detail of the new activities that will increase development effectiveness and the impact of COVID-19 response will be discussed during appraisal.

Component 3. Program/Project Implementation and Monitoring & Evaluation - The third component supports program coordination, management and monitoring; operational support and logistics; and project management.

- **Continuation:**

This includes support for the COVID-19 Incident Management System Coordination Structure; operational reviews to assess implementation progress and adjust operational plans; and provide logistical support. Technical assistance and operating costs will continue to be funded for COVID-19 vaccination specific M&E and surveillance strengthening will continue, including: (i) monitoring coverage, effectiveness and safety; and (ii) providing vaccination certificates to all people vaccinated.

- **No new activities under this component.**

Component 4. Contingent Emergency Response Component (CERC) (US\$.0)

The Contingent Emergency Response Component CERC is a zero cost component that will provide support in case of future emergency responses. As stipulated in the Environmental and Social Commitment Plan (ESCP), a CERC Manual shall be prepared that includes a description of the Environmental, Health and Safety (ESHS) assessment and management arrangements for its implementation in accordance with the World Bank Environmental and Social Standards (ESSs). The project shall also prepare, disclose, consult and adopt any environmental and social (E&S) management plans or instruments which may be required for activities under the CERC, in accordance with the CERC Manual, the Emergency Action Plan and the ESSs, and thereafter implement the measures and actions required under said E&S management plans or instruments, within the timeframes specified in said E&S management plans or instruments.

Component 5. Protecting Essential Health Services - (US\$15 Mill, GFF Grant) to minimize the risk of further disruptions in essential health services, the AF will strengthen and protect essential health and nutrition services which remain vulnerable to shocks during the ongoing pandemic.

- **Continuation:**

The grant will continue to support for the following activities: (i) conducting outreach activities and catch up campaigns, especially for immunization and reproductive, maternal and child health services; (ii) providing nutrition commodities to prevent an exacerbation of stunting, and expand coverage; (iii) reducing bottlenecks faced by patients and providers by organizing transport systems to ensure safe and timely access; (iv) incentivizing eligible CHWs to play a pivotal role in enhancing awareness, mobilizing the population, and conducting basic screening for both RMNCH and COVID-19; (v) building capacity of health providers and CHWs to use innovative technologies and approaches for delivering essential health services; (vi) testing a new multi-disciplinary competence-based approach to the delivery of services by CHWs; (vii) strengthening the health resources tracking system and promote interoperability for improved data visualization and analytics and enhanced data for decision making, including Geographical Information system (GIS) tools; (viii) screening for chronic conditions (such as hypertension and diabetes) using innovative strategies that leverage maternal, reproductive, and child health services, including during community mobilization campaigns; couple screening during antenatal care visits or pre-conception care

visits; and/or workplace programs; and (ix) performing periodic monitoring of the impact of COVID-19 on essential health and nutrition services and institutionalize the production of monthly and quarterly reporting.

- **No new activities are proposed under this component.**

2.3. Eligibility criteria for exclusion of subprojects

The proposed third Vaccine AF activities will undergo eligibility criteria for investment or exclusion according to criteria based on the ESCP for the Vaccine AF as presented in questionnaire format in Table 1. The RBC SPIU will fill-in the Table 1 questionnaire in order to determine eligibility of proposed subprojects for ERP support. If the answer to any one of the questions in Table 1 is ‘Yes’, then the subproject will be redesigned to be acceptable according to relevant ESSs or excluded if redesigning is not possible. If on the contrary the answer is ‘No’ for all the above questions, then the subproject will proceed to Environmental and Social Screening (see Annex II for reference).

Table 1 Rwanda COVID-19 eligibility criteria questionnaire for subproject/activity exclusion

| Subproject eligibility exclusion criteria question | Yes | No |
|--|-----|----|
| 1. Will the subproject involve activities that may cause long term, permanent and/or irreversible (e.g. loss of major natural habitat) impacts? | | |
| 2. Will the subproject involve activities that have high probability of causing serious adverse effects to human health and/or the environment other than during treatment of COVID19 cases? | | |
| 3. Will the subproject involve activities that may have significant adverse social impacts and may give rise to significant social conflict? | | |
| 4. Will the subproject involve activities that may affect lands or rights of historically marginalized people or other vulnerable minorities? | | |
| 5. Will the subproject activities likely to involve permanent resettlement or land acquisition or impacts on cultural heritage? | | |
| 6. Has subproject activity been prohibited in the ESMF for Vaccine Additional Funding? | | |

2.4. Environmental and Social Screening of Subprojects

The screening process provides a mechanism for ensuring that potential adverse environmental and social impacts of the ERP subprojects and its Vaccine AF are identified, assessed and mitigated as appropriate to comply with the Environmental assessment requirements are outlined in Rwanda’s Law N°48/2018 on Environment and in the World Bank’s Environmental and Social Standards, especially ESS1, ESS2, ESS3, ESS4, ESS6, ESS8, ESS10. Subproject in the context of the Rwanda COVID-19 ERP are project activities procured under a contract. Subproject ES measures therefore apply to HCF where investments have been made. However, subproject ES measures apply to central level procurement of equipment and prioritization and communication campaign services related to the COVID-19 vaccine deployment and uptake.

Under the parent project, the MoH/RBC-SPIU purchases ERP medical supplies and equipment through the Africa Medical Supplies Platform (AMSP). The AMSP is a “not-for-profit” initiative launched by the African Union as an immediate, integrated and practical response to the Covid-19 pandemic. The practice fulfils applicable screening requirements for the purchase of medical supplies and equipment subproject by establishing due diligence for all potential suppliers to guarantee quality equipment and products. The Platform ensures purchase of certified medical equipment such as diagnostic kits, PPE and clinical management devices with increased cost effectiveness and transparency from vetted manufacturers. MoH/RBC-SPIU will ensure that manufacturers of the equipment are credible, and all devices have a clear date of manufacture and warranty.

The country has been receiving vaccines from different sources and mechanisms, including COVAX fully funded doses and specific country donations, COVAX Advance Market Commitment (AMC)-Cost Sharing arrangement, donations from specific countries under bilateral cooperation, as well as African Vaccines Acquisition Trust (AVAT). Rwanda is among countries participating in COVID-19 Vaccines Global Access (COVAX) Facility to ensure it has access to the COVID-19 vaccines once they are available. COVAX was established under the facilitation of WHO, to accelerate the development and manufacture of COVID-19 vaccines, and to guarantee fair and equitable access for every country in the world. The country has acquired cold chain and ultra-cold chain equipment for COVID-19 vaccine through the Gavi³-Cold Chain Equipment Optimization Platform (CCEOP) project. Similar to the AMSP arrangement, this partnership fulfills the screening requirements for the integrity of the vaccine supply chain.

A screening template is provided in Annex II to be used by the RBC SPIU for identifying the relevant Environmental and Social Standards (ESS) (1-10), establishing an appropriate ES risk rating for these subprojects and specifying the type of environmental and social assessment required, including specific instruments/plans. The screening template in Annex II includes a note on Considerations and Tools for ES Screening and Risk Rating on infection control for medical laboratories, quarantine and isolation centers; treatment centers and labor and working conditions.

The screening form sets out a list of questions on the screening of ES risks and impacts, identifies the relevant ESSs for which the PIU fills in Yes or No answers from which conclusions are reached for each subproject proposing an ES risk rating (High, Substantial, Moderate or Low) with justifications provided and ES Management Plans/ Instruments proposed. Additional questions relevant to the Vaccine AF have been added in the screening form relating to potential impacts of climate change or extreme weather and to the potential risk that disadvantaged and vulnerable groups may have inequitable access to vaccination benefits. Subproject screening results are reviewed by the Rwanda Development Board (RDB) which holds a delegated mandate from the Rwanda Environment Management Authority (REMA) and the World Bank. ES instruments such as ESIA/ESMP, SEP, LMP and/or RAP are as appropriate prescribed for subprojects to ensure appropriate mitigation for subprojects whose risk ratings are indicated High, Substantial or Moderate by the screening results. Subprojects whose risk ratings are indicated as Low, ESMPs instead of a full ESIA will be recommended. ES instruments are prepared by authorized consultants according to Article 31 of law n°36/2016 of 08/09/2016 establishing Rwanda Association of Professional Environmental Practitioners and determining its organization and functioning. The RBC-SPIU recruits consultants to prepare the required ES instruments from ERP funds as necessary. RDB will review the ES instruments to ensure that the necessary mitigation measures are duly incorporated before certification for the subproject in question to proceed. This procedure is upheld for the Vaccine AF.

³ Global Alliance for Vaccines and Immunization (Gavi) is a public-private global health partnership with the goal of increasing access to immunization in poor countries, that brings together developing country and donor governments, the World Health Organization, UNICEF, the World Bank, the vaccine industry in both industrialized and developing countries, research and technical agencies, civil society, the Bill & Melinda Gates Foundation and other private philanthropists.

3. Policy, Legal and Regulatory Framework

This Chapter discusses the key national legislation and regulatory framework that are directly relevant to the activities to be carried out by the Rwanda COVID-19 ERP and its Vaccine AFs. ESSs and the WBG Environment Health and Safety Guidelines (EHS Guidelines) relevant to the project are discussed. The chapter also describes international and regional conventions to which Rwanda is signatory as well as Good International Industry Practice (GIIP), with special attention to the WHO developed guidance documents for addressing COVID-19.

3.1. National Environmental Legislation and Regulatory Framework

Key environmental and other legislation and regulations and their applicability to the Rwanda COVID-19 ERP and its Vaccine AF activities are summarized in Table 2 below.

Table 2 Key policy, legislation and regulations relevant to the Rwanda COVID-19 ERP and its AFs

| Policy/Law/Regulation | Key provisions | Applicability to Rwanda COVID-19 ERP |
|---|--|---|
| National Strategy for Transformation (2018-2024) | NST-1 Transformational Governance Pillar stipulates its Priority area 6 as “Increase citizens’ participation, engagement and partnerships in Development”. Environmental and Climate Change are key interventions. | NST1 requires that sub-projects apply ESIA and principles of biodiversity and ecosystem management, pollution and waste management provided. These provisions are in alignment with ESS1, ESS3, ESS4 and ESS10. |
| National Environment and Climate Change Policy (2019) | Rwanda to be a nation that has a clean and healthy environment, resilient to climate variability and change that supports a high quality of life for its society. | Policy requires sub-projects to consider principles that complement ESF including: <i>Assessment of environmental risks and impacts for development projects; Mitigation and Adaptation; Information dissemination and community awareness raising in the conservation and protection of the environment.</i> |
| Health Sector Policy (2015) | Ensure and promote the health status of the population of Rwanda by providing quality preventative, curative, rehabilitative and promotional services. | The policy is given effect by the 2019-2024 Health Sector Strategic Plan aiming to strengthen country’s focus to include decentralization of health services, development of primary care health system and reinforcement of community participation in line with ESS4 and ESS10. |
| National Policy on Injection Safety, Prevention of Transmission of Nosocomial Infections and Healthcare Waste Management (2009) | Guidance to health professionals on Infection Prevention and Control through injections and other medical procedures and ensures that medical waste is safely managed and disposed. | The policy is aligned to ESS3, ESS4 and EHS Guidelines that are relevant to the ERP regarding the enhancement of Infection Prevention and Control (IPC) related to safe injection practices and associated waste management in treatment centers. |
| International health regulations (2005) | Aim to prevent, protect against, control and provide public health response to the international spread of disease with minimum | The regulations are aligned with the WHO advisories and guidance documents that the GoR and WB are abiding by during preparation and implementation of the ERP. |

| Policy/Law/Regulation | Key provisions | Applicability to Rwanda COVID-19 ERP |
|--|---|---|
| | interference to international traffic and trade. | |
| Coronavirus Disease 2019 National Preparedness and Response Plan | Aims to enhance the capacity to prevent, timely detect and effectively respond to the COVID-19 outbreak. | The Plan will among others, create and raise public awareness for engagement on COVID-19 preparedness and response activities The plan will apply the Risk Communication and Community Engagement (RCCE) developed by the WHO in compliance with ESS10. |
| Law N°48/2018 on Environment | Article 3: Precautionary principle - Activities considered or suspected to have negative impacts on environment must not be implemented pending results of a scientific assessment ruling out the potentiality of such impacts. | The law applies for all subprojects of the ERP and complements ESS1. |
| Ministerial order N° 003/2008 relating to the requirements and procedure for EIA | Provides roles and responsibilities of all participants in the EIA process and its General Guidelines and Procedure step-by-step. | The law will apply to sub-projects in carrying out full or partial EIA certification from RDB before any works start. The law is in alignment with ESS1. |
| Law no 66/2018 regulating labor in Rwanda | Stipulates several provisions for employment contract, Occupational Health and Safety (OHS) and general working conditions. | These laws will apply to sub-projects that will entail employment of workers to ensure their terms and conditions of work as well as health and safety comply and complement ESS2. These laws will also support measures of compliance with ESS4. Any form of discrimination, GBV, sexual exploitation and abuse (SEA) as well as sexual harassment (SH) will be prohibited in the ERP. The project will put in place mechanisms and strategies to ensure Occupational Health and Safety (OHS) and community health and safety requirements in compliance with ESS2, ESS4 and the WBG EHS Guidelines. |
| The National Gender Policy, 2010 | Outlines principal guidelines on which sectoral policies and programs will base to integrate gender issues in their respective social, cultural, economic and political planning and programming | |
| Law No. 59/2008 of 2008 on Prevention and Punishment of Gender-Based Violence | This Law is aimed at preventing and suppressing the gender-based violence | |
| Rwanda Green Building Minimum Compliance System (2019) | Promotes energy and water efficiency, environmental protection, indoor environmental quality to building occupants and green innovation. Applies to buildings public buildings including health facilities. | Refurbishment and/or fitment works in the ERP will ensure resource efficiency and pollution prevention in energy and water saving, efficient lighting, ventilation and appropriate waste management. The regulation compliments ESS3. |

| Policy/Law/Regulation | Key provisions | Applicability to Rwanda COVID-19 ERP |
|--|---|---|
| National Building construction code (2015) | Provides the minimum requirements to safeguard public health during construction and occupancy. | The ERP will control and regulate refurbishment and/or fitment works, quality of materials, sanitation and safety of contractors and workers. The regulation complements ESS2 and the WBG EHS Guidelines. |
| LAW N° 04/2013 relating to access to information | Provides the public with right to information. This law enables the public to access information possessed by public organs and some private bodies. It also sets out the methods for promoting the publication and sharing of information. | The project will avail information and involve the public and project stakeholders in assessing activities, documents or records related to the project activities. The access to information law complements ESS10. ERP documents will be disclosed to public in electronic and/or print forms as appropriate. These ESF documents for the ERP will be disclosed on MoH/RBC and WB websites. |

3.2. Rwanda EIA process

In Rwanda, the environmental assessment procedure starts with the submission of a project description note to the RDB One Stop Center. RDB officials responsible for EIA then conduct field visits as part of a

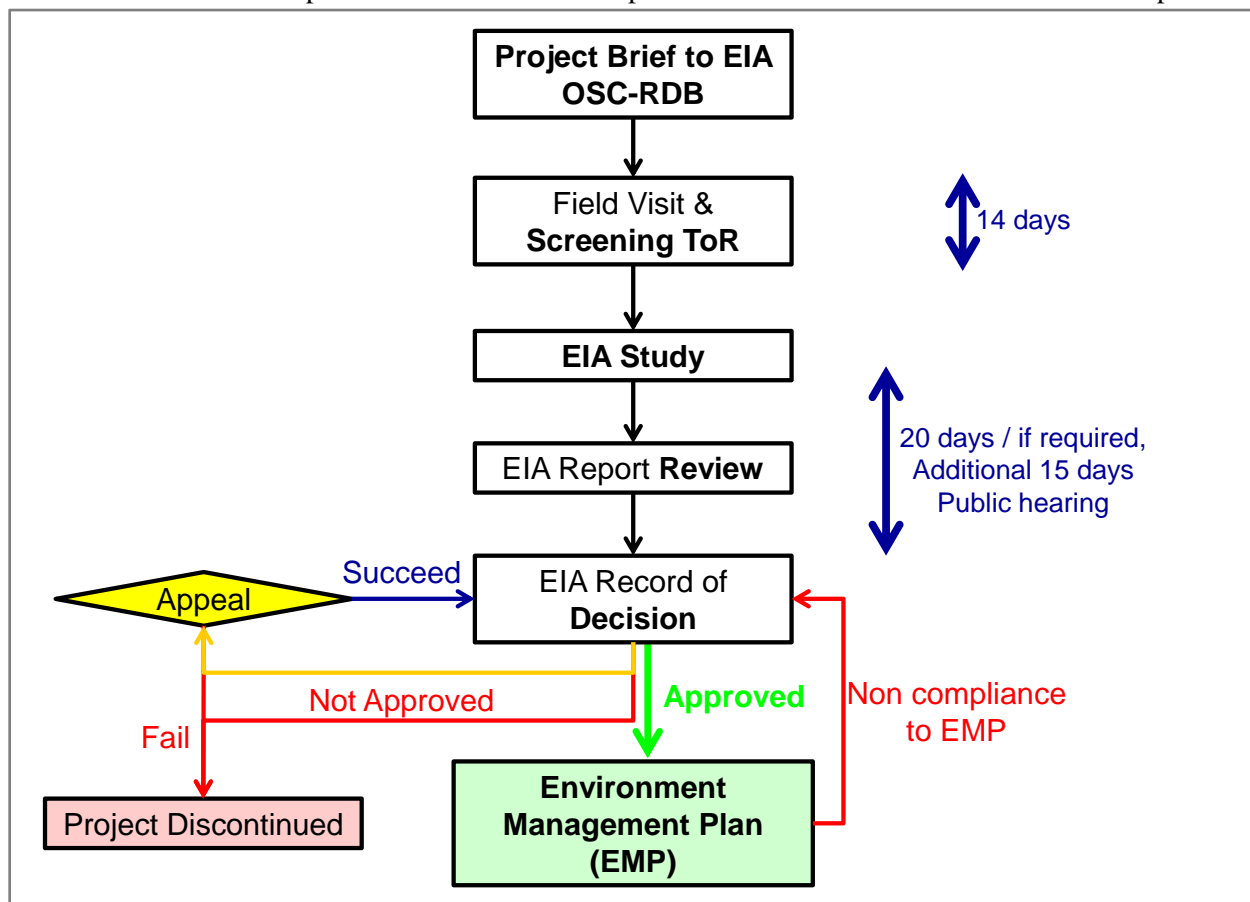


Figure 1 EIA Procedure in Rwanda according to current legislation of March 2020.

screening process. RDB then reviews the subproject screening results and prepares (or approves) ToR for a full EIA study or an ESMP as appropriate. The project proponent then submits the EIA report or ESMP

which is again reviewed by RDB and an EIA certificate to proceed is issued. If the project is not approved, the proponent is given an opportunity to appeal as shown in Figure 1.

3.3. International Conventions

The Environmental Impact Assessment (EIA) process in Rwanda operates within and towards the global concept of sustainable development. The process provides a basis for future international cooperation and conflict resolution concerning environmental impacts at a regional level. Rwanda signed and ratified international environmental and climate change conventions, some of which apply to the Rwanda COVID-19 ERP as summarized in Table 3 below. The full list of references on COVID-19 guidance is provided in Annex V.

Table 3 Summary of International Conventions and applicability to the RWANDA COVID-19 ERP

| International Treaty / Convention | Key provisions | Applicability to ERP |
|--|--|--|
| Stockholm Convention for Persistent Organic Pollutants (2017) | Aims to protect human health and the environment from persistent organic pollutants through measures to reduce or eliminate releases from intentional production and use; from unintentional production; and from stockpiles and wastes. | The Convention complements compliance of the ERP to ESS3 and ESS4 and the WHO technical guidance for COVID-19, especially on water, sanitation, hygiene and waste management. |
| Basel Convention for hazardous wastes and disposal | Ensures: generation and transboundary movement of hazardous wastes and other wastes is reduced to minimum; availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes; persons involved in the management of hazardous wastes or other wastes within it take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes arising from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment. | The Convention complements compliance of the ERP to ESS3, ESS4, ESS5 and the WHO technical guidance for COVID-19, especially on water, sanitation, hygiene and waste management. |
| WHO Laboratory biosafety guidance related to coronavirus disease 2019 (COVID-19) | Aimed at providing interim guidance on laboratory biosafety related to the testing of clinical specimens of patients that meet the case definition of coronavirus disease 2019 (COVID-19) | The technical guide provides basis for screening ES Risks associated with medical laboratories and for assessing and managing the risks throughout the ERP in compliance with ESS1, ESS2, ESS3, ESS4 and WBG EHS Guidelines. |
| WHO Infection prevention and control during health care when COVID-19 is suspected | Intended for health care workers (HCWs), health care managers, and IPC teams at the facility level, national, provincial and district levels. | The technical guide provides basis for screening ES Risks associated with COVID-19 treatment centers and for assessing and managing the risks throughout the ERP in compliance with ESS1, ESS2 and WBG EHS Guidelines. |
| WHO rights, roles & responsibilities of HCWs, including key considerations for OSH in COVID-19 Outbreak | Provides specific measures to maintain rights and responsibilities of HCWs and their OSH. | The technical guide is aligned to ESS1, ESS2 and WBG EHS Guidelines to be complied with throughout the ERP. |

| International Treaty / Convention | Key provisions | Applicability to ERP |
|--|--|--|
| WHO Water, sanitation, hygiene, and waste management for the COVID-19 virus | Intended for water and sanitation practitioners and providers and health care providers to ensure good and consistently applied WASH and waste management practices in communities, homes, schools, marketplaces, and health care facilities to help prevent human-to-human transmission of the COVID-19 virus. | The technical guide is aligned to ESS4, ESS10 and WBG EHS Guidelines to be complied with throughout the ERP. |
| WHO Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19) | Intended for those involved in distributing and managing PPE and its most appropriate use by public health authorities and individuals in health care and community settings. | The technical guide is aligned to ESS2, ESS4, ESS10 and WBG EHS Guidelines to be complied with throughout the ERP. |
| WHO Oxygen sources and distribution for COVID-19 treatment centers | Intended for health facility administrators, clinical decision-makers, and procurement officers, planning officers, biomedical engineers, infrastructure engineers and policy-makers. It describes how to: quantify oxygen demand, to identify oxygen sources that are available, and select appropriate surge sources to best respond to COVID-19 patients' needs, especially in low-and-middle income countries. | The technical guide is aligned to ESS1, ESS10 and WBG EHS Guidelines to be complied with throughout the ERP. |
| WHO Considerations for quarantine of individuals in the context of containment for coronavirus disease (COVID-19) | Aimed to offer guidance to WHO Member States on implementing quarantine measures for individuals in the context of COVID-19 outbreak. | The technical guide is aligned to ESS4, ESS10 to be complied with throughout the ERP. |

3.4. The World Bank Environment and Social Framework

The World Bank Environmental and Social Framework (ESF) sets out the commitment to sustainable development through a set of environmental and social standards (ESS) that are designed to support borrower projects. The ESSs lay out the requirements for Borrowers relating to the identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank.

RISK CLASIFCATION

The Project is classified according to the World Bank Environmental and Social Risk Classification as Substantial risk based on the activities' type, location, sensitivity, scale, and nature, magnitude of potential risks and capacity of the implementing entity and commitment of the Government of Rwanda. The latest ISR of Nov 3, 2021 rated the Overall ESS Performance as Substantial.

ENVIRONMENTAL AND SOCIAL STANDARDS

The World Bank Environmental and Social Framework (ESF) comprises the following 10 ESSs:

- ESS1:** Assessment and Management of Environmental and Social Risks and Impacts
- ESS2:** Labor and Working Conditions
- ESS3:** Resource Efficiency and Pollution Prevention and Management
- ESS4:** Community Health and Safety

- ESS5:** Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- ESS6:** Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS7:** Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
- ESS8:** Cultural Heritage
- ESS9:** Financial Intermediaries
- ESS10:** Stakeholder Engagement and Information Disclosure

During preparation, based on conducted due diligence process, it was determined that ESS1, ESS2, ESS3, ESS4, ESS6, ESS8 and ESS10 are relevant to the ERP.

ESS5 is not relevant to the Project. All eventual construction will be undertaken within existing facilities, no new construction planned under this project and thus at this point ESS5 is not considered relevant. Small scale renovation and rehabilitation within the existing facilities will be undertaken. Temporary closures, reduced access, or disruption will follow principles of voluntary negotiations.

ESS7 is not relevant to the Project as there are no Indigenous Peoples/Sub-Saharan Historically Underserved Traditional Local Communities within the proposed project interventions areas, nor is the project taking place in areas on which they rely for natural resources.

ESS9 is not relevant as there are no financial intermediaries in the Project.

The link below provides the requirements including the 10 Environmental and Social Standards (ESS) that apply to Borrowers and were assessed as relevant to the project during preparation:
<https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-framework-resources>

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Although this project is expected to have positive outcomes as it aims to improve COVID-19 surveillance, monitoring and containment, there are also potential environmental and social risks associated with the project financed activities. The environment, health and safety risks are due to the dangerous nature of the pathogen (COVID-19) and reagents to be used in project-supported facilities. Infections due to inadequate adherence to occupational health and safety standards can lead to illness and death among healthcare workers. The laboratories which will be used for COVID-19 diagnostic testing can generate biological waste, chemical waste, and other hazardous biproducts. As the facilities to be supported by the project will process COVID-19 that can have the potential to cause serious illness or potentially lethal harm to the laboratory staff and to the community, effective administrative and containment controls should be put in place so minimize these risks.

There are also occupational health and safety risks associated with the rehabilitation of medical facilities/minor civil works that were to be financed by the parent project. Wastes from the operation and rehabilitation of medical centers could cause considerable environmental and social risks if not properly managed. Environmentally and socially sound healthcare including laboratory operation will require adequate provisions for minimization of occupational health and safety risks, proper management of hazardous waste including sharps and pressurized containers such as oxygen containers and cylinders, use of appropriate disinfectants, proper quarantine procedure for COVID-19, appropriate chemical and infectious substance handling and transportation procedure, institutional/implementation arrangement for environmental and social risks, etc. In line with WHO Interim Guidance (March 19, 2020) on “Laboratory Biosafety Guidance related to the novel coronavirus (2019-nCoV)”, COVID-19 diagnostic activities and non-propagative diagnostic laboratory work (e.g. sequencing) could be undertaken in BSL2 labs with

appropriate care. Any virus propagative work (e.g. virus culture, isolation, or neutralization assays) will need to be undertaken at a containment laboratory with inward directional airflow (BSL-3 level). Such activities, requiring BSL-3 labs are excluded from project financing (which is stated in the ESCP and ESMF).

Environmentally and socially sound medical laboratory operation will require adequate provisions for minimization of occupational health and safety risks, proper management and disposal of hazardous waste (including sharps disposal), use of approved disinfectants, proper quarantine procedure for COVID-19, appropriate chemical and infectious substance handling and transportation procedure, institutional/implementation arrangement for environmental and social risks, etc. This ESMF takes into account the relevant GIIP, especially WHO protocols developed for the occupational health and safety of people during the current global pandemic. All subprojects that are classified as high, substantial or moderate risk including medical facilities/isolation and treatment centers that will receive the project financed medical supplies and laboratory equipment will prepare site-specific ESMPs with an Infection Control and Waste Management Plan (ICWMP) as its integral part. ESMP with an integrated ICWMP will cover both construction and operation phases/aspects. A template for these plans, and a timeline for developing them, which in all cases will be before any works begin, has been included in the project's ESMF.

This ESMF covers the procedures for the safe handling, storage, and processing of COVID-19 materials including the techniques for preventing, minimizing, and controlling environmental and social impacts during the operation of project supported laboratories. It includes a template for Infection Control and Waste Management Plan and details procedures to be followed in managing ES risks of healthcare centers rehabilitation activities as well as the implementation arrangements to be established by the RBC for environmental and social risk management; training programs focused on COVID-19 laboratory biosafety, operation of isolation centers and screening posts, as well as compliance monitoring and reporting requirements. WHO COVID-19 biosafety guidelines were reviewed while preparing the ESMF so that all relevant risks and mitigation measures will be covered. In addition to the ESMF, the client has prepared an Environmental and Social Commitment Plan (ESCP) and Stakeholders Engagement Plan (SEP) and allocated the resources necessary for the implementation of the ESCP and the SEP in the proposed timeline.

ESS2 Labor and Working Conditions

It is expected that most of the direct parent project workers (especially those who are working in the medical facilities) will be civil servants and therefore subject to their existing contracts, with the added protection of getting access to necessary OHS protocols and equipment as detailed under ESS2.

The COVID-19 vaccination campaign workforce of over 60,000 is organized in categories comprising: 59,348 Community Health Workers (CHWs) for community mobilization; 2,020 Vaccination Team Members at HCFs; 32 members of participating State Agencies, National Programmes and 111 members of Coordination Committees including the 6 member national AEFI Review Committee. Details of project worker deployment and ESS2 requirements are provided in the LMP Section 7.4 integrated in this ESMF.

Due to the hazardous nature of the work, no children under the age of 18 will be employed on any aspect of the Project. The use of forced labor to carry out any activities is also prohibited. Contracted workers may be involved in rehabilitation of medical centers and their contracts should be in line with the requirements of ESS2 including details of hours of work, rest periods and compensation, as well as access to necessary OHS PPE. All issues of concern for direct and contracted workers are documented in the Labor management procedures (LMP) (Section 7.4 of the document). A grievance mechanism will be made

available to all workers to report any issues associated with OHS and / or labor and working conditions. The mechanism includes contact details for submission of grievances, timelines for responses and escalation procedures.

Laboratory and/or COVID19 healthcare facilities associated infections may result from inadequate adherence to occupational health and safety standards and can lead to illness and death among laboratory/healthcare workers. To minimize or avoid this risk for workers deployed to assist in a laboratory setting or medical waste disposal, the client developed the LMP in such a way which (i) respond to the specific health and safety issues posed by COVID-19, including those related to waste management risks, and (ii) protect workers' rights as set out in ESS2. Healthcare facilities/laboratories which will receive project funding will, therefore implement the following that are also part of the LMP section elaborated in 7.4 of this ESMF:

- Develop a procedure for entry into health care facilities, including minimizing visitors and undergoing strict checks before entering
- Develop a procedure for protection of workers in relation to infection control precautions and include these in the labor management procedures and in contracts
- Provide immediate and ongoing training on the procedures to all categories of workers, and post signage in all public spaces mandating hand hygiene and PPE. The training should be organized according to standing GoR directives and guidelines for COVID-19 infection prevention and control in order not cause an increase in the COVID infection rate.
- Develop a basic, responsive grievance mechanism to allow workers to quickly inform management of labor issues, such as a lack of PPE and unreasonable overtime
- Ensure adequate supplies of PPE (particularly facemask, gowns, gloves, handwashing soap and sanitizer) are available
- Ensure adequate OHS protections in accordance with General EHSs and industry specific EHSs and follow evolving international best practice in relation to protection from COVID-19;
- Mandate staff to follow the protocol prepared for this Project.
- Prohibit the use of forced labor or conscripted labor in the project/construction/health care facilities as per the 2018 Rwanda Labor Law.
- Where the component involves possible contact with COVID-19, prohibit children under 18 from being employed due to the hazardous nature of the work (e.g. in health care facilities)

Medical staff at the facilities will be trained and be kept up to date on WHO advice

(<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>) and recommendations on the specifics of COVID-19 by the SPIU.

ESS3 Resource Efficiency and Pollution Prevention and Management

Hazardous wastes from the COVID 19 supported activities (drugs, clinical supplies, PPE and medical equipment) can have a significant impact on the environment (including soil and groundwater) or human health. These include liquid contaminated waste, sharps, chemicals, and other hazardous materials used in diagnosis and treatment. Each medical facility and isolation center prepared a template for Infection Control and Medical Waste Management Plan (as part of ESMF) to prevent or minimize such adverse impacts following the requirements of the COVID-19 ESMF prepared for the Project, WHO COVID-19 guidance documents, and other good international practices. The project will prepare a healthcare waste stream status report featuring quantitative information including medical volumes, transportation arrangements and disposal methods as well as availability or lack of wastewater treatment facilities. The status report will include COVID-19 related waste management generated in epidemiological operations including surveillance, case management and laboratories. Waste generated at Covid-19 treatment centers are collected, transported and incinerated or appropriately treated by a thirdparty operator specialized in medical wastes treatment, the **Kalisimbi Depot Pharmaceutics**. The ESMF includes procedures for the management of construction wastes that may be generated from the rehabilitation of medical facilities. The

ESMF and site-specific instruments (ESMPs) include guidance related to transportation and management of samples and medical goods or expired chemical products. Resources (water, air, etc.) used in quarantine facilities and labs will follow standards and measures in line with Africa CDC and WHO environmental infection control guidelines for medical facilities.

ESS4 Community Health and Safety

The parent project involved minor civil works to refurbish and/or rehabilitate and re-equip some of the existing HCF structures and adapt them as COVID-19 isolation units. The RBC-SPIU would ensure design, construction, operation, and decommission of the refurbished and/or rehabilitated and re-equipped facilities in accordance with national legal requirements, the EHSGs and other GIIP, taking into consideration safety risks to third parties and affected communities. Refurbishments and/or rehabilitation works will be done by competent professionals, and certified or approved by competent authorities or professionals. Design for refurbished and/or rehabilitated and re-equipped facilities will take into account climate change considerations, as appropriate. No new buildings or structures will be constructed under the project. Chapter 5 of this ESMF includes an elaboration of measures to anticipate and minimize risks and impacts that COVID-19 vaccination services may have on community health and safety. The RBC-SPIU will ensure that COVID-19 vaccination sites IPC measures and maintain hygiene and waste management practices according to the ICWMP (Annex IV).

Medical wastes from COVID 19 diagnosis and treatment centers can have a high potential of carrying micro-organisms that can infect the community at large if not properly managed. There is a possibility for the infectious microorganism to be introduced into the environment if not sustainably contained within the clinical practice, supplies' transportation and laboratory operation or due to accidents/ emergencies e.g. a fire response or natural phenomena. The infection control and waste management plan to be prepared by medical facilities which will receive the project support will describe:

- how laboratory activities in COVID-19 testing medical facilities Project activities will be carried out in a safe manner with (low) incidences of accidents and incidents in line with Good International Industry Practice (such as WHO guidelines)
- measures in place to prevent or minimize the spread of infectious diseases
- emergency preparedness measures

In addition, the project design itself actively promotes sound community health and safety practices in the management of COVID-19 through training of member countries in WHO guidelines for identification, prevention and control of COVID-19.

The project implementation will ensure the avoidance of any form of Sexual Exploitation and Abuse by relying on the WHO Code of Ethics and Professional conduct for all workers in the quarantine facilities as well as the provision of gender-sensitive infrastructure such as segregated toilets and enough light in quarantine and isolation centers.

The project will also ensure via the above noted provisions, including stakeholder engagement, that quarantine and isolation centers and screening posts are operated effectively throughout the country, including in remote and border areas, without aggravating potential conflicts between different groups, including host communities and refugees/IDPs.

In case quarantine and isolation centers are to be protected by security personnel, it will be ensured that the security personnel follow strict rules of engagement and avoid any escalation of situation, taking into consideration the above noted needs of quarantined persons as well as the potential stress related to it. The project will ensure the security personnel follow strict rules of engagement and avoid any escalation of situation, including possible training/ guidelines.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

No major construction or rehabilitation activities are expected in this project and all works will be conducted within existing facilities. Hence, likely impacts of the project on natural resources and biodiversity are low. However, if medical and chemical wastes are not properly disposed of, they can have impacts on living natural resources. The procedures outlined in the infection control and waste management plan will describe how these impacts will be minimized.

ESS8 Cultural Heritage

Based on the screening of potential and known locations for rehabilitation and construction works, likely impact of the project on cultural heritage is low. As a precautionary measure the ESMF includes a chance finds procedure (Annex VI).

ESS10 Stakeholder Engagement and Information Disclosure

The project has prepared a separate Stakeholder Engagement Plan (SEP) that will be publicly disclosed to ensure early, continuous and inclusive stakeholder engagement (including vulnerable/disadvantaged groups). A stakeholder engagement plan and information disclosure plan are elaborated in Chapter 7 of this ESMF.

Environmental, Health and Safety (EHS) guidelines from the WBG

The World Bank Group has produced the Environmental, Health and Safety (EHS) guidelines to ensure government/borrowers apply industry and international good practices and standards for pollution, waste management, etc. in the construction of civil works. Rwanda COVID-19 ERP will consult and apply these guidelines as relevant in the project development. The EHS guidelines can be accessed by the link following links:

- i. World Bank Group General EHS Guidelines
- ii. World Bank Group EHS Guidelines - Health Care Facilities
- iii. World Bank Group EHS Guidelines - Hazardous Materials Management
- iv. Interim note from the World Bank on COVID-19 and construction/civil works projects
- v. World Bank Technical Note on Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings
- vi. Guidelines on Prevention of GBV/SEA
- vii. World Bank Good practice note on road safety.

The above WBG guidelines apply to sub-projects under Components 1 and 2 of the project (including activities under Vaccine AF).

Good International Industry Practice sources:

Relevant Good International Industry Practice (GIIP) such as WHO technical guidance developed for addressing COVID-19. These technical guidance documents are evolving, and they are being updated as new information becomes available WHO resources include technical guidance on: (i) laboratory biosafety, (ii) infection prevention and control, (iii) rights, roles and responsibilities of health workers, including key considerations for occupational safety and health, (iv) water, sanitation, hygiene and waste management, (v) quarantine of individuals, (vi) rational use of PPE, (vii) oxygen sources and distribution for COVID-19 treatment centers, (viii) vaccine readiness assessment and (ix) surveillance of adverse events following immunization⁴. Additional guidance is listed below in Annex V.

⁴ https://www.who.int/vaccine_safety/publications/aefi_surveillance/en/

4. Environmental and Social Baseline

The effort to contain the spread of COVID-19 in Rwanda is led by the Office of the Prime Minister under the National Epidemic Preparedness & Response Committee (NEPRCC), along with the Ministry of Health, Ministry of Local Government and Security Organs. A Coronavirus Disease 19 National Preparedness and Response Plan was expeditiously prepared and operationalized under the direction of the NEPRCC. The plan is fully in line with the World Health Organization (WHO) global guidance and includes all recommended pillars. The Ministry of Health activated its Emergency Operation Centre and established a Coronavirus National Taskforce to coordinate the execution of this plan. The Plan is consistent with the Joint Continental Strategy on COVID-19, as agreed with African Union Ministers of Health in February 2020 under the auspices of the Africa CDC, a flagship institution established by the African Union with a continental mandate for infectious disease surveillance and control.

The MoH developed a national plan for the deployment and vaccination plan for COVID-19. The country plans to vaccinate 3,895,826 people (equivalent to 30% of the population) by the end of 2021. **This target was significantly exceeded as 6,292,443 people (49% of the country’s population) had been vaccinated with both doses by 16 Jan 2022.** The target priority population for vaccination includes health and social workers; security organs; elderly people (65 years old and above) ; people living with chronic conditions; people living in specific high-density settings such as prisons and refugees camps and other frontline workers that may be identified as being at high risk of the disease. By the end of 2022, Rwanda is intending to reach the African Union (AU) target of 60 % of the total population.

The implementation strategies for the COVID-19 Preparedness and Response Plan is organized in an Incident Management System Coordination Structure shown in Figure 2 below.

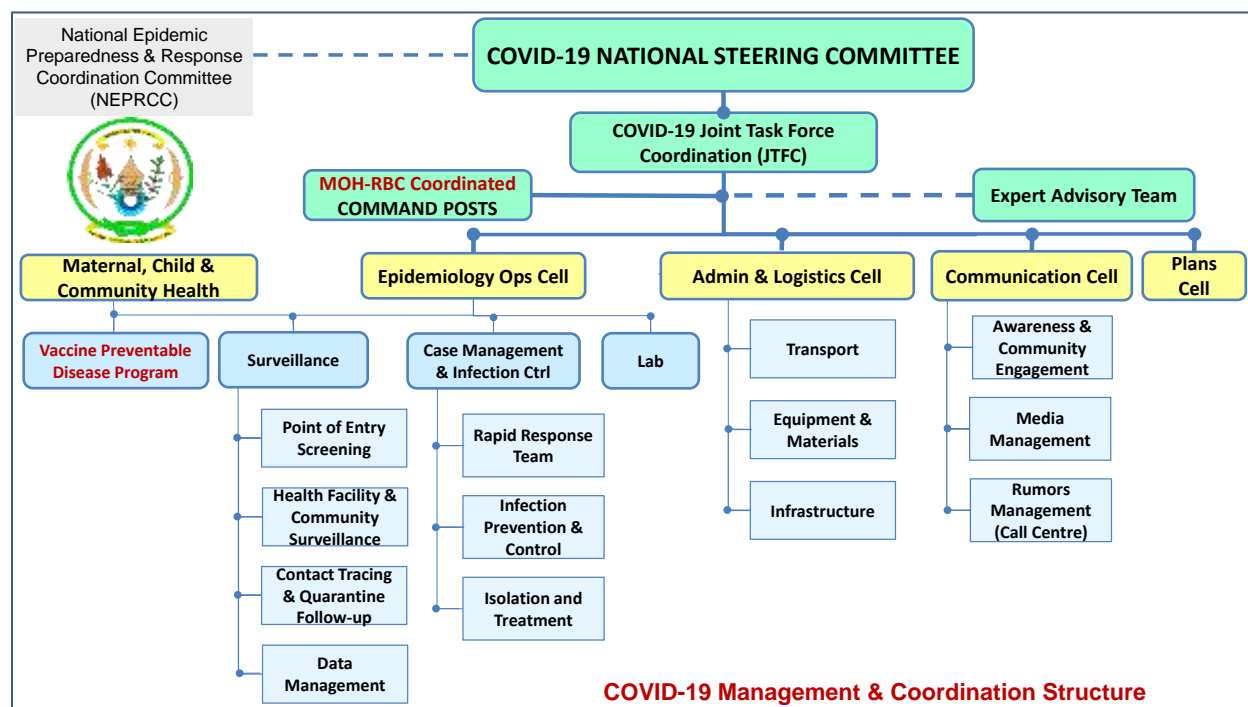


Figure 2 Rwanda COVID-19 Incident Management & Coordination Structure (RBC, March 2020)

The country’s overarching goal of introducing COVID-19 vaccine is to save lives and mitigate societal and economic impact by reducing COVID-19 transmission and mortality due to COVID-19 infections.

To achieve this goal, twelve areas have been prioritized in the national vaccine deployment and vaccination plan taking into consideration the particular aspects of COVID-19 vaccine introduction:

- 1) Regulatory preparedness;
- 2) Planning and coordination;
- 3) Resources and funding;
- 4) Identification of target populations;
- 5) Vaccine delivery strategies;
- 6) Supply chain management and health care waste management;
- 7) Human resources management and training;
- 8) Vaccine acceptance and uptake (demand);
- 9) Vaccine safety monitoring and management of AEFI and injection safety;
- 10) Immunization monitoring system;
- 11) Disease surveillance;
- 12) Evaluation of introduction of COVID-19 vaccines.

4.1. Ports of Entry

Rwanda's Directorate General of Immigration and Emigration statistics⁵ show that 4,245,917 non-border community (people recognized by immigration services of border-sharing countries) entered Rwanda in 2019 through 17 border posts and the Kigali International Airport (Table 4). The highest inflows were recorded entries into Rwanda were from the Democratic Republic of Congo (DRC) at Rusizi (I and II) in Rusizi district, Poids Lourds and Corniche in Rubavu District followed by people entering from Burundi at Bugarama and Ruhwa in Rusizi district and at Gatuna from Uganda. The Kigali International Airport entries show a near median number of 348,018. Entry flows from Tanzania were the lowest by country in 2019. Table 4 shows a summary of statistics of entry flows of people across the 17 borders and through the Kigali International Airport. Figure 3 features a map showing 11 main border posts of the 17 countrywide.

It is possible that COVID-19 IPC issues associated with imported cases would be concerned with travelers from non-border communities entering the country possibly from countries other than the immediate neighbor. Much higher entries were however registered from border-community entries with a total of 14,195,085 people. The highest entries of border communities were still from the DRC at Poids Lourds (51%), Rusizi-I (22%), Rusizi-II (11%), Corniche (6%) making a combined entry of 80%.

Table 4 Rwanda stats of non-community entries for 2019 by neighboring country and hours of operation (GoR, 2019)

| RWANDA BORDERS, NEIGHBORING COUNTRY NON-COMMUNITY 2019 ENTRIES AND HOURS OF OPERATION | | | | | |
|---|----------------------------|-----------------|---------------------|----------------------------------|--------------------|
| No | BORDERS | DISTRICT | NEIGHBORING COUNTRY | Non-community entry flows (2019) | HOURS OF OPERATION |
| 1 | Kigali Intl Airport | Kicukiro Kigali | Global | 384,018 | 24hours |
| 2 | Nemba (OSBP ⁶) | Bugesera | Burundi | 47,475 | 04:00am - 10:00pm |
| 3 | Akanyaru Bas | Nyaruguru | Burundi | 146 | 06:00am - 06:00pm |
| 4 | Akanyaru Haut | Nyaruguru | Burundi | 109,557 | 06:00am - 06:00pm |
| 5 | Nshili | Nyaruguru | Burundi | 2,154 | 06:00am - 06:00pm |
| 6 | Bugarama | Rusizi | Burundi | 480,429 | 06:00am - 06:00pm |
| 7 | Ruhwa | Rusizi | Burundi | 231,018 | 06:00am - 06:00pm |
| 8 | Rusizi I | Rusizi | DRC | 626,992 | 06:00am - 10:00pm |

⁵ https://www.migration.gov.rw/fileadmin/templates/PDF_files/Non Border Community Statistical data of the year 2019.pdf accessed: May 9, 2020.

⁶ One Stop Border Post

| | | | | | |
|----|--------------------------------|-----------|----------|---------|-------------------|
| 9 | Rusizi II | Rusizi | DRC | 432,735 | 06:00am - 06:00pm |
| 10 | Corniche (OSBP) | Rubavu | DRC | 524,946 | 24hours |
| 11 | Kabuhanga | Rubavu | DRC | - | 06:00am - 06:00pm |
| 12 | Poids Lourds (Petite Barriere) | Rubavu | DRC | 840,857 | 06:00am - 06:00pm |
| 13 | Rusumu (OSBP) | Kirehe | Tanzania | 123,117 | 06:00am - 10:00pm |
| 14 | Cyanika | Burera | Uganda | 86,691 | 5:00am - 8:00pm |
| 15 | Gatuna (OSBP) | Gicumbi | Uganda | 223,490 | 24hours |
| 16 | Buziba | Nyagatare | Uganda | 8,383 | 06:00am - 06:00pm |
| 17 | Kagitumba (OSBP) | Nyagatare | Uganda | 123,909 | 06:00am - 08:00pm |

4.2. Priority Communities

In 2018 Rwanda implemented the Integrated Disease Surveillance and Response System (IDSR) for risks associated with the Ebola Virus Disease (EVD) focusing on urban communities of 15 priority districts. The 15 districts that were considered most at risk of the EVD outbreak in Rwanda comprised urban communities of Rusizi, Nyamasheke, Karongi, Rutsiro, Rubavu bordering DRC; Nyabihu, Musanze, Burera, Gicumbi



Figure 3 Rwanda's main ports of entry Secondary Cities and HCFs

and Nyagatare bordering Uganda; Nyanza and Bugesera bordering Burundi; and the City of Kigali area

comprised of Gasabo, Kicukiro, and Nyarugenge districts. Rusizi, Rubavu, Musanze, Nyagatare, Muhanga and Huye (Figure 3) are under urban development support as Secondary City growth poles according to the country's urbanization policy. The City of Kigali was considered high risk because of the Kigali international airport and its high population density. This urban community prioritization is also valid for COVID-19 vaccination under the ERP Additional Funding.

The harm inflicted on especially urban poor and many women heads of households, is likely to be devastating. In informal urban settlements, families occupy cramped informal dwellings, and just barely survive by casual jobs in the city, work that has stopped. It is particularly important to understand whether project impacts may disproportionately fall on disadvantaged or vulnerable individuals or groups, who often do not have a voice to express their concerns or understand the impacts of a project and to ensure that awareness raising and stakeholder engagement with disadvantaged or vulnerable individuals or groups on infectious diseases and medical treatments in particular, be adapted to take into account such groups or individuals particular sensitivities, concerns and cultural sensitivities and to ensure a full understanding of project activities and benefits.

4.3. Rwanda Healthcare System

The Rwanda health system consists of twelve national referral hospitals, including the King Faisal Hospital (KFH), University Teaching Hospital of Kigali (CHUK), University Teaching Hospital of Butare (CHUB), Rwanda Military Hospital (RMH)⁷ and the Ndera Neuropsychiatric Hospital (HNP). The system also includes thirty-six District Hospitals and 495 Health Centers. Since 2011, the GoR established District Hospitals at the core of health service delivery through the District Health System (DHS) which comprises the district hospital and a network of health centers either public, government assisted, not for profit or private. The country's health facility distribution by district is displayed the map in Figure 3 above.

HCFs do not have formal environmental health and safety performance monitoring systems for air emissions, ambient air quality, potable water availability nor waste water. However, as mentioned earlier under ESS 3, a healthcare waste stream status report will be prepared under this project. However, Law N° 66/2018 of 30/08/2018 regulating labor in Rwanda makes provisions for the establishment of Occupational Health and Safety Committees under Article 78. HCFs have established and functional Health and Safety Committees with the following responsibilities:

- Establishing budget for hazardous materials and waste management
- Orientation for new personnel for proper use and storage of hazardous materials
- Developing procedures for handling hazardous materials
- Conducting monthly environmental safety in and round HCFs as well as reporting and analyzing the findings for decision making
- Integrating safety monitoring and response activities into the patient safety program

The RBC-SPIU will comply with Labor Management Procedures elaborated in section 7.4 of this ESMF regarding the management of risks and impacts associated with OHS of healthcare workers.

Medical Waste Management Framework

As mentioned in the introduction of this ESMF, a national Medical Waste Management Plan (MWMP) of 2017 was updated with waste management requirements for the Ebola Virus Disease (EVD) in Feb 2020 and publicly disclosed. The national MWMP elaborates measures for the isolation and management of Ebola-contaminated solid medical waste; onsite treatment of Ebola-contaminated solid medical waste; offsite transport of Ebola-contaminated solid medical waste; safe and dignified burials of deceased persons from EVD; management of Ebola-contaminated liquid waste disposal. Although not directly comparable,

⁷ The Rwanda Military Hospital (RMH) treats 80% civilian and 20% military patients as a national referral hospital open to the public. However, no ERP activities will be delivered by the RMH.

provisions of this plan have been adapted for COVID-19 associated waste management as Category A infectious substances based on the WHO Guidance on regulations for the transport of infectious substances 2019–2020. Under its priority are for supply chain management and health care waste management, the National Deployment and Vaccination Plan makes provisions to establish mechanisms of reordering and reporting for COVID-19 vaccines and related supplies and for vaccine waste management.

Current Medical Waste Practices

Several policies are in place to guide medical waste management, including the 2018 National Policy on Environment and Climate Change, the 2009 National Policy on Injection Safety, Prevention of Transmission of Nosocomial Infection and the 2016 Health Care Waste Management that clearly defines how key medical waste has to be managed, transported and disposed. A set of National Healthcare Waste Management Guidelines have been also prepared and applied.

The MWMP of 2017 indicates that health care waste management and injection safety training was carried out for HCWs countrywide and national and district hospital equipped with incinerators. Current Good International Industry Practices (GIIP) include provision of Personal Protective Equipment (PPEs), auto-disable syringes and needles, disinfectants and availing post-exposure prophylaxis for victims of accidental occupational exposures (blood and amniotic fluid during labor and delivery). Safe storage of sharp medical waste, separation of waste according to their category at production site, waste transportation and destruction in a safe manner is recognized as extremely vital.

According to the assessment conducted by MoH in 35 healthcare facilities in the country in October 2016 (MoH, 2017), a national volume of 5.168 kg/day of medical waste is generated by inpatients and outpatients and total amount of 60,775,164 kg of waste generated per year, made of 74% of non-infectious waste, 24% of liquid waste and 1.3 % of infectious and/or hazardous waste.

Waste Generation Estimation

The Rwanda Health Sector Strategic Plan 2012–2018 has among key indicators to increase the number of healthcare facilities with effective medical waste management systems from 55% in 2012 to 88% in 2018⁸.

Table 5 Medical Waste quantities generated annually in 35 HCFs (Source: RBC 2019)

| MW Description | MW Quantity (kg/yr) | MW (%) |
|------------------------------------|--------------------------------|---------------|
| Infectious Wastes | 599,994 | 0.99 |
| Sharps Wastes | 96,482 | 0.16 |
| No Infectious Wastes | 45,076,608 | 74.17 |
| Pharmaceutical Wastes | 38,603 | 0.06 |
| Radioactive Wastes | 4,620 | 0.01 |
| Genotoxic/ Cytotoxic | 47,364 | 0.08 |
| Chemical Wastes | 23,862 | 0.04 |
| Nonhazardous general Wastes | 263,976 | 0.43 |
| Liquid Wastes | 14,543,346 | 23.93 |
| Special Wastes (Electronic Wastes) | 80,309 | 0.13 |
| Total | 60,775,164 | 100 |

An assessment of waste quantities and types generated by health facilities was conducted in 2016 in 35 health facilities, comprising 3 referral hospitals, 2 provincial hospitals and 31 district hospitals. This assessment, based upon daily waste per inpatient and waste per out-patient has been extrapolated to determine the national volume of medical waste and determine an estimated average of 5.168 kg/day of

⁸ MoH 2012, Rwanda Third Strategic Plan 2012-2018

medical waste generated by inpatients and outpatients. The assessment (Table 5) showed that from the total volume of medical waste produced in one year by health facilities in the country, 74% are non-infectious waste, 24% are liquid waste and 1.3% of infectious and/or hazardous waste (Infectious, sharps, pharmaceutical, radioactive, cytotoxic, chemical).

Characterization of Healthcare Waste

The Medical Waste Management Plan (MWMP) of Mar 2017 updated in Feb 2020 describes major sources of healthcare waste as coming from the following categories of healthcare facilities in the country: hospitals, university hospitals, general hospitals, district hospitals, other healthcare facilities, emergency medical care, services, healthcare centers and dispensaries, obstetric and maternity clinics. Other health structures generating waste are outpatient clinics, dialysis centers, long-term healthcare establishments and hospices, transfusion centers, military medical services⁹, prison hospitals or clinics, medical and biomedical laboratories, biotechnology laboratories and institutions, medical research centers, mortuary and autopsy canters, animal research and testing, blood banks and blood collection services.

4.4 COVID-19 Associated Waste Management requirements

The WHO interim guidance of April 2020 on Water, sanitation, hygiene, and waste management for the COVID-19 virus advises that there are two main routes of transmission of the COVID-19 virus: respiratory and contact. Respiratory droplets are generated when an infected person coughs or sneezes. Any person who is in close contact with someone who has respiratory symptoms (sneezing, coughing) is at risk of being exposed to potentially infective respiratory droplets. Droplets may also land on surfaces where the virus could remain viable; thus, the immediate environment of an infected individual can serve as a source of transmission (contact transmission).

The guidance advises that best practices for safely managing health care waste should be followed, including assigning responsibility and sufficient human and material resources to dispose of such waste safely. 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. If waste is moved off-site, it is critical to understand where and how it will be treated and destroyed. All who handle health care waste must wear appropriate PPE (boots, apron, long-sleeved gown, thick gloves, mask, and goggles or a face shield) and perform hand hygiene after removing it. For more information refer to the WHO guidance, Safe management of wastes from health-care activities.

The national MWMP of Feb 2020 makes reference to guidance provided by specialist institutions including CDC, WHO and Médecins Sans Frontières (MSF) EVD infection control guidelines. Annex IV of this ESMF provides a template for the preparation of HCF Infection Control and Waste Management Plan (ICWMP) for the parent project and its Vaccine AF.

⁹ Some military medical services in Rwanda such as the referral level Rwanda Military Hospital are open to the public and are an integral part of the national healthcare system. However, no specific ERP activity that is designated to the Military for its delivery.

Waste management implementation arrangements

The MoH will be supported to handle its policy and strategy formulation roles and the RBC will be responsible for coordinating the implementation of the project through the SPIU that has managed previous Bank-funded health projects. At the decentralized level, district authorities will be responsible for providing oversight, working with other stakeholders.

At the decentralized level, two committees are in place at the Health Center and District Hospital levels for effective Health Care Waste Management:

The Infection Prevention Committee and the Sanitation and Hygiene Committee. These committees work closely together and are composed of the Environmental Health Officer, the Laboratory Technician, Pharmacist and the HCF administrator nominated by the institution. Waste management will follow the health care waste treatment and disposal mechanism described in Table 6.

The healthcare waste management structure is built from the community level up to the referral level, as shown in Figure 4. However, suspected

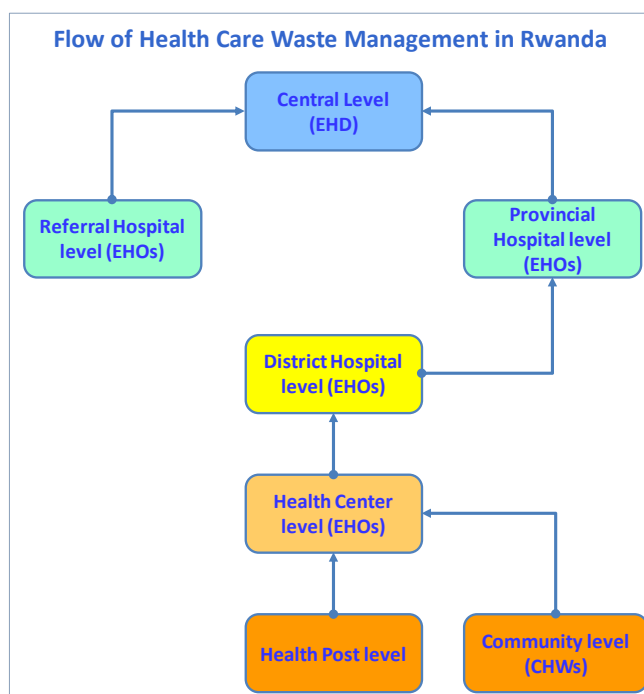


Figure 4 Medical waste management hierarchy (RBC, 2020)

or confirmed COVID-19 associated waste will be kept isolated from and disposed of separately from other regulated medical waste at HCFs as indicated in Table 6. Waste generated during the care of a suspected or confirmed COVID-19 patient will be treated onsite through inactivation or incineration as appropriate. Wastewater treatment facilities are appropriately able to administer sewage handling processes that are designed to inactivate infectious agents. However, certain disinfection measures will be taken in the case of human exposure prior to delivery to the wastewater treatment facility.

Table 6 Health care waste treatment and disposal as per level of HCF

| Description | CHWs/Health Post | Health Center | District Hospital |
|--------------------------|------------------|---|--|
| Sharps | Transfer to HC | Transfer to District Hospital | Incineration |
| Infectious | Transfer to HC | Transfer to District Hospital and deep burial | Incineration/deep burial |
| Highly infectious | Transfer to HC | Transfer to District Hospital and deep burial | Incineration |
| Pharmaceutical | Transfer to HC | Return to District Hospital | Incineration, return to source or manufacturer |

Landfills

In Rwanda there are no third-party sanitary landfills. All generic solid wastes are centralized in public landfills. Each district operates one public landfill. Hazardous medical waste is not disposed in landfills, but handled appropriately by the third-party operators, Kalisimbi Depot Pharmaceuticals under contract or sent to originator/manufacturer for appropriate disposal.

Incinerators

A recent medical waste streams report prepared under the ERP indicated that medical waste from all public healthcare facilities in the City of Kigali is disposed of in a third-party commercial incineration facility at

Mageragere while COVID-19 related waste is incinerated by the same third-party operator at Gatsata both located within the city's jurisdiction. MoH/RBC operates two Covid-19 treatment centers in the country and a number of quarantine facilities hosted in temporarily repurposed hotels for self isolation services. All medical waste generated by the two Covid-19 treatment centers are collected, transported and incinerated or appropriately treated by the Kalisimbi Depot Pharmaceuticals specialized in medical wastes treatment. The healthcare waste stream status report makes observations that infectious and sharps waste is produced in large quantities and essentially needs incineration for appropriate disposal. While REMA reported that the majority of hospitals incinerators in the country (29 of 31) were in working order, it is generally observed that high cost limits the utilization of incineration services, forcing health facilities to resort to burning of medical waste.

Wastewater Treatment Plants

- Currently facilities relevant to Covid-19 are National Reference Laboratory (NRL) and the two treatment centers mentioned above.
- Hospitals, the NRL and the two Covid-19 treatment centers have well-performing Wastewater Treatment Plans as required by national regulations that apply to all major public buildings including.

Medical Waste Transportation Arrangements

The medical wastes generated by HCFs in the City of Kigali are collected, transported and treated by **Kalisimbi Depot Pharmaceuticals**. This specialized private company is certified and well equipped with appropriate materials and equipment as well as trained medical wastes handlers.

The management of medical waste follows the hierarchy of the HCF structure. Each HCF without modern incinerator has a signed contract with the HCF that has an incinerator in its closest proximity to provide the service. Modalities of transportation of medical wastes is stipulated in the contract between the two HCF parties. The contract may include the provision that the client HCF provides its own transport for the medical waste or that the service provider HCF collects the medical wastes and incinerates it as a combined service. The transportation capacity of medical wastes depends on size and road infrastructures and is conducted by using designated waste transportation to the extent feasible. District hospitals collect medical waste from health centers in their respective catchments to incinerators using district specialized waste transportation vehicles. However, the medical waste streams report indicated that Health Centers deploy inappropriate transportation of medical waste to hospital incinerators (mostly motorcycle services).

Testing for COVID-19¹⁰

The GoR operates laboratories for mandatory PCR test at the Kigali International Airport (KIA) and at two other facilities and accredited 100 private health facilities around the country to provide voluntary SARS-CoV-2 Antigen Rapid Tests. Rapid testing has been also been deployed at all public hospitals and health centers.

Laboratory staff in testing areas

- Re-verify the completeness of forms;
- Re-verify the specimen condition;
- Accept or reject specimen noting the specimen condition and reason for refusal, if refused;
- If the specimen is rejected, inform the specimen receiver and site of origin that specimen is refused and request another specimen from the site;

¹⁰ Respiratory sample collection, handling, storage and transport

-
- If specimen is accepted, analyze the specimen, crosscheck the result, validate & register the results and transfer the results at reception for further delivery;
 - Discard or store specimens for future testing as appropriate.

Specimen Disposal at NRL

- Dispose of specimens that have been rejected for testing and/or when testing is complete in appropriate waste containers.
- Autoclave wastes containers containing specimens at 1210C for 15 minutes before their incineration.
- Pack and incinerate waste containers appropriately.

5. Potential Environmental and Social Risks and Mitigation

The main environmental and social risks and impacts of the project may result from activities under Component 1, including COVID-19 screening of travelers at 31 Ports of Entry as well as priority communities and targeted health facilities; diagnosing cases and referring them for treatment; carrying out contact tracing to minimize risk of transmission; conducting risk assessments to identify hot spot areas of transmission; carrying out multi-sectoral simulation exercises for COVID-19 and other disease outbreaks; conducting disease surveillance activities to monitor the impact of the COVID-19 vaccination program; and from activities under Component 2, which will finance procurement of vaccines; cold chain equipment, medical supplies and consumables (e.g. PPEs, syringes and safety boxes, vaccine sharp disposal containers).

A new activity under the Health Systems Strengthening subcomponent of Component 2 will entail the installation of a solar PVs system for the recently constructed Treatment center for emerging infectious diseases. Inappropriate siting and installation may have some negative impacts that need to be considered during planning, construction/installation and maintenance stages. Improper planning for the solar PV system may later cause unstable power supply ridden with power disruptions and associated risks on patients and high maintenance requirements. OHS risks may potentially be imposed upon healthcare providers and support staff due to improper work procedures during construction/minor civil works and installation works of the PV system. RBC will ensure proper procurement of design and construction/installation as well as maintenance services. Environmental and social risks and impacts and corresponding mitigation measures are featured in the Environmental and Social Management Plan (ESMP) template in Annex IV.

The project will continue to have substantial environmental, health and safety risks due to the dangerous nature of the pathogen (COVID-19) and reagents to be used in project-supported facilities. The laboratories being used for COVID-19 diagnostic testing may continue to generate biological waste, chemical waste, and other hazardous bi-products. As the facilities to be supported by the project will handle a lethal pathogen that can have the potential to cause serious illness or potentially harm laboratory and medical staff and the public, effective administrative and containment controls are being put in place to minimize these risks.

Environmentally and socially sound medical laboratory operations require adequate provisions for minimization of occupational health and safety risks, proper management and disposal of hazardous waste (including sharps disposal), use of approved disinfectants, proper quarantine procedure for COVID-19, appropriate chemical and infectious substance handling and transportation procedures, and appropriate institutional/implementation arrangements for environmental and social risks.

The potential adverse environmental, health and safety risks and negative impacts associated with the COVID-19 vaccination campaign and related health system strengthening activities include:

- (i) Adverse Events Following Immunization (AEFIs) which may be caused by the vaccine or by an error in the administration or handling of the vaccine:

The National Deployment and Vaccination Plan comprehensively addresses requirements for vaccine safety monitoring, management of AEFI events following immunization and injection safety. A national AEFI review committee was established in 2017 with the mandate to timely respond to AEFIs. The plan elaborates interventions that include integrating COVID-19 vaccine into the existing AEFI surveillance system that entail the enhancement of national and subnational capacity to build and sustain public confidence in COVID-19 vaccination and immunization in general.

Rwanda's national regulatory authority (Rwanda FDA, <https://rwandafda.gov.rw/web/>) uses existing abridged procedures relying on: (i) WHO prequalification procedures; (ii) decisions of Stringent Regulatory Authorities (SRAs) such as EMA or USFDA; and/or (iii) WHO Emergency Use Listing (EUL). The FDA is a member of WHO Collaborative Registration

Procedure and East African Community (EAC) Joint Assessment mechanisms, which is expected to facilitate adoption of national regulatory decisions. When submitting the COVAX application, Rwanda indicated that it provides immunity from tort litigation to vaccine manufacturers and other actors for development activities and administration of a vaccine relating to COVID-19. Gavi has provided a model agreement used by the government to formalize necessary indemnity and liability frameworks with vaccine manufacturers. The Regulations Governing Registration of Medical Products, which came into effect on April 20, 2020 applied to the vaccine roll out.

RBC will comply with the COVID-19 Vaccine Safety Monitoring guidelines provided in the Centers for Disease Control and Prevention (CDC) COVID-19 Vaccination Program (2020) as applicable in Rwandan law. The guidelines cover data requirements for covid-19 vaccine administration (including comorbidity status, serology results and vaccination refusal); countermeasures and requirements for clinical evaluation of indications and contraindications of vaccines, and the recognition and treatment of emergency reactions to vaccines. The guidelines are available online at:

<https://www.cdc.gov/vaccines/imz-managers/downloads/COVID-19-Vaccination-Program-Interim-Playbook.pdf>

(ii) Unsafe injection practices that can result in disease transmission:

Rwanda has an operational policy on injection safety adopted in 2001 that provides for among others, the systematic and exclusive use of Auto Disable (AD) and Re Use Prevention (RUP) syringes and safety boxes both for routine vaccination and for all mass vaccination campaigns. The National Deployment and Vaccination Plan indicates that healthcare providers were trained on injection safety, supplies of injection equipment and safety boxes were improved and modern incinerators were constructed for most health facilities. The plan possibilities that new COVID-19 vaccination technologies may be introduced combined with the need to vaccinate target populations that differ from those that immunization programmes are most familiar with, may further increase the risk of human errors.

RBC will comply with the national policy on injection safety policy and the CDC COVID-19 Vaccination Program (2020) mentioned above. RBC will further adhere to the Infection Control and Waste Management Plan (ICWMP) in Annex IV of this ESMF regarding safe handling and disposal of injection waste. Mitigation measures for safe injection practice for COVID-19 vaccination activities are elaborated in the proceeding section under operational stage requirements.

(iii) Inappropriate collection, transportation and disposal of medical waste:

As discussed earlier in this ESMF under baseline information, COVID-19 associate medical waste generated by HCFs in the City of Kigali jurisdiction are collected, transported and treated/disposed by the private operator Kalisimbi Depot Pharmaceuticals under license and contractual arrangements with MoH. Medical waste transportation arrangements in district follows the hierarchy of the HCF structure and associated incineration arrangements as discussed earlier under baseline descriptions. District hospitals collect medical waste from health centers in their respective catchments to incinerators using district specialized waste transportation vehicles.

RBC will comply with the national policy on injection safety policy and the CDC COVID-19 Vaccination Program (2020) on minimization of potential waste of vaccine, constituent products, or ancillary supplies. RBC will further adhere to the Infection Control and Waste Management Plan (ICWMP) in Annex IV of this ESMF regarding safe handling and disposal of injection and ancillary waste. Mitigation measures for waste management associated

COVID-19 vaccination activities are elaborated in the proceeding section under operational stage risks and impacts and their respective appropriate mitigation measures.

- (iv) COVID-19 infections due to inadequate adherence to occupational health and safety standards that can lead to illness among healthcare workers:

The National Deployment and Vaccination Plan for COVID-19 Vaccine recognizes that training of staff involved in COVID-19 vaccination roll out is essential to ensure quality and effectiveness of immunization of the target population. Building on the experience of new vaccine introduction in Rwanda including childhood and adolescent vaccinations, Hepatitis B and Ebola vaccinations for healthcare workers, the plan provides for the effective training from central to health center level. The plan provides for the translation and adaptation to country context of training materials developed by WHO and to ensure that the vaccinators are trained not more than 3 weeks prior of COVID-19 vaccine implementation.

RBC will comply with the WHO technical guideline for COVID-19 [Key considerations for occupational safety and health](#) regarding duties, rights and responsibilities for health and safety at work in the context of COVID-19. OHS risks and impacts and their appropriate measures are elaborated in the proceeding section under Labor Management Procedures.

- (v) Shortcomings in the cold chain system that could compromise the potency of the vaccines. No major civil works will be financed under the AF. As a result, no loss of biological diversity and alteration of natural habitats is anticipated. Cold chain system risks are discussed in the proceeding section under procurement of goods and supplies in the planning and design stage.

This chapter provides a summary of potential impact of the Vaccine AF activities that may be associated with the specific project stages comprising the planning Construction (should any civil works be involved), Operational and Decommissioning.

5.1. Planning and design stage

This section describes key E&S issues that should be considered at the planning and design stage. These may include considering the following features of the subproject:

- ***Procurement of goods and supplies:***

Falsified and substandard medical products including PPE pose risks to health and lives. Procurement of medical products should adhere to national regulation and/or to GIIP and to any vaccine manufacturers requirements. The WHO Technical specifications document for procurement of PPE equipment is available at: <https://www.who.int/publications/i/item/WHO-2019-nCoV-PPE-specifications-2020> and the GAVI Cold Chain technical specifications for procurement available at: <https://www.gavi.org/sites/default/files/publications/Cold-chain-equipment-technology-guide.pdf>.

Rwanda will purchase its COVID-19 vaccines through its participation in the COVAX facility under the Procurement Framework Agreement (PFA) between the Government and the third-party logistics UNICEF/GAVI as detailed in the National Deployment and Vaccination Plan for COVID-19. The country has already acquired cold chain and ultra-cold chain equipment for COVID-19 vaccine through the Gavi-Cold Chain Equipment Optimization Platform (CCEOP) project. Other medical supplies and consumables to be procured will include PPEs, syringes and safety boxes, vaccine sharp disposal containers.

The Bank will approve the procurement of vaccines deemed safe and approved by 3 Stringent Regulatory Authorities in three regions or one with WHO pre-qualification and approval by 1 Stringent Regulatory Authority according to its Project Appraisal Document for the COVID-19 Multi Phase Programmatic Approach Additional Financing. In cases where the Bank is supporting

vaccine distribution, but the vaccines to be used do not fit the above approval criteria, the regional Environmental and Social Standards Advisor (ESSA) shall be consulted for guidance.

RBC shall comply with CDC COVID-19 Vaccination Program (2020) requirements for vaccine management, including temperature monitoring at all times, complying with instructions for dealing with temperature excursions, and monitoring expiration dates. Adopted standard operating procedures (SOPs) on maintaining cold chain shall be communicated to all levels of the supply chain managers. Training of healthcare professionals involved in the COVID-19 vaccination program discussed above, will include cold chain maintenance. RBC will operationalize a continuous monitoring of data recording and reporting mechanism for vaccines and cold chain equipment as well as a robust oversight and data-driven management, including systems for monitoring adherence to cold chain practices.

- **Location, type and scale of healthcare facilities and associated waste management facilities, including waste transport routes.**

- **Location of facilities:**

COVID-19 vaccination sites other than HCFs that have existing and operational hygiene and sanitation and waste management will ensure the availability of public water supply, sewage and waste collection services. Mobile clinics that have been designated for Elderly people (>65 years) and people living with NCDs and other underlying conditions should be placed strategically such that these amenities are available and operational (Table 7).

Table 7 Delivery strategy and vaccination sites by target group (National Deployment & Vaccination Plan, 2021)

| Target group | Delivery strategy | Vaccination sites |
|---|--|--|
| Health frontline workers /managers and security organs | Fixed sites | Health centre, District/provincial hospital, referral hospitals, designated sites, private clinics |
| Elderly people (>65 years) | Fixed, outreach sites and mobile strategy | Nearest health centre, designated site for outreach and mobile clinics |
| People living with NCDs and other underlying conditions | Fixed sites and outreach sites and mobile strategy | Nearest Health centre or hospital or designated sites |
| Refugees | Fixed sites | HCs in camps |
| Inmates | Fixed sites | HCs in prisons |
| Others | Fixed sites and outreach sites | Nearest Health centre or hospital or designated sites |

- **Type and scale of facilities:** COVID-19 vaccination sites will maintain hygiene and waste management practices as stipulated in the MWMP and current practices described under Section 4.3 and according the ICWMP in Annex IV.

The following infection prevention and control measures shall be adhered to when selecting COVID-19 vaccination sites described in Table 7 above:

- Providing specific appointment times or other strategies to manage patient flow and avoid crowding and long lines.
- Ensuring sufficient staff and resources to help move patients through the clinic flow as quickly as possible.
- Limiting the overall number of clinic attendees at any given time, particularly for people at higher risk for severe illness from COVID-19.
- Setting up a unidirectional site flow with signs, ropes, or other measures to direct site traffic and ensure physical distancing between patients.

- When feasible, arranging a separate vaccination area or separate hours for people at increased risk for severe illness from COVID-19, such as older adults and people with underlying medical conditions.
- Making available a point of contact for any reasonable accommodation needs for people with disabilities.
- Selecting a space large enough to ensure a minimum distance of 2 meters (6 feet) between patients in line or in waiting areas for vaccination, between vaccination stations, and in post-vaccination monitoring areas.
- The quantity of COVID-19 vaccine transported to a satellite, temporary, or off-site COVID-19 vaccination clinic should be based on the anticipated number of COVID-19 vaccine recipients and the ability of the vaccination provider to store, handle, and transport the vaccine appropriately. This is essential to minimizing the potential for vaccine wastage and spoilage.
- COVID-19 vaccines may be transported—not shipped—to a satellite, temporary, or off-site COVID-19 vaccination clinic setting using vaccine transportation procedures outlined in the upcoming COVID-19 addendum to CDC’s Vaccine Storage and Handling Toolkit. The procedures will include transporting vaccines to and from the provider site at appropriate temperatures, using appropriate equipment, as well as monitoring and documenting temperatures.
- [Conduct a checklist inspection of the receiving facility to ensure correct storage and set up protocol are in place.](#)
- Upon arrival at the COVID-19 vaccination clinic site, vaccines must be stored correctly to maintain appropriate temperature throughout the clinic day.
- Temperature data must be reviewed and documented according to guidance in the upcoming COVID-19 addendum to CDC’s Vaccine Storage and Handling Toolkit.
- At the end of the clinic day, temperature data must be assessed prior to returning vaccine to fixed storage units to prevent administration of vaccines that may have been compromised.
- As with all vaccines, if COVID-19 vaccines are exposed to temperature excursions at any time, the temperature excursion should be documented and reported according to the national immunization program’s procedures. The vaccines that were exposed to out-of-range temperatures must be labeled “do not use” and stored at the required temperature until further information on usability can be gathered or further instruction on disposition or recovery is received.

○ **Quarantine and isolation centers:**

Rwanda has maintained closed border measures except for air travel. The Government designated hospitality facilities for incoming travelers for quarantine requirements under its supervision. Quarantine and isolation centers will adhere requirements for food, water, fuel, hygiene, infection prevention and control, and monitoring the health of quarantined persons should be considered.

● **Vaccine readiness and prioritization:**

The MoH developed a national plan for the deployment and vaccination plan for COVID-19. The country planned to vaccinate equivalent to 30% of the population by the end of 2021 a target that was exceeded as mentioned earlier. The target priority population for vaccination includes health and social workers; security organs; elderly people (65 years old and above) ; people living with chronic conditions; people living in specific high-density settings such as prisons and refugees camps and other frontline workers that may be identified as being at high risk of the disease. By the end of 2022, Rwanda is intending to reach the African Union (AU) target of 60 % of the total population.

The country's overarching goal of introducing COVID-19 vaccine is to save lives and mitigate societal and economic impact by reducing COVID-19 transmission and mortality due to COVID-19 infections. To achieve this goal, twelve areas have been prioritized in the national vaccine deployment and vaccination plan taking into consideration the particular aspects of COVID-19 vaccine introduction:

1. Regulatory preparedness;
2. Planning and coordination;
3. Resources and funding;
4. Identification of target populations;
5. Vaccine delivery strategies;
6. Supply chain management and health care waste management;
7. Human resources management and training;
8. Vaccine acceptance and uptake (demand);
9. Vaccine safety monitoring and management of AEFI and injection safety;
10. Immunization monitoring system;
11. Disease surveillance;
12. Evaluation of introduction of COVID-19 vaccines.

Vaccine acceptance and uptake significance priority area entails articulate stakeholder engagement that will include targeted and tailored communication strategies to increase public awareness, increase the community trust COVID-19 vaccine, increase the proportion of the population that is confident to undertake the COVID-19 vaccine, and engage opinion leaders, including faith-based leaders and local authorities to leverage resources and encourage relevant populations uptake COVID-19 vaccine. The MoH is applying lessons learned from the RCCE response to COVID-19 pandemic to rethink the messaging, prioritizing target populations and finding new avenues for information sharing through the Awareness and Community Engagement (ACE) campaign within the national vaccine deployment and vaccination plan. The campaign is implemented in the following three phases: Pre-Vaccine awareness; COVID-19 vaccine implementation and distribution; and Post-vaccine.

The third Vaccine AF will adapt to different situations, project stages and requirements as they develop to disclose information regarding vaccination and other relevant issues. A separate Stakeholder Engagement Plan (SEP) for this Vaccine AF has been prepared to ensure inclusion, non-discrimination and transparency and to mitigate risks for exclusion of certain groups or perception of exclusion and inequity.

- RBC will ensure that proper design and functional layout of HFC vaccination sites indicated in Table 7 to include: i) structural and equipment safety, life and fire safety, universal access¹¹; ii) nosocomial infection¹² control; iii) waste segregation, storage and processing. Design and functional layout will refer to the National Policy on Injection Safety, Prevention of Transmission of Nosocomial Infections and Healthcare Waste Management (2009) and to the WHO Practical manual to set up and manage a Severe Acute Respiratory Infections (SARI) treatment center and a SARI screening facility in health care facilities available at: <https://www.who.int/publications/i/item/10665-331603>.
- The Vaccine Deployment and Vaccination Plan for COVID-19 vaccine indicates that the country's immunization programme has strengthened AEFIs Monitoring and Surveillance for the last decade

¹¹ Refer to ESS 4 Community Health and Safety.

¹² Nosocomial infection can be described as an infection acquired in hospital by a patient who was admitted for a reason other than that infection. Also called "hospital acquired infection".

and there have been several trainings at both national and subnational levels. The plan further notes that a national AEFI review committee was established in 2017 with the mandate to timely respond to AEFI requirements. The Rwanda AEFI Review Committee comprises a wide range of specialists who include pediatrics, neurology, internist, forensic physician, pathology, and microbiology, with the Terms of Reference to:

- Review individual serious and unusual AEFIs and other AEFIs referred to it by expert groups
- Assess potential causal links between AEFIs and a vaccine (or vaccine lot)
- Monitor reported AEFI data for potential signals of previously unrecognized vaccine-related adverse events
- Provide recommendations for further investigation, education, corrective action, and communication with interested parties, including the media and
- Record its deliberations and decisions and feedback on each reviewed case to all relevant stakeholders.

The National Deployment and Vaccination Plan for COVID-19 Vaccine provides for the expansion of the AEFI Review Committee to include specialists in immunology and epidemiology in order to meet the capacity requirements for COVID-19. The national Expanded Programme on Immunization (EPI) manager, Rwanda FDA, WHO, National Reference Laboratory (NRL) will support the committee in its functions. The National Deployment and Vaccination Plan for COVID-19 Vaccine further notes the recent establishment and operationalization of the Rwanda Food and Drugs Authority (FDA) which is among others, strengthening vaccine pharmacovigilance at all levels of the health system.

- Military and security personnel will not be used in COVID-19 in any vaccination activities.

5.1.1. Standard Operating Procedures (SOPs) for COVID-19 Vaccine Storage and Handling

The National Deployment and Vaccination Plan intervention for strengthen planning and coordination of COVID-19 vaccination operations and chain of reporting and management structure includes the activity to develop and disseminate SOPs related to COVID-19 vaccination implementation. The SOPs shall include COVID-19 Vaccine Storage and Handling based on the CDC's Vaccine Storage and Handling Toolkit (February 5, 2021) for vaccine providers as elaborated below and available at:

<https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf>

COVID-19 Vaccination Provider Requirements

All COVID-19 vaccination providers shall implement the following:

- Store and handle COVID-19 vaccines under proper conditions, including maintaining cold chain conditions and chain of custody at all times in accordance with the vaccine package insert, manufacturer guidance, and guidance in the this SOPs section.
- Monitor storage unit temperatures at all times, using equipment and practices that comply with guidance in this SOPs section.
- Comply with immunization program guidance for handling temperature excursions.
- Monitor and comply with COVID-19 vaccine expiration dates.
- Preserve all records related to COVID-19 vaccine management for a minimum of three years.
- Comply with national instructions and timelines for disposing of COVID-19 vaccine and diluent, including unused doses.

Emergency Use Authorization Storage and Handling Information

Specific, detailed storage and handling protocols for individual vaccines are provided in manufacturer package inserts for vaccines licensed by the Rwanda Food and Drug Administration (FDA). However, because COVID-19 vaccines are currently authorized for use under an EUA, COVID-19 vaccination providers should refer to the EUA Fact Sheet for Healthcare Providers Administering Vaccine and manufacturer information for detailed storage and handling information for each vaccine.

Vaccine Cold Chain

A cold chain is a temperature-controlled supply chain that includes all vaccine-related equipment and procedures. It begins with vaccine manufacturing and ends with vaccine administration. Vaccines must be stored properly from the time they are manufactured until they are administered. Potency is reduced every time a vaccine is exposed to an improper condition. This includes overexposure to heat, cold, or light at any step in the cold chain. Once lost, potency cannot be restored.

An effective cold chain relies on three main elements:

- A well-trained staff
- Reliable storage and temperature monitoring equipment
- Accurate vaccine inventory management

In May 2019, the Government of Rwanda, Ministry of Health in partnership with GAVI, inaugurated the National Vaccines Warehouse. The warehouse is equipped with 10 modern cold rooms, which help in routine vaccines storage and COVID-19 vaccines as well. The warehouse is also used to keep vaccines requiring ultra-low temperature storage, 8 Ultra Low Temperature freezers specific for Pfizer vaccines storage with the capacity of storing 1.5 million doses at once. The Remote Temperature Monitoring Devices are available to keep monitoring vaccines temperature. There are two refrigerated trucks which are used to pick vaccines from Kigali International Airport (KIA) to the national warehouse. The in-country delivery of the vaccine is channeled through hospitals to the vaccination sites including hospitals and health centers. There are 45 cold storage points at Hospital level, which correspond to the number of hospitals. At a lower level, there are 507 cold storage points, which correspond to the number of health centers. The transport and distribution system in Rwanda is a Hybrid model (combining PUSH and PULL) from Central Vaccines (CVS) Store to Intermediate/hospital stores and to the Health Centers. The CVS is responsible for the delivery of vaccines to Hospital Stores. The PULL system is applied at lower level i.e between hospital stores and Health Centers/Services delivery points. The health center staff/vaccinators are responsible for collecting vaccines at Hospitals stores. The distribution of vaccines to the intermediate level or Hospital stores is done once a month but there is a plan to change distribution frequency to a quarterly basis. The distribution frequency between intermediate level/stores and Health Centers is also done on a monthly basis.

The national logistic management information system (LMIS) is used to provide strategic information on the allocation of vaccines per district, the rate of utilization of received vaccines, shelf life, as well as the wastage rate. While the storage a potential use of the highly demanding cold temperature vaccines is guarantee, the same management of the vaccine at the rural level is quite complicated. RBC with therefore continue to comply with the measures detailed below.

Staff and Training

All staff members who receive vaccine deliveries as well as those who handle or administer vaccines should be trained in vaccine-related practices and procedures. As a resource for staff, this SOPs section highlights storage and handling best practices to help protect the vaccine supply complementing Rwanda's specific requirements for storage and handling training, policies, and procedures. All facilities must designate a primary vaccine coordinator and an alternate (backup) coordinator who will be responsible for ensuring all vaccines are stored and handled correctly. The primary and alternate vaccine coordinators should be experts on your facility's storage and handling procedures.

Vaccine Storage and Temperature Monitoring Equipment

COVID-19 vaccination providers must have proper storage and temperature monitoring equipment to meet the specific needs of the COVID-19 vaccine product(s) they have in their inventory. This includes the correct vaccine storage unit(s), whether a refrigerator, regular freezer, or ultra-cold freezer. Purpose-built, also referred to as “pharmaceutical-grade,” units are preferred and designed specifically for storage of biologics, including vaccines. However, household-grade units can be an acceptable alternative in some situations. Most standard freezer units do not meet ultra-cold freezer requirements for storing vaccine between -60° C and -80° C (-76° F and -112° F).

It is essential for each vaccine storage unit to have a temperature monitoring device (TMD) to ensure that vaccines are stored within the correct temperature range. CDC requires a specific type of TMD called a “digital data logger” (DDL) to monitor COVID-19 vaccines. A DDL provides the most accurate storage unit temperature information, including details on how long a unit has been operating outside the recommended temperature range (referred to as a "temperature excursion"). DDLs using a buffered temperature probe provide the most accurate way to measure actual vaccine temperatures. Always use DDLs with a current and valid Certificate of Calibration Testing. Note that not all DDLs can measure ultra-cold temperatures (see box for additional requirements for ultra-cold temperature monitoring).

Storage units must have a DDL that can continuously monitor temperatures. Staff must check and record temperatures at the beginning of each workday to determine if any excursions have occurred since the last temperature check. Most DDLs measure minimum and maximum temperatures. However, if your DDL does not display minimum and maximum temperatures, the temperature must be checked and recorded at the beginning and end of each clinic day and you must review the continuous DDL temperature data daily. Monitoring requirements may vary if you are using the manufacturer-provided shipping container for storage; review the product specific information provided in the SOPs.

When recording include:

- Minimum/maximum temperature
- Date
- Time
- Name of person checking and recording temperature
- Actions taken if a temperature excursion occurred

Temperature records must be kept for a minimum of three years, or as required by Rwandan regulations. Storing COVID-19 vaccines correctly in a vaccine storage unit is also critical to protect the vaccine and reduce the chance of vaccine administration errors if COVID-19 vaccine is stored with other vaccines.

Best practices include:

Place water bottles on the top shelf, floor, and in the door racks of vaccine storage units to help maintain stable temperatures that might be disrupted by frequently opening and closing unit doors. (Note: Water bottles are not recommended for use in in ultra-cold freezers or in all purpose-built or pharmaceutical-grade units - see manufacturer guidance.)

- Avoid placing or storing any items other than vaccines, refrigerated diluents, and water bottles inside storage units.
- Store vaccines and diluents in original packaging.
- Position vaccines and diluents two to three inches from the storage unit walls, ceiling, floor, and door. If using a household-grade unit, avoid storing vaccines and diluents in any part of the unit that may not provide stable temperatures or sufficient air flow.
- Arrange vaccines and diluents in rows and allow space between them to promote air circulation.
- Place vaccines and diluents with the earliest expiration dates in front of those with later expiration dates. Of note, EUA vaccine labels may not include expiration dates. To help providers track expiration dates and beyond use dates (BUDs),

CDC has a COVID-19 Vaccine Expiration Date Tracking Tool on its website available (<https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/downloads/expiration-tracker.pdf>.) Also note that expiration dates may change as additional stability data become available.

"Temperature Excursions"

Any temperature reading outside the range recommended by the manufacturer is considered a temperature excursion and requires immediate action. To determine whether a vaccine is likely to still be viable, COVID-19 vaccine manufacturers will analyze information about the magnitude of the temperature excursion, including the total amount of time that temperatures were out of range. To provide the manufacturer with sufficient information to determine vaccine viability, CDC requires taking the following steps after a temperature excursion:

- Label the vaccine “Do Not Use” and store at the recommended temperature range until you receive manufacturer guidance. If it is a frozen vaccine that has been thawed, store in the refrigerator between 2° C and 8° C (36° F and 46° F) until you receive manufacturer guidance, as refreezing the vaccine may damage it.
- Document the date and length of time of the excursion, the storage unit temperature (minimum/maximum, if available), and inventory affected.
- Record any other relevant information.
- Contact the manufacturer and/or immunization program for guidance on whether to use affected vaccines and whether patients need to be recalled for revaccination.
- Document the event and actions taken for record-keeping requirements.

It is important to note that vaccine manufacturer responses to temperature excursion reports are dependent on information given by the provider to the manufacturer. Different information about the same event can lead to different recommendations on whether vaccine can be used or whether patients need to be revaccinated. In addition, each event is unique, and manufacturer recommendations cannot be applied to future events that may appear to be similar. For manufacturer contact information for vaccine- and temperature-related questions, see the COVID-19 vaccine specific product information page in this addendum.

Vaccine Deliveries and Vaccine Inventory Management

Proper vaccine inventory management is essential for appropriate vaccine ordering and stock rotation and ensures your facility has the vaccines your patients need. Maintaining the cold chain is the first step in vaccine inventory management. Vaccine deliveries must only be scheduled at times when staff is guaranteed to be present because vaccines can never be left unattended. To support efficient distribution of vaccine, full-day receiving hours should be available. When that is not possible, locations receiving vaccine and ancillary supply shipments must be available during a four-hour window on a weekday other than Monday.

All COVID-19 vaccine and ancillary kit deliveries will require a signature. Upon arrival, shipments of refrigerated and frozen vaccine must be immediately examined for signs of damage, for indication of a temperature excursion during transit, and to guarantee receipt of the appropriate vaccine types and quantities. Before opening ultra-cold vaccine shipments, make sure the vaccine can be quickly placed in an ultra-cold freezer or that dry ice is available for re-icing the shipping container to ensure vaccine remains at the appropriate ultra-cold temperature. Vaccines and diluents must be carefully examined, stored at recommended temperatures, and documented using your facility's vaccine inventory management process immediately after they arrive.

Vaccine inventory accounting includes keeping stock records to determine the type and amount of COVID-19 vaccine your facility should stock to meet the needs of your patients. It also involves checking expiration dates regularly and rotating stock so that doses with the earliest expiration dates are placed in front of those with later dates.

Expired Vaccine

Determining when a vaccine or diluent expires is a critical step in proper storage and handling. Expired vaccines and diluents must be removed immediately from storage units to avoid inadvertently administering them. Manufacturers may have specific guidance on how to handle expired or compromised vaccines. However, open or broken vials and vaccine pre-drawn by providers cannot be returned and must be discarded according to your Rwanda's requirements.

To help COVID-19 vaccination providers track expiration dates and beyond use dates (BUDs), CDC has posted a COVID-19 Vaccine Expiration Date Tracking Tool on its website (<https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/downloads/expiration-tracker.pdf>).

Vaccine Disposal

Rwanda's immunization program shall provide guidance to ensure your vaccine disposal procedures comply with national regulations. Vaccine manufacturers should also provide guidance about proper disposal of their products, including any unused vaccine. In some instances, unused vaccine may be returned to the manufacturer. Empty vaccine vials are usually not considered hazardous or pharmaceutical waste and do not require disposal in a biomedical waste container. However, check and comply with your Rwanda's requirements for disposal.

Vaccine Preparation

Vaccine preparation is the final step in the cold chain before administration. Handling vaccines with care is equally as important as storing them properly. It is important to follow vaccine preparation instructions provided in the vaccine product's EUA Fact Sheet for Vaccination Providers. COVID-19 vaccine products may have different preparation requirements. Some should not be shaken, or the vaccine will be compromised and cannot be used. Carefully follow the manufacturer's vaccine preparation guidance for each COVID-19 vaccine product. Diluents are not interchangeable unless specified by the manufacturer and vaccine mixed with the wrong diluent should never be administered.

Vaccine Transport

As part of the COVID-19 Vaccination Program, a minimum order size of COVID-19 vaccine, diluent (if applicable), and ancillary supplies will be shipped directly to enrolled COVID-19 vaccination providers. In most instances, vaccine will be delivered directly to the facility where it will be administered to maintain the vaccine cold chain. However, there may be circumstances where COVID-19 vaccine needs to be redistributed or transported. According to the National Deployment and Vaccination Plan, COVID-19 vaccine needs to be transported vaccination sites as indicated in Table 7.

In these instances, appropriate precautions must be taken to protect the vaccine. Vaccine must only be transported using appropriate packing materials that provide maximum protection. Follow Rwanda's direction for transporting COVID-19 vaccine products as specified in the National Deployment and Vaccination Plan for COVID-19 Vaccine. Transporting vaccine requires planning and preparation to ensure the cold chain is maintained. As a COVID-19 vaccination provider, you should carefully review the "Vaccine Transport" subsection above to ensure your facility has the appropriate procedures and supplies in place to safely transport vaccine. Transport guidance may vary based on the specific COVID-19 vaccine product. The chart in Table 8 below shows general transport recommendations to maintain the vaccine cold chain in two situations: emergency transport and transport for use at off-site clinics or satellite facilities or for relocation of stock.

Table 8 Transport recommendations for emergency transport and transport for off-site clinic, satellite facility or relocation of stock (CDC, Feb 2021)

| General Transport System Recommendations | Emergency Transport | Transport for Off-Site Clinic, Satellite Facility, or Relocation of Stock |
|---|----------------------------|--|
|---|----------------------------|--|

| | | |
|---|------------------------|-----|
| Portable Vaccine Refrigerator, Freezer, or Ultra-cold Freezer | Yes | Yes |
| Qualified Container and Pack-out | Yes | Yes |
| Conditioned Water Bottle Transport System | Yes | No |
| Manufacturer's Original Shipping Container | Yes (last resort only) | No* |
| Food/Beverage Coolers | No | No |

*The original shipping container for ultra-cold COVID-19 vaccine can be used for transport.

Recommendations vary based on the situation. Some COVID-19 vaccine products may have specific transport guidance to ensure the cold chain is maintained and vaccine is protected. Refer to the individual COVID-19 vaccine product information in this addendum for additional information.

Emergency Storage and Handling

Emergencies such as equipment failures, power outages, severe weather conditions, or natural disasters usually happen without warning and may compromise storage conditions. Some key issues to remember include:

- Vaccines may remain inside a nonfunctioning unit as long as appropriate temperatures are maintained. Monitor your DDL to determine when additional action should be taken.
- Having an on-site generator(s) prevents the need to transport vaccines to an alternative storage facility during a power outage.
- Emergency situations can arise outside of normal business hours, so your office staff as well your facility's building manager and/or security staff, if appropriate, must understand how to implement your emergency operation plans or access your facility if necessary.
- Ensure your facility has the resources on hand to safely pack vaccines for transport during emergencies.

5.2. Construction stage

Workers coming from infected areas

The parent project considered risks associated with minor civil works for refurbishment or rehabilitation, COVID-19 infection may be spread by workers coming from infected areas, co-workers becoming infected and workers introducing infection into community or general public. To mitigate these risks, the project Social Specialist staff ensures the application of the COVID-19 Labor Management Plan (LMP) that is elaborated in Section 7.4 LMP mitigation measures include among others the following:

- Visitors to sites should be curtailed unless essential and business-critical such as delivery drivers, outside maintenance, or repairs, welfare facilities need to be provided.
- Introduce staggered start and finish times to reduce congestion and contact.
- Log all visitors to site.
- Remove or disable entry systems that require skin contact, e.g., fingerprint scanners.
- Promote good hygiene, wash or clean hands before entering or leaving premises. Provide the necessary facilities to do this, warm water soap or hand sanitizer.
- Monitor site access points to enable social distancing – you may need to change the number of access points, either increase to reduce congestion or decrease to enable monitoring.
- Drivers should remain in their vehicles if the load will allow it and must wash or clean their hands before unloading goods and materials.
- There should be no more than 50 people in the same space in any circumstance.
- Workers must maintain a safe working distance of at least 2 meter between each other (unless it is unavoidable).
- Tasks are to be rearranged to enable them to be done by one person or a small number of persons without compromising safety measures.

- Wherever possible, sharing of tools or equipment is highly discouraged.
- Sanitation measures should be applied to the use of tools and equipment regularly every day. Clean and disinfect points of contact on the equipment and store them in a safe location.
- Reusable masks should not be shared by workers. These masks should be washed with soap and water every day after use.
- Advance procurement of preventive equipment, such as soap, surgical masks, tissues, and hand sanitizers, is encouraged.

However, no minor civil works for refurbishment or rehabilitation are planned for vaccination sites. RBC will ensure that HCFs and mobile clinics designated as vaccination sites adhere to COVID-19 requirements for IPC medical personnel and other workers at these facilities.

Occupational Health and Safety (OHS) risks

Improper work procedures during civil works and in the management of healthcare waste management can cause OHS risks on health care providers and supportive staff or persons with disabilities. Mitigation measures in the parent project involves adopting and implementing safety guideline or manuals from OHS guideline and WHO technical guideline for COVID-19 [Key considerations for occupational safety and health](#). The Environmental Specialist and Social Specialist are accountable for the supervision of the following measures for vaccination activities under the Vaccine AF:

- Develop an Occupational Health and Safety approach, which aims to avoid, minimize and mitigate the risk of workplace accidents. This would include identifying potential risks and identifying safe working practices, using only trained workers, using safe machinery and equipment and providing necessary personal protective equipment (PPE).
- Comply with all national and good practice regulations regarding workers' safety.
- Prepare and implement a simple action plan to cope with risk and emergency (e.g., fire, earthquake, floods, COVID-19 outbreak).
- Have receive minimum required training on occupational safety regulations and use of personal protective equipment; and
- The contractor(s) shall provide safety measures as appropriate during works such as fire extinguishers, first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect hospital staff and patients against construction risks.

Traffic hazards

Lack of traffic and road safety procedures can lead to traffic accidents caused by moving machinery and equipment. The project Environmental Specialist monitors any civil works that contractors implement the following measures:

- Minimizing pedestrian interaction with construction vehicles
- Collaboration with local communities and responsible authorities to improve signage, visibility and overall safety of roads, particularly along stretches located near schools or other locations where children may be present.
- Collaborating with local communities on education about traffic and pedestrian safety (e.g. school education campaigns)
- Using locally sourced materials, whenever possible, to minimize transport distances. Locating associated facilities such as worker camps close to project sites and arranging worker bus transport to minimizing external traffic
- Employing safe traffic control measures, including road signs and flag persons to warn of dangerous conditions

Other mitigation measures may include:

- Only experience and trained drivers should be allowed to drive project vehicles.
- Vehicles should be checked and maintained regularly.
- Conduct regular traffic safety awareness training for drivers and community, including schools; choose access routes away from sensitive receptors, where possible.
- Minimize activity during rush hours.

These measures will be applied to vaccination activities under the Vaccine AF. The WHO Interim guidance for oxygen sources and distribution for COVID-19 treatment center (4 April 2020) should be followed for storage and delivery of oxygen. The guidance is available at:

<https://apps.who.int/iris/bitstream/handle/10665/329874/9789241516914-eng.pdf?ua=1>

Gender Based Violence, Sexual Exploitation and Abuse and Sexual Harassment issues and risks

Worker environments can present Gender Based Violence (GBV), Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) risks if deterrent measures are not planned for and practiced. As a mitigation measure, Social Specialist arranges the preparation of a GVB/SEA/SH action plan for implemented by all parent project contractors. Each subproject contractor, permanent or temporary, would sign a Code of Conduct, to promote appropriate behavior, among other requirements. This measure will be applied for the Vaccine AF activities.

Temporary disruption of healthcare services

Under the parent project provisions were made such that facilities under renovation would not be closed, modifications of buildings in which medical services are provided may entail moving patients or equipment from one area or room to another. This may cause temporary disruption in delivery of health services to patients at facilities under renovation. Temporary rearrangement of service areas can have the undesirable consequence of slowing down emergency services or cause inability among health workers to efficiently offer necessary treatment for visiting patients. Movement of equipment may cause their damage. Such disruptions are not anticipated for vaccination activities under the Vaccine AF.

Cultural heritage

Refurbishment and/or rehabilitation civil works in the parent project were expected to be minor with low likely impact on cultural heritage. However, as a precautionary measure, Chance-find Procedures (see sample in Annex VI) will be included in civil works contracts requiring contractors to stop construction if cultural heritage phenomena are encountered during refurbishment or rehabilitation activities in order to coordinate with the relevant mandated country authority for the salvaging, restoration or other appropriate action of such cultural heritage. Although no civil works are planned for vaccination activities, the project Environmental Specialist will ensure that an appropriate clause is included all civil works contracts as a precautionary measure under the Vaccine AF.

Fire risk and chemical spill and other toxicity accidents

Lack of appropriate emergency preparedness and response plans can result in accidents such as fire, chemical spills and other toxic substance releases causing danger to humans and to the environment. The Environmental Specialist would have arranged for the preparation of an Emergency Response Plan for containment of fire accident and an emergency response plan for containment of chemical spill and toxic substance release during the parent project investment activities. The Emergency Response Plan would be operationalized by respective EHOs or C-EHOs at recipient HCFs of project investments as displayed in Figure 6 and will be applied for Vaccine AF activities.

Water pollution and temporary loss of utility services

Minor civil works related to onsite waste management facilities, including temporary storage, incinerator, sewerage and/or wastewater treatment works can cause water and soil pollution from construction wastes

as well as on-site make shift toilets. Civil works and also cause temporary loss of access to services such as water and electricity. Under the parent project, HCF staff with support from the SPIU ES staff and supervising engineer were to ensure that contractors collect and dispose wastes in designated disposal sites as required by the Local Authority and provide appropriate and approved temporary toilets for both males and females.

A summary of Environmental and Social Risks and Mitigation Measures for the parent project during the construction (minor civil works) stage is provided in Table 2 in Annex III. The measures may be updated as appropriate under the supervision of the RBC SPIU (PIU) Coordinator.

HCF Infection control and waste management plan risks

Inadequate or flawed planning for infection control and waste management may result in infection spread due to inadequate hand hygiene and respiratory hygiene during COVID-19 triage, early recognition and source control. The project Environmental Specialist was to conduct screening of each of the participating HCFs and arrange the preparation and implementation of an Infection control and waste management plan (ICWMP) according to the template provided in Annex IV of this ESMF. This measure will be applied to the designated vaccination HCF sites under the Vaccine AF. Due reference to the WHO interim guidance for “IPC during health care when COVID-19 is suspected” is available at:

[https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125).

Risk of increased transmission of communicable diseases including HIV/AIDS

Minor civil works for refurbishment and or rehabilitation will would have been carried out at few existing HCFs benefiting from the parent project with minimum personnel and no interaction with local communities. However, the RBC-SPIU will apply the following mitigation measures supervised by the project Environmental and Social Specialist:

- Sensitization and health awareness campaigns to all involved in the project including service providers.
- Integrate monitoring of HIV/AIDS preventive activities as part of the construction supervision. Basic knowledge, attitude and practices are among the parameters to be monitored, and particularly on provision of condoms, status testing and use of ARVs, as well as sexual health and rights.
- Develop appropriate training on potential spread and awareness materials for Information, Education and sensitization of workers during project construction phase.

Solid waste from minor civil works

Minor civil works for refurbishment and or rehabilitation will would have been carried out at few existing HCFs benefiting from the parent project. However, the minor civil works may generate waste comprising of materials such as concrete, wooden pallets, steel cuttings/fillings, packaging paper or plastic, wood, plastic pipes, metals, etc. Workers will also generate refuse consisting of food waste, plastic, glass, human waste, aluminum cans and wastepaper. The RBC-SPIU will apply the following mitigation measures supervised by the project Environmental Specialist:

- Ensure onsite latrine be properly operated and maintained to collect and dispose wastewater from those who do the works;
- Develop and follow a brief site-specific solid waste control procedure (storage, provision of bins, site clean-up, bin clean-out schedule, etc.) before commencement of any rehabilitation works;
- Use litter bins, containers and waste collection facilities at all places during works. The contractor(s) may store solid waste temporarily on site in a designated place prior to off-site transportation and disposal through a licensed waste collector;

- Dispose of waste at designated place identified and approved by local councils. Open burning or burial of solid waste at the hospital premises shall not be allowed. It is prohibited for the to dispose of any debris or construction material/paint in environmentally sensitive areas (including watercourse); and
- Recyclable materials such as wooden plates for trench works, steel, scaffolding material, site holding, packaging material, etc. can be segregated and collected on-site from other waste sources for reuse or recycle (sale).

5.3. Operational Stage including Vaccination Campaigns

Risks resulting from operational activities in Component 1 (case detection, confirmation and contact tracing for COVID-19 patients) and Component 2 (public health measures and clinical care capacity improvement) will lead to generation of various categories of medical waste which ranges from general infectious waste, pathological waste, chemical waste (laboratory reagents) and sharps. For the operational phase activities supported by the GoR outside of the project, risks and mitigation measures are presented in this ESMF (Annex III) and ICWMP (Annex IV). The following are the potential impacts associated with implementation of Rwanda COVID-19 Emergency Response Project and its Additional Financing:

HCF wastewater and fecal waste

Isolation and quarantine facilities are associated with increased volume of wastewater and excreta. Liquid contaminated waste (e.g. pathological sample, blood, feces, urine, other body fluids and contaminated fluid) requires special handling, as it may pose an infectious risk to healthcare workers with contact or handle the waste. There is no evidence to date that the COVID-19 virus has been transmitted via sewerage systems with or without wastewater treatment. Mitigation measures implemented under the parent project and to be continued under the Vaccine AF:

- Inorganic waste should be given to the authorized vendor for free of cost for recycling;
- Minimization and safe storage of potential sources of liquid wastes.
- Install a sewer system to collect liquid waste from around a facility and carry it below ground to a central location for treatment.
- Liquid waste originating from the laboratory should pass through a disinfection process before directing to the general sewer line according to WHO-Laboratory biosafety guidance related to COVID-19 available at <https://apps.who.int/iris/handle/10665/332076> .
- People with suspected or confirmed COVID-19 disease should be provided with their own flush toilet or latrine.
- Where this is not possible, patients sharing the same ward should have access to toilets that are not used by patients in other wards.
- Each toilet cubicle should have a door that closes, to separate it from the patient's room.
- Flush toilets should operate properly and have functioning drain traps.
- When possible, the toilet should be flushed with the lid down to prevent droplet splatter and aerosol clouds.
- If it is not possible to provide separate toilets for COVID-19 patients, then the toilets they share with other non-COVID-19 patients should be cleaned and using a recommended disinfectant at least twice daily by a trained cleaner wearing PPE (impermeable gown, or if not available, an apron, heavy-duty gloves, boots, mask and goggles or a face shield).
- Health-care staff should have toilet facilities that are separate from those used by all patients.
- A disinfection step may be considered if existing wastewater treatment system is not optimized to remove viruses.
- Make sure all containers, drums and tanks that are used for storage are in good condition;
- Take all precautionary measures when handling and storing fuels and lubricants, avoiding environmental pollution;

Improper medical waste management

During their operation, health centers will generate medical waste through several clinical activities including; sample collection from COVID-19 suspected patients, laboratory practices and procedures (performing and handling of specimen and chemicals), blood transfusion procedures and from activities in isolation and quarantine facilities; which need to be disposed of in an appropriate medical waste disposal facility. Improper disposal of medical waste would have environmental and public health impacts: for example, open burning and incineration of medical wastes can result in emission of dioxins, furans and particulate matter, and result in unacceptable cancer risks under medium (two hours per week) or higher usage.

Impact mitigation measures provided here below for the parent project that shall also be applied to the Vaccine AF are sourced from the WBG EHS Guidelines for Healthcare Facilities. Other measures provided in Annex III (ESMP) Table 3 and Annex IV (ICWMP).

- Health care facilities should establish, operate and maintain a health care waste management system (HWMS) adequate for the scale and type of activities and identified hazards.
- Each health facility should prepare (prior to the start of operations under the project) an Infection Control and Waste Management Plan (ICWMP) based on the template provided in Annex IV and in accordance with national regulations.
- Waste should be identified and segregated at the point of generation. Non-hazardous waste, such as paper and cardboard, glass, aluminum and plastic, should be collected separately and recycled. Food waste should be segregated and composted. Infectious and / or hazardous wastes should be identified and segregated according to its category using a color-coded system. Collection bins should be placed at specific points or at strategic locations for dumping the medical wastes and other waste types, hence segregating the medical waste from other wastes. The bins should be emptied regularly to licensed collection centers or disposal sites to avoid soil and groundwater contamination.
- Prevention and minimization of the production of waste (integrating systems and practices to avoid the creation of waste into facility design and management and equipment and consumables purchasing).
- Reuse or recycling of wastes to the degree feasible, employing:
 - Source reduction measures such as purchasing restrictions to ensure the selection of methods or supplies that are less wasteful or generate less health care waste;
 - Recyclable products (use of materials that may be recycled either on- or off-site);
 - Good management practices rigorously applied to purchase and control of chemicals and pharmaceuticals; and
 - Segregation of wastes into different categories—for control of quantities and disposal methods.
- Seal and replace waste bags and containers when they are approximately three quarters full. Full bags and containers should be replaced immediately.
- Identify and label waste bags and containers properly prior to removal.
- Transport waste to storage areas on designated trolleys / carts, which should be cleaned and disinfected regularly.
- All healthcare waste generated during care of COVID-19 patients should be treated as infectious waste and managed in accordance to WHO guidelines on Water Sanitation, Hygiene and Waste Management for COVID-19.
- Instructions on how to handle the infectious waste from isolation and treatment centers should be made available to the waste handlers in all health facilities.
- Ensure safety and health of the health care waste handlers through provision of appropriate PPEs, vaccination against Hepatitis B and tetanus as well as provision of post-exposure prophylaxis (PEP).

- Waste storage areas should be located within the facility and sized to the quantities of waste generated, with the following design considerations:
 - Hard, impermeable floor with drainage, and designed for cleaning / disinfection with available water supply;
 - Secured by locks with restricted access;
 - Designed for access and regular cleaning by authorized cleaning staff and vehicles;
 - Protected from sun, and inaccessible to animals / rodents;
 - Equipped with appropriate lighting and ventilation;
 - Segregated from food supplies and preparation areas; and
 - Equipped with supplies of protective clothing, and spare bags / containers.
- Unless refrigerated storage is possible, storage times between generation and treatment of waste should not exceed 48 hours during cool season, 24 hours during hot season.
- Store mercury separately in sealed and impermeable containers in a secure location.
- Store cytotoxic waste separately from other waste in a secure location.
- Store radioactive waste in containers to limit dispersion, and secure behind lead shields.
- Transport waste destined for off-site facilities according to the guidelines for transport of hazardous wastes / dangerous goods in the General EHS Guidelines.
- Transport packaging for infectious waste should include an inner, watertight layer of metal or plastic with a leak-proof seal. Outer packaging should be of adequate strength and capacity for the specific type and volume of waste.
- Packaging containers for sharps should be puncture-proof.
- Waste should be labeled appropriately, noting the substance class, packaging symbol (e.g. infectious waste, radioactive waste), waste category, mass / volume, place of origin within hospital, and final destination.
- Transport vehicles should be dedicated to waste and the vehicle compartments carrying waste sealed.
- Facilities receiving hazardous health care waste should have all applicable permits and capacity to handle specific types of health care waste. The SPIU will review the contracts for District hospitals receiving waste from the participating HCFs, including Kalisimbi Depot Pharmaceuticals waste processing facility, to include applicable EHS clauses to comply with ESSs, specifically ESS3 and ESS2, including OHS aspects.
- Health care waste generated in the management of COVID-19 patient is considered infectious wastes and should be treated in the following methods and technologies sequentially: chemical disinfection, wet thermal treatment, inertization, microwave irradiation, incineration and landfill disposal.
- Customized training for the staff handling and management health care wastes contaminated with COVID-19 should include:
 - The use of appropriate / full PPEs (N95 respirators, apron, heavy duty gloves, eye protection, boots and long sleeved gown);
 - Hand hygiene practices;
 - Waste segregation strategies and clean up procedures;
 - On-site Handling, Collection, Transport and Storage;
 - Exposure to COVID-19 infections and diseases transmission;
 - Exposure to radiation; and
 - Fire safety measures.

Impact as a result of improper procurement of Medical Supplies and Equipment

The project shall procure:

- a. Equipment such as intensive care equipment (intubation, oxygen concentrators, suction machines, respiratory support machines) and dialysis machine and plant.
- b. Supplies: sample collection and packaging supplies, lab reagents, pharmaceutical supplies, health care waste management/lab PPE among others.

Poor quality equipment may exacerbate COVID19 fatality due to failure of operations especially life saving machines like ventilators. On the other hand, due to poor handling of samples collection and packaging supplies, lab reagents, vaccines, pharmaceutical supplies, health care waste management the use of lab PPE may lead to the spread of infections to the healthcare workers.

Mitigation measures

- Adhere to the procurement plan for acquisition of all medical supplies and equipment from certified suppliers only.
- Carry out due diligence for all potential suppliers to guarantee quality equipment and products. It is noted that MoH/RBC-SPIU practice of purchasing parent project medical supplies and equipment through the Africa Medical Supplies Platform (AMSP) ensures certified medical equipment such as diagnostic kits, PPE and clinical management devices with increased cost effectiveness and transparency from vetted manufacturers fulfils the requirement for due diligence.
- WHO interim guidance on rational use of PPE for coronavirus disease 2019 provided further details on the types and quality of PPE that are required for different functions.
- Carry out due diligence for the COVID-19 vaccine value chain according to the WHO Technical specifications document for procurement of PPE equipment is available at: https://www.who.int/publications/i/item/WHO-2019-nCoV-PPE_specifications-2020 and the GAVI Cold Chain technical specifications for procurement available at: <https://www.gavi.org/sites/default/files/publications/Cold-chain-equipment-technology-guide.pdf>.

The parent project and its AF frontline healthcare workers shall continue to be provided with medical personal protective equipment (PPE) includes: Medical mask, Gown, Apron, Eye protection (goggles or face shield), Respirator (N95 or FFP2 standard), Boots/closed work shoes.

HCF operational hazards (including vaccination)

There are trained vaccinators in each vaccination site. At health center level, the vaccination team is composed of one nurse and a Data Manager. At hospital level, the team is composed of two nurses, a Data manager, a Medical doctor responsible for AEFI monitoring and a vaccine logistician. The national vaccination plan has allocated sufficient budget on continuous training and administrative, clinical and supportive supervision activities.

General operation of HCFs can involve vulnerability to spread of infection (especially during a pandemic) physical hazards, electrical and explosion hazards, fire, chemical use, ergonomic and radioactive hazards. The project will deploy fulltime Environmental and Social Specialists supported by district officials on existing contractual conditions to oversee ES risk management of project activities. The project provides funds logistical and operational support for personnel. The project ES staff will work with the EHOs or C-EHOs at intervention HCFs as in Figure 6 to ensure that the following mitigation measures are implemented. These measures are elaborated in Annex III and Annex IV.

- Health facilities should apply pre-vaccination screening that includes for contraindications as elaborated in the National Deployment and Vaccination Plan for COVID-19 Vaccine.
- Health facilities should establish and apply Standard Precautions including:
 - Hand Hygiene (HH);
 - Respiratory hygiene/cough etiquette.
 - Use of personal protective equipment (PPE);
 - Handling of patient care equipment, and soiled linen;

- Environmental cleaning;
- Prevention of needle-stick/sharp injuries;
- Appropriate Health Care Waste Management;
- Health facilities should establish and apply Transmission based precautions (contact, droplet, and airborne precautions) as well as specific procedures for managing patients in isolation room/unit.
- Establishment of Standard precautions and Transmission based precautions in line with National guidelines for IPC in healthcare facilities and take into account guidance from WHO and/or CDC on COVID19 infection control,
- Collection of samples, transport of samples and testing of the clinical specimens from patients meeting the suspect case definition should be performed in accordance with WHO interim guidance Laboratory testing for coronavirus disease 2019 (COVID-19) in suspected human cases.
- Tests should be performed in appropriately equipped laboratories (specimen handling for molecular testing requires BSL-2 or equivalent facilities) and by staff trained in the relevant technical and safety procedures.
- All hospitals and laboratories should prepare waste management procedures in accordance with the national requirements that outline waste segregation procedures, on site handling, collection, transport, treatment and disposal, and training of the staff.
- Health facilities shall ensure the provision of safe water, sanitation, and hygienic conditions, which is essential to protecting human health during all infectious disease outbreaks, including the COVID-19 outbreak. Health facilities shall establish and apply good practices line with WHO guidance on water, sanitation and waste management for COVID-19 and National guidelines for Infection Prevention and Control in the healthcare facilities.
- Samples that are potentially infectious materials (PIM) need to be handled and stored as described in WHO document Guidance to minimize risks for facilities collecting, handling or storing materials potentially infectious for polioviruses (PIM Guidance). Organize and implement medical surveillance which includes medical service and immunization programs;
- Provide health and safety training;
- Adopt and implement safety manuals aligned with OSH guideline and WHO laboratory biosafety manual; WHO technical guideline for COVID-19 Key considerations for occupational safety and health
- Develop and implement safety standards.

Vaccine readiness and prioritization as presented in the National Deployment and Vaccination Plan for COVID-19 Vaccine has been discussed under Section 5.1 above. The revised SEP for the Vaccine AF features an engagement plan that includes communicating the principles for fair, equitable and inclusive access and allocation of the COVID-19 Vaccine, reaching out to disadvantaged and vulnerable groups, overcoming demand-side barriers to access (such as mistrust of vaccines, stigma, cultural hesitancy), and creating accountability against misallocation, discrimination and corruption.

Labor issues in HCF operation

Worker grievances can develop in general operation of HCFs that may involve among others, PPE availability and/or use; lack of proper procedures or unreasonable overtime; time-sensitivity and/or confidentiality of grievance. To mitigate these labor risks, the HCF will adopt the application of the GRM as features in the COVID-19 Labor Management Plan (LMP) as elaborated in Section 7.4 as well as the WHO resources for COVID-19: occupational health available at: <https://www.who.int/news-room/detail/09-03-2020-covid-19-occupational-health>

Vulnerable and/or special needs groups

Lack of considerations in HCF operation for differentiated treatment for vulnerable and/or special needs groups may put the elderly, people preexisting conditions, the very young, people with disabilities at higher risk of contracting COVID-19 virus. The project design must include considerations for differential

treatment for special needs groups are incorporated in subproject activities based on results and recommendations from stakeholder engagements according to the project SEP. Requirements for the Vaccine AF have been included in the revised SEP based on the National Deployment and Vaccination Plan for COVID-19 Vaccine.

Inadequate cleaning risks in HCF operation

Inadequate cleaning equipment, materials and disinfectant and inadequate training of cleaning staff for COVID-19 requirements may result in infection propagation in HCF operation. The HCF will adopt the following mitigation measures for the Vaccine AF:

- Ensure that cleaning chemicals do not introduce a product safety hazard.
- Provide cleaning staff with adequate cleaning equipment, materials and recommended disinfectants.
- Store and use disinfectants in a responsible and appropriate manner according to the label.
- Do not mix bleach or other cleaning and disinfection products. This can cause fumes that could be very dangerous to breathe in.
- Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.
- Enhanced and regular cleaning of touchpoints is recommended.
- Where cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, provide appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, provide best available alternatives.
- Train cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
- The people cleaning should always wear gloves appropriate for the chemicals being used when they are cleaning and disinfecting, and they may need additional PPE based on the setting and product.
- Rubbish collection and storage points should be increased and emptied regularly throughout and at the end of each day.
- Refer to WHO Interim guidance for WASH waste management for the COVID-19 virus available at: <https://www.who.int/publications-detail/water-sanitation-hygiene-and-waste-management-for-the-covid-19-virus-interim-guidance>.

Risks associated with sample collection, packaging and laboratory procedure

It is essential that laboratory analysis is carried out to immediately ascertain or rule out a suspected COVID-19 case. It is expected that COVID-19 samples collected during a suspected outbreak will be transported by Ministry of Health trained staff to a specialized reference laboratory for analysis in accordance with WHO and MoH standard operating procedures. This avoids the potential impact of risks associated with improper collection of samples, transportation of samples, improper laboratory waste disposal in communities or at emergency treatment units. Improper management of laboratory waste (syringes, Gene Expert cartridges etc.) would lead to offsite COVID-19 transmission slowing effective containment of the outbreak. The impact and severity due to unplanned disposal of COVID-19 related laboratory waste would be a negative impact with potentially long-term and irreversible socio-economic impact with high significance.

The following mitigation measures shall to be implemented for the parent project activities. These measures are elaborated in Annex III and Annex IV.

Ministry of Health, through SPIU and HCF staff shall:

- Ensure that HCWs who collect specimens use appropriate PPE (i.e., eye protection, an N95 mask, a long-sleeved gown, gloves). If the specimen is collected with an aerosol-generating procedure, personnel should wear a particulate respirator at least as protective as a certified N95, an EU standard FFP2, or the equivalent;
- Ensure that all personnel who transport specimens are trained in safe handling practices and spill decontamination procedures;
- Place specimens for transport in leak-proof specimen bags (i.e., secondary containers) that have a separate sealable pocket for the specimen (i.e., a plastic biohazard specimen bag), with the patient's label on the specimen container (i.e., the primary container), and a clearly written laboratory request form;
- Establish a quality control system for packaging, collection and transportation of laboratory samples following the WHO guidelines on laboratory biosafety guidance related to COVID-19;
- Ensure the collection of samples, transport and the testing of clinical specimens from patients meeting the suspect case should be performed in accordance with WHO interim guidance on laboratory testing for coronavirus disease 2019;
- Utilize incinerator for destroying Gene Expert cartridges at higher than 1,200 °C
- Put in place innovative and efficient mechanisms to improve transport of COVID-19 samples to reference laboratories in the shortest time possible and following the safety precautions;
- Sample transportation should not expose transporters to risk either during normal handling or in case of an accident.

Impact management

Continue building the capacity of laboratory staff to meet necessary standards, including:

- Ensure proper medical waste management in accordance with existing WHO standard operating procedures (SOPs);
- Daily monitoring of laboratory capacity to ensure they are all able to accommodate the number of samples collected;
- Organizing sample management (collection, storage, packaging and transport) in accordance with WHO guidelines;
- Regularly train the relevant health personnel on COVID-19 diagnosis and sample management.

Risks associated with on-site healthcare waste treatment and disposal including vaccination sites

On-site healthcare waste treatment and disposal involving incineration that may include chemicals containing Volatile Organic Compounds (VOCs) may pose health risks and pollution. The Environmental Specialist together with EHOs or C-EHOs at ERP beneficiary HCFs will ensure that septic and other systems recommended by WBG EHS guideline and by WHO Interim guidance for WASH waste management for the COVID-19 virus are duly considered in HCF infection control and waste management plans. Appropriate waste drainage systems leading to septic tank or public sewerage facilities or treatment technologies such as activated sludge and sanitary facilities will be used, if available in the local municipality. These measures will be included in the ICWMP according to Annex III and Annex IV.

Risks associated with waste (including vaccine waste) transportation, off-site treatment and disposal

Waste transportation, off-site treatment and disposal can cause transmission risk of COVID-19 virus. There is a risk associated with traffic and road safety hazard during operational phase due to use of ambulances, transportation of samples to the laboratory and transportation of highly infectious medical waste from facilities with no HCW treatment and disposal facilities. Appropriate facilities and methods as stipulated in the WBG EHS guideline for Health Care Facilities and WHO interim guidance on WASH for the COVID-19 virus will be deployed to collect, and transport wastes, treat and dispose them using appropriate technologies and disposal facilities (incineration as a last alternative).

Mitigation measures

- The relevant staff should be trained on pre-hospital emergency care, infection prevention and control measures, how to handle samples in transit, healthcare waste and spillage management in case of an accident and provided with the required PPE,
- Vehicles used as ambulances or for transporting any hazardous material and medical waste should be road worthy, labelled to indicate its load and its payload secured to minimize risk of accidents and spillage,
- The project shall well-equipped ambulances; ensure they are outfitted with audible back-up alarms as well as with effective communication system for emergency service functions and activities
- Periodic community awareness on traffic awareness campaign,
- Use of competent drivers with defensive driving technics,
- MoH and the respective project beneficiaries (health facilities, referral laboratories) shall regularly inspect vehicle safety and maintain them accordingly, and
- Ambulance drivers should follow guidance on safe emergency driving,
- Vehicles used in transport of samples or healthcare waste should be easy to clean, free of sharp edges and shall be cleaned thoroughly and disinfected after use

Improper clinical care, isolation of suspected cases and follow-up of survivors

The aim of clinical care for COVID-19 patients will be to provide high quality, safe care and individualized patient-centered care in a bio-secure environment to minimize the risk of spreading this disease to other patients or health workers. Clinical care includes medical, nursing, nutritional, rehabilitation, psychosocial care and early childhood care services, disabled persons, children and women, including pregnant and lactating women. If this undertaking is not planned or carried out with due caution, there is a high risk of transmitting COVID-19 infection to healthcare workers or other people in their families.

The onward infection of medical workers or other people due to improper clinical care, isolation of suspected cases and follow-up of survivors would be a negative impact with long-term and irreversible (if death occurred) socio-economic impact will have high significance.

Mitigation measures

MoH, through the SPIU and HCF staff shall:

- Improve biosecurity and harmonize care protocols to avoid risk of infections of medical workers and other people;
- Build triage centers in referral hospitals or in health facilities according to the dynamics of COVID-19 pandemic;
- Set up a management system specific to case management structures under the management of MOH (finance, logistics, administration, etc.); and
- Restructure the survivors' follow-up program by fully integrating it into the clinical care.

- In case of blood/bodily fluid exposure:
 1. Persons including HCWs with percutaneous or muco-cutaneous exposure to blood, body fluids, secretions, or excretions from a patient with suspected or confirmed infectious disease, should immediately and safely stop any current tasks, and leave the patient care area.
 2. Safely take off PPE according to the steps in the procedure, in the anteroom.
 3. Treat affected exposed area:
 - wash the affected skin surfaces or the percutaneous injury site with soap and water
 - Irrigate mucous membranes (e.g. conjunctiva) with copious amounts of water or an eyewash solution, and not with chlorine solutions or other disinfectants.
 4. Immediately report the incident to the chief of unit, IPC focal point (following hospital exposure procedure) as soon as the HCF staff exist the isolation room/ unit.
 5. Exposed persons should be medically evaluated for:
 - infectious disease (ID) (of isolated patient)
 - other potential exposures (e.g., HIV, HCV) if sharp/needle-stick injury.
 6. Exposed persons must receive follow-up care, including:
 - fever monitoring, twice daily period of recording symptoms will depend on the ID
 - Counselling and psychological support.
 7. Immediate consultation with an expert in infectious diseases for any exposed person who develops fever, symptoms after exposure.
 8. If fever appears and other symptoms, isolate HCF staff, and follow procedure for ID suspected until a negative diagnosis is confirmed.
 9. Workers suspected of having infected should be cared for/isolated, and the same recommendations outlined in this document must be applied until a negative diagnosis is confirmed.
 10. Conduct contact tracing and follow-up of family, friends, co-workers and other patients, who may have been exposed to COVID-19 virus through close contact with the infected HCW/ staff

Weak infection prevention and control measures

Infection prevention and control (IPC) measures and water, sanitation and hygiene (WASH) aim to prevent and control nosocomial (originating in a hospital) and community transmission of COVID-19. The absence of effective IPC and WASH measures would curtail efforts to control COVID-19. This reiterates the importance of precautions such as avoiding handshaking, hand washing with soap and water and Infection prevention and control (IPC) measures and water, sanitation and hygiene (WASH) aim to prevent and control nosocomial (originating in a hospital) and community transmission of COVID-19. The absence of effective IPC and WASH measures would curtail efforts to control COVID-19. This reiterates the importance of precautions such as avoiding handshaking, hand washing with soap and water.

Mitigation measures

Main activities in the health facilities shall include the following:

- Health facilities should establish and apply standard precaution including hand hygiene, respiratory hygiene, use of PPE, handling of patient care equipment and soiled linen, environmental cleaning and prevention of needle stick and sharp injuries.
- Health facilities shall ensure provision of safe water, sanitation and hygienic conditions in line with WHO guidance on water, sanitation and waste management for COVID-19 and National guidelines for infection prevention and control of health facilities.
- Strengthen training activities of healthcare providers and IPC supervisors on issues related to COVID-19 (see Annex VI):
 - o ensuring triage, early recognition, and source control (isolating patients with suspected COVID-19);
 - o applying standard precautions for all patients;
 - o implementing empiric additional precautions (droplet and contact and, whenever applicable,

airborne precautions) for suspected cases of COVID-19; o implementing administrative controls; and o using environmental and engineering controls.

- Implement the IPC package that includes standard operating procedures (SOPs), tools, and rapid diagnostic tests.
- Strengthen the IPC / WASH support system in health facilities based on health facility assessments, training supervision with corrective actions, and the establishment of a quality assurance system in close collaboration with the independent monitoring and evaluation team.
- Evaluate and implement WASH infrastructures (improvement of water and sanitation facilities) and services in health facilities.
- Provide health facilities with IPC / WASH inputs (detergents) as needed and monitor their use;
- Ensure the decontamination of health facilities that have received confirmed COVID-19 cases.
- Ensure implementation of the IPC ring approach around each confirmed case of COVID-19.
- Promote preventive medicine; no pregnant women, staff older than 65 or staff with underlying health conditions, should be working in isolation areas, provision of psychosocial support to medical staff and team and any health care workers reporting COVID-19 symptoms should stop work immediately

Infection prevention and control in affected communities

In communities, IPC activities shall be carried out in households and in public places. These include:

- Ensuring access to water and sanitation in schools and public places;
- Ensuring decontamination of households and public places that have had confirmed COVID-19 cases;
- Providing hygiene kits to households, schools and public places;
- Strengthening the monitoring and evaluation system; and
- Training community leaders in COVID-19 prevention.

WHO guidance on key questions and answers concerning water, sanitation and hygiene (WASH) is presented in Annex V.

Air pollution

Incineration of hospital waste if carried out in inappropriate facilities could result into localized pollution of air with pollutants such as ash, furans and dioxins. Dioxins are known to promote cancers in humans. The Downwash of incinerator emissions has potential to degrade indoor air quality of healthcare buildings or those of nearby offsite buildings. The impact severity associated with this is that the duration of onsite and offsite air pollution would be long-term lasting entire life on incineration units unless the deficient units are either decommissioned or improved. Considering the gravity of potential air pollution on health of patients and nearby communities, this impact will have high significance. Single-chamber, drum and brick incinerators will not be used. If small-scale incinerators are used, best practices (such as WBG EHS Guidelines on HCFs) to minimize operational impacts will be applied.

Selected District Hospital incinerators should be regularly inspected and monitored: Healthcare administrators should undertake regular visual inspection of incinerator stack for incidents of downwash and undertake annual monitoring of ambient air quality or a general environmental audit of entire healthcare facility.

The project should contribute to training of incinerator operators as it is important for them to be familiar with basic principles and routine practices. For example, homogenization of waste is crucial to ensure efficient and complete combustion during incineration to avoid generation of dioxins for instance when wet waste batches quench flames and lower combustion temperature below levels at which such pollutants are destroyed.

Aerosol and organic solvent transmission risk of COVID-19 virus

Improper methods of transportation and delivery of specimen (and other infectious material), samples, reagents, pharmaceuticals and medical supplies as well as improper storage and handling may result in aerosol and organic solvent transmission risk of COVID-19 virus.

The HCF staff with support from the project Environmental Specialist will ensure that due reference is made to WHO Laboratory biosafety guidance related to COVID-19 for proper handling and storage of infectious materials including specimen and samples. The guide includes use standard laboratory practice to avoid/minimize release of aerosols and organic solvents to atmosphere as well as adequate ventilation in laboratories and treatment areas and use of fume hoods if necessarily for chemical processing.

Risks associated with improper use of COVID-19 equipment

Improper use of COVID-19 equipment and other assets pose infection spread risk. Exclusive use of disposable supplies for IPC is appropriate in highly infectious situations and therefore require diligent waste management procedures during screening of potential COVID-19 patients and during pre-triage. The project HCF staff with guidance from the SPIU ES staff will ensure appropriate handling and management of generated waste, assisted by District Sanitation & Hygiene Officer (DSHOs) responsible for ES compliance at Screening Posts (PoEs) and Centers of Quarantine, by Hospital Environmental Officers (HEOs) at hospital Isolation and Treatments Facilities and by Environmental Health Officers (EHOs) at Screening Posts (PoEs) of Health Centers or other community designated centers.

Due reference will be made to the WHO interim guidance for “Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19)” available at: [https://www.who.int/publications-detail/rational-use-of-personal-protective-equipment-for-coronavirus-disease-\(covid-19\)-and-considerations-during-severe-shortages](https://www.who.int/publications-detail/rational-use-of-personal-protective-equipment-for-coronavirus-disease-(covid-19)-and-considerations-during-severe-shortages).

Risk associated with procurement of Sub-standard PPEs

Procurement of poor quality PPE may exacerbate COVID-19 infection transmission to healthcare workers and cleaners in relation to laboratory procedures, interaction with COVID-19 patients and handling of healthcare waste.

Mitigation measures

- Adhere to the procurement plan for acquisition of all personal protective equipment from certified suppliers only.
- Carry out due diligence for all potential suppliers to guarantee quality supply of personal protective equipment and products.
- Abide by the WHO interim guidance on rational use of PPE for coronavirus disease 2019 over the types and quality of PPE required for different functions.
- The healthcare workers shall be provided with medical personal protective equipment (PPE) includes: Medical mask, Gown, Apron, Eye protection (goggles or face shield), Respirator (N95 or FFP2 standard), Boots/closed work shoes and trained on use.

Occupational Safety and Health Risks

COVID-19 is highly infectious and the risk of contraction by healthcare workers and the general public is high, if requisite training, sensitization and protective gear are not provided. Medical facilities are a potential source of infectious waste and these could pose unsafe conditions for healthcare staff. Of particular concern are health workers handling infectious waste (including sharps) without adequate protective gear, storage of sharps in containers that are not puncture-proof. While some OSH risks will be new borne by equipment or services introduced after renovation or upgrade of facilities, most other effects are existing (hence cumulative) and would only be exacerbated by increased use of healthcare services as a result of COVID-19 cases. Below is a list of OHS risk sources for healthcare staff:

- Biological hazards (blood or other body fluids with potential to cause diseases);
- Lack of adequate lighting in workplaces;
- Lack of safe access particularly for disabled employees;
- Inadequate ventilation in rooms;
- Lack of adequate training (or neglect of safety precautions/ guidelines) in use of medical equipment;
- Misuse of equipment and materials for functions they are not designed;
- Lack of safety signage in specific areas (e.g. X-ray rooms) from radioactive hazards;
- Electrical hazard;
- Eye hazards such as splashes in laboratories and operating rooms; and
- Chemical hazards (acids, alkalis, expired drugs, oxidizing and reactive chemicals);
- Likelihood of the impact occurring is high unless control measures are instituted. Although it is a cumulative impact, the risk to human health is significant.

Mitigation measures

- Ensure the implementation of standard precautions and transmission based precautions in line with national guidelines for IPC in healthcare facilities taking into account guidance from WHO and/or CDC on COVID19 infection control,
- Update and implement HCF OHS plan and/or emergency response plan,
- Ensure identification of risks (Job Risk Assessment) and instituting proactive measures,
- Train the healthcare workers on the potential OSH risks in relation to COVID-19,
- Provision of adequate and required personal protective equipment (PPE) to health workers and enforce on use. This includes: single use medical mask, gown, Apron, eye protection, boots or closed shoes.
- Provision of a system for disinfection of the multi-use PPE if not available.
- Implementation of systemic risk management plan comprising risk prevention, evacuation of accident victims, evaluation and improvement measures.
- Ensure availing of Material Safety Data Sheet for all chemical use in the lab to the lab technicians.
- The beneficiary facilities (labs and HCF) will prepare sub-project specific ICWMP and this will include update of the health facility OSH plan.

Fire risk

Without provisions for fire safety, there is a risk of fire outbreak at healthcare facilities (quarantine, isolation, laboratories) with disastrous life and financial impact. Fires can start from ignitable materials in laboratories, cigarette smoking in non-designated places or old electrical connections.

Mitigation Measures

- Provide fire extinguishers to healthcare facilities during their renovation at strategic positions and ensure servicing is done.
- Key healthcare staff shall have basic training in fire control.
- Fire emergency telephone numbers should be displayed in communal areas.
- Each healthcare facility shall prepare a fire emergency management plan that features a “safe area of gathering” in each health care facility in the event of a fire outbreak for which an evacuation is required.
- Undertake regular fire drills at healthcare facility, to test on emergency response and use the results to improve on the response mechanism.
- Specific site Emergency Response Plan should adequately address all potential hazards (not just fire) including but not limited to man-made (spills, accidental releases, loss of energy supply) and flood / storm.

Community Health Risk

Improper waste disposal can cause public health risks due to environmental pollution: impaired air quality from burning of waste, storm water contamination or when people rummage through raw waste stockpiles. Wastewater may not seem to pose considerable disposal challenge since all existing facilities either has onsite septic systems or sewage lagoons. However, this remains a risk in areas where there is no drainage system.

Plume downwash leads to chronic exposure of nearby communities to potent air pollutants including dioxins. Infections sustained when people or children rummage through improperly dumped infectious waste can be life-threatening.

Unless mitigation recommendations are implemented, this impact will occur at all healthcare facilities. Likelihood of the impact occurring is high if incinerator stack designs are flawed or proper medical waste management practices are not instituted, and if common practices of open air burning of all waste types continue.

Mitigation measures

- Targeted procurement of only required pharmaceutical, equipment, and other medical supplies in small quantities;
- Ensure regular monitoring of solid, liquid waste management practices and incineration;
- Ensure proper management of pharmaceutical waste by engaging a consultant to develop measures and guidelines for each facility in accordance with the national healthcare waste management plan;
- To ensure proper sewage management and use of latrines where they there is no sewer;
- SPIU under MoH shall develop measures for proper management of expired pharmaceutical drugs and instigate this policy at all health care facilities;
- Install appropriate drainage channel within the health facility;
- Facility operators should undertake regular assessment of waste generation quantities and categories to facilitate waste management planning, and investigate opportunities for waste minimization on a continuous basis,
- Separate residual chemicals from containers and remove to proper disposal containers to reduce generation of contaminated wastewater;
- All waste disposal sites should be REMA licensed, secured and out of reach from the scavengers;
- Select facilities which have incinerator(s) that are appropriate to handle healthcare waste with specification including air pollution control option;
- Ensure the healthcare waste generated in the facilities are disinfected, treated and safely disposed of; and
- Community should be sensitized on infection prevention and control measures related to COVID-19.

Emergency Situations

It is important to develop procedures and practices for the handling of hazardous materials that allow for quick and efficient responses to accidents that may result in injury or environmental damage.

The ERP investment beneficiary HCFs should prepare an Emergency Preparedness and Response Plan that should cover:

- **Planning Coordination:** This should include procedures for:
 - Informing the public and emergency response agencies
 - Documenting first aid and emergency medical treatment
 - Taking emergency response actions
 - Reviewing and updating the emergency response plan to reflect changes and ensuring that the employees are informed of such changes

- Emergency Equipment: The plan should include procedures for using, inspecting, testing, and maintaining emergency response equipment.
- Training: Employees should be trained in any relevant procedures
- Undertake regular emergency drills (fire, chemical spill) at healthcare facility, to test on emergency response and use the results to improve on the response mechanism.

Lack of sustainability

When improved healthcare facilities and equipment's installed are not continually maintained, they quickly degenerate. This could have significant negative medium-term impacts of local spatial extent which are reversible.

Mitigation measures

- A Facility Maintenance Plan shall be prepared and implemented at each healthcare facility.
- HCF shall have timely engagement with MoH to secure a budget to sustain healthcare facilities in a functional state.
- Equipment's available in the health facilities should be serviced and maintained regularly
-

Stigma

The impact severity in the absence or weak psychosocial support systems would impede effective prevention of stigma attached to COVID-19, a negative but short-term and reversible impact, reducing or ceasing with heightened awareness.

Mitigation measures

- Ensure accurate information on the disease, its spread, symptoms and outcomes is broadly distributed to communities using channels that are accessible.
- Handle all people directly affected by the disease with dignity (those in hospitals, quarantine/isolation centers and the dead).
- Strengthen psychological support for ETCs (for confirmed, suspected, and discharged cases) and assistance with hygiene kits for all discharged and cured patients.
- Support affected households to anticipate management of behavioral problems, which can generate tensions and resistance in the community.

Gender-based violence (GBV) and sexual harassment, exploitation and abuse (SEA)

There is a risk of GBV and SHEA during operational phase in the management of quarantine/isolation centers. If security personnel are deployed to guard isolation/quarantine centers the risk of abuse of women and girls could be high. There is also a risk of GBV/SHEA among co-workers.

Mitigation measures

- Ensure isolation and quarantine centers are protected.
- Limit admission of outsiders into the centers.
- Monitor and report on the behavior of security guards at the centers.
- Ensure the people in these facilities understand the GBV/SEA/SH referral pathways.
- Ensure the people at the center have access to the toll free hotline.
- All workers should sign the code of conduct to hold them accountable (see the LMP).

Lack of or inadequate public participation and consultation

Public participation is a legal requirement for any development activity. However, given the emergency nature of this project, this process may not be effectively done. Those at the periphery - rural populations, the urban poor and VMGs/HUTLCs may be discriminated against in this process.

Mitigation measures

- Ensure that measures are put in place to identify and reach the vulnerable community members with project information. Special efforts should be made to reach the deaf and blind with critical information on COVID-19. The revised SEP for the Vaccine AF identifies vulnerable community members and includes an engagement plan for effective communication with them.
- Use communication channels that are accessible to marginal populations including use of community radios, translating information in local languages.
- Identify and equip local leaders with information for further dissemination in their communities through their local structures including community leadership, churches, mosques, clans, etc.

5.4. Decommissioning Stage

This section outlines the implementation of the technical activities for the safe decommissioning of COVID-19 HFCs established with parent project investments and those of the Vaccine AF, including triage and screening areas, quarantine, isolation and treatment centers with particular reference to the process and the technical aspects, including the physical infrastructure, furnishings, equipment and supplies. The primary responsibility lies with the institutions in charge of the facilities under the supervision of the facility manager and the MoH. The subproject level ESMPs will cover decommissioning related activities for all Project-related works.

Decommissioning is intended as the technical process in which COVID-19 healthcare facilities are assessed, dismantled and/or repurposed after a proper decontamination phase aiming to prevent possible exposure to contaminated structures, equipment or material. Areas of COVID-19 care facility can also be decommissioned during the operational phase when they are no longer required and/or their physical status is visibly deteriorated. Such areas should be cordoned off to prevent unauthorized re-entry in order to avoid re-contamination.

Decommissioning process

The decommissioning process has been divided into four phases as illustrated in Figure 5. It covers only the physical structures and equipment as all the other related factors of the decommissioning process are outside the scope of this guidance. These phases should be strictly followed to ensure that operations are conducted in a safe manner.

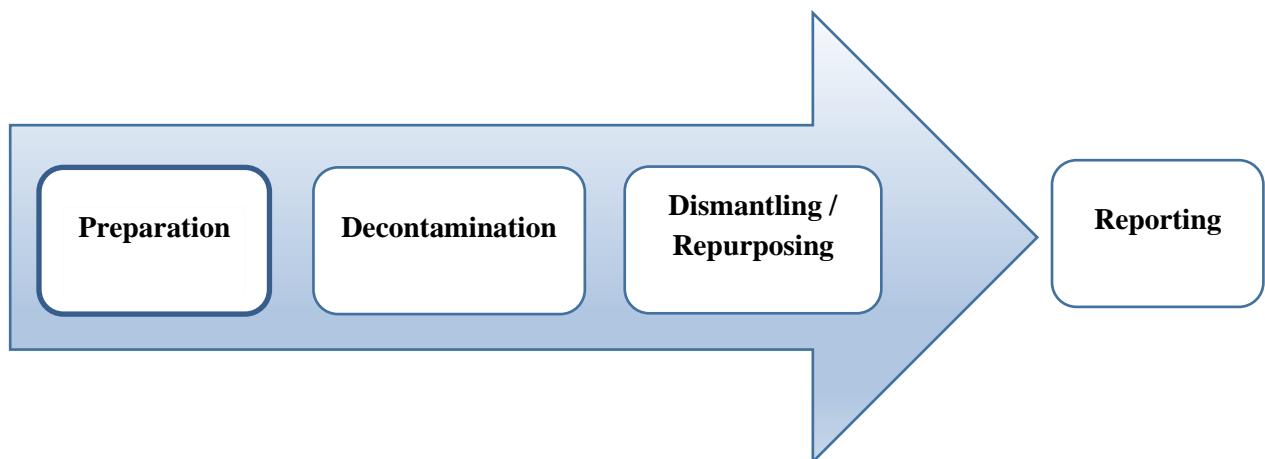


Figure 5 Decommissioning process

Preparation for decommissioning should be undertaken well in advance of the authorization for decontamination to ensure stakeholders' buy-in. This phase includes the planning of the required pre-and post-decontamination actions as follows:

- Health facility/site manager should issue notice of the intention to decommission the site to relevant departments;
- Access control should be maintained throughout the whole process to guarantee the smooth running of operations, safety of the staff involved and to manage the perception of the process within the local community; and
 - Items (e.g., furniture, beds, tents, equipment, and instruments) should only leave the site at the end of the process and with the permission of the site manager to reduce risk of recontamination.
- The facility manager should brief the decommissioning team. The briefing should focus on infrastructures in place and method of construction, and identification of a “clean zone” for the reception and temporary storage of disinfected material.
- Community engagement should aim to inform, consult, engage and reassure the surrounding community in regards to the decommissioning process.
- Infrastructure assessment refers to the visual inspection for signs of decay or breakdown.
- Logistical activities are divided into supply, inventory (or list) and storage:
 - Supply: all items required to perform all the activities included in the process with particular reference to personal protective equipment (PPE), machine and equipment’s, appropriate disinfectants (including chlorine, alcohols, peroxygen, detergents, iodophors, quaternary ammonium and phenolic compounds) are effective against corona viruses if used at the correct concentration for the appropriate contact time as specified in the manufacturer’s recommendations.
 - Inventory (or list): all equipment should be revised during the preparation phase and agreement made about their future with particular reference to tents, medical equipment, generators, pumping devices and incinerators, based on the regulations and agreements stipulated at the time of opening the facility.
 - Storage: refers to the identification and briefing of the team in charge of disassembling the tents and temporary infrastructures. This process includes also identification of the site for temporary storage of the material that can be reused.
- Risk analysis: refers to the revision of the associated hazards in each phase of the process and related mitigating measures already in place and/or to be established.
- Staff requirements: should be based on the size of the facility and timeline considered for the completion of the process.
- The team must include a former infection prevention control staff from COVID-19 care facility. This decreases the time spent on retraining staff on the correct implementation of technical areas.
- More than one team can operate at the same time under supervision of their respective team lead/supervisor. However, their assigned area should be identified, marked and reviewed during the preparation phase.
- Training of the team: should comprise the preparation, activities to be undertaken and potential risks involved, emergency response plans, occupational Safety and Health measures and safe use of cleaning and disinfectant solutions and the different types of PPE for use. Tetanus immunization should be offered to the team, if available.

Decontamination

The following precautions shall be undertaken:

- Monitoring of the sectioned areas during the whole decontamination phase;
- Use of tape or rope to demark the area during the operation and identify the disinfected areas if the work is conducted in phases; and
- Creation of a dedicated space for the drying of equipment/materials during the cleaning phase.
- The IPC officer and/or designee should observe the cleaning and disinfection process as a way to validate that the surfaces have been properly cleaned and disinfected.¹³

Table 8 highlights the minimum requirements for safety during the decontamination phase. It is classified into three groups: PPE, human resources, and consumables.

Table 9 Minimum requirements for safety during the decontamination phase

| Human Resources | Personal Protective Equipment | Consumables |
|--|--|-------------------------------|
| Project officer | Double gloves (non-sterile examination gloves and heavy duty gloves). | Demarcation tape |
| IPC officer | A disposable gown or coverall made of fabric that is tested for resistance to penetration by blood or body fluids or to blood borne pathogens to cover clothing and exposed skin. | Disposable plastic waste bag. |
| Hygienists | A disposable waterproof apron worn over the gown or coverall. If disposable aprons are not available, heavy duty reusable waterproof aprons can be used. If appropriate, cleaning and disinfection is performed. | For other consumables. |
| Water and sanitation officer | A fluid-resistant medical/surgical mask with a structured design that does not collapse against the mouth (e.g., duckbill, cup shape). | |
| Occupational Safety and Health officer | Eye protection (either goggles or face shield) in order to have the mucous membranes of the eyes, mouth and nose completely covered by PPE and prevent virus exposure. | |
| Laundry staff (optional) | Waterproof boots (e.g., rubber/gum boots). If boots are not available, health workers must wear closed shoes (slip-ons without shoelaces and fully covering the dorsum of the foot and ankles) and overshoes. | |
| Waste handler | | |
| County Public Health Officer | | |
| Security guards | | |

Dismantling / Repurposing

The dismantling phase refers to the disassembly of temporary infrastructures and the potential reuse and/or recycling of material or its disposal. It should start only after the validation of the proper cleaning and decontamination of the structures by the IPC officer/designee.

Creation of a well demarcated “clean” zone (e.g., fenced with plastic mesh) within the low-risk area where disinfected equipment and materials from the low-risk area can be temporary stored. The size of the area is dependent on the care facility. However, it is generally recommended to consider a large area due to the volume of items to be stored.

The process of dismantling can be conducted in different areas of the facility simultaneously. However, for larger facilities, it is recommended to proceed in phases in order to better monitor the safe implementation of the activities. Tents if not damaged (tent must be intact) and not made of absorbable material can be packed in storage for subsequent reuse. Wooden shelters and fencing built using tarpaulin can be dismantled and burnt due to their likely deteriorated condition. Concrete surfaces requiring break up should be left until the end of the process. This will allow for the safe use of the excavator. If break up of concrete is done manually, precautions should be taken to prevent Safety and Health hazards.

¹³ World Health Organization. (2020). Cleaning and disinfection of environmental surfaces in the context of COVID-19: interim guidance, 15 May 2020. <https://apps.who.int/iris/handle/10665/332096>

No equipment or material should be abandoned on site without the approval of the relevant regulatory authorities and affected landholders.

In the event that masonry or concrete structures are buried, it is recommended that the responsible agencies provide a site plan to the landowner and also explain to the landowner where the abandoned facilities are located. If buried and decommissioned latrine pits or septic tanks are present, it is recommended to conduct a simple risk assessment including soil type, water table, hydraulic gradient, and time since pit was buried, etc. This will ensure the safety of new installations, including possibly water pipes.

Repurposing principle

The key technical principles for the repurposing of COVID-19 care facility are:

- Location and assigned purpose of the structure;
- Quality of the construction and the material used, in particular for temporary structures;
- Evaluation of the water system in terms of water quantity, in particular during the dry season, and water quality (especially for microbial containment); and
- Quality of the construction and functioning of sanitation facilities.

If the permanent structures are to be returned to their original condition, an assessment of the condition of the building should be performed and maintenance activities conducted before the re-opening of the facility. A fresh coat of paint is recommended as a reassuring measure for the community.

Reporting

A final report of the entire decommissioning process should provide records of all activities, final dispositions of waste and recycled products. This should be submitted within 2 weeks of completing the decommissioning process. It should include:

- The completed audit checklist approved by an IPC officer and by the Ministry of Health (MoH) or relevant authority and facility manager;
- Listed material and equipment for reuse and donation;
- Organization and management of occupational Safety and Health during the decommissioning process;
- Site plans, including underground masonry or concrete structures, water points and location of waste disposal areas (burn pits, latrine pits, etc.);
- Waste management process;
- Photo journal;
- Conclusions and recommendations;
- Strategy for after action review;

The completed audit checklist shall be handed over to the management of the facility hosting the isolation center (e.g. school, etc.).

6. Institutional Arrangements, Responsibilities and Capacity Building

6.1. Institutional arrangements, roles and responsibilities

The Rwanda COVID-19 parent project uses a structured approach to environmental and social management complying with the ESF requirements, following the mitigation hierarchy of avoidance, minimization and mitigation for negative impacts and enhancement of positive impacts where practically feasible. The proceeding sections describe what needs to be done at each stage of the overall project life cycle of sub-project implementation, monitoring and reporting on progress.

The Government of Rwanda is responsible for compliance to the national policies, regulations and the ESF of the World Bank including the 7 ESSs and the ESH Guidelines, as mentioned in this ESMF. Overall supervision for this ESMF will be the responsibility of the MoH.

The RBC-SPIU will assign an Environmental Specialist from within MoH/RBC to be responsible for environment risk management on fulltime basis throughout Project implementation. The RBC-SPIU will recruit a Social Specialist that will be responsible for the management of risks and issues for the parent project and the AF. The RBC-SPIU will share the profiles and ToRs of the proposed full-time staff with the Bank for review.

In daily implementation of planned activities and reporting, the fulltime staff at central level will be complemented by Environmental Health officers (EHOs) located at hospital level, Community Environmental Health officers (C-EHOs) located at Health Center level as well as District Hygiene and Sanitation Officers (DHSOs) at District Administration level as illustrated in the institutional implementation framework structure in Figure 6. The new staff will ensure overall ES coordination, GRM operationalization, trainings, monitoring and reporting on the implementation of ESF instruments (SEP, ESCP, ESMF) quarterly

The EHOs and C-EHOs have been among previously trained personnel together with clinical and laboratory staff on IPC for Ebola Virus Disease (EVD) as indicated in Table 8, aspects of which are applicable to COVID-19 IPC requirements. Additional COVID-19-specific capacity building were elaborated in the COVID-19 National Preparedness and Response Plan for targeted human resources as displayed in Table 10. The RBC SPIU as the PUI is mandated with the responsibility for implementing ESF instruments for the Rwanda COVID-19 ERP having appointed ES staff to oversee the implementation of this ESMF assisted by EHOs and C-EHOs for operational requirements.

The ES staff are supervised by RBC's Epidemic Surveillance Response (ESR) division and the Health Communication Centre (RHCC) in the implementation of the ESF instruments for parent project and it's Vaccine AF through the RBC-SPIU (PUI) Coordinator (Figure 2). The ES staff will supervise the implementation of the ESMF assisted by District Hygiene and Sanitation Officers (DHSOs) at District Administration level, by Environmental Health Officers (HEOs) at Referral, Provincial and Districts hospital level and by Community Environmental Health Officers (C-EHOs) at Health Centre level according to the following functions:

- District Hygiene and Sanitation Officers (DHSOs) at District Administration level (parent project activities including Screening Posts, Centers of Quarantine, Contact Tracing as well as COVID-19 vaccination sites outside HCFs);

- Hospital Environmental Officers (HEOs) at Referral, Provincial and District hospital levels (parent project works for IPC at Isolation & Treatment Facilities and Vaccination Sites); and
- Environmental Health Officers (EHOs) at parent project activities and vaccination sites at Health Centers.

The roles and responsibilities of the environmental management team as shown in Figure 6 are described in the proceeding sections according to the required sequential procedures of compliance to the applicable ESSs and the ESMP.

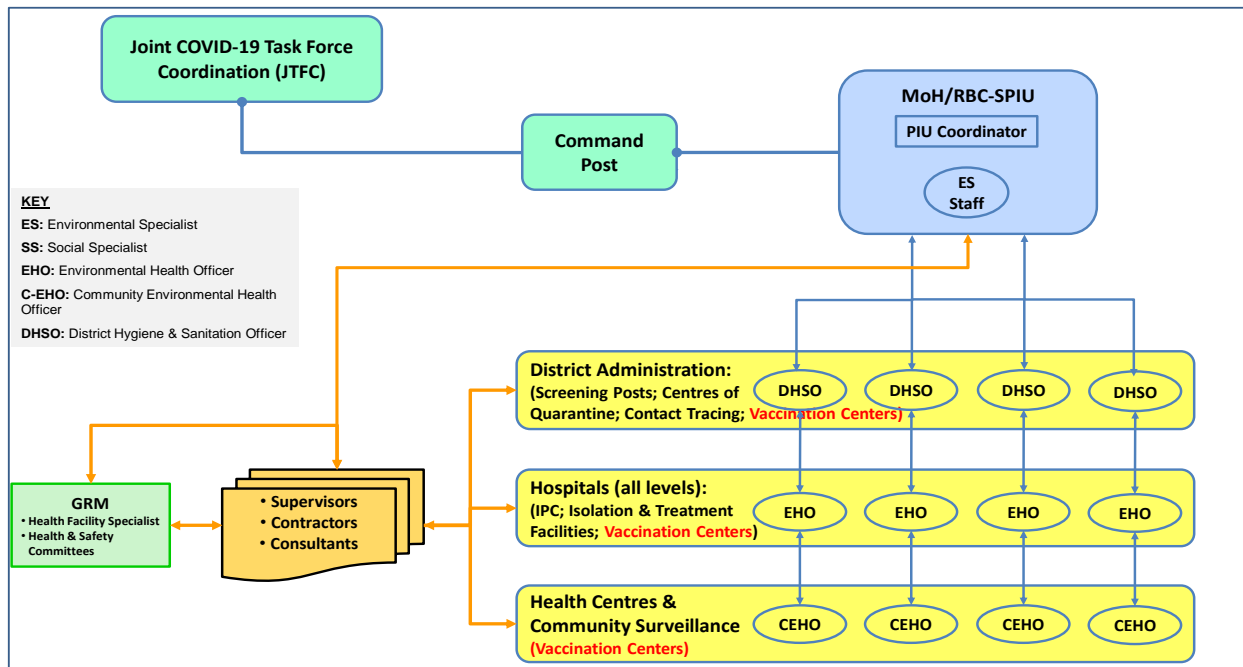


Figure 6 Rwanda COVID-19 ERP and Vaccine AF Implementation Arrangements

6.2. Capacity building

6.2.1. Existing Capacity

The MoH had trained various target groups including personnel responsible for implementing the Ebola Virus Disease (EVD) Preparedness and Response Plan that is applicable to the requirements of COVID-19, although it is noted that the latter is much more infectious. The trained officials included health workers at all levels, waste handlers at health facilities, local communities and personnel from private sector operators. Training activities were generally oriented towards the quality of healthcare services and prevention of infections. A summary of target groups trained is showed in Table 10 below.

Table 10 MoH trainings carried out under the implementation of the EVD Preparedness and Response Plan

| Target Group | EVD Training Topic |
|---|--|
| District Directors of Health; District Hygiene & Sanitation Officers (DHSOs); Environmental Health Officers (EHO); District Hospital and HCF staff | <ul style="list-style-type: none"> • General awareness on EVD • EVD preparedness and prevention • Infection Prevention and Control and WASH • EVD medical waste management |
| Laboratory Technicians | <ul style="list-style-type: none"> • EVD testing |
| Medical Doctors | <ul style="list-style-type: none"> • EVD clinical management |
| Nutritionists | <ul style="list-style-type: none"> • Nutritional support for EVD patients |
| Hospital Psychologists | <ul style="list-style-type: none"> • Psycho-social Support |
| CHWs in charge of Prevention and Health Promotion | <ul style="list-style-type: none"> • Community Based Environmental Promotion Program and Health Care Waste Management |
| Point of Entries Staff | <ul style="list-style-type: none"> • EVD surveillance |
| EVD Rapid Response Team (Central and District Level Staff) | <ul style="list-style-type: none"> • Regular intensive SIMEX (Simulation Exercises) |

As indicated in the previous sections, supervision for the implementation this ESMF and other ESF instruments will be led by the RBC-SPIU (PIU) with an ES staff member who has knowledge and skills in IPC and WASH. The officer will therefore have significant levels of IPC, WASH and other competencies relevant to COVID-19 required to supervise and monitor district, hospital and HCF environmental health colleagues in the ensuring the implementation of mitigation measures for potential environmental and social impacts of the COVID-19 ERP activities.

The parent project Environmental and Social Commitment Plan (ESCP) has been revised to include capacity requirements for the Vaccine AF that include among other topics, the following:

- COVID-19 Infection Prevention and Control Recommendations
- Standard precautions for COVID-19 patients
- Risk communication and community engagement
- WHO and Africa CDC guidelines on quarantine including case management
- Waste disposal plan for wasted vaccine vials, used sharps, and any used batteries, solar panels, or unused/spilt fuel oil used for refrigeration
- Cold chain management
- Vaccine safety surveillance
- Grievance redress mechanisms

The training recommended by the ESCP would provide the competencies required by the ESF team to implement compliance instruments of the project. The EHOs and C-EHOs at project investment beneficiary HCFs would under the guidance of the project ES staff train subproject contractors on basic IPC practices and SOPs and supervise their compliance. Table 11 provides a summary of competencies required by the implementation of the project ESF instruments.

Table 11 Key competencies of personnel designated to supervise implementation ESMF

| Designated staff for ESMF implementation | Key competencies needed by ESMF supervision staff |
|--|---|
| <p>RBC SPIU ES Unit</p> <ul style="list-style-type: none"> • ES staff | <ul style="list-style-type: none"> ▪ Environmental, social and economic impacts of the COVID-19; ▪ Relevant environmental legislation and World Bank ESF compliance requirements; ▪ Role of various players in implementation and monitoring of the ESMF and SEP; ▪ Conducting or supervising the screening process; ▪ Monitoring implementation of the ESMP and Environmental Guidelines for Contractors by the civil works contractor; ▪ Monitoring implementation of the COVID-19 Waste Management Plans; ▪ Preparing ESMF interim and final evaluation reports; ▪ Environmental and social clauses in work contracts if needed ▪ Code of conduct for workers |
| <p>District level staff:</p> <ul style="list-style-type: none"> • District; Sanitation and Hygiene Officers (DSHOs); • Environmental Health Officers (EHOs) at Referral, Provincial and District Hospitals | <ul style="list-style-type: none"> ▪ Environmental, social and economic impacts of the COVID-19; ▪ Importance of environmental management and COVID-19 Waste Management, ▪ Understanding roles of various players in implementation and monitoring of the ESMP; ▪ Conducting public consultations during the environmental and social screening process; ▪ Supervising adherence to contractor Codes of Conduct for workers ▪ Supervising implementation of mitigation measures specified in contractor’s contract ▪ Supervising implementation of COVID-19 Medical Waste Management activities; ▪ Preparing interim reports |
| <p>Health Care Facility staff:</p> <ul style="list-style-type: none"> • Community Environmental Health Officers (C-EHOs) | <ul style="list-style-type: none"> ▪ Understanding community group roles in achieving environmental sustainability; ▪ Linkages between environmental and social impacts and health; ▪ Supervising adherence to contractor Codes of Conduct for workers for works at HCFs ▪ Supervising implementation of mitigation measures specified in contractor’s contract for works at HCFs |

6.2.2. Planned capacity building in the National Preparedness and Response Plan

The COVID-19 National Preparedness and Response Plan provides for the following capacity building in training topic that are aligned to the ESCP listed above including the following:

- Identification and training of spokespersons for vulnerable populations and to conduct comprehensive simulation exercises (SIMEX)
- Train National Reference Laboratory (NRL) staff on COVID-19 assays (conducted by external partners)

- Train and mentor laboratory personnel on COVID-19 sample collection, triple packaging, shipping and waste management
- Train frontline healthcare workers on sample collection for screening and surveillance
- Train and mentor Rapid Response Teams (RRT) teams on COVID-19 surveillance, IPC and Case Management
- Train health care workers on Case Management
- Train health promotion officers at sub-national levels

A detailed training plan by activity, cost, responsible RBC unit and timeframe as extracted from the National Preparedness and Response Plan is featured in Table 12.

Table 12 Training activities featured in the COVID-19 National Preparedness and Response Plan

| Training activity | Cost (USD) | Responsible | Timeframe |
|--|------------------|-------------|------------|
| Conduct full scale SIMEX | 1,917 | RBC/ESR | Mar-20 |
| Conduct capacity assessment and risk analysis including mapping of vulnerable populations | 18,168 | RBC/ESR | Mar-20 |
| Conduct trainings on COVID-19 surveillance in HF setting (Case ID, reporting, IPC, triage and contact tracing) | 46,885 | RBC/ESR | Mar-Aug 20 |
| Training District Hospital staff by Surveillance Lead and RRT Clinician (in each hospital) | 1,587 | RBC/ESR | Mar-Aug 20 |
| Training of Private HFs on COVID-19 surveillance, IPC and Case Management | 61,878 | RBC/ESR | Mar-Aug 20 |
| Training on COVID-19 Surveillance at PoEs | 17,181 | RBC/ESR | Mar-Aug 20 |
| Train of contact tracers on COVID-19 contact tracing | 8,760 | RBC/ESR | Mar-Aug 20 |
| Training for 5 NRL staff on COVID-19 assays by external Partners (provided in kind) | - | RBC/NRL | Mar-Aug 20 |
| Training of District Hospitals on specimen collection, sample collection, triple packaging and transport | 4,949 | RBC/NRL | Mar-Apr 20 |
| Conduct training of RRTs on COVID-19 surveillance, IPC and Case Management | 178,729 | RBC/ESR | Apr-Jun 20 |
| Training HCWs on Case Management | - | RBC/ESR | - |
| Train RCCE teams at central level on COVID-19 | 762 | RBC/RHCC | Mar-Aug 20 |
| Train RCCE teams at District level on COVID-19 | 10,920 | RBC/RHCC | Mar-Aug 20 |
| Train journalists on COVID-19 pre and during outbreak | 2,730 | RBC/RHCC | Mar-Aug 20 |
| Build Capacity of District leadership HCW and CHW PoEs staff to strengthen surveillance of COVID-19 | 83,324 | RBC/ESR | TBD |
| Build capacity of District leadership CHWs to strengthen surveillance of COVID-19 | 524,339 | RBC/ESR | TBD |
| Refresher training and drills to medical and ambulance teams | 65,947 | RBC/ESR | TBD |
| Total (USD) | 1,028,076 | | |

The ES staff for the parent project and its Vaccine AF would participate in national level training and facilitate relevant trainings for District Hygiene and Sanitation Officers (DHSOs), Hospital Environmental Health Officers (HEOs), Community Environmental Health Officers (C-EHOs) as indicated in Table 10. The RBC-SPIU would confirm that the training took place as scheduled and fill capacity gaps if any are identified.

6.2.3 Capacity for implementing the National Deployment and Vaccination Plan for COVID-19 vaccine

The national Vaccine Deployment and Vaccination Plan (for COVID-19 vaccine among its strategic approaches, includes capacity development of key frontline staff and gatekeepers (health practitioners, call center operators, community health workers, media personnel, leaders of CSOs and FBOs etc.). These groups will acquire knowledge on the COVID-19 vaccine and obtain interpersonal communication skills to engage effectively with the primary and secondary audiences. The National Deployment and Vaccination Plan for COVID-19 Vaccine features an overall roadmap of activities for 2 years in its Annex 2. The training schedule on stakeholder engagement is indicated for January through to March for 2021 in the plan's Annex 2. However, the plan does not feature a cost breakdown for the capacity building activities. Further refresher training on good immunization practices should be conducted, including vaccination for children aged 5-11 years.

7. Procedures to Address Environmental and Social Issues

The following sections will describe the environmental and social management procedures that RBC-SPIU (PIU) will use to comply with the ESF and the ESCP.

Exclusion criteria for potential subprojects

The revised ESCP stipulates exclusion of potential project activities according to the following criteria as ineligible for the Vaccine AF financing:

- Activities that may cause long term, permanent and/or irreversible (e.g. loss of major natural habitat) impacts
- Activities that have high probability of causing serious adverse effects to human health and/or the environment other than during treatment of COVID19 cases
- Activities that may have significant adverse social impacts and may give rise to significant social conflict
- Activities that may affect lands or rights of historically marginalized people or other vulnerable minorities,
- Activities that may involve permanent resettlement or land acquisition or impacts on cultural heritage

These criteria have been formulated into a questionnaire (Table 1) under the Project Description chapter earlier in this revised ESMF, for use by the RBC SPIU in deciding eligibility or exclusion of potential activities for Vaccine AF. The ES staff will assist the SPIU in using the Table 1 instrument to decide eligibility of potential Vaccine AF activities.

7.1. Environmental and Social Screening of Subprojects

Environmental and Social Screening Process outlined below complies with:

- The Rwanda environmental assessment requirements, as outlined in Law N°48/2018 on Environment and the EIA and Audit guidelines
- The World Bank's Environmental and Social Standards, especially ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS8, ESS10.

The screening process provides a mechanism for ensuring that potential adverse environmental, social and OHS impacts of Rwanda COVID-19 ERP and its Vaccine AF sub-projects are identified, assessed and mitigated as appropriate, through an environmental and social screening process to comply with national EIA requirements and the WB ESS1. A screening template is provided in Annex II to be used by the RBC SPIU (as the PIU) for identifying the relevant Environmental and Social Standards (ESS), establishing an appropriate ES risk rating for these subprojects and specifying the type of environmental and social assessment required, including specific instruments/plans.

The screening template in Annex II includes a note on Considerations and Tools for ES Screening and Risk Rating on infection control for medical laboratories, quarantine and isolation centers; treatment centers and labor and working conditions. The screening form sets out a list of questions on the screening of ES risks and impacts, identifies the relevant ESSs for which the SPIU fills in Yes or No answers from which conclusions are reached for each subproject proposing an ES risk rating (High, Substantial, Moderate or Low) with justifications provided and ES Management Plans/ Instruments proposed.

7.2. National EIA requirement

Subproject screening results will be reviewed by the Rwanda Development Board (RDB) which holds a delegated mandate from the Rwanda Environment Management Authority (REMA) and the World Bank. ES instruments such as ESIA, SEP, LMP will be prescribed for subprojects to ensure appropriate mitigation

for subprojects whose risk ratings are indicated High, Substantial or Moderate by the screening results. Subprojects whose risk ratings are indicated as Low, ESMPs instead of full ESIA's will be recommended.

The RBC SPIU Coordinator will submit screening results prepared or arranged jointly by the ES staff to WB for review. Following approval by the latter, RBC on behalf of MoH will subsequently submit results to RDB for review and approval of ToR for subsequent preparation of subproject ESMP or ESIA, LMP, ICWMP as found appropriate. The required instruments will be prepared by duly certified consultants on behalf of RBC-SPIU. RDB will review the ES instruments including ESMPs and ICWMPs to ensure that the necessary mitigation measures duly incorporated before certification for the subproject in question to proceed. In addition each beneficiary health facility or laboratory with identified potential waste management impacts will be required to prepare its own ICWMP using the guidance provided in Annex IV. EHOs and C-EHO will under the supervision of the project ES staff, implement the relevant EFS instruments within their respective existing employment arrangements and within existing operational means of the ERP investment beneficiary HCF.

Assigning of Environmental and Social risk classification

Assignment of appropriate environmental and social risk classification to a particular activity will be based on information provided in the environmental and social screening form Annex II that the ES staff will have administered. According to WB ESF projects are classified as high risk, substantial risk, moderate risk and low risk project with respect to the environmental and social sensitivity of the project. Most activities under parent project Component 1 and 2 entail the procurement of COVID-19 medical supplies and laboratory equipment as well as logistical and operational support for Command Posts with Low Risk and therefore not requiring full, Environmental and Social Impact Assessment. As mentioned in the introductory sections earlier in this ESMF, the RBC-SPIU purchases project medical supplies and equipment through the Africa CDC affiliated Africa Medical Supplies Platform (AMSP) ensuring certified medical supplies and equipment with increased cost effectiveness and transparency from vetted manufacturers.

Similarly, Rwanda will purchase its COVID-19 vaccines through its participation in the COVAX facility under the Procurement Framework Agreement (PFA) between the Government and the third-party logistics UNICEF/GAVI as detailed in the National Deployment and Vaccination Plan for COVID-19. The country has already acquired cold chain and ultra-cold chain equipment for COVID-19 vaccine through the Gavi-Cold Chain Equipment Optimization Platform (CCEOP) project. Other medical supplies and consumables including PPEs, syringes and safety boxes, vaccine sharp disposal containers will continue to be procured through the AMSP.

Subproject ES assessment and instrument preparation

Preparation of parent subproject environmental and social management instruments (ESMPs/ESIA's) and/or ICWMP would be carried out for the respective types of subprojects as follows:

- The parent project ES staff will prepare or supervise consultancy services for the preparation of ToR to select environmental and social consultancy services for preparing the necessary subproject environmental documents (ESMPs, ESIA's) as prescribed by RDB based on screening results of the subproject. It should be noted that the RBC-SPIU has already prepared a LMP as Section 7.4 of this ESMF and a separate SEP for implementation in ERP subprojects.
- The RBC SPIU Coordinators submit ToR for ESMP of ESIA to WB for review and following the latter's approval to RDB for input/comments and approval.
- The RBC SPIU Coordinator contracts out consultancy services for the preparation of draft subproject ESMP, ESIA and carry out public consultations with stakeholders, people that may be affected and local authorities and incorporate results into final subproject ESMP, ESIA.

- EHOs or C-EHOs as applicable to the parent project investment beneficiary HCF would prepare an ICWMP based on the template provided in Annex IV of this ESMF. ICWMPs would be approved by the RBC SPIU Coordinator with support from the SPIU ES specialists, with subsequent clearance from the WB. However, some parent project investment beneficiary HCFs may not have adequate EHO/C-EHO capacity to prepare the ESMP and/or ICWMP, in which case funds are allocated from the Component 2 budget (capacity building activity) by the RBC-SPIU (PIU) to hire a consultant to provide technical support.
- The ESMPs, ESIAAs and ICWMPs are monitored and checked by the RBC SPIU for and on behalf of MoH and reviewed by WB.

This procedure will be followed as applicable for the Vaccine AF activities.

ESHS requirements for minor civil work contracts and other Project contracts

The Rwanda COVID-19 parent project complies with ESS2 and ESS4 and the Environmental, Social Health and Safety Guidelines (ESHS) and the Occupational Health and Safety (OHS) of the World Bank and Labor regulations of Rwanda as elaborated in Annex II and Annex IV. A Code of Conduct for Contractors and workers hired under the Rwanda COVID-19 ERP is provided in Annex V for inclusion in respective ESMPs and contracts of ERP subprojects.

7.3. Review, Clearance, Public Disclosure and Consultation

The following procedure is followed in publicly disclosing this ESMF for Vaccine AF and other ES instruments documents prepared for the implementation of the Rwanda COVID-19 ERP:

- The RBC SPIU (PIU) Coordinator submits draft ESMPs or ESIAAs to RDB as appropriate for review and certification. The World Bank reviews and approves most of the ES instruments produced by the project, especially those identified to have Substantial, Moderate (and High, if any identified) risk activities.
- Following approval of the ES instruments, the RBC SPIU Coordinator carries out the necessary arrangements for Disclosure and Consultations taking into account ESS10 and ensures harmonization with the Rwanda COVID-19 parent project and its Vaccine AF Stakeholder Engagement Plan (SEP).
- The RBC SPIU Coordinator follows up and obtains required licenses/ permits that comply with the approved ESMF for the necessary Rwanda COVID-19 parent subproject activities and Vaccine AF activities.
- RBC as the implementation agency has a webpage for the project in its institutional website where publishes all ESF documents and reports as defined in this ESMF.
- WB discloses approved ES instruments on the project webpage already created and that will be permanently accessible for all during all project implementation and after closure. <https://projects.worldbank.org/en/projects-operations/project-detail/P165017?lang=fr>
- WB receives and takes note of consultation reports.

7.4. Labor Management Procedures

Overview of labor use on the project

Component 1 under the Vaccine AF will entail conducting disease surveillance activities to monitor the impact of the COVID-19 vaccination program and Component 2, which will finance scaled-up procurement of vaccines; cold chain equipment, medical supplies and consumables (e.g. PPEs, syringes and safety boxes, vaccine sharp disposal containers). Labor use is therefore planned mainly in disease surveillance activities.

Health Care Workers and Civil Servants

The COVID-19 vaccination campaign workforce of over 60,000 is organized according to the National Deployment and Vaccination Plan for COVID-19 Vaccine in categories of CHWs, Vaccination Teams of medical personnel at hospital sites and health centers, coordination and monitoring committees (including the AEFI review Committee), as well as relevant participating state agencies and national programmes. The vaccination campaign is estimated to involve 59,348 CHWs for community mobilization in the 14,837 villages. Two teams have been designated per hospital vaccination site comprising 1 vaccines logistician, 2 nurses for injection, 1 medical doctor for AEFI monitoring, and 1 data manager. A total of 470 medical personnel have been designated to the vaccination campaign in 49 hospitals. At health center vaccination sites, 1,530 medical personnel have been deployed in 510 HCs comprising a vaccination nurse, head of HC and data manager.

The national AEFI review committee established in 2007 is operational with 6 committee members while 3-member Provincial Vaccination Committees for each of the 5 provinces and 3-member District Vaccination Committees for each of the 30 districts have been set up. However, membership information of other committees stipulated in the plan including National COVID-19 Vaccine Readiness and Delivery Task Force; Interagency Coordination Committee (ICC); National Immunization Technical Advisory Group (NITAG); National Immunization Technical Working Group (NITWG); and National Immunization Logistics Working Group (NILWG) had not been determined by appraisal.

State agencies and programmes involved in the COVID-19 roll vaccination campaign include the Rwanda Food and Drugs Authority (FDA) for regulatory requirements with 5 members; Rwanda Health Communication Center for vaccine communication requirements with 9 members; the national Immunization Programme for vaccination coordination with 13 members; and the RBC-SPIU as the project PIU with 5 members comprising a Project Manager, officers responsible for M&E, Financial Management System, SBCC and Audit. It is noted that the SPIU will acquire an Environmental Specialist and a Social Specialist dedicated to the project on a fulltime basis. A summary of the vaccination workforce is displayed in Annex II.

Under existing employment or contractual arrangements, HCWs will continue to carry out a range of activities including assessing, triaging and treating COVID-19 patients and workers; establishing public health reporting procedures of suspect and confirmed cases; providing or reinforcing accurate infection prevention and control and public health information, including for concerned workers. Other civil servants collaborating in the IPC effort of the project will provide the needed services under their existing employment or contractual arrangements.

Frontline Service Providers

Activities conducted by frontline service providers will include people providing services such as food supply, delivery and preparation; waste disposal; pharmacies; security services; and public transport workers. The military will not be used to support or carry project activities. ESS2 recognizes that all personnel involved in the project remain subject to the terms and conditions of their existing public sector

employment agreement or arrangement. Nevertheless, their health and safety needs are considered and the measures adopted by the project for addressing occupational health and safety issues, including those specifically related to COVID-19, will apply to them.

Waste Management Workers:

An Infection Control and Waste Management Plan (ICWMP) was to be prepared and implemented for the project according to the templates provided in Annex II and Annex IV of this ESMF under the supervision of the project ES staff. Both annexes have been updated to integrate requirements under the Vaccine AF. Waste management worker modalities and arrangements and compliance to ESS2 will be addressed in the project revised ICWMP. Waste management workers for the project will be covered by mitigation measures as provided for in this LMP and ICWMP in compliance with ESS2.

Updating Vaccine AF labor information

The project Social Specialist will update this LMP with elaborations of: Number of Project Workers; Characteristics of project e.g. local workers, civil servants, national or international migrants, female workers, workers between the minimum age and 18; Timing of Labor Requirements in terms of numbers, locations, types of jobs and skills required; and Contracted Workers anticipated or known contracting structure for the project, with numbers and types of contractors/subcontractors and the likely number of project workers to be employed or engaged by each contractor/subcontractor. If it is likely that project workers will be engaged through brokers, intermediaries or agents, this fact should be noted together with an estimate of how many workers are expected to be recruited in this way.

Assessment of key potential labor risks

Project Key Labor Risks

The Rwanda COVID-19 parent project and its Vaccine AF will not involve establishment of large greenfield medical facility for quarantine and treatment of COVID-19 patients. Migrant workers or workers from adjoining provinces or regions or from abroad, or local workers returning from abroad will therefore not be needed in the minor civil works for refurbishment of rehabilitation of laboratories and/or isolation facilities. Hospitality business establishments are being deployed for quarantine services while a selection of hospitals are designated as treatment facilities. Hiring of migrant workers in for the ERP is therefore not expected.

Doing hazardous work

Needs for workforce and type of project workers for upgrading and/or rehabilitation works will be identified as a planning activity by the project Specialist. Although project activities are not expected to require large numbers, measures against physical risk associated with hazardous work must be put in place according to ESS2 requirements.

Workers coming from infected areas

During the minor civil works for refurbishment or rehabilitation in parent project activities, COVID-19 infection may be spread by workers coming from infected areas, co-workers becoming infected and workers introducing infection into community or general public. To mitigate these risks, the project ES staff ensure the application of the COVID-19 mitigation measures including the following:

- Consider ways to minimize/control movement in and out of construction areas/site.
- If workers are accommodated on site require them to minimize contact with people outside the construction area/site or prohibit them from leaving the area/site for the duration of their contract
- Implement procedures to confirm workers are fit for work before they start work, paying special to workers with underlying health issues or who may be otherwise at risk

- Check and record temperatures of workers and other people entering the construction area/site or require self-reporting prior to or on entering
- Provide daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures.
- Require workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor if they have symptoms or are feeling unwell
- Prevent a worker from an affected area or who has been in contact with an infected person from entering the construction area/site for 14 days
- Preventing a sick worker from entering the construction area/site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days

Occupational Health and Safety (OHS) risks

Improper work procedures during civil works and in the management of healthcare waste management can cause OHS risks on health care providers and supportive staff or persons with disabilities. Mitigation measures entail adopting and implementing safety guideline or manuals from OSH guideline and WHO technical guideline for COVID-19 Key considerations for occupational safety and health. OHS measures have been additionally been elaborated in Annexes II, III and IV. The ES staff will be accountable for the supervision of these measures on behalf of the PIU and MoH.

HCF operational hazards

General operation of HCFs can involve vulnerability to physical hazards, electrical and explosion hazards, fire, chemical use, ergonomic and radioactive hazards, this includes risks related to waste management and incineration-related occupational injuries, such as: sharps-inflicted injuries, toxic exposure to mercury or dioxins, during the handling or incineration of health care wastes, and thermal injuries occurring in conjunction with the operation of medical waste incinerators. The HCF staff with support from the SPIU Environmental Specialist will ensure the following mitigation measures are implemented:

- Provide appropriate PPE to the construction personnel for handling construction materials;
- Implement engineering control systems like primary and secondary barriers;
- Organize and implement medical surveillance which includes medical service and immunization programs;
- Provide health and safety training;
- Adopt and implement safety manuals aligned with OSH guideline and WHO laboratory biosafety manual; WHO technical guideline for COVID-19 Key considerations for occupational safety and health
- Develop and implement safety standards.

OHS measures have been additionally been elaborated in Annexes II, III and IV.

Labor issues in HCF operation

Worker grievances can develop in general operation of HCFs that may involve among others, PPE availability and/or use; lack of proper procedures or unreasonable overtime; time-sensitivity and/or confidentiality of grievance. To mitigate these labor risks, the project Social Specialist ensures the

application of the GRM as featured in Figure 6 as well as the WHO resources for COVID-19: occupational health available at: <https://www.who.int/news-room/detail/09-03-2020-covid-19-occupational-health>.

Brief overview of labor legislation: terms and conditions

Worker Terms and Conditions provisions of the labor law

Law N° 66/2018 of 30/08/2018 regulating labor in Rwanda¹⁴ makes general provisions and fundamental rights under Chapter I that include conducive working environment for the employee, minimum age for admission into employment and prohibited forms of work for the child, prohibition of forced labor, prohibition of sexual harassment, protection against discrimination and rights to freedom of opinion and association. Article 7 Prohibition of forced labor under this Chapter stipulates exceptions for prescribed labor under circumstances such as work imposed in case of the state of siege, emergency or disasters. Chapter II of the labor law makes provisions on employment contract and subcontract arrangements for citizens and foreign workers and covers occupational accident and disease.

The labor law provides for general working conditions, making stipulations on rights and obligations of the employer and the employee, working hours, rest hours and leave under Chapter III. Provisions under this chapter include working terms and conditions regarding pregnancy of women workers, maternity leave, and breastfeeding period. Provisions are also made for persons with disabilities under this chapter of the labor law. Salary and minimum wage provisions are made under Chapter IV of the labor law.

Chapter V makes provisions on occupational health and safety (OHS) with stipulations on mandatory workplace OHS committees, first aid, firefighting and imminent danger, preventing and fighting occupational accidents and diseases, and declaration of accidents, disease or death. OHS committees will

Other include Chapter VI that provides for association of employees and association of employers and Chapter VII for collective agreements and rules of procedure of enterprise. Chapter VIII provides for labor disputes settlement including individual and collective modalities.

Chapter IX provides for the right to strike and lockout, Chapter X for labor organs including the Labor Inspectorate, Chapter XI for declaration made by an enterprise, Chapter XII for Offences and their penalties and related sanctions, of specific significance is Article 119 that stipulates offences and penalties relating to occupational health and safety. Chapter XIII provides for miscellaneous, transitional and final provisions.

The labor law is given effect by a suite of the following regulatory orders:

- Ministerial Order N° 001/19.20 du 17/03/2020 relating to labor inspection
- Ministerial Order N° 002/19.20 of 17/03/2020 establishing the list of gross misconduct
- Ministerial Order N° 003/19.20 of 17/03/2020 relating to employees' representatives
- Ministerial Order N° 004/19.20 of 17/03/2020 determining essential services that should not be interrupted during strike or lock-out
- Ministerial Order N° 005/19.20 of 17/03/2020 determining modalities for the implementation of working hours a week in the private sector
- Ministerial Order N° 006/19.20 of 17/03/2020 determining modalities for training of employees
- Ministerial Order N° 007/19.20 of 17/03/2020 determining core elements of a written employment contract
- Ministerial Order N° 009/19.20 of 17/03/2020 determining funeral expenses and death allowances for an employee

The provisions of the labor law discussed above will apply to the ERP temporary unskilled and skilled workers that will be employed in the minor civil works for the refurbishment and/or rehabilitation of selected parts of existing HCFs for the establishment of isolation facilities and for enhancing laboratories.

¹⁴ https://mifotra.gov.rw/fileadmin/news_import/New_Labour_Law_2018.pdf

The provisions will also apply to frontline support personnel. HCWs and other civil servants will participate in the implementation of the ERP within the frameworks of their existing employment arrangements established in compliance of the labor law.

Brief Overview of Labor Legislation: Occupational Health and Safety

National Standards and Guidelines

The Ministry of Health developed National Guidelines on Healthcare Waste Management in 2016 aiming to guide health service providers in the management of waste generated from health care activities and ultimately mitigate risks of exposure and transmission of infectious diseases to service providers, patients and the community being served. Moreover, the Ministry prepared two sets of guidelines in 2014: (i) guidelines for the prevention and management of Viral Hemorrhagic Fever in health care settings which include injection safety and waste management recommendations; and (ii) guidelines on sorting, transportation, treatment and final disposal of medical waste from site of generation to site of disposal. These guidelines aim at improving injection safety and healthcare waste management in the country and categorize wastes into infectious sharp waste, infectious non-sharp waste and non-infectious waste.

National Standards Operating Procedures on Healthcare Waste Management were instituted in 2016, aiming to give effect to the abovementioned guidelines. These SOPs define the chain of responsibilities for healthcare waste management and the best practices to apply along the chain. The guidelines and SOPs were incorporated in the national Medical Waste Management Plan (MWMP) that was updated for the Ebola Virus Disease (EVD) in Feb 2020. This ESMF requires the Rwanda COVID-19 parent project and its Vaccine AF to prepare and implement an Infection Control and Waste Management Plan (ICWMP) according to Annex VI with consideration of existing waste management national instruments already in place. The ICWMP will be applicable to HCW involved in project activities including PoE screening, quarantining, triaging and isolation/treatment. The SOPs and ICWMP are also applicable to frontline support services including waste management workers of the parent project and Vaccine AF teams.

OHS provisions of the national labor law as applicable to COVID-19

Chapter V of Rwanda's labor law stipulates the following OHS provisions:

Article 77: General health and safety conditions in the workplace: An employer must ensure the health, safety and welfare in the workplace for employees working in his/her enterprise and for all persons who frequent the enterprise. An employee is not required to pay any cost in connection with measures aimed at ensuring occupational health and safety. This provision is applicable to temporary workers and frontline support personnel.

Article 78: Occupational Health and Safety Committee: An enterprise establishes an OHS Committee. An Order of the Minister in charge of labour determines general occupational health and safety conditions. HCWs and Civil Servants involved in the implementation of the ERP will serve in the existing employment frameworks and would therefore be operating under such a committee. The minor civil works for refurbishment and/or rehabilitation for isolation facility establishment and enhancement of laboratories will require relatively small workforce numbers for relatively short durations. The same applies to frontline support personnel. OHS committees will therefore not be viable. Contractors will be required to prepare and implement OHS protocol in compliance with the Rwandan labor law and ESS2.

Article 79: Personal protective equipment: An employer provides every person entering an area in an enterprise where he/she is likely to be exposed to the risk of injury or harm from contamination, with suitable protective equipment and instructions for their use and verify that they are used. The contractor for the subproject ERP minor civil works will abide by this provision under the supervision of the project s and assisted by the designated HCF project officers according to Figure 4.

Article 80: First aid, fire-fighting and imminent danger: An employer takes the necessary measures for first aid, fire-fighting, preventing and fighting imminent danger that can occur in his/her enterprise. The

contractor for the subproject ERP minor civil works will abide by this provision under the supervision of the project ES staff and assisted by the designated HCF project officers according to Figure 4.

Article 81: Preventing and fighting occupational accidents and diseases

In order to prevent and fight occupational accidents and diseases, an employer does the following:

1. assess risks of occupational accidents and diseases;
2. develop occupational safety and health policy and monitor its implementation;
3. prevent risks of occupational accidents and diseases;
4. reduce in the best possible way risks of occupational accidents and diseases;
5. fight occupational accidents and diseases; and
6. adapt modalities of preserving occupational health and security of employees with new technology.

The contractor for the subproject ERP minor civil works will abide by this provision under the supervision of the project ES staff assisted by the designated HCF project officers according to Figure 6.

Article 82: Declaration of occupational accidents, disease or death: An employer declares to the management of the social security body in Rwanda and to the Inspectorate of Labour where the enterprise is located, occupational accident, disease or death in accordance with relevant Laws. In case the employer fails to declare occupational accident, disease or death, the victim of an accident or of the disease is entitled to do it. It can also be done by the beneficiary of the victim of accident or disease or of the deceased or by the competent authority within a period provided for by relevant Laws. The contractor for the subproject parent project civil works will abide by this provision under the supervision of the project ES staff assisted by the designated HCF project officers according to Figure 6.

Reference will also be made to applicable international conventions, and directives for addressing health and safety issues relevant to COVID-19, such as:

- [ILO Occupational Safety and Health Convention, 1981 \(No. 155\)](#)
- [ILO Occupational Health Services Convention, 1985 \(No. 161\)](#)
- [ILO Safety and Health in Construction Convention, 1988 \(No. 167\)](#)
- [WHO International Health Regulations, 2005](#)
- [WHO Emergency Response Framework, 2017](#)
- [EU OSH Framework Directive \(Directive 89/391\)](#)

Responsible Staff

The Social Specialist will supervise the implementation of the LMP supported by District Hygiene & Sanitation Officers (DHSOs) at District Administration level, by Hospital Environmental Officers (HEOs) at Referral, Provincial and Districts hospital level and by Environmental Health Officers (EHOs) at Health Centre level according to the following functions:

- District Hygiene & Sanitation Officers (DHSOs) at District Administration level (ERP works for Screening Posts, Centers of Quarantine and Contact Tracing);
- Hospital Environmental Officers (HEOs) at Referral, Provincial and District hospital levels (ERP works for IPC at Isolation & Treatment Facilities); and
- Environmental Health Officers (EHOs) at ERP works for Health Centers.

The roles and responsibilities of the environmental management team as shown in **Figure 4** are described in the proceeding sections according to the required sequential procedures of compliance to the applicable ESSs and the ESMP.

Policies and Procedures for Mitigation Measures

Doing hazardous work

Needs for workforce and type of project workers for upgrading and/or rehabilitation works will be identified as a planning activity by the project Social Specialist. Although project activities are not expected to require large numbers, however, measures against physical risk associated with hazardous work must be put in place according to requirements the requirements of the Rwandan labor law and ESS2. The project Social Specialist will ensure that contractors implement physical safety measures including signage, prevention of hazardous substance spills and exposure to humans.

Workers coming from infected areas

The project ES staff will collaborate to ensure that the measures listed below are applied to mitigate risks associated with workers coming from COVID-19 infection areas. OHS measures have been additionally been elaborated in Annexes II, III and IV.

- Consider ways to minimize/control movement in and out of construction areas/site.
- If workers are accommodated on site require them to minimize contact with people outside the construction area/site or prohibit them from leaving the area/site for the duration of their contract
- Implement procedures to confirm workers are fit for work before they start work, paying special to workers with underlying health issues or who may be otherwise at risk
- Check and record temperatures of workers and other people entering the construction area/site or require self-reporting prior to or on entering
- Provide daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures.
- Require workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor if they have symptoms or are feeling unwell
- Prevent a worker from an affected area or who has been in contact with an infected person from entering the construction area/site for 14 days
- Preventing a sick worker from entering the construction area/site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days

Occupational Health and Safety (OHS) risks

Mitigation measures will be put in place against improper OHS practices including adopting and implementing safety guideline or manuals from OSH guideline and WHO technical guideline for COVID-19 key considerations for occupational safety and health. The ES staff will be accountable for the supervision of these measures on behalf of the PIU and MoH.

HCF operational hazards

The project HCF staff with support from the SPIU ES staff will ensure the following mitigation measures are implemented against operational hazards in project HCFs:

- Provide appropriate PPE to the construction personnel for handling construction materials;
- Implement engineering control systems like primary and secondary barriers;
- Organize and implement medical surveillance which includes medical service and immunization programs;
- Provide health and safety training;
- Adopt and implement safety manuals aligned with OSH guideline and WHO laboratory biosafety manual; WHO technical guideline for COVID-19 Key considerations for occupational safety and health
- Develop and implement safety standards.

Labor issues in HCF operation

The project Social Specialist ensures the application of the GRM as a mitigation measure against labor issues associated with HCF operation as featured in Figure 6 as well as the WHO resources for COVID-19: occupational health available at:

<https://www.who.int/news-room/detail/09-03-2020-covid-19-occupational-health>.

Specific procedures have been adopted in the National COVID-19 Preparedness and Response Plan that include a capacity building program that includes hygiene and social distancing, as well as what should be done if workers become sick as described in capacity building section of this ESMF.

The following guidance materials should be used as additional reference in implementing the LMP:

- For health workers rights, roles and responsibilities, including on OHS, consult WHO COVID-19 interim guidance
- For guidance on infection prevention and control (IPC) strategies for use when COVID-19 is suspected, consult WHO IPC interim guidance
- For rational use of PPE, consult WHO interim guidance on use of PPE for COVID-19
- For workplace-related advice, consult WHO guidance getting your workplace ready for COVID-19
- For guidance on water, sanitation and health care waste relevant to viruses, including COVID-19, consult WHO interim guidance
- For projects requiring management of medical waste, consult guidance issued by WHO Safe management of wastes from health-care activities

As the Rwanda COVID-19 parent project involves some civil works, contractors should develop specific procedures or plans so that adequate precautions are in place to prevent or minimize an outbreak of COVID-19, and that it is clear what should be done if a worker gets sick. Details of issues to consider are set out in Section 5 of the World Bank's Interim Note: COVID-19 Considerations in Construction/Civil Works Projects and include:

- Assessing the characteristics of the workforce, including those with underlying health issues or who may be otherwise at risk
- Confirming workers are fit for work, to include temperature testing and refusing entry to sick workers
- Considering ways to minimize entry/exit to site or the workplace, and limiting contact between workers and the community/general public
- Training workers on hygiene and other preventative measures, and implementing a communication strategy for regular updates on COVID-19 related issues and the status of affected workers
- Treatment of workers who are or should be self-isolating and/or are displaying symptoms
- Assessing risks to continuity of supplies of medicine, water, fuel, food and PPE, taking into account international, national and local supply chains
- Reduction, storage and disposal of medical waste
- Adjustments to work practices, to reduce the number of workers and increase social distancing
- Expanding health facilities on-site compared to usual levels, developing relationships with local health care facilities and organize for the treatment of sick workers
- Building worker accommodations further apart, or having one worker accommodation in a more isolated area, which may be easily converted to quarantine and treatment facilities, if needed
- Establishing a procedure to follow if a worker becomes sick (following WHO guidelines)
- Implementing a communication strategy with the community, community leaders and local government in relation to COVID-19 issues on the site.

The Rwanda COVID-19 project will support HCFs and therefore plans or procedures will be in place to address the following issues:

- Obtaining adequate supplies of medical PPE, including gowns, aprons, curtains; medical masks and respirators (N95 or FFP2); gloves (medical, and heavy duty for cleaners); eye protection (goggles or face screens); hand washing soap and sanitizer; and effective cleaning equipment. Where relevant PPE cannot be obtained, the plan should consider viable alternatives, such as cloth masks, alcohol-based cleansers, hot water for cleaning and extra handwashing facilities, until such time as the supplies are available
- Training medical staff on the latest WHO advice and recommendations on the specifics of COVID-19
- Conducting enhanced cleaning arrangements, including thorough cleaning (using adequate disinfectant) of catering facilities/canteens/food/drink facilities, latrines/toilets/showers, common areas, including door handles, floors and all surfaces that are touched regularly
- Training and providing cleaning staff with adequate PPE when cleaning consultation rooms and facilities used to treat infected patients

The project Stakeholder Engagement Plan (SEP) as revised for the Vaccine AF, includes the implementation of COVID-19 communication imperatives to support regular communication, accessible updates and clear messaging to health workers, regarding the spread of COVID-19 in nearby locations, the latest facts and statistics, and applicable procedures.

Age of Employment

Article 5 under Chapter I of Law N° 66/2018 of 30/08/2018 regulating labor in Rwanda stipulates that the minimum age for admission to employment is 16 years. Article 6 further stipulates that it is prohibited to subject a child below the age of 18 years to any of the following forms of work:

1. forms of work which are physically harmful to the child;
2. work underground, under water, at dangerous heights or in confined spaces;
3. work with dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads; and
4. work in an environment which exposes the child to temperatures, noise levels or vibrations damaging to his/her health; work for long hours or during the night or work performed in confined spaces.

The article stipulates that an Order of the Minister in charge of labor determines the nature of prohibited forms of work for a child. The Rwanda COVID-19 ERP will abide by these provisions and will not employ children under the age of 18 years.

Terms and Conditions

Chapter III of Law N° 66/2018 of 30/08/2018 regulating labor in Rwanda provides for general working conditions, making stipulations on rights and obligations of the employer and the employee, working hours, rest hours and leave. Article 43 and 44 stipulate that maximum working hours are 45 hours a week and 24 hours a week respectively. The article provides that the weekly rest hours are not counted among the weekly working hours. The daily timetable for work hours and break for an employee is determined by the employer. The daily rest granted by the employer to the employee is not counted as work hours. The article however further stipulates that an employee can work extra hours upon the agreement with his/her employer.

Although Article 7 of Chapter III prohibits of forced labor, exceptions stipulated under circumstances of work imposed in case of the state of siege, emergency or disasters.

Grievance Mechanism

The Grievance Redress Mechanism (GRM) for the Rwanda COVID-19 parent project and its Vaccine AF is aimed assisting to resolve among others, worker complaints and grievances in a timely, effective and

efficient manner that satisfies all parties involved. Specifically, it provides a transparent and credible process for fair, effective and lasting outcomes. It also builds trust and cooperation as an integral component of broader community consultation that facilitates corrective actions. Grievances will be handled at the District Level by the Officer in charge of Social Affairs and on the national level by MoH and RBC, including via dedicated hotline to be established. The project Social Specialist will prepare a grievances register that will be maintained by Contractors at ERP activity sites. Contractors will record grievances and forward the information to the designated facilitation officer for GRM at the ERP beneficiary HCF and to the District Social Affairs officer for appropriate action. The GRM facilitation function is the responsibility ERP-designated officers as indicated in Figure 4.

Contractor Management

The Rwanda COVID-19 project Contractors management will be the responsibility of the RBC SPIU as the PIU. The RBC SPIU Coordinator will ensure that the following measures required of Contractors are implemented:

- As part of the bidding/tendering process, specific requirements for certain types of contractors, and specific selection criteria (e.g. for medical waste management, certifications, previous experience)
- Provision of medical insurance covering treatment for COVID-19, sick pay for workers who either contract the virus or are required to self-isolate due to close contact with infected workers and payment in the event of death
- Specific procedures relating to the workplace and the conduct of the work (e.g. creating at least 1.8 meters of 6 feet between workers by staging/staggering work, limiting the number of workers present)
- Specific procedures and measures dealing with specific risks. For example, for health care contractors: infection prevention and control (IPC) strategies, health workers exposure risk assessment and management, developing an emergency response plan, per [WHO Guidelines](#)
- Appointing a COVID-19 focal point with responsibility for monitoring and reporting on COVID-19 issues, and liaising with other relevant parties
- Including contractual provisions and procedures for managing and monitoring the performance of contractors, in light of changes in circumstances prompted by COVID-19

Community Workers

Community workers will not be involved in the Rwanda COVID-10 project activities.

Primary Supply Workers

No significant risk of child or forced labor or serious safety issues in relation to primary suppliers have been identified or expected in the Rwanda COVID-10 project activities.

7.5. Stakeholder Engagement

MoH on behalf of GoR as the borrower will meet the requirement of the World Bank ESS10: Stakeholder Engagement and Information Disclosure. Due to the emergency situation, and the need to address issues related to COVID19, no dedicated consultations beyond public authorities and health experts, including Africa CDC, have been conducted so far. The project has prepared a revised SEP for the Vaccine AF to ensure early, continuous and inclusive stakeholder engagement (including vulnerable/disadvantaged groups).

The overall objective of the SEP is to define a program for stakeholder engagement, including public information disclosure and consultation, throughout the entire project cycle. The SEP outlines the ways in which the project team will communicate with stakeholders and includes a mechanism by which people can raise concerns, provide feedback, or make complaints about project and any activities related to the project. The involvement of the local population is essential to the success of the project in order to ensure smooth collaboration between project staff and local communities and to minimize and mitigate environmental and social risks related to the proposed project activities. In the context of infectious diseases, broad, culturally appropriate, and adapted awareness raising activities are particularly important to properly sensitize the communities to the risks related to infectious diseases.

The Bank recently provided a Technical Note titled “Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints of conducting public meetings” with respect to the outbreak and spread of COVID-19. The Note makes due reference to the WHO technical guidance in dealing with COVID-19, including: (i) Risk Communication and Community Engagement (RCCE) Action Plan Guidance Preparedness and Response; (ii) Risk Communication and Community engagement (RCCE) readiness and response; (iii) COVID-19 risk communication package for healthcare facilities; (iv) Getting your workplace ready for COVID-19; and (v) a guide to preventing and addressing social stigma associated with COVID-19. All these documents are available on the WHO website through the following link: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>.

The Government of Rwanda through the Ministry of Health launched an extendable six month COVID-19 National Preparedness and Response Plan under the oversight of the National Epidemic Preparedness and Response Committee led by the Office of the Prime Minister. One of main objectives of the plan is to “Create and raise public awareness for engagement on COVID-19 preparedness and response activities”. The Rwanda Health Communication Centre (RHCC), a unit of the RBC/MoH mandated with the coordination of health promotion interventions, handling media and public relations within the country’s health sector is full deployed in the implementation of Rwanda’s RCCE. The RHCC disseminates COVID-19 relevant messages through national radio, megaphone broadcasts, TV, mobile phone SMS and social media platforms and obtains feedback as appropriate.

Stakeholder Consultations for project preparation

A preparation stage consultation was held with health sector stakeholders on April 15, 2021, attended by 126 senior level officials that included the Minister of State for in charge of Primary Healthcare, the Permanent Secretary (MoH), District Mayors, District Executive Secretaries, Directors General of Referral and District Hospitals, RBC-SPIU Coordinator. The WebEx video conference consultation session was convened by RBC on behalf of MoH. The RBC-SPIU E&S team made a virtual presentation and the ESMF and SEP as the main instruments for E&S risk management for the parent project and the Vaccine AF.

Stakeholders indicated awareness of the need for the management potential Environmental and Social risks that may be associated COVID-19 ERP parent project activities and those that may be associated with its Vaccine AF. It was pointed out that the Command-Post structure that is decentralized to District level under the coordination of national COVID-19 Joint (sector) Task Force Coordination (JTFC) is mandated with among others, to ensure avoidance or mitigation of negative environmental and social impacts of Infection Prevention and Control during the vaccination campaign. Stakeholder requested for the PowerPoint

presentation and the main ESMF and SEP documents for their perusal. Annex XI features the attendance list of the virtual stakeholder consultation for the Vaccine AF held on April 15, 2021.

Previously a senior level virtual consultation with stakeholders in district administration of the health sector was conducted for the parent project ESMF on Oct 16, 2020 using a video conference facility hosted by the Ministry of Local Government (MINALOC). Over 90 officials participated in the virtual consultation session. Participants included District Executive Secretaries, Directors General of District Hospitals, District Directors of Health, District Hygiene and Sanitation Officers and Hospital Environmental Health Officers. The consultation session was facilitated by the RBC-SPIU Coordinator and the both ES project staff.

Other consultations on the parent project ESMF were integrated with an ES training programme from Oct 12 to Oct 15, 2020 for District Hygiene and Sanitation Officers (DHSOs) and District Hospital Environmental Health Officers (EHO) and Health Centre Community Environmental Health Officers (C-EHOs) for 4 districts. 33 officers from Nyabihu and Ngororero districts were consulted on the ESMF on Oct 12, and 31 officers from Rubavu and Rutsiro districts consulted on Oct 14, 2020 (Annex VIII).

The ES team in the RBC-SPIU will continue to schedule consultations on the ESMF and SEP with key stakeholders in the vaccination programme as stipulated in the ESCP.

A summary of key issues raised are provided in Table 13.

Table 13 Summary of key issues raised by stakeholders on the parent project ESMF

| Comments and Issues raised | Stakeholder Designation | Reply from ESF Team &/or PIU |
|--|--|--|
| <ul style="list-style-type: none"> Handwashing facilities are inadequate | Director of Health - Bugesera District | <ul style="list-style-type: none"> PIU Coordinator: MoH found that there internal water supply challenges in some HCFs. These HCFs have been identified and will be assisted to resolve the problem. |
| <ul style="list-style-type: none"> There is need for assessment of water distribution within HCFs | Director of Health - Gasabo District; | |
| <ul style="list-style-type: none"> Presentation did not feature people with disabilities among the stakeholders | Director of Health - Bugesera District | <ul style="list-style-type: none"> ESF team: People disabilities are included as key stakeholders of the ERP and referenced in this ESMF among vulnerable groups. |
| <ul style="list-style-type: none"> Current practice of home-based care is straining HCW capacity. HCW capacity challenges expected increase when borders open (e.g. 50,000 people crossing daily at Rubavu-Goma border). Has there been any HR capacity needs assessment for C-19 response? Is project considering recruiting additional non-civil service staff? | DG Gisenyi Hospital | <ul style="list-style-type: none"> PIU Coordinator: A capacity needs assessment was done and results used in the COVID-19 National Preparedness and Response Plan. PIU Coordinator: There is no budget for recruitment of additional HCWs. Most of the ERP budget is being used for logistical support for case-management and medical supplies. |
| <ul style="list-style-type: none"> EHOs & C-EHOs over-stretched, not able to follow appropriate schedule, resorting to most urgent | EHOs/C-EHOs Nyabihu/Ngororero | |
| <ul style="list-style-type: none"> How is the budget managed to mitigate implementation challenges? | Director of Health – Rulindo District | <ul style="list-style-type: none"> PIU Coordinator: ERP budget is managed by RBC-SPIU according GoR guidelines for financial accountability and efficiency of delivery |

| Comments and Issues raised | Stakeholder Designation | Reply from ESF Team &/or PIU |
|--|---|---|
| <ul style="list-style-type: none"> The country is moving into the C-19 eradication phase. Is the ERP considering rehabilitation of facilities e.g. isolation and quarantine centers? | Director of Health - Gasabo District | <ul style="list-style-type: none"> ESF Team: This ESMF provides guidance on decommissioning of ERP facilities as the final stage of project activities. |
| <ul style="list-style-type: none"> Some decontamination activities caused damage of people's properties. Will the ERP compensate them? | Director of Health - Gasabo District; EHOs/C-EHOs Nyabihu/Ngororero | <ul style="list-style-type: none"> ESF Team: RBC-SPIU will investigate the matter and inform WB who it will be addressed. |
| <ul style="list-style-type: none"> Transportation of medical waste to district hospitals for incineration is adhoc and staff rely on improvisation | EHOs/C-EHOs Musanze/Rutsiro; Nyabihu/Ngororero | <ul style="list-style-type: none"> ESF Team: Noted for the attention of RBC-SPIU (PIU) |
| <ul style="list-style-type: none"> Incineration expensive (Rwf1,600/kg at Gisenyi Hospital); considered low priority in current situation of low budget Incinerators maintenance costly (e.g. Gisenyi Hospital cost Rwf18m (USD18.6m)) | EHOs/C-EHOs Nyabihu/Ngororero | |
| <ul style="list-style-type: none"> No weighing scales and colour-coded waste bags not available for medical waste characterization | EHOs/C-EHOs Nyabihu/Ngororero | |
| <ul style="list-style-type: none"> Component 4 indicates zero cost. Is this correct? | RBC/IHDPC | |
| <ul style="list-style-type: none"> Will the ERP consider purchasing incinerators for hospitals? | Director of Health – Gasabo District | <ul style="list-style-type: none"> ESF Team: ERP will not purchase incinerators for hospitals. However, the project can contribute to the training and capacity building of operators of the existing facilities to maximize their safe operation and support future planning, prioritization of the waste management within these district facilities. |
| <ul style="list-style-type: none"> ERP should make consideration of hospitals without modern incinerators | EHO - Mibilizi DH | |
| <ul style="list-style-type: none"> ERP should make considerations for waste management in COVID-19 homebased care/treatment | Director of Waste Management Kicukiro District | <ul style="list-style-type: none"> ESF Team: Noted for the attention of RBC-SPIU (PIU) |

Key Outcomes of the initial stakeholder consultations

The consultations provided critical information to key stakeholders in the health sector. Important questions and comments included from grievances emerging from property damage caused by decontamination activities associated with contact-tracing for IPC of COVID-19 such as use of chemicals on equipment surfaces. Stakeholders were informed of the GRM that in place for grievance resolution associated with ERP activities.

Stakeholders were also concerned with medical waste management challenges faced by HCFs and wondered whether or not the ERP would address them, especially towards the need for incinerators. A critical aspect of waste management raised related to waste management of the current homecare for COVID-19 patients. This aspect should be addressed by RBC. Another critical issue raised by stakeholders was the overstretched situation of HCWs. The PUI was able to explain that the country was generally under stress and that the RBC would try to make-do with the resources that were available and that no resources were available in the ERP or from elsewhere for recruit more staff.

The parent project SEP was disclosed on the RBC and of the World Bank project websites. The SEP continue to be implemented to the extent possible within the prevailing restrictions compelled by the pandemic incorporating engagement requirements for vaccine activities of the project. Consultation on the Vaccine AF activities will be conducted deploying virtual and other appropriate means to as many stakeholders as may have access to the technology in-line with Vaccine Acceptance and Uptake consultations as scheduled in the National Deployment and Vaccination Plan that started on Jan 21, 2021 through to June 2022.

7.6. Stakeholder Engagement Plan

Stakeholder engagement plan for the Vaccine-AF is proposed in Table 14 below. The proposed plan is aligned to the National Deployment and Vaccination Plan for COVID-19 vaccine. The plan features a matrix for the preparation and implementation stages, respective target stakeholders, engagement topics, appropriate methods to be used, location and frequency of engagement. It should be noted that all stakeholder engagement activities are the responsibility of the RBC-SPIU as the parent project and Vaccine AF PIU.

Table 14 Stakeholder engagement plan for Vaccine AF

| Stage | Target stakeholders | Topic(s) of engagement | Method(s) used | Location/frequency |
|------------------------------|---|---|--|--|
| Stage 1: Project preparation | Project Affected People/ Vulnerable beneficiaries/ Potential Vaccination receivers | ESMF, ESCP, SEP; Project scope and rationale; Project E&S principles; Grievance mechanism process, Vaccination process and criteria for selection, Schedule and Work Plan, issues of no forced/ mandatory vaccination | Online meetings, separate meetings for women and the vulnerable group; Face-to-face meetings, if applicable maintaining COVID protocol Mass/social media communication (as needed) Disclosure of written information: brochures, posters, flyers, website, Local newspaper Information boards or desks Grievance mechanism | When deemed necessary by the ES team of the RBC-SPIU (PIU) |
| | Other Interested Parties | ESMF, ESCP, SEP disclosures; Project scope, rationale and E&S principles, Vaccination process and criteria for selection, Schedule and Work Plan Grievance mechanism process | Online meeting and Face-to-face meetings if possible Joint public/community meetings with PAPs | When deemed necessary by the ES team of the RBC-SPIU (PIU) |
| | Other Interested Parties Press and media Local NGOs, Different Government Departments District Health Admin, District Police, Municipal, etc. General public, Migrants etc. | ESMF, ESCP, and SEP disclosures Grievance mechanism Project scope, rationale and E&S principles Vaccination process and criteria for selection, Schedule and Work Plan | Online meeting and Public meetings, if possible trainings/workshops (separate meetings specifically for women and vulnerable people as needed) Mass/social media communication Disclosure of written information: Brochures, posters, flyers, website Information boards Grievance mechanism Notice board for employment recruitment | When deemed necessary by the ES team of the RBC-SPIU (PIU) |
| | Other Interested Parties | Legal compliance issues | Online meeting, Face-to-face meetings if protocol can be ensured, | Disclosure meetings Reports as required |

| Stage | Target stakeholders | Topic(s) of engagement | Method(s) used | Location/frequency |
|-------------------------------|---|--|--|--|
| | Other Government Departments from which permissions/clearances are required; | Project information scope and rationale and E&S principles Coordination activities Grievance mechanism process ES Docs disclosures Vaccination process and criteria for selection, Schedule and Work Plan | Invitations to public/community meetings Submission of required reports | |
| STAGE 2: Implementation Phase | Project Affected People /Vaccination receivers | Grievance mechanism Health and safety impacts Progress on Schedule and Work Plan Issues of no forced/ mandatory vaccination Project status | Online meeting, Public meetings if possible, trainings/workshops Separate meetings as needed for women and vulnerable group Individual outreach to PAPs as needed Disclosure of written information: brochures, posters, flyers, website Information boards; Notice board(s) Grievance mechanism Local monthly newsletter | Quarterly meetings Communication through mass/social media as needed Notice boards updated weekly Routine interactions Brochures in local offices |
| | Other Interested Parties | Project scope, rationale and E&S principles Grievance mechanism Project status Progress on Schedule and Work Plan | Online meeting, Face-to-face meetings Joint public/community meetings with PAPs | As needed |
| | Other Interested Parties Press and media Various Government Departments General public, migrants | Project information - scope and rationale and E&S principles, Project status Health and safety impacts Progress on Schedule and Work Plan Environmental concerns GBV related consultation, Grievance mechanism process | Public meetings, open houses, trainings/workshops Disclosure of written information: brochures, posters, flyers, website, Information boards Notice board(s) Grievance mechanism GBV related issues. | Same as for PAPs/ at regular intervals throughout the project period to educate and raise awareness amongst the population about vaccination and various ES Issues |

RBC-SPIU will recruit and/or assign a fulltime Environmental Specialist and Social Specialist member for oversight of ES risk management requirements according to this ESMF and other ESF instruments with the support of environmental health officials in beneficiary district administrations, hospitals and HCFs (Figure 6). The fulltime ES staff in the RBC-SPIU will be dedicated to the COVID-19 parent project and its Vaccine AF.

The Social Specialist will arrange and carry out SEP activities assisted by District Hygiene and Sanitation Officers (DHSOs) at District Administration level, by Environmental Health Officers (EHOs) at Referral, Provincial and Districts hospital level and by Community Environmental Health Officers (C-EHOs) at Health Centre level. The Level, method and activity of engagement to be applied will be guided by the Stakeholder Engagement Plan shown in Table 14 under the supervision of the RBC-SPIU (PUI). The Social Specialist will be responsible for the documentation of the stakeholder engagement activities under this ERP and will be responsible for quarterly reporting on the SEP. Stakeholder engagement activities may be iterative through the project's lifecycle based on comments received that may identify new important stakeholders.

Grievance Redress Mechanism (GRM)

The SEP features a Grievance Redress Mechanism (GRM) that applies to all activities of the Rwanda COVID-19 ERP. The GRM is aimed assisting to resolve complaints and grievances in a timely, effective and efficient manner that satisfies all parties involved. Specifically, it provides a transparent and credible process for fair, effective and lasting outcomes. It also builds trust and cooperation as an integral component of broader community consultation that facilitates corrective actions. Specifically, the GRM:

- Provides affected people with avenues for making a complaint or resolving any dispute that may arise during the course of the implementation of projects;
- Ensures that appropriate and mutually acceptable redress actions are identified and implemented to the satisfaction of complainants; and
- Avoids the need to resort to judicial proceedings.

Grievances are handled at HCFs by established and operational Health and Safety Committees under the supervision of the MoH Health Facility Safety Specialist at national level. The Social Specialist ensures that Contractors maintain a grievance register at project activity sites. Contractors are required to record any grievance in the grievance register and forward the information to the Grievance Redress Committee (GRC) at the HCF where there are project activities through DSHOs, HEO or EHO as described in Figure 6 and below:

- District Sanitation and Hygiene Officers (DSHOs) at District Administration level (ERP works for Screening Posts, Centers of Quarantine and Contact Tracing);
- Hospital Environmental Officers (HEOs) at Referral, Provincial and District hospital levels (ERP works for IPC at Isolation & Treatment Facilities); and
- Environmental Health Officers (EHOs) at ERP works for Health Centers.

The GRM will include the following steps as illustrated in Figure 7:

Level 0: Grievance discussed with the respective health facility

Level 1: Grievance raised with the District Social Affairs Office or IOSC in case of GVB

Level 2: Appeal to the Provincial Department of Social Affairs Office

Level 3: Appeal to the Rwanda Office of the Ombudsman and/or the Ministry of Health/RBC

Level 4: Appeal to the National Court system

This modality of the GRM will be applied to the Vaccine AF. Once all possible redress have been tried but the complainant is not satisfied, then they should be advised of their right to legal recourse.

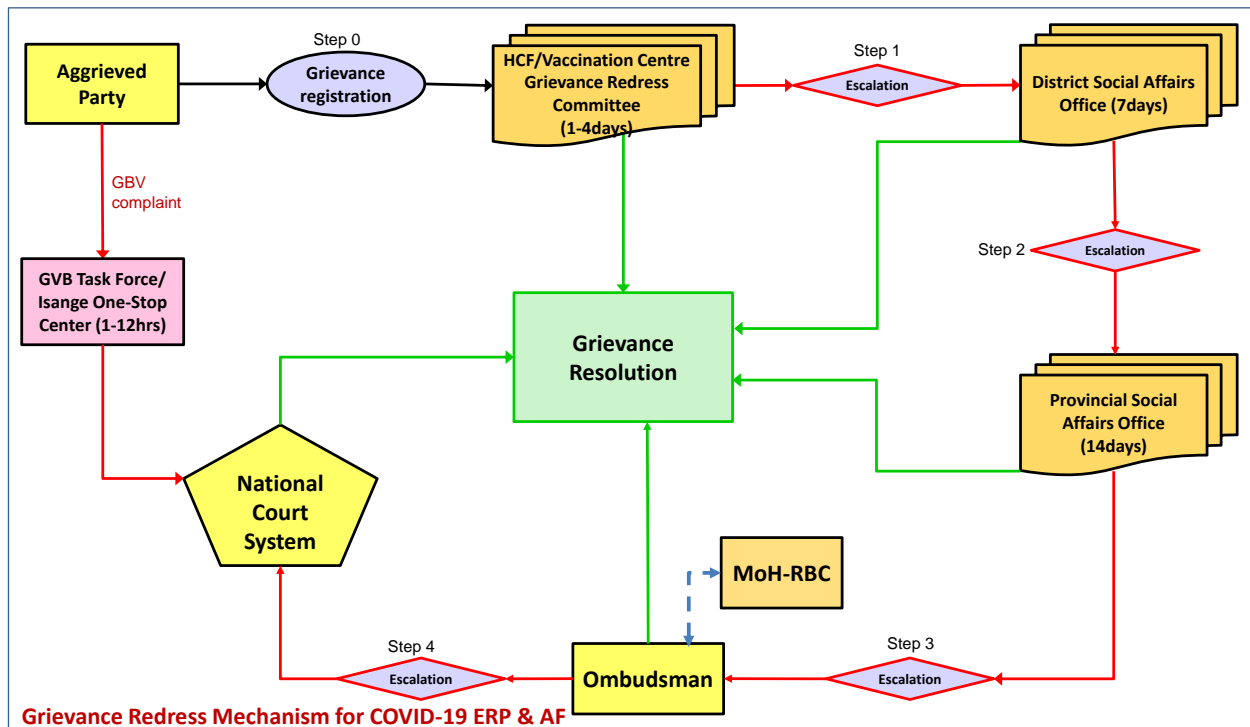


Figure 7 Grievance Redress Mechanism for the Rwanda ERP and Vaccine AF

However, in case of incidents of Gender Base Violence (GBV), there is need for timely access to quality, multi-sectoral services and involves confidentiality and informed consent of the survivor. GBV complaints will therefore be directed to the Isange One Stop Center (IOSC) by DSHOs, HEOs or EHOs as GRM facilitators. The IOSC is a specialized free-of-charge referral center where survivors of GBV can find comprehensive services such as: medical care; psychosocial support; police and legal support, and collection of legal evidence. IOSC works closely with police stations, sector, cell and village leaders in surrounding areas, community police, hospitals and health centers.

The designated parent project Social Specialist ensures that bidding and subsequent contract documents clearly define GBV/SEA/SH requirements, including the requirement for a Code of Conduct (CoC). During works, separate facilities will be provided for women and men with GBV-free zone signage. The Social Specialist provides information to all contractors with contact details the IOSC.

7.7. Implementation and monitoring of ES plans and instruments

The ES staff within the RBC SPIU (PUI) will ensure that prevention and mitigation measures for ESHS and OHS as prescribed in ESMPs or ESIA as appropriate for particular subprojects and supervise contractor compliance. Adverse environmental impacts are expected to be low from Vaccine AF activities and from any remaining parent project minor civil works carried out in refurbishments for POEs, screening and isolation facilities as well as operational IPC and WASH activities.

Supervision and Monitoring

Contractor supervision and monitoring

- The Contractor will implement all mitigation measures detailed in the Contractor-ESMPs.
- Contractor performance for ESHS and OHS compliance will be monitored by the RBC SPIU Coordinator through reports compiled by both ES staff.
- WB will conduct random checking.

Daily internal monitoring

- District Hygiene & Sanitation Officers (DHSOs) at District Administration level will supervise ERP works for Screening Posts at PoEs, Centers of Quarantine and Contact Tracing. DHSOs will prepare and submit monthly reports to the RBC-SPIU through the ES staff.
- Environmental Health Officers (EHOs) at Referral, Provincial and District hospitals benefiting from ERP investments will conduct daily supervision of minor civil works for refurbishment, fittings and installations for establishment and/or re-equipping isolation and treatment facilities as well as IPC activities in the operational and decommissioning phases.
- Environmental Health Officers (EHOs) will conduct daily supervision of ERP works for Screening Post at Health Centers and surveillance at community level and prepare and submit monthly reports to the RBC-SPIU through the ES staff.

Daily monitoring will take into consideration requirements prescribed in the Labor Management Procedures (LMP) including grievance resolution using the ERP GRM the following:

Project Level Reporting

The contractors will prepare their compliance reports with respect to the ESMP, which document the implementation of environmental mitigation and protection measures (together with prescribed monitoring activities carried out during the reporting period) and submit them to RBC SPIU Coordinator. The overall project compliance is reviewed by the MoH and by the WB, the latter may carry out the periodic supervision missions. Comprehensive monitoring parameters and details on reporting arrangements will be described in subproject ESMP (Annex III).

7.8. Resources for Implementing the ES Risk Management

A budget has been estimated for the implementation of the ESMF for the Vaccine AF whose cost items mainly entail the hiring of an ES staff as well as the costs for activities of consultations, grievance redress services, GBV support and capacity building. A total of USD440, 500 is estimated for ES risk management activities.

The budget as displayed in Table 15 has also been featured in the revised SEP.

Table 15 ES risk management budget for the COVID-19 ERP and Vaccine AF

| ES Risk Management Activity | Up to Dec 2022 (USD) | Up to June 2023 (USD) |
|--|---------------------------------|----------------------------------|
| <i>ES Training</i> | | |
| ES training for EHOs and C-EHOs involved in vaccine roll-out activities | 50,000 | 25,000 |
| <i>Stakeholder Engagement:</i> | | |
| Hiring an Environmental Specialist and Social Specialist | 24,000 | 24,000 |
| Consultations, Materials, Dissemination, radio, meetings etc. | 75,000 | 25,000 |
| <i>GRM:</i> | | |
| Support for establishment and operationalization of Grievance Redress Committees and Community Verifiers | 50,000 | 25,000 |
| Dissemination of instruments, boxes, printing material | 25,000 | 12,500 |
| <i>GBV:</i> | | |
| Support for victims and follow up | 30,000 | 15,000 |
| GBV capacity building activities and plan implementation in Covid-19 | 40,000 | 20,000 |
| <i>Sub Total</i> | <i>294,000</i> | <i>146,500</i> |
| Total | | 440,500 |

I. Abbreviations and Acronyms

| | |
|----------|---|
| AFB | Acid-Fast Bacilli |
| AMR | Antimicrobial Resistance |
| BMBL | Biosafety in Micro Biological and Biomedical Laboratories |
| BMW | Bio Medical Waste Management |
| BSC | Biological Safety Cabinets |
| BSL | Biosafety Level |
| CDC | Centre for Disease Control and Prevention |
| COVID-19 | Coronavirus Disease 2019 |
| EOC | Emergency Operating Centre |
| ESF | Environmental and Social Framework |
| ESS | Environmental and Social Standard |
| ESIA | Environmental and Social Impact Assessment |
| ESHS | Environmental, Social, Health and Safety |
| EHS | Environmental, Health and Safety |
| ERP | Emergency Response Plan |
| ESMF | Environmental and Social Management Framework |
| ESMP | Environmental and Social Management Plan |
| GBV | Gender Based Violence |
| HCF | Healthcare Facility |
| HCW | Healthcare Waste |
| HEPA | High Efficiency Particulate Air filter |
| HIV | Human Immunodeficiency Virus |
| HWMS | Healthcare Waste Management System |
| HVAC | Heating, Ventilation and Air Conditioning |
| ICWMP | Infection Control and Waste Management Plan |
| IPC | Infection and Prevention Control |
| LMP | Labor Management Procedure |
| OHS | Occupational Health and Safety |
| POE | Point of Entry |
| PPE | Personal Protective Equipment |
| PPSD | Project Procurement Strategy for Development |
| RAP | Resettlement Action Plan |
| RBC | The Rwanda Biomedical Center |
| RPF | Resettlement Policy Framework |
| SEA | Sexual Exploitation and Abuse |
| SEP | Stakeholder Engagement Plan |
| SOP | Standard Operating Procedures |
| TA | Technical Assistance |
| TB | Tuberculosis |
| WB | World Bank |
| WHO | World Health Organization |
| WWTP | Wastewater Treatment Plant |

II. Summary of Vaccination Workforce Estimates

| Category | Function/Role | Quantity | No./type of workers | Totals | Comments |
|------------------------------------|--------------------------|----------------------|---------------------------|------------------|--|
| Community Level | Role | # of villages | # CHWs | Sub-Total | Comments |
| Village | Community mobilization | 14,837 | 4 | 59,348 | |
| Total | | | | 59,348 | |
| HCF Type | Function | # of HCFs | # vaccination team | Sub-Total | Comments |
| National Referral Hospital | Vaccination site | 8 | 10 | 80 | Two teams per hospital composed of 1 vaccines logistician, 2 nurses for injection, 1 medical doctor for adverse effects monitoring, and 1 data manager |
| Provincial Hospital | Vaccination site | 4 | 10 | 40 | Two teams per hospital composed of 1 vaccines logistician, 2 nurses for injection, 1 medical doctor for adverse effects monitoring, and 1 data manager |
| District Hospital | Vaccination site | 37 | 10 | 370 | Two teams per hospital composed of 1 vaccines logistician, 2 nurses for injection, 1 medical doctor for adverse effects monitoring, and 1 data manager |
| Health Center | Vaccination site | 510 | 3 | 1,530 | One team per HC: Vaccination nurse, Head of HC and Data manager |
| Sub Total | | | | 2,020 | |
| Agency/ Program | Role | # structures | # of staff | Sub-Total | Comments |
| Rwanda FDA | Regulation | 1 | 5 | 5 | |
| Rwanda Health Communication Center | Vaccine communication | 1 | 9 | 9 | |
| Immunization Program | Vaccination coordination | 1 | 13 | 13 | |
| RBC/SPIU | WB project management | 1 | 5 | 5 | Project Manager, M&E, FMS, SBCC, Audit |
| Sub Total | | | | 32 | |

| Category | Function/Role | Quantity | No./type of workers | Totals | Comments |
|---|-------------------|--------------------|---------------------|-------------------|-----------------|
| <i>Coordination bodies</i> | <i>Role</i> | <i># of bodies</i> | <i># members</i> | <i>Sub-Total</i> | <i>Comments</i> |
| National AEFI review committee | Safety monitoring | 1 | 6 | 6 | |
| National PHEOC/ Command post | Coordination | 1 | | 0 | |
| Provincial PHEOC/ Command post | Coordination | 5 | | 0 | |
| District PHEOC/ Command post | Coordination | 30 | | 0 | |
| National COVID-19 vaccine readiness and delivery Task Force | Coordination | 1 | | 0 | |
| Interagency Coordination Committee (ICC) | Coordination | 1 | | 0 | |
| National Immunization Technical Advisory Group (NITAG) | Coordination | 1 | | 0 | |
| National Immunization Technical Working Group (NITWG) | Coordination | 1 | | 0 | |
| National Immunization Logistics Working Group (NILWG) | Coordination | 1 | | 0 | |
| Provincial level Vaccination committee | Coordination | 5 | 3 | 15 | |
| District level Vaccination committee | Coordination | 30 | 3 | 90 | |
| <i>Sub Total</i> | | | | <i>111</i> | |
| TOTAL | | | | 61,511 | |

III. Screening Template for Potential Environmental and Social Issues

This form is to be used by the Single Project Implementation Unit (SPIU) to screen for the potential environmental and social risks and impacts of a proposed subproject. Subprojects in the context of the Rwanda COVID-19 ERP are project activities procured under a contract. Subproject ES measures therefore apply to HCF where investments have been made. It will help the PIU in identifying the relevant Environmental and Social Standards (ESS), establishing an appropriate ES risk rating for these subprojects and specifying the type of environmental and social assessment required, including specific instruments/plans. Use of this form will allow the PIU to form an initial view of the potential risks and impacts of a subproject. ***It is not a substitute for project-specific ES assessments or specific mitigation plans.***

A note on *Considerations and Tools for ES Screening and Risk Rating* is included in this Annex to assist the process.

| | |
|-----------------------|--|
| Subproject Name | |
| Subproject Location | |
| Subproject Proponent | |
| Estimated Investment | |
| Start/Completion Date | |

| Subproject eligibility exclusion criteria question | Yes | No |
|--|-----|----|
| 7. Will the subproject involve activities that may cause long term, permanent and/or irreversible (e.g. loss of major natural habitat) impacts? | | |
| 8. Will the subproject involve activities that have high probability of causing serious adverse effects to human health and/or the environment other than during treatment of COVID19 cases? | | |
| 9. Will the subproject involve activities that may have significant adverse social impacts and may give rise to significant social conflict? | | |
| 10. Will the subproject involve activities that may affect lands or rights of historically marginalized people or other vulnerable minorities? | | |
| 11. Will the subproject activities likely to involve permanent resettlement or land acquisition or impacts on cultural heritage? | | |
| 12. Has subproject activity been prohibited in the ESMF for Vaccine Additional Funding? | | |
| If any of the above questions are answered as “Yes”, the proposed subproject is not eligible for financing under this ERP. | | |

| Questions | Answer | | ESS relevance | Due diligence / Actions |
|---|--------|----|---------------|--|
| | Yes | no | | |
| Does the subproject involve civil works including new construction, expansion, upgrading or rehabilitation of healthcare facilities and/or waste management facilities? Could climate change or extreme weather adversely impact the project? | | | ESS1 | ESIA/ESMP, SEP |
| Does the subproject involve land acquisition and/or restrictions on land use? | | | ESS5 | RAP/ARAP, SEP |
| Does the subproject involve acquisition of assets for quarantine, isolation or medical treatment purposes? | | | ESS5 | |
| Is the subproject associated with any external waste management facilities such as a sanitary landfill, incinerator, or wastewater treatment plant for healthcare waste disposal? | | | ESS3 | ESIA/ESMP, SEP |
| Is there a sound regulatory framework and institutional capacity in place for healthcare facility infection control and healthcare waste management? | | | ESS1 | ESIA/ESMP, SEP |
| Does the subproject have an adequate system in place (capacity, processes and management) to address waste? | | | | |
| Does the subproject involve recruitment of workers including direct, contracted, primary supply, and/or community workers? | | | ESS2 | LMP, SEP |
| Does the subproject have appropriate OHS procedures in place, and an adequate supply of PPE (where necessary)? | | | | |
| Does the subproject have a GRM in place, to which all workers have access, designed to respond quickly and effectively? | | | | |
| Does the subproject involve transboundary transportation (including Potentially infected specimens may be transported from healthcare facilities to testing laboratories, and transboundary) of specimen, samples, infectious and hazardous materials? | | | ESS3 | ESIA/ESMP, SEP |
| Does the subproject involve use of security or military personnel during construction and/or operation of healthcare facilities and related activities? | | | ESS4 | ESIA/ESMP, SEP |
| Is the subproject located within or in the vicinity of any ecologically sensitive areas? | | | ESS6 | ESIA/ESMP, SEP |
| Are there any indigenous groups (meeting specified ESS7 criteria) present in the subproject area and are they likely to be affected by the proposed subproject negatively or positively? | | | ESS7 | Indigenous Peoples Plan/other plan reflecting agreed terminology |

| | | | | |
|--|--|--|---|------------------------------|
| Is the subproject located within or in the vicinity of any known cultural heritage sites? | | | ESS8 | ESIA/ESMP, SEP |
| Does the project area present considerable Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) risk? | | | ESS1 | ESIA/ESMP, SEP |
| Does the subproject carry risk that disadvantaged and vulnerable groups may have inequitable access to project benefits? | | | ESS1 | ESIA/ESMP, SEP |
| Is there any territorial dispute between two or more countries in the subproject and its ancillary aspects and related activities? | | | <i>OP7.60 Projects in Disputed Areas</i> | Governments concerned agree |
| Will the subproject and related activities involve the use or potential pollution of, or be located in international waterways ¹⁵ ? | | | <i>OP7.50 Projects on International Waterways</i> | Notification (or exceptions) |

Conclusions:

1. Proposed project is eligible for financing under the project criteria

.....

2. Proposed Environmental and Social Risk Ratings (High, Substantial, Moderate or Low) based on the World Bank Environmental and Social Directive for Investment Project Financing of Jan 28, 2020. Available at: <https://ppfdocuments.azureedge.net/698faa01-d052-4eb3-a195-055e06f7f3fd.pdf>. **Provide Justifications**

.....

3. Proposed ES Management Plans/ Instruments among ESMP; ESIA or Technical Assistance.

.....

¹⁵ International waterways include any river, canal, lake or similar body of water that forms a boundary between, or any river or surface water that flows through two or more states.

INFECTION CONTROL: CONSIDERATIONS AND TOOLS TO ASSIST IN ES SCREENING AND RISK RATING:

In the context of global COVID-19 outbreak, many countries have adopted a containment strategy that includes extensive testing, quarantine, isolation and treatment either in a medical facility or at home.

A COVID-19 response project may include the following activities:

- construction of and/or operational support to medical laboratories, quarantine and isolation centers at multiple locations and in different forms, and infection treatment centers in existing healthcare facilities
- procurement and delivery of medical supplies, vaccines, equipment and materials, such as reagents, chemicals, and Personal Protective Equipment (PPEs)
- mass deployment of a safe and effective vaccine
- transportation of potentially infected specimens from healthcare facilities to testing laboratories
- construction, expansion or enhancing healthcare waste and wastewater facilities
- training of medical workers and volunteers
- community engagement and communication

1. Screening ES Risks of Medical laboratories

Many COVID-19 projects include capacity building and operational support to existing medical laboratories. It is important that such laboratories have in place procedures relevant to appropriate biosafety practices. The WHO advises that non-propagative diagnostic work can be conducted in a Biosafety Level 2 (BSL-2) laboratory, while propagative work should be conducted at a BSL-3 laboratory. Patient specimens should be transported as Category B “infectious substance” (UN3373), while viral cultures or isolates should be transported as Category A “Infectious substance, affecting humans” (UN2814). The process for assessing the biosafety level of a medical laboratory (including management of the laboratory operations and the transportation of specimens) should consider both biosafety and general safety risks. OHS of workers in the laboratory and potential community exposure to the virus should be considered.

The following documents provide further guidance on screening of the ES risks associated with a medical laboratory. They also provide information for assessing and managing the risks.

- [WHO; Prioritized Laboratory Testing Strategy According to 4Cs Transmission Scenarios](#)
- [WHO Covid-19 Technical Guidance: Laboratory testing for 2019-nCoV in humans:](#)
- [WHO Laboratory Biosafety Manual, 3rd edition](#)
- [USCDC, EPA, DOT, et al; Managing Solid Waste Contaminated with a Category A Infectious Substance](#) (August 2019)

2. Screening ES Risks of Quarantine and Isolation Centers

According to WHO:

- **Quarantine** is the restriction of activities of or the separation of persons *who are not ill but who may have been exposed to* an infectious agent or disease, with the objective of monitoring their symptoms and ensuring the early detection of cases
- **Isolation** is the separation of *ill or infected persons* from others to prevent the spread of infection or contamination.

Many COVID-19 projects include construction, renovation and equipping of quarantine and isolation centers at Point of Entry (POE), in urban and in remote areas. There may also be circumstances where tents

are used for quarantine or isolation. Public or private facilities such as a stadium or hotel may also be acquired for this purpose.

In screening for ES risks associated with quarantine and isolation, the following may be considered:

- contextual risks such as conflicts and presence or influx of refugees
- construction and decommissioning related risks
- ascertain that land or asset acquisition is not required for ERP activities
- ascertaining that security personnel or military forces are not used in ERP activities
- availability of minimum requirements of food, fuel, water, hygiene
- whether infection prevention and control, and monitoring of quarantined persons can be carried out effectively
- whether adequate systems are in place for waste and wastewater management
- provision of accurate information to ill, infected or exposed persons in a simple, accessible and culturally appropriate manner

The following documents provide further guidance regarding quarantine of persons.

- [WHO; Considerations for quarantine of individuals in the context of containment for coronavirus disease \(COVID-19\)](#)
- [WHO; Key considerations for repatriation and quarantine of travelers in relation to the outbreak of novel coronavirus 2019-nCoV](#)
- [WHO; Preparedness, prevention and control of coronavirus disease \(COVID-19\) for refugees and migrants in non-camp settings](#)

3. SCREENING ES RISKS OF TREATMENT CENTERS AND FOR DEPLOYMENT OF VACCINES

WHO has published a manual that provides recommendations, technical guidance, standards and minimum requirements for setting up and operating severe acute respiratory infection (SARI) treatment centers in low- and middle-income countries and limited-resource settings, including the standards needed to repurpose an existing building into a SARI treatment center, and specifically for acute respiratory infections that have the potential for rapid spread and may cause epidemics or pandemics.

- [WHO Severe Acute Respiratory Infections Treatment Centre](#)
- [WHO Covid-19 Technical Guidance: Infection prevention and control / WASH](#)
- [WBG EHS Guidelines for Healthcare Facilities](#)
- [WHO: Diagnostics, therapeutics, vaccine readiness, and other health products for COVID-19](#)

4. SCREENING ES RISKS RELATING TO LABOR AND WORKING CONDITIONS

A COVID-19 project may include different types of workers. In addition to regular medical workers and laboratory workers who would normally be classified as direct workers, the project may include contracted workers to carry out construction and community workers (such as community health volunteers) to provide clinical support, contact tracing, and data collection, etc. The size of the workforce engaged could be considerable. Risks for such a workforce will range from occupational health and safety to types of contracts and terms and conditions of employment. Further details relevant to labor and working conditions for COVID-19 projects are discussed in the [LMP template for COVID-19](#).

Certification

| | | | |
|---------------------------------|------------------|--|------------------|
| Reviewed and approved by | | Project Environmental and Social staff member | |
| RBC-SPIU Coordinator | | Project Environmental and Social staff member | |
| Name: | | Name: | |
| Date | Signature | Date | Signature |
| | | | |

IV. Environmental and Social Management Plan (ESMP) Template

Introduction

An Environmental and Social Management Plan (ESMP) for a proposed subproject is setting out how the environmental and social risks and impacts will be managed through the project lifecycle. This ESMP template includes several matrices identifying key risks and setting out suggested ES mitigation measures. The HCF will develop ESMPs jointly with SPIU for each of the ERP-financed activities with identified ES risks. These matrices can be used to assist in identifying risks and possible mitigations.

The ESMP should also include other key elements relevant to delivery of the subproject, such as institutional arrangements, plans for capacity building and training plan, and background information. The Borrower may incorporate relevant sections of the ESMF into the ESMP, with necessary updates.

The matrices illustrate the importance of considering lifecycle management of ES risks, including during the different phases of the project identified in the ESMF: planning and design, construction, operations and decommissioning.

The issues and risks identified in the matrix are based on current COVID-19 responses and experience of other Bank financed healthcare sector projects. The Borrower should review and add to them during the environmental and social assessment of a subproject.

The WBG EHS Guidelines, WHO technical guidance documents and other GIIPs set out in detail many mitigation measures and good practices, and can be used by the Borrower to develop the ESMP. Proper stakeholder engagement should be conducted in determining the mitigation measures, including close involvement of medical and healthcare waste management professionals.

The Infection Control and Waste Management Plan forms part of the ESMP. The ESMP should identify other specific ES management tools/instruments, such as the Stakeholder Engagement Plan (SEP), labor management procedures (LMP), and/or Medical Waste Management Plan.

Table 1 - Environmental and Social Risks and Mitigation Measures during Planning and Designing Stage

| Key Activities | Potential ES Risks and Impacts | Proposed Mitigation Measures | Responsibilities | Budget |
|---|---|---|-----------------------|--------|
| Identify site for installing Solar PVs infrastructure within the Treatment Center for Emerging Infectious Diseases | Improper planning for the solar PV system may cause unstable power supply ridden with power disruptions and associated risks on patients and high maintenance requirements; Doing hazardous work such as working at heights or in confined spaces, use of heavy machinery, or use of hazardous materials | <ul style="list-style-type: none"> ➤ Plan for proper procurement of design, installation and maintenance services for solar PV system of appropriate capacity for the facility. | ES Specialist | 0 |
| Identify the type, location and scale of healthcare facilities (HCF) or facilities to be used for deployment of vaccines, including whether the operations of the facilities could be adversely impacted by climate change or extreme weather | | <ul style="list-style-type: none"> ➤ Estimate potential waste streams, including sharps and vaccine program wastes ➤ Consider the capacity of existing facilities, and plan to increase capacity, if necessary, through construction, expansion etc. ➤ Specify that the design of the facility considers the collection, segregation, transport and treatment of the anticipated volumes and types of healthcare wastes ➤ Require that receptacles for waste should be sized appropriately for the waste volumes generated, and color coded and labeled according to the types of waste to be deposited. <p>Develop appropriate protocols for the collection of waste and transportation to storage/disposal areas in accordance with WHO guidance. Design training for staff in the segregation of wastes at the time of use</p> | | |
| Identify onsite and offsite waste management facilities, and waste transportation routes and service providers | Inadequate facilities and inadequate processes for treatment of waste | Prepare a subproject specific ICWMP according to Annex IV template, | ES staff HCF staff | 0 |
| Identify needs for workforce and type of project workers for upgrading and/or rehabilitation | <ul style="list-style-type: none"> ➤ Doing hazardous work such as working at heights or in confined spaces, use of heavy | <ul style="list-style-type: none"> ➤ Identify numbers and types of workers ➤ Consider accommodation and measures to minimize cross infection: If possible, sites shall | ES staff HCF staff | 0 |

COVID-19 Response ESMF – ESMP

| | | | | |
|---|--|---|---|---|
| | <p>machinery, or use of hazardous materials</p> <ul style="list-style-type: none"> ➤ Likely presence of migrants or seasonal workers ➤ Risks of labor influx or gender-based violence ➤ Possible accidents or emergencies, with reference to the sector or locality <p>Inadequate understanding and implementation of occupational health and safety requirements</p> | <p>be on the outskirts of cities to avoid unnecessary interaction with the public when delivering services to and from the facilities however, since the government is using existing sites, security measures should be enhanced around the quarantine areas</p> <ul style="list-style-type: none"> ➤ People living in the environs of a quarantine/isolation centers and health facilities shall be given accurate information on the pandemic and receive updates on COVID-19. ➤ See COVID-19 LMP in Section 7.4 to identify possible mitigation measures | | |
| HCF design – general | <ul style="list-style-type: none"> - Structural life and fire safety risk; - Functional layout and engineering control for nosocomial infection | | | |
| Design of upgrading and/or rehabilitation of facilities for laboratory tests, triage, isolation or quarantine | <p>Upgrade/refurbishment/rehabilitation design flaws for laboratories, isolation and treatment centers may not meet standards and could cause personnel to be exposed to infectious diseases and occupational health hazards.</p> | <ul style="list-style-type: none"> ➤ The design for refurbishment, set up and management of laboratories, isolation and treatment centers will take into account the advice provided by WHO guidance for Severe Acute Respiratory Infections Treatment Center. ➤ All the new construction designs shall consider the concept of universal access that allows for unimpeded access for all people of different ages and abilities. This shall include provision of the ramps, elevators and toilets for the disabled. ➤ Hand washing facilities should be provided at the entrances to health care facilities in line with WHO Recommendations to Member States to Improve Hygiene Practices. ➤ Isolation rooms should be provided and used at medical facilities for patients with possible or confirmed COVID-19. ➤ Isolation rooms should: <ul style="list-style-type: none"> ➤ be single rooms with attached bathrooms (or with a dedicated commode); ➤ ideally be under negative pressure (neutral pressure may be used, but positive pressure rooms should be avoided) | <p>ES staff in consultation with Head of Division, ESR¹⁶</p> | 0 |

¹⁶ Epidemic Surveillance Response of the Rwanda Biomedical Centre

COVID-19 Response ESMF – ESMP

| | | | | |
|---|--|---|-------------------|--|
| | | <ul style="list-style-type: none"> ➤ be sited away from busy areas or close to vulnerable or high-risk patients, to minimize chances of infection spread; ➤ have dedicated equipment (for example blood pressure machine, peak flow meter and stethoscope ➤ have signs on doors to control entry to the room, with the door kept closed; <p>have an ante-room for staff to put on and take off PPE and to wash/decontaminate before and after providing treatment.</p> | | |
| Design to consider mortuary arrangements | Insufficient capacity Spread of infection | <ul style="list-style-type: none"> ➤ Include adequate mortuary arrangements in the design ➤ See WHO Infection Prevention and Control for the safe management of a dead body in the context of COVID-19) | HCF staff | |
| Identify the needs for an effective communication campaign on vaccination, including tailored outreach to different groups (including disadvantaged and vulnerable groups), with different partners | | <ul style="list-style-type: none"> • | | |
| Nosocomial Infection Control | There is a significant risk of contracting COVID-19 within a hospital facility if its design has not taken this risk into consideration. Health services (public and private facilities) are expected to conceptually meet the quality standards of ISO 9000 and ISO 14000 series although this is not the case in most health facilities in the developing countries. Thus the renovation plans and designs that shall be prepared for the isolation /quarantine units in the health facilities should be reviewed and approved by an infection control personnel/public health to ensure the required measures are adequately incorporated in the designs. | <ul style="list-style-type: none"> • Building designs of the renovated health facilities shall be in line with the national building code and the standard health care setting building designs. • Traffic flow shall be considered to minimize exposure of high risk patients and facilitate patient transport. • Adequate spatial separation of patients is key, the patients care areas shall be stratified by risk of the patient population for acquisition of infections. The four main degrees of risk to be considered include; Low risk areas e.g. administrative sections, moderate risks e.g. regular patient units, high risk areas e.g. isolation units, intensive care units, very high risk e.g. operating rooms. • Adequate number and type of isolation rooms shall be provided with a minimum of least 1 meter space separation between patients to reduce on transmission of infections as well as allow ease in | SPIU HCF staff | |

| | | | | |
|--|--|---|--|--|
| | | <p>access of health care workers to attend to patients. The facility design shall also be easily accessible by the elderly as well as the persons with disability.</p> <ul style="list-style-type: none"> • Health facilities shall have appropriate access to hand washing facilities with running water and hand hygiene supplies provided. Hand hygiene is extremely important in prevention against COVID-19. • Choice of construction materials for covering the internal surfaces (floors/walls) shall be easy to clean and resistant to hot water, detergents and disinfectants. The walls floors and ceiling surfaces as well as furniture and equipment used for patient care shall be smooth, made of non-porous material, easy to clean and do not provide suitable environment for pathogen survival. • Appropriate ventilation for isolation rooms and special patient care areas such as operating theatres and the transplant units) shall be acquired. Adequate ventilation systems require proper designs and maintenance to minimize risk of contamination and may help reduce spread of pathogens. • Water supply to the health facility shall be reliable and to the required standards to limit risk of infections. This can be achieved through treatment of water taken from the public network to ensure that the physical, chemical and bacteriological characteristics of water used in the health care institutions meet the local regulations, (WHO, 2002), Water Law N°62/2008. • Lighting system of the health care facility shall be sufficient to ensure safe working conditions and security. • Provision of adequate and accessible toilets taking into consideration the gender aspect including separate facilities for confirmed and suspected cases of COVID -19; and | | |
|--|--|---|--|--|

COVID-19 Response ESMF – ESMP

| | | | | |
|--|--|--|--|--|
| | | <ul style="list-style-type: none"> • Provide separate spaces of children and young people to ensure their safety while in the health facilities. • Provision of the right cleaning and disinfection chemicals and equipment. • In operating theatres and rooms for isolating particularly vulnerable patients (e.g. severely immune-compromised patients) they may require positive air pressure conditions, where clean air is drawn into the room, thus avoiding contaminated air entering from other parts of the health care setting, • It would be critical to have separate rooms for people requiring special care and vulnerable people such as persons with disabilities and older persons. • Provision of the right receptacles for waste handling and containment including considerations on waste transfer to provide for minimal disruptions and avoidance of contamination of clean areas during waste collection and on site transportation. ➤ Provisions relating to putting in place other standard precautions must be ensured in order to assure cutting transmission of such nosocomial infections. | | |
|--|--|--|--|--|

Table 2 - Environmental and Social Risks and Mitigation Measures during Construction Stage

| Activities | Potential ES Risks and Impacts | Proposed Mitigation Measures | Responsibilities | Budget |
|------------------------------|---|---|---------------------------|--------|
| | - | • | | |
| Nosocomial Infection Control | <p>- There is a significant risk of contracting COVID-19 within a hospital facility if its design has not taken this risk into consideration. Health services (public and private facilities) are expected to conceptually meet the quality standards of ISO 9000 and ISO 14000 series although this is not the case in most health facilities in the developing countries. Thus the renovation plans and designs that shall be prepared for the isolation /quarantine units in the health facilities should be reviewed and approved by an infection control personnel/public health to ensure the required measures are adequately incorporated in the designs.</p> | <ul style="list-style-type: none"> • Building designs of the renovated health facilities shall be in line with the national building code and the standard health care setting building designs. • Traffic flow shall be considered to minimize exposure of high risk patients and facilitate patient transport. • Adequate spatial separation of patients is key, the patients care areas shall be stratified by risk of the patient population for acquisition of infections. The four main degrees of risk to be considered include; Low risk areas e.g. administrative sections, moderate risks e.g. regular patient units, high risk areas e.g. isolation units, intensive care units, very high risk e.g. operating rooms. • Adequate number and type of isolation rooms shall be provided with a minimum of least 1 meter space separation between patients to reduce on transmission of infections as well as allow ease in access of health care workers to attend to patients. The facility design shall also be easily accessible by the elderly as well as the persons with disability. • Health facilities shall have appropriate access to hand washing facilities with running water and hand hygiene supplies provided. Hand hygiene is extremely important in prevention against COVID-19. • Choice of construction materials for covering the internal surfaces (floors/walls) shall be easy to clean and resistant to hot water, detergents and disinfectants. The | <p>SPIU HCF staff</p> | |

| | | | | |
|--|--|---|--|--|
| | | <p>walls floors and ceiling surfaces as well as furniture and equipment used for patient care shall be smooth, made of non-porous material, easy to clean and do not provide suitable environment for pathogen survival.</p> <ul style="list-style-type: none"> • Appropriate ventilation for isolation rooms and special patient care areas such as operating theatres and the transplant units) shall be acquired. Adequate ventilation systems require proper designs and maintenance to minimize risk of contamination and may help reduce spread of pathogens. • Water supply to the health facility shall be reliable and to the required standards to limit risk of infections. This can be achieved through treatment of water taken from the public network to ensure that the physical, chemical and bacteriological characteristics of water used in the health care institutions meet the local regulations, (WHO, 2002), Water Law N°62/2008. • Lighting system of the health care facility shall be sufficient to ensure safe working conditions and security. • Provision of adequate and accessible toilets taking into consideration the gender aspect including separate facilities for confirmed and suspected cases of COVID -19; and • Provide separate spaces of children and young people to ensure their safety while in the health facilities. • Provision of the right cleaning and disinfection chemicals and equipment. • In operating theatres and rooms for isolating particularly vulnerable patients (e.g. severely immune-compromised patients) they may require positive air pressure conditions, where clean air is drawn into the room, thus avoiding contaminated air | | |
|--|--|---|--|--|

COVID-19 Response ESMF – ESMP

| | | | | |
|---|---|--|--|---|
| | | <p>entering from other parts of the health care setting,</p> <ul style="list-style-type: none"> • It would be critical to have separate rooms for people requiring special care and vulnerable people such as persons with disabilities and older persons. • Provision of the right receptacles for waste handling and containment including considerations on waste transfer to provide for minimal disruptions and avoidance of contamination of clean areas during waste collection and on site transportation. <p>Provisions relating to putting in place other standard precautions must be ensured in order to assure cutting transmission of such nosocomial infections.</p> | | |
| <p>Minor civil works activities – Occupational Health and Safety (OHS) Installation of sola PV system</p> | <p>- OHS risks on health care providers and supportive staff due to improper work procedures, healthcare waste management</p> | <ul style="list-style-type: none"> • Adopting and implementing safety guideline or manuals from OHS guideline¹⁷ and WHO technical guideline for COVID-19 Key considerations for occupational safety and health¹⁸. • The contractor shall prepare a OSH plan for the construction works, and should include input from HCF personnel on potential health and safety risks associated with the HCF • Restricting access to active renovation sites, including establishment of security perimeter. • Use institutional and administrative controls with a focus of high risk areas including: <ul style="list-style-type: none"> ○ Screening off or fencing the site, and ○ Provision of adequate signage and communication of risks to workers, patients and the health community. | <p>Environmental and ES staff</p> <p>HCF staff</p> <p>Supervising consultant</p> | 0 |

¹⁷ https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines

¹⁸ [https://www.who.int/publications-detail/coronavirus-disease-\(covid-19\)-outbreak-rights-roles-and-responsibilities-of-health-workers-including-key-considerations-for-occupational-safety-and-health](https://www.who.int/publications-detail/coronavirus-disease-(covid-19)-outbreak-rights-roles-and-responsibilities-of-health-workers-including-key-considerations-for-occupational-safety-and-health)

COVID-19 Response ESMF – ESMP

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| | | <ul style="list-style-type: none"> • The HCF staff, key service providers and the public should be notified of the works through appropriate publicly accessible sites such as the main entrance to the health facility. • Barricading the work areas to prevent entry of health staff and patients in the work sites. • Place adequate signboards to divert staff and passengers away from the work sites. • Use of screens/nets to avoid flying debris, ensure good housekeeping in the construction sites. • All workers should be adequately trained on the use of PPEs which they should wear at all times while at the worksite. • Contractor shall provide onsite toilet and washing water for workers. • The water storage tank shall be covered and properly managed to minimize mosquitoes breeding. • Traffic safety plan shall be established for each site by the contractor. • Safety perimeters shall be established around the hazardous areas (around overall construction site, at heights, around wet surfaces, excavated areas, etc.). • Each site must maintain logs of injuries and fatalities. • Each site must establish a grievance redress mechanism to allow workers to raise safety issues and propose improvements on site. • A Safety and Health officer shall be designated at each site by the contractor. | | |
| <p>Minor civil works – traffic and road safety</p> | <p>- Traffic accidents due to moving machinery and equipment</p> | <ul style="list-style-type: none"> • The contractor and the respective management of the health facilities shall develop traffic management plan, including segregating location of vehicle traffic, machine operation and walking areas, and controlling vehicle traffic through one-way traffic routes and setting of speed limits. • This can be achieved through use of one-way traffic routes, establishment of speed limits | <p>ES staff Contractor Supervising Engineer</p> | <p>0</p> |

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| | | <p>and onsite trained flag personnel wearing high visibility vests to direct traffic.</p> <ul style="list-style-type: none"> • Contractor shall avoid the hospital peak hours for transport of the construction materials. • Warning signs shall be provided at the access roads to warn road users of heavy vehicles during transportation of construction material and equipment. • Contractor shall emphasize safety aspects among project drivers especially speed limits to the health facilities. • Contractors shall regularly inspect vehicle safety and employ trained drivers to minimize the accidents. • Trucks shall be covered with tarpaulin and have tailgates during haulage of construction materials and access roads sprayed with water to reduce on dust levels. • Deploy flagmen at strategic areas during peak hours. • Ambulance drivers should follow guidance on safe emergency driving • Provide regular training to all workers on site to ensure familiarity with traffic safety measures | | |
| Minor civil works – use of external workforce | - GBV/SEA/SH issues | <p>Prepare a GVB/SEA/SH Action Plan for Contractor implementation</p> <ul style="list-style-type: none"> • Require each worker on site to sign a Code of Conduct | ES staff Contractor Supervising Engineer | 0 |
| Disruption of healthcare and other services | <p>For HCFs under renovation which will not be closed, may cause temporary disruption in delivery of health services to patients at facilities under renovation.</p> <p>- Temporary loss of access to utility services such as water and electricity</p> | <ul style="list-style-type: none"> • Plan pre-construction activities shall be done early to identify suitable rooms or adjoining buildings into which patients or service areas can be relocated with minimal inconvenience, especially to patients under intensive care. • Advance relocation information shall be shared with the affected patients for their planning and mental preparedness. • Contractors shall work closely and harmoniously with healthcare facility administrators to find practical ways to | SPIU HFC staff | |

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| | | <ul style="list-style-type: none"> • minimize social cost of temporary disruption of services. • A grievance mechanism to address complaints from community shall be in place and awareness promoted. • | | |
| Cultural heritage | - Cultural heritage | <ul style="list-style-type: none"> • Chance-finds procedure (see Annex VI) | ES staff Contractor | 0 |
| Emergency preparedness and response | <ul style="list-style-type: none"> ➤ Fire - Chemical spill and other toxicity accidents | <ul style="list-style-type: none"> ➤ Emergency response plan for containment of fire accident ➤ Emergency response plan for containment of chemical spill • Training of HCF staff and contractors on the ERP application and relevant information, such as emergency contract information, evacuation routes, etc.) | ES staff HCF Staff Contractor | 0 |
| Community exposure to work related hazards | - Construction work undertaken in the same buildings having patients has potential to cause injuries to patients or health workers | <ul style="list-style-type: none"> • Restricting access to active renovation sites, including screening off the building being renovated or fencing the entire site to limit public access that is appropriate to the site; • Only authorized users should be allowed to enter project sites • Use institutional and administrative controls with a focus of high risk areas including: ✓ Provision of adequate signage and communication of risks to workers, patients and the health community; • The public shall be notified of the works through appropriate publicly accessible sites such as the main entrance to the health facility; • Contractors shall ensure measures on Safety and Health are enhanced such as; barricading the work areas to prevent entry of health staff and patients in the work sites, ensure safe access to the health facility if the building will be open to public; | ES staff HCF Staff Contractor | 0 |

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| | | <ul style="list-style-type: none"> • The contractor shall place adequate signboards to divert staff and passengers away from the work sites; • Use of screens/nets to avoid flying debris, ensure good housekeeping in the construction sites; • All workers shall be adequately trained on the use of PPEs which they should wear at all times while at the worksite; • All visitor shall wear basic PPE; • Construction workers shall be aware of the sensitive nature of workplace they are operating in and advised to limit verbal noise; and • Contractor shall work closely with the administrators of health facilities to find practical ways to minimize temporal services disruption at the hospitals | | |
| Minor civil works related to <i>onsite</i> waste management facilities, including temporary storage, incinerator (for district HCFs), sewerage / wastewater treatment works | <ul style="list-style-type: none"> ➤ Improper storage of solid and hazardous waste resulting in soil pollution and risks - Water pollution from construction wastes as well as on-site make shift toilets | <ul style="list-style-type: none"> ➤ Collect and dispose wastes in designated disposal sites as required by the Local Authority ➤ At the commencement of construction, ensure the site has established arrangements for hazardous waste transportation and disposal (including medical waste) ➤ Provide appropriate and approved temporary toilets • Preparation of prior to commencement of activities ICWMP based on the template provided in Annex IV. | ES staff HCF Staff Contractor | 0 |
| Community exposure to health issues | <p>Presence of migrant workers and the local community may lead to infection with COVID-19 and increased risk of over communicable diseases, including HIV/AIDS</p> <ul style="list-style-type: none"> ➤ | <ul style="list-style-type: none"> • Appropriate timely information be provided at all levels on risks of infection between community members and workers. • Raise awareness on appropriate behavior including prevention of infectious diseases and sexual harassment, exploitation and abuse. • Carry out HIV/AIDS awareness and control campaigns in the project targeting workers. | HCF staff SPIU | 0 |

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| | | <ul style="list-style-type: none"> • Have VCT services on site and encourage workers to undergo testing. • Provision of protective devices such as condoms. • Contractor code of conduct to promote appropriate behavior and ensure compliance with COVID 19 prevention measures <p>➤ In cases of COVID-19 at the construction sites, guidelines have been provided in this ESMF Annex III: Infection, Prevention and Control Protocol on minimization of exposure, training of staff and precautions and management of access and spread</p> | | |
| <p>Procurement of medical supplies and equipment</p> | <p>➤ Poor quality equipment may exacerbate COVID19 fatality due to failure of operations especially live saving machines like ventilators. On the other hand, due to poor handling of samples collection and packaging supplies, lab reagents, pharmaceutical supplies, health care waste management the use of lab PPE may lead to the spread of infections to the healthcare workers</p> | <ul style="list-style-type: none"> • Adhere to the procurement plan for acquisition of all medical supplies and equipment from certified suppliers only. • Carry out due diligence for all potential suppliers to guarantee quality equipment and products. • WHO interim guidance on rational use of PPE for COVID-19 provided further details on the types and quality of PPE that are required for different functions. <p>➤ The healthcare workers shall be provided with medical personal protective equipment (PPE) includes: Medical mask, Gown, Apron, Eye protection (goggles or face shield), Respirator (N95 or FFP2 standard), Boots/closed work shoes.</p> | <p>SPIU HCF Staff ES staff</p> | <p>Included in the project budget</p> |

Table 3 - Environmental and Social Risks and Mitigation Measures during Operational Stage

| Potential ES Risks and Impacts | Proposed Mitigation Measures | Responsibilities | Budget |
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| Medical services disruption due to improper/inadequate solar PV system maintenance | Procure proper maintenance services for solar PV system maintenance | Environmental Specialist | 0 |
| <p>Improper medical waste management:</p> <ul style="list-style-type: none"> - sample collection from COVID-19 suspected patients, - laboratory practices and procedures (performing and handling of specimen and chemicals), - from activities in isolation and quarantine facilities; which need to be disposed of in an appropriate medical waste disposal facility. <p>Improper disposal of medical waste would have environmental and public health impacts: for example, open burning and incineration of medical wastes can result in emission of dioxins, furans and particulate matter, and result in unacceptable cancer risks under medium (two hours per week) or higher usage</p> | Each health facility should prepare (prior to the start of operations under the project) an Infection Control and Waste Management Plan (ICWMP) based on the template provided in Annex IV and in accordance with national regulations. | HCF staff | |
| Improper procurement of Medical Supplies and Equipment, including intensive care equipment and supplies | <ul style="list-style-type: none"> • Adhere to the procurement plan for acquisition of all medical supplies and equipment from certified suppliers only. • Carry out due diligence for all potential suppliers to guarantee quality equipment and products. • WHO interim guidance on rational use of PPE for coronavirus disease 2019 provided further details on the types and quality of PPE that are required for different functions. <p>The healthcare workers shall be provided with medical personal protective equipment (PPE) includes: Medical mask, Gown, Apron, Eye protection (goggles or face shield), Respirator (N95 or FFP2 standard), Boots/closed work shoes.</p> | HCF staff | |
| HCF wastewater and fecal waste: Isolation and quarantine facilities are associated with increased volume of wastewater and excreta. Liquid contaminated waste (e.g. pathological sample, blood, feces, urine, other body | <ul style="list-style-type: none"> • Inorganic waste should be given to the authorized vendor for free of cost for recycling; • Segregation, minimization and safe storage of potential sources of liquid wastes. | HCF and District staff | |

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| <p>fluids and contaminated fluid) requires special handling, as it may pose an infectious risk to healthcare workers with contact or handle the waste. There is no evidence to date that the COVID-19 virus has been transmitted via sewerage systems with or without wastewater treatment.</p> | <ul style="list-style-type: none"> • Install a sewer system to collect liquid waste from around a facility and carry it below ground to a central location for treatment. • Liquid waste originating from the laboratory should pass through a disinfection process before directing to the general sewer line. • People with suspected or confirmed COVID-19 disease should be provided with their own flush toilet or latrine. • Where this is not possible, patients sharing the same ward should have access to toilets that are not used by patients in other wards. • Each toilet cubicle should have a door that closes, to separate it from the patient’s room. • Flush toilets should operate properly and have functioning drain traps. • When possible, the toilet should be flushed with the lid down to prevent droplet splatter and aerosol clouds. • If it is not possible to provide separate toilets for COVID-19 patients, then the toilets they share with other non-COVID-19 patients should be cleaned and disinfected at least twice daily by a trained cleaner wearing PPE (impermeable gown, of if not available, an apron, heavy-duty gloves, boots, mask and goggles or a face shield). • Health-care staff should have toilet facilities that are separate from those used by all patients. • A disinfection step may be considered if existing wastewater treatment system is not optimized to remove viruses. • Make sure all containers, drums and tanks that are used for storage are in good condition; • Take all precautionary measures when handling and storing fuels and lubricants, avoiding environmental pollution; | | |
| <p>Procurement, delivery and set up of equipment for the storage and handling of vaccines and associated medical equipment Surfaces of imported materials may be contaminated and handling and processing may result in spread of COVID-19.</p> | <p>Technical specifications for procuring equipment should require good hygiene practices in line with WHO technical guidance to be observed when preparing the procured goods.</p> <p>Check national and WHO technical guidance for latest information regarding transmission of COVID on packaging prior to finalization of working protocols at facilities</p> | | |

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| <p>Transport of goods or supplies, including the delivery, storage and handling of vaccine, specimen, samples, reagents, pharmaceuticals and medical supplies COVID-19 is spread by drivers during the transport and distribution of goods or supplies.</p> | <p>Good hygiene and cleaning protocols should be applied. During the transport, truck drivers should be required to wash hands frequently and /or be provided with hand sanitizer, and taught how to use it.</p> <p>Measures to minimize impacts during transportation, including hazardous materials can be found in the EHSGs</p> <p>Traffic accidents occur during transportation of goods</p> | <p>.</p> | |
| <p>HCF general operational hazards: General operation of HCFs can involve vulnerability to spread of infection (especially during a pandemic) physical hazards, electrical and explosion hazards, fire, chemical use, ergonomic and radioactive hazards.</p> | <ul style="list-style-type: none"> • Life and Fire safety, and extreme weather; • Health facilities should establish and apply Standard Precautions including: <ul style="list-style-type: none"> ○ Hand Hygiene (HH); ○ Respiratory hygiene/cough etiquette. ○ Use of personal protective equipment (PPE); ○ Handling of patient care equipment, and soiled linen; ○ Environmental cleaning; ○ Prevention of needle-stick/sharp injuries; ○ Appropriate Health Care Waste Management; • Health facilities should establish and apply Transmission based precautions (contact, droplet, and airborne precautions) as well as specific procedures for managing patients in isolation room/unit. • Establishment of Standard precautions and Transmission based precautions in line with National guidelines for IPC in healthcare facilities and take into account guidance from WHO and/or CDC on COVID19 infection control, • Collection of samples, transport of samples and testing of the clinical specimens from patients meeting the suspect case definition should be performed in accordance with WHO interim guidance Laboratory testing for coronavirus disease 2019 (COVID-19) in suspected human cases. • Tests should be performed in appropriately equipped laboratories (specimen handling for molecular testing requires BSL-2 or equivalent facilities) and by staff trained in the relevant technical and safety procedures. • All hospitals and laboratories should prepare waste management procedures in accordance with the national requirements that outline waste segregation procedures, on | <p>HCF staff with support from SPIU</p> | |

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| | <p>site handling, collection, transport, treatment and disposal, and training of the staff.</p> <ul style="list-style-type: none"> • Health facilities shall ensure the provision of safe water, sanitation, and hygienic conditions, which is essential to protecting human health during all infectious disease outbreaks, including the COVID-19 outbreak. Health facilities shall establish and apply good practices line with WHO guidance on water, sanitation and waste management for COVID-19 and National guidelines for Infection Prevention and Control in the healthcare facilities. • Samples that are potentially infectious materials (PIM) need to be handled and stored as described in WHO document Guidance to minimize risks for facilities collecting, handling or storing materials potentially infectious for polioviruses (PIM Guidance).Organize and implement medical surveillance which includes medical service and immunization programs; • Provide health and safety training; • Adopt and implement safety manuals aligned with OSH guideline and WHO laboratory biosafety manual; WHO technical guideline for COVID-19 Key considerations for occupational safety and health • Develop and implement safety standards. | | |
| | <ul style="list-style-type: none"> • Provide cleaning staff with adequate cleaning equipment, materials and disinfectant. • Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas. • Where cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, provide appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, provide best available alternatives. • Train cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials). | | |
| <p>Mass vaccination program involving deployment of vaccines from many</p> | | | |

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| <p>facilities (not just HCF), vehicles and locations</p> <p>Mass vaccination provides a vector for the spread of disease</p> <p>Vaccination causes adverse reaction in some individuals</p> | <p>Develop infection control and waste management plan for vaccination program to consider the use of non-HCF for deployment</p> <p>Screen patients for contraindications prior to administration of vaccine</p> | | |
| <p>Labor Issues, including management or worker grievances, such as PPE availability and/or use; lack of proper procedures or unreasonable overtime; time-sensitivity and/or confidentiality of grievance.</p> | <p>HCF will adopt the application of the GRM as features in the COVID-19 Labor Management Plan (LMP) as elaborated in Section 7.4 as well as the WHO resources for COVID-19: occupational health available at: https://www.who.int/news-room/detail/09-03-2020-covid-19-occupational-health</p> | <p>HCF staff</p> | |
| <p>Vulnerable and/or special needs groups: Lack of considerations in HCF operation for differentiated treatment for vulnerable and/or special needs groups may put the elderly, people preexisting conditions, the very young, people with disabilities at higher risk of contracting COVID-19 virus.</p> | <p>The project design must include considerations for differential treatment for special needs groups are incorporated in subproject activities based on results and recommendations from stakeholder engagements according to the project SEP.</p> | <p>SPIU with HCF staff</p> | |
| <p>Inadequate cleaning of HCFs</p> | <ul style="list-style-type: none"> • Provide cleaning staff with adequate cleaning equipment, materials and MoH approved disinfectant. • Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas. • Where cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, provide appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, provide best available alternatives. • Train cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how | <p>HCF staff with MoH support</p> | |

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| | <p>to safely use PPE (where required); in waste control (including for used PPE and cleaning materials). Refer to WHO Interim guidance for WASH waste management for the COVID-19 virus available at: https://www.who.int/publications-detail/water-sanitation-hygiene-and-waste-management-for-the-covid-19-virus-interim-guidance.</p> | | |
| <p>Improper collection of samples, transportation of samples, improper laboratory waste disposal in communities or at emergency treatment units</p> | <ul style="list-style-type: none"> • Ensure that HCWs who collect specimens use appropriate PPE (i.e., eye protection, an N95 mask, a long-sleeved gown, gloves). If the specimen is collected with an aerosol-generating procedure, personnel should wear a particulate respirator at least as protective as a certified N95, an EU standard FFP2, or the equivalent; • Ensure that all personnel who transport specimens are trained in safe handling practices and spill decontamination procedures; • Place specimens for transport in leak-proof specimen bags (i.e., secondary containers) that have a separate sealable pocket for the specimen (i.e., a plastic biohazard specimen bag), with the patient’s label on the specimen container (i.e., the primary container), and a clearly written laboratory request form; • Establish a quality control system for packaging, collection and transportation of laboratory samples following the WHO guidelines on laboratory biosafety guidance related to COVID-19; • Ensure the collection of samples, transport and the testing of clinical specimens from patients meeting the suspect case should be performed in accordance with WHO interim guidance on laboratory testing for coronavirus disease 2019; • Utilize incinerator for destroying Gene Expert cartridges at higher than 1,200 °C • Put in place innovative and efficient mechanisms to improve transport of COVID-19 samples to reference laboratories in the shortest time possible and following the safety precautions; • Sample transportation should not expose transporters to risk either during normal handling or in case of an accident. | <p>HCF staff, District authorities, MoH</p> | |

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| <p>Risks associated with on-site healthcare waste treatment and disposal: On-site healthcare waste treatment and disposal involving incineration that may include chemicals containing Volatile Organic Compounds (VOCs) may pose health risks and pollution</p> | <p>For selected HCFs, and based on technical and financial feasibility:</p> <ul style="list-style-type: none"> • Each HCF should develop an ICWMP according to Annex IV. • Septic and other systems recommended by WBG EHS guideline and by WHO Interim guidance for WASH waste management for the COVID-19 virus are duly considered in HCF infection control and waste management plans. • Appropriate waste drainage systems leading to septic tank or public sewerage facilities or treatment technologies such as activated sludge and sanitary facilities will be used, if available in the local municipality. | <p>HCF staff, SPIU (ES staff)</p> | |
| <p>Risks associated with waste transportation, off-site treatment and disposal. Waste transportation, off-site treatment and disposal can cause transmission risk of COVID-19 virus. There is a risk associated with traffic and road safety hazard during operational phase due to use of ambulances, transportation of samples to the laboratory and transportation of highly infectious medical waste from facilities with no HCW treatment and disposal facilities.</p> | <ul style="list-style-type: none"> • The relevant staff should be trained on pre-hospital emergency care, infection prevention and control measures, how to handle samples in transit, healthcare waste and spillage management in case of an accident and provided with the required PPE, • Vehicles used as ambulances or for transporting any hazardous material and medical waste should be road worthy, labelled to indicate its load and its payload secured to minimize risk of accidents and spillage, • The project shall well-equipped ambulances; ensure they are outfitted with audible back-up alarms as well as with effective communication system for emergency service functions and activities • Periodic community awareness on traffic awareness campaign, • Use of competent drivers with defensive driving technics, • MoH and the respective project beneficiaries (health facilities, referral laboratories) shall regularly inspect vehicle safety and maintain them accordingly, and • Ambulance drivers should follow guidance on safe emergency driving, • Vehicles used in transport of samples or healthcare waste should be easy to clean, free of sharp edges and shall be cleaned thoroughly and disinfected after use | <p>HCF staff, District</p> | |

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| <p>Improper clinical care, isolation of suspected cases and follow-up of survivors The onward infection of medical workers or other people due to improper clinical care, isolation of suspected cases and follow-up of survivors would be a negative impact with long-term and irreversible (if death occurred) socio-economic impact will have high significance</p> | <ul style="list-style-type: none"> • Improve biosecurity and harmonize care protocols to avoid risk of infections of medical workers and other people; • Build triage centers in referral hospitals or in health facilities according to the dynamics of COVID-19 pandemic; • Set up a management system specific to case management structures under the management of MOH (finance, logistics, administration, etc.); and • Restructure the survivors’ follow-up program by fully integrating it into the clinical care. • In case of blood/bodily fluid exposure: <ul style="list-style-type: none"> ○ Persons including HCWs with percutaneous or mucocutaneous exposure to blood, body fluids, secretions, or excretions from a patient with suspected or confirmed infectious disease, should immediately and safely stop any current tasks, and leave the patient care area. ○ Safely take off PPE according to the steps in the procedure, in the anteroom. ○ Treat affected exposed area: <ul style="list-style-type: none"> ▪ wash the affected skin surfaces or the percutaneous injury site with soap and water ▪ Irrigate mucous membranes (e.g. conjunctiva) with copious amounts of water or an eyewash solution, and not with chlorine solutions or other disinfectants. ○ Immediately report the incident to the chief of unit, IPC focal point (following hospital exposure procedure) as soon as the HCF staff exist the isolation room/ unit. ○ Exposed persons should be medically evaluated for: <ul style="list-style-type: none"> • infectious disease (ID) (of isolated patient) • other potential exposures (e.g., HIV, HCV) if sharp/needle-stick injury. ○ Exposed persons must receive follow-up care, including: <ul style="list-style-type: none"> ▪ fever monitoring, twice daily period of recording symptoms will depend on the ID ▪ Counselling and psychological support. ○ Immediate consultation with an expert in infectious diseases for any exposed person who develops fever, symptoms after exposure. ○ If fever appears and other symptoms, isolate HCF staff, and follow procedure for ID suspected until a negative diagnosis is confirmed. ○ Workers suspected of having infected should be cared for/isolated, and the same recommendations outlined in | <p>HCF staff, MOH</p> | |
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| | <p>this document must be applied until a negative diagnosis is confirmed.</p> <ul style="list-style-type: none"> ○ Conduct contact tracing and follow-up of family, friends, co-workers and other patients, who may have been exposed to COVID-19 virus through close contact with the infected HCW/ staff | | |
| <p>Air pollution: Incineration of hospital waste if carried out in inappropriate facilities could result into localized pollution of air with pollutants such as ash, furans and dioxins. The Downwash of incinerator emissions has potential to degrade indoor air quality of healthcare buildings or those of nearby offsite buildings. The impact severity associated with this is that the duration of onsite and offsite air pollution would be long-term lasting entire life on incineration units unless the deficient units are either decommissioned or improved.</p> | <p>Selected District Hospital incinerators should be regularly inspected and monitored: Healthcare administrators should undertake regular visual inspection of incinerator stack for incidents of downwash and undertake annual monitoring of ambient air quality or a general environmental audit of entire healthcare facility.</p> <p>The project should contribute to training of incinerator operators as it is important for them to be familiar with basic principles and routine practices. For example, homogenization of waste is crucial to ensure efficient and complete combustion during incineration to avoid generation of dioxins for instance when wet waste batches quench flames and lower combustion temperature below levels at which such pollutants are destroyed.</p> | <p>SPIU, District Hospitals, Kalisimbi Depot Pharmaceutics</p> | |

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| <p>Aerosol and organic solvent transmission risk of COVID-19 virus: Improper methods of transportation and delivery of specimen (and other infectious material), samples, reagents, pharmaceuticals and medical supplies as well as improper storage and handling may result in aerosol and organic solvent transmission risk of COVID-19 virus.</p> | <p>The HCF staff (with support from the SPIU) will ensure that due reference is made to WHO Laboratory biosafety guidance related to COVID-19 for proper handling and storage of infectious materials including specimen and samples. The guide includes use standard laboratory practice to avoid/minimize release of aerosols and organic solvents to atmosphere as well as adequate ventilation in laboratories and treatment areas and use of fume hoods if necessarily for chemical processing.</p> | <p>SPIU, HCF staff</p> | |
| <p>Risks associated with improper use of COVID-19 equipment</p> | <p>Exclusive use of disposable supplies for IPC is appropriate in highly infectious situations and therefore require diligent waste management procedures during screening of potential COVID-19 patients and during pre-triage. The HCF staff with support from the ES staff will ensure appropriate handling and management of generated waste, assisted by District Sanitation & Hygiene Officer (DSHOs) responsible for ES compliance at Screening Posts (PoEs) and Centers of Quarantine, by Hospital Environmental Officers (HEOs) at hospital Isolation and Treatments Facilities and by Environmental Health Officers (EHOs) at Screening Posts (PoEs) of Health Centers or other community designated centers.</p> <p>Due reference will be made to the WHO interim guidance for “Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19)” available at: https://www.who.int/publications-detail/rational-use-of-personal-protective-equipment-for-coronavirus-disease-(covid-19)-and-considerations-during-severe-shortages.</p> | <p>HCF staff with support from SPIU</p> | |
| <p>Procurement of poor quality PPE may exacerbate COVID-19 infection transmission to healthcare workers and cleaners in relation to laboratory procedures, interaction with COVID-19 patients and handling of healthcare waste.</p> | <ul style="list-style-type: none"> • Adhere to the procurement plan for acquisition of all personal protective equipment from certified suppliers only. • Carry out due diligence for all potential suppliers to guarantee quality supply of personal protective equipment and products. • Abide by the WHO interim guidance on rational use of PPE for coronavirus disease 2019 over the types and quality of PPE required for different functions. • The healthcare workers shall be provided with medical personal protective equipment (PPE) includes: Medical mask, Gown, Apron, Eye protection (goggles or face shield), Respirator (N95 or FFP2 standard), Boots/closed work shoes and trained on use. | <p>HCF staff</p> | |

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| <p>Occupational Safety and Health Risks:</p> <ul style="list-style-type: none"> • Biological hazards (blood or other body fluids with potential to cause diseases); • Lack of adequate lighting in workplaces; • Lack of safe access particularly for disabled employees; • Inadequate ventilation in rooms; • Lack of adequate training (or neglect of safety precautions/guidelines) in use of medical equipment; • Misuse of equipment and materials for functions they are not designed; • Lack of safety signage in specific areas (e.g. X-ray rooms) from radioactive hazards; • Electrical hazard; • Eye hazards such as splashes in laboratories and operating rooms; and • Chemical hazards (acids, alkalis, expired drugs, oxidizing and reactive chemicals); • Likelihood of the impact occurring is high unless control measures are instituted. Although it is a cumulative impact, the risk to human health is significant. | <ul style="list-style-type: none"> • Ensure the implementation of standard precautions and transmission based precautions in line with national guidelines for IPC in healthcare facilities taking into account guidance from WHO and/or CDC on COVID19 infection control, • Update and implement HCF OHS plan and/or emergency response plan, • Ensure identification of risks (Job Risk Assessment) and instituting proactive measures, • Train the healthcare workers on the potential OSH risks in relation to COVID-19, • Provision of adequate and required personal protective equipment (PPE) to health workers and enforce on use. This includes: single use medical mask, gown, Apron, eye protection, boots or closed shoes. • Provision of a system for disinfection of the multi-use PPE if not available. • Implementation of systemic risk management plan comprising risk prevention, evacuation of accident victims, evaluation and improvement measures. • Ensure availing of Material Safety Data Sheet for all chemical use in the lab to the lab technicians. • The beneficiary facilities (labs and HCF) will prepare sub-project specific ICWMP and this will include update of the health facility OSH plan. | <p>HCF staff</p> | |
| <p>Fire risk: Without provisions for fire safety, there is a risk of fire outbreak at healthcare facilities (quarantine, isolation, laboratories) with disastrous life and financial impact. Fires can start from ignitable materials in laboratories,</p> | <ul style="list-style-type: none"> • Provide fire extinguishers to healthcare facilities during their renovation at strategic positions and ensure servicing is done. • Key healthcare staff shall have basic training in fire control. • Fire emergency telephone numbers should be displayed in communal areas. • Each healthcare facility shall prepare a fire emergency management plan. | <p>HCF staff, District</p> | |

COVID-19 Response ESMF – ESMP

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| <p>cigarette smoking in non-designated places or old electrical connections</p> | <ul style="list-style-type: none"> • Undertake regular fire drills at healthcare facility, to test on emergency response and use the results to improve on the response mechanism. • Specific site Emergency Response Plan should adequately address all potential hazards (not just fire) including but not limited to man-made (spills, accidental releases, loss of energy supply) and flood / storm. | | |
| <p>Weak infection prevention measures: The absence of effective IPC and WASH measures would curtail efforts to control COVID-19. This reiterates the importance of precautions such as avoiding handshaking, hand washing with soap and water and use of alcohol-based sanitizers. In addition, burial of COVID-19 victims should be left to specialized healthcare teams. The impact severity in case of the absence or weak COVID-19 infection prevention and control measures would lead to uncontrolled spread of COVID-19, a negative long-term and irreversible (if death occurred) socio-economic impact with high significance.</p> | <ul style="list-style-type: none"> • Health facilities should establish and apply standard precaution including hand hygiene, respiratory hygiene, use of PPE, handling of patient care equipment and soiled linen, environmental cleaning and prevention of needle stick and sharp injuries. • Health facilities shall ensure provision of safe water, sanitation and hygienic conditions in line with WHO guidance on water, sanitation and waste management for COVID-19 and National guidelines for infection prevention and control of health facilities. • Strengthen training activities of healthcare providers and IPC supervisors on issues related to COVID-19 (see Annex VI): o ensuring triage, early recognition, and source control (isolating patients with suspected COVID-19); o applying standard precautions for all patients; o implementing empiric additional precautions (droplet and contact and, whenever applicable, airborne precautions) for suspected cases of COVID-19; o implementing administrative controls; and o using environmental and engineering controls. • Implement the IPC package that includes standard operating procedures (SOPs), tools, and rapid diagnostic tests. • Strengthen the IPC / WASH support system in health facilities based on health facility assessments, training supervision with corrective actions, and the establishment of a quality assurance system in close collaboration with the independent monitoring and evaluation team. • Evaluate and implement WASH infrastructures (improvement of water and sanitation facilities) and services in health facilities. • Provide health facilities with IPC / WASH inputs (detergents) as needed and monitor their use; • Ensure the decontamination of health facilities that have received confirmed COVID-19 cases. | <p>District, SPIU, HCF staff</p> | |

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| | <ul style="list-style-type: none"> • Ensure implementation of the IPC ring approach around each confirmed case of COVID-19. • Promote preventive medicine; no pregnant women, staff older than 65 or staff with underlying health conditions, should be working in isolation areas, provision of psychosocial support to medical staff and team and any health care workers reporting COVID-19 symptoms should stop work immediately. | | |
| <p>Community health risks: impaired air quality from burning of waste, storm water contamination or when people rummage through raw waste stockpiles. Wastewater may not seem to pose considerable disposal challenge since all existing facilities either has onsite septic systems or sewage lagoons. However, this remains a risk in areas where there is no drainage system.</p> <p>Plume downwash leads to chronic exposure of nearby communities to potent air pollutants including dioxins. Infections sustained when people or children rummage through improperly dumped infectious waste can be life-threatening.</p> | <ul style="list-style-type: none"> • Targeted procurement of only required pharmaceutical, equipment, and other medical supplies in small quantities; • Ensure regular monitoring of solid, liquid waste management practices and incineration; • Ensure proper management of pharmaceutical waste by engaging a consultant to develop measures and guidelines for each facility in accordance with the national healthcare waste management plan; • To ensure proper sewage management and use of latrines where they there is no sewer; • SPIU under MoH shall develop measures for proper management of expired pharmaceutical drugs and instigate this policy at all health care facilities; • Install appropriate drainage channel within the health facility; • Facility operators should undertake regular assessment of waste generation quantities and categories to facilitate waste management planning, and investigate opportunities for waste minimization on a continuous basis, • Separate residual chemicals from containers and remove to proper disposal containers to reduce generation of contaminated wastewater; • All waste disposal sites should be REMA licensed, secured and out of reach from the scavengers; • Select facilities with incinerator(s) that are appropriate to handle healthcare waste with specification including air pollution control option; • Ensure the healthcare waste generated in the facilities are disinfected, treated and safely disposed of; and • Community should be sensitized on infection prevention and control measures related to COVID-19. | <p>SPIU, District, HCF staff</p> | |
| <p>Community Infection Prevention and Control</p> | <ul style="list-style-type: none"> • Ensuring access to water and sanitation in schools and public places; | | |

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| | <ul style="list-style-type: none"> • Ensuring decontamination of households and public places that have had confirmed COVID-19 cases; • Providing hygiene kits to households, schools and public places; • Strengthening the monitoring and evaluation system; and • Training community leaders in COVID-19 prevention <p>WHO guidance on key questions and answers concerning water, sanitation and hygiene (WASH) is presented in Annex V.</p> | | |
| Handling emergency situations | <p>HCF should prepare an Emergency Preparedness and Response Plan that should cover:</p> <ul style="list-style-type: none"> ➤ Planning Coordination: This should include procedures for: <ul style="list-style-type: none"> • Informing the public and emergency response agencies • Documenting first aid and emergency medical treatment • Taking emergency response actions • Reviewing and updating the emergency response plan to reflect changes and ensuring that the employees are informed of such changes ➤ Emergency Equipment: The plan should include procedures for using, inspecting, testing, and maintaining emergency response equipment. ➤ Training: Employees should be trained in any relevant procedures ➤ Undertake regular emergency drills (fire, chemical spill) at healthcare facility, to test on emergency response and use the results to improve on the response mechanism | HCF staff | |
| Lack of sustainability | <ul style="list-style-type: none"> • A Facility Maintenance Plan shall be prepared and implemented at each healthcare facility. • HCF shall have timely engagement with MoH to secure a budget to sustain healthcare facilities in a functional state. • Equipment's available in the health facilities should be serviced and maintained regularly | HCF staff, SPIU | |
| Stigma: impact severity in the absence or weak psychosocial support systems would impede effective prevention of stigma attached to COVID-19, a negative but short-term and reversible impact, reducing or ceasing with heightened awareness | <ul style="list-style-type: none"> • Ensure accurate information on the disease, its spread, symptoms and outcomes is broadly distributed to communities using channels that are accessible. • Handle all people directly affected by the disease with dignity (those in hospitals, quarantine/isolation centers and the dead). | HCF staff, SPIU (ES staff) | |

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| | <ul style="list-style-type: none"> Strengthen psychological support for ETCs (for confirmed, suspected, and discharged cases) and assistance with hygiene kits for all discharged and cured patients. Support affected households to anticipate management of behavioral problems, which can generate tensions and resistance in the community. | | |
| <p>Gender-based violence (GBV) and sexual harassment, exploitation and abuse (SEA)</p> <p>There is a risk of GBV and SHEA during operational phase in the management of quarantine/isolation centers. If security personnel are deployed to guard isolation/quarantine centers the risk of abuse of women and girls could be high. There is also a risk of GBV/SHEA among co-workers.</p> | <ul style="list-style-type: none"> Ensure isolation and quarantine centers are secured. Limit admission of outsiders into the centers. Monitor and report on the behavior of security guards at the centers. Ensure the people in these facilities understand the GBV/SEA/SH referral pathways. Ensure the people at the center have access to the toll free hotline. All workers should sign the code of conduct to hold them accountable (see the LMP). | HCF staff, District, SPIU (ES staff) | |
| <p>Inadequate public consultation and participation:</p> <p>Given the emergency nature of this project, this process may not be effectively done. Those at the periphery - rural populations, the urban poor and VMGs/HUTLCs may be discriminated against in this process.</p> | <ul style="list-style-type: none"> Ensure that measures are put in place to identify and reach the vulnerable community members with project information. Special efforts should be made to reach the deaf and blind with critical information on COVID-19. Use communication channels that are accessible to marginal populations including use of community radios, translating information in local languages. Identify and equip local leaders with information for further dissemination in their communities through their local structures including community leadership, churches, mosques, clans, etc. | SPIU, HCF staff, District | |
| Vaccination campaign - considerations for communication and outreach for disadvantaged and vulnerable groups | | | |
| Stakeholder engagement – considerations for simple, accurate, accessible and culturally appropriate information dissemination; combating misinformation; responding to grievances | <p>Outreach/communication tools to make potential beneficiaries aware of the eligibility criteria, principles and methods used for targeting</p> <p>Ensure project includes a functional Grievance Mechanism</p> | | |

COVID-19 Response ESMF – ESMP

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| <p>Targeting of beneficiaries is not done in a fair, equitable and inclusive manner Lack of transparency about the vaccination program</p> | | | |
| <p>Poorest / most needy households are left out</p> | | | |
| <p>Lack of diversity and inclusion in vaccination program, resulting in inadequate benefits for other vulnerable groups</p> | | | |
| <p>SEA/SH increase in project area (e.g. requests for sexual favors to receive vaccinations)</p> | <p>Consultations to discuss process for identifying vaccination prioritization Grievance Mechanism (GM) to be established as soon as possible to handle complaints Provide information to potential beneficiaries on eligibility criteria and GM process via various media (radio, SMS, television, online, posters) Work with local NGOs to provide social services for affected beneficiaries, as well as assistance to register</p> | | |

Table 4 - Environmental and Social Risks and Mitigation Measures during Decommissioning

COVID-19 Response ESMF – ESMP

| Key Activities | Potential ES Risks and Impacts | Proposed Mitigation Measures | Responsibilities | Timeline | Budget |
|--------------------------------|--|---|-------------------------|----------|--------|
| Key Activities | Potential ES Risks and Impacts | Proposed Mitigation Measures | Responsibilities | | |
| Decommissioning of interim HCF | Soil Erosion | Re-vegetating areas promptly | MoH, HCF, District | | |
| | Air Quality | Selectively removing potential hazardous air pollutants, such as asbestos, from existing infrastructure prior to demolition, Dust suppression techniques should be implemented, such as applying water or non-toxic chemicals to minimize dust from vehicle movements, and PPE, such as dusk masks, should be used where dust levels are excessive. | MoH, HCF, District | | |
| | Solid Waste (scrap wood and metals, and small concrete spills, office, kitchen, wastes) | Segregate waste at sources, Safely dispose and incinerate all objects/equipment made of porous/ absorbable material (e.g. linen), Surfaces that are intact and can withstand rigorous cleaning may undergo cleaning and disinfection, Waste should be stored securely while awaiting transport to point of disposal to prevent scavenging, and Use REMA Licensed waste handler to haul away solid wastes, | HCF, District, MoH | | |
| | Hazardous solid waste includes contaminated soils, oily rags, used oil filters and infection wastes. | Segregate waste at sources, Sharp objects and equipment that have been in contact with blood or body fluids should be placed inside puncture resistant waste containers, Waste should be stored securely while awaiting transport to point of disposal to prevent scavenging, and Use REMA Licensed waste handler to haul away solid wastes, | HCF, District, MoH | | |

COVID-19 Response ESMF – ESMP

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| | Waste water Discharges | <p>Segregation of waste water streams to ensure compatibility with selected treatment option (e.g. septic system which can only accept domestic sewage);</p> <p>Meet the pretreatment and monitoring requirements of the sewer treatment system before discharges.</p> | HCF, District, MoH | | |
| | OHS Risks | <p>Red zone cleaners should wear FULL PPE according to WHO recommendations,</p> <p>All environmental surfaces (including furniture, walls, doors, etc.) or objects should be cleaned with water and a detergent and then disinfected using a 0.5% chlorine solution,</p> <p>Fence off to avoid unpermitted access</p> <p>Disinfect the working area</p> <p>Workers should wear appropriate PPE, which includes protective outerwear, heavy-duty gloves, boots, goggles or a face shield, and a mask;</p> <p>Perform hand hygiene frequently;</p> <p>Avoid touching their eyes, nose or mouth with unwashed hands, and</p> <p>Practice social distancing while working.</p> | HCF, District, MoH | | |
| | Waste water infection | <p>Spills or waste including blood, other body fluids, secretions or excretions should be removed, and cleaned and decontaminated,</p> | HCF, District, MoH | | |
| | Excreta Materials | <p>A permanent septic tank or latrine that has been used for COVID-19 facility and is less than 2/3 full should be cleaned and decontaminated with 0.5% chlorine. The pit of the septic tank should be treated with lime.</p> | HCF, District, MoH | | |

COVID-19 Response ESMF – ESMP

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| <p>Decommissioning of medical equipment</p> | | <p>Creation of a well demarcated “clean” zone</p> <p>Disinfect the medical equipment</p> <p>Carry out process of dismantling in different areas of the facility simultaneously,</p> <p>No equipment or material should be abandoned on site without the approval of the relevant regulatory authorities and any affected people.</p> <p>Seek approval of clean site from the District, RDB and REMA.</p> | <p>HCF, District, MoH</p> | | |
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V. Infection Control and Waste Management Plan (ICWMP) Template

1. Introduction

1.1 Describe the project context and components

1.2 Describe the targeted healthcare facility (HCF):

- Type: E.g. general hospital, clinics, inpatient/outpatient facility, medical laboratory, quarantine or isolation centers;
- *Special type of HCF in response to COVID-19: E.g. existing assets may be acquired to hold yet-to-confirm cases for medical observation or isolation;*
- Functions and requirement for the level infection control, e.g. biosafety levels;
- Location and associated facilities, including access, water supply, power supply;
- Capacity: beds

1.3 Describe the design requirements of the HCF, which may include specifications for general design and safety, separation of wards, heating, ventilation and air conditioning (HVAC), autoclave, and waste management facilities.

2. Infection Control and Waste Management

2.1 Overview of infection control and waste management in the HCF

- Type, source and volume of healthcare waste (HCW) generated in the HCF, including solid, liquid and air emissions (if significant)
- Classify and quantify the HCW (infectious waste, pathological waste, sharps, liquid and non-hazardous) following WBG [EHS Guidelines](#) for Healthcare Facilities and pertaining GIIP.
- *Given the infectious nature of the novel coronavirus, some wastes that are traditionally classified as non-hazardous may be considered hazardous. It's likely the volume of waste will increase considerably given the number of admitted patients during COVID-19 outbreak. Special attention should be given to the identification, classification and quantification of the healthcare wastes.*
- Describe the healthcare waste management system in the HCF, including material delivery, waste generation, handling, disinfection and sterilization, collection, storage, transport, and disposal and treatment works
- Provide a flow chart of waste streams in the HCF if available
- Describe applicable performance levels and/or standards
- Describe institutional arrangement, roles and responsibilities in the HCF for infection control and waste management

2.2 Management Measures

- Waste minimization, reuse and recycling: HCF should consider practices and procedures to minimize waste generation, without sacrificing patient hygiene and safety considerations.
- Delivery and storage of specimen, samples, reagents, pharmaceuticals and medical supplies: HCF should adopt practice and procedures to minimize risks associated with delivering, receiving and storage of hazardous medical goods.

- Waste segregation, packaging, color coding and labeling: HCF should strictly conduct waste segregation at the point of generation. Internationally adopted method for packaging, color coding and labeling the wastes should be followed.
- Onsite collection and transport: HCF should adopt practices and procedures to timely remove properly packaged and labelled wastes using designated trolleys/carts and routes. Disinfection of pertaining tools and spaces should be routinely conducted. Hygiene and safety of involved supporting medical workers such as cleaners should be ensured.
- Waste storage: A HCF should have multiple waste storage areas designed for different types of wastes. Their functions and sizes are determined at design stage. Proper maintenance and disinfection of the storage areas should be carried out. Existing reports suggest that during the COVID-19 outbreak, infectious wastes should be removed from HCF's storage area for disposal within 24 hours.
- Onsite waste treatment and disposal (e.g. an incinerator): Many HCFs have their own waste incineration facilities installed onsite. Due diligence of an existing incinerator should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended.
- Transportation and disposal at offsite waste management facilities: Not all HCF has adequate or well-performed incinerator onsite. Not all healthcare wastes are suitable for incineration. An onsite incinerator produces residuals after incineration. Hence offsite waste disposal facilities provided by local government or the private sector are probably needed. These offsite waste management facilities may include incinerators, hazardous wastes landfill. In the same vein, due diligence of such external waste management facilities should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended and agreed with the government or the private sector operators.
- Wastewater treatment: HCF wastewater is related to hazardous waste management practices. Proper waste segregation and handling as discussed above should be conducted to minimize entry of solid waste into the wastewater stream. In case wastewater is discharged into municipal sewer sewerage system, the HCF should ensure that wastewater effluent comply with all applicable permits and standards, and the municipal wastewater treatment plant (WWTP) is capable of handling the type of effluent discharged. In cases where municipal sewage system is not in place, HCF should build and properly operate onsite primary and secondary wastewater treatment works, including disinfection. Residuals of the onsite wastewater treatment works, such as sludge, should be properly disposed of as well. There're also cases where HCF wastewater is transported by trucks to a municipal wastewater treatment plant for treatment. Requirements on safe transportation, due diligence of WWTP in terms of its capacity and performance should be conducted.

3. Emergency Preparedness and Response

Emergency incidents occurring in a HCF may include spillage, occupational exposure to infectious materials or radiation, accidental releases of infectious or hazardous substances to the environment, medical equipment failure, failure of solid waste and wastewater treatment facilities, and fire. These emergency events are likely to seriously affect medical workers, communities, the HCF's operation and the environment.

Thus, an Emergency Response Plan (ERP) that is commensurate with the risk levels is recommended to be developed. The key elements of an ERP are defined in ESS 4 Community Health and Safety (para. 21).

4. Institutional Arrangement and Capacity Building

A clearly defined institutional arrangement, roles and responsibilities should be included. A training plan with recurring training programs should be developed. The following aspects are recommended:

- Define roles and responsibilities along each link of the chain along the cradle-to-cradle infection control and waste management process;
- Ensure adequate and qualified staff are in place, including those in charge of infection control and biosafety and waste management facility operation.
- Stress the chief of a HCF takes overall responsibility for infection control and waste management;
- Involve all relevant departments in a HCF, and build an intra-departmental team to manage, coordinate and regularly review issues and performance;
- Establish an information management system to track and record the waste streams in HCF; and
- Capacity building and training should involve medical workers, waste management workers and cleaners. Third-party waste management service providers should be provided with relevant training as well.

5. Monitoring and Reporting

Many HCFs in developing countries face the challenge of inadequate monitoring and records of healthcare waste streams. HCF should establish an information management system to track and record the waste streams from the point of generation, segregation, packaging, temporary storage, transport carts/vehicles, to treatment facilities. The HCF is encouraged to develop an IT based information management system should their technical and financial capacity allow.

As discussed above, the HCF chief takes overall responsibility, leads an intra-departmental team and regularly reviews issues and performance of the infection control and waste management practices in the HCF. Internal reporting and filing systems should be in place.

Externally, reporting should be conducted per government and World Bank requirements.

Table ICWMP

| Activities | Potential ES Issues and Risks [ADD RISKS AS NECESSARY] | Proposed Mitigation Measures [TO BE COMPLETED BASED ON SPECIFIC ARRANGEMENTS AS AGREED WITH THE MOH AND SPIU] | Responsibilities [TO BE FILLED OUT WITH SPECIFIC ARRANGEMENTS FROM HCF, DISTRICT, MOH, etc.] | Budget |
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| General HCF operation – Environment | General wastes | Use of waste receptacles that encourage segregation to hold waste on site before its collection, Use of durable, long-lasting materials that will not need to be replaced often, Deploy MOH contracted waste handler to dispose of hazardous waste and have waste destruction certificate and waste transfer notes. Designate temporal waste / garbage holding areas at site. General waste in the case of handling COVID-19 patients should be treated as infectious waste | | |
| | - Waste water | All infectious effluents should be discharged into the public sewer system or soak pits only after being pre-treated according to WHO standards / EMCA (Water Quality Regulations, 2006.) | | |
| | - Air emissions (dioxins, furans, arsenic, lead, cadmium, chromium, mercury, etc. Risks by direct exposure (inhalation) or in-direct exposure (deposited in soil, water, plants, etc. | -Controlled procurement process to ensure quality and efficient incinerators, -Prohibit open burning of medical waste on site, - Siting of the incinerators should be away from the health facilities wards , residential areas and farms -Ensure the incinerators used in the health facilities are fitted with scrubbers to reduce on release of pollutants to be in compliance with EMCA (Air Quality regulations) 2014. Incinerator chimney installed should be of the recommended height as stipulated in the Waste Management regulations Improved operation, process monitoring and emission controls will be necessary to meet | | |

COVID-19 Response ESMF – ICWMP

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| | | standards for dioxins, furans and particulate matter release to the environment. | | |
| General HCF operation OHS issues | - Physical hazards; - Chemical use; - Ergonomic hazard; | <p>All workers should be provided with appropriate PPE against exposure to hazards,</p> <p>Training for all staff should be given on safe work practices /OHS and guidelines and ensure that they adhere to it,</p> <p>The medical facilities and equipment should be regularly maintained to correct any electrical faults,</p> <p>Strategic display on OHS Policy and regular review of the policy by the manager,</p> <p>Proper maintenance of PPE, including cleaning when dirty and replacement when damaged or worn out,</p> <p>Proper use of PPE should be part of the recurrent training programs for employees,</p> <p>Emergency eye-wash and shower facilities should be equipped with audible and visible alarms to summon aid whenever the eye-wash or shower is activated by the worker and without intervention by the worker,</p> <p>Ensure adequate provision of safety systems which should cover fire, electrical emergencies with First-aid areas or rooms suitably equipped and readily accessible should be available,</p> <p>Provision of first aid kits and first aiders trained the relevant personnel on first aid, and</p> <p>Materials safety data sheet for all chemicals used especially at the lab should be hanged on notice boards.</p> | | |
| | Electrical and explosive hazards; | <p>All electrical repair activities should be done by competent electrician,</p> <p>Ensure the Biomedical department in the health facility has a qualified electrician to address the electrical faults,</p> <p>Prepare and implement Emergency response plan-Emergency Contacts,</p> <p>Periodic maintenance of electrical equipment, and</p> <p>Consider safe storage of supplies and undertake precaution with respect to explosives.</p> | | |

COVID-19 Response ESMF – ICWMP

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| | Fire | <p>Prepare and implement Fire emergency response plan</p> <p>Training of fire marshals in the facilities,</p> <p>Early identification of risks (Job Risk Assessment) and instituting proactive measures to avoid.</p> <p>Provide fire extinguishers to healthcare facilities during their renovation</p> <p>Ensure servicing and inspection of the firefighting equipment</p> <p>Fire emergency telephone numbers should be displaced in communal areas.</p> <p>Undertake fire drills at healthcare facility, at a minimum once quarterly.</p> | | |
| | Radioactive hazard. | <p>All radioactive materials should be handled safely to prevent harm to people and environment.</p> <p>HCF operators should develop a comprehensive plan to control radiation exposure in consultation with the affected workforce,</p> <p>Radioactive waste should be stored in containers that prevent dispersion behind lead shielding. Waste that is stored during radioactive decay should be labelled with the type of radionuclide, the date and details of the required storage conditions,</p> <p>Radioactive hazard plan should be refined and revised as soon as practicable on the basis of assessments of actual radiation exposure conditions, and radiation control measures should be designed and implemented accordingly, and</p> <p>Places of work involving occupational exposure to ionizing radiation should be provided with requisite protection (PPE) in accordance with recognized international safety standards and guidelines¹⁹.</p> | | |
| Waste minimization, reuse and recycling | - Potential increased generation of waste Risk in spread of COVID-19 | <p>-Procure medical supplies & equipment from accredited suppliers preferably in small quantities,</p> <p>-Waste generated from care of COVID-19 patient should not be re-used</p> | | |

¹⁹ International Basic Safety Standard for protection against Ionizing Radiation and for the Safety of Radiation Sources and its three interrelated Safety Guides

COVID-19 Response ESMF – ICWMP

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| HCF operation - Infection control and waste management plan | Possible risks of infection | Provide appropriate PPE against exposure to infectious pathogens, hazardous chemicals in accordance with recognized international safety standards and guidelines. | | |
| Delivery and storage of specimen, samples, reagents, pharmaceuticals and medical supplies | - Infection to lab attendants Expiry of medical supplies and pharmaceuticals | Orientation for all staff would be given on safe work practices and guidelines and ensure that they adhere to it. | | |
| Storage and handling of specimen, samples, reagents, and infectious materials | Infection to lab attendants | Provide relevant vaccine program for all health workers and supportive staffs Adopt or utilize WHO, CDC & NIH guidelines, standards, practice and procedures especially WHO Laboratory biosafety guidance related to coronavirus disease 2019 (COVID-19) . Initial processing of all specimens should take place in a validated biological safety cabinet (BSC) or primary containment device. All technical procedures should be performed in a way that minimizes the generation of aerosols and droplets. Use of appropriate disinfectants with proven activity against enveloped viruses should be used (for example, hypochlorite [bleach], alcohol, hydrogen peroxide, quaternary ammonium compounds, and phenolic compounds). | | |
| Waste segregation, packaging, color coding and labeling | Increased generation of infectious waste due to poor segregation practices | Segregation of wastes into different categories—for control of quantities and disposal methods Waste containers should be of the same colour as the bags and fitted with lids. | | |
| Onsite collection and transport | - Infection to the waste handlers - Non segregation of waste - Increased generation of infectious waste due to contamination | Ensure proper waste management practices as recommended by the WBG EHS guidelines, WHO Safe waste management guidelines for improvement waste management and Health care waste management plan 2016-2021. The collection of waste would be made at least once in 24 hours, and it would be done in such a way to minimize nuisance of smell and dust during collection and all the waste collected must be carried away from the storage site to an approved disposal point. Provide appropriate waste bins for the different types of waste generated in the laboratory to allow | | |

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| | | segregation and collection at the point of generation. | | |
| Waste storage | - Littering of waste Contamination of surfaces | Segregation of wastes into different categories for control of quantities and disposal methods. Provision of color coded waste bins with lid, Provision of appropriate PPEs for waste handlers and incinerator operators Decontamination of surfaces | | |
| Onsite waste treatment and disposal Incineration | - Pollution to environment discharges of contaminated waste water Emissions from the incinerator | Adopt the suggested design for the waste treatment facility, if an incinerator, see section 1. Waste segregation at point of origin to reduce on waste generated, Ensure operator of incineration unit is adequately trained to ensure efficient operation. Provide the required PPE to operators and waste handlers Periodic maintenance of the incinerator through cleaning of combustion chamber and de-clogging the air flows Routine inspection of furnace and air pollution system by the regulatory authority Have a well-established audit and reporting system on waste treatment operations | | |
| Waste transportation to and disposal in offsite treatment and disposal facilities | - Littering of wastes - Disposal in non-permitted waste sites - | Offsite transportation of waste should comply with the national regulations EMCA (Waste Management Regulations), 2006 Use of NEMA licensed Waste transporters, Keeping record of waste transfer notes as well as waste destruction certificates at the point of disposal facility. Use the appropriate vehicle type for transportation of HCW off site Staff should be aware of emergency procedures for dealing with accidents and incidents of spillage during transportation on public roads Due diligence should be undertaken for all the waste treated off site to ensure waste is transported through the required routes (non-busy route) and safely treated and disposed | | |

COVID-19 Response ESMF – ICWMP

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| <p>HCF operation – trans boundary movement of specimen, samples, reagents, medical equipment, and infectious materials</p> | <ul style="list-style-type: none"> - Importation of substandard medical supplies and equipment - Illegal importation - Classes of dangerous goods without clear G - Improper handling and stowage | <p>Procure medical supplies & equipment from accredited supplier</p> <p>Proper handling of equipment use, and methods of storage from cradle to cradle,</p> <p>Cross-boundary transport of specimens of the virus responsible for COVID-19 should follow the United Nations model regulations, Technical instructions for the safe transport of dangerous goods by air (Doc 9284) of the International Civil Aviation Organization.</p> | | |
| <p>Emergency events</p> | <ul style="list-style-type: none"> - Spillage, Fire & others - | <p>Emergency response plan(s) for specific emergencies,</p> <ul style="list-style-type: none"> -Regular drills would constantly follow on various possible incidences. This will test the response of the involved stakeholders. Such drills will keep them alert and they will become more responsive to in the case of incidences. -Train relevant staff on response in risk management and emergency procedures in-case of accidents and spillages. | | |
| | <ul style="list-style-type: none"> - Failure of solid waste and wastewater treatment facilities; | <p>All HCFs should prepare waste management procedures in accordance with the national requirements that outline waste segregation procedures, on site handling, collection, transport, treatment and disposal, and training of the staff.</p> | | |
| | <ul style="list-style-type: none"> - Accidental releases of infectious or hazardous substances to the environment; | <p>Train relevant staff on response in risk management and emergency procedures in-case of accidental releases of infectious or hazardous substances, and</p> <p>Provision of receptacles for timely response of accidental releases.</p> | | |
| | <ul style="list-style-type: none"> - Occupational exposure to infectious; | <p>Ensure the provision of safe water, sanitation, and hygienic conditions, which is essential to protecting human health during all infectious disease outbreaks,</p> <p>Health facilities shall establish and apply good practices line with WHO guidance on water, sanitation and waste management for COVID-19 and National guidelines for Infection Prevention and Control in the healthcare facilities.</p> | | |
| | <ul style="list-style-type: none"> - Exposure to radiation; | <p>Refer to earlier section above on radiation</p> | | |

COVID-19 Response ESMF – ICWMP

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|--|---|---|--|--|
| | <ul style="list-style-type: none"> - Medical equipment failure; | <p>Provide requisite training during equipment installation.</p> <p>Carry out regular supervision, ensure only trained authorized personnel operate equipment,</p> <p>The manual containing information on how the medical facilities and equipment should be safely handled should be made available to the relevant staff, and</p> <p>Equipment's should be sanitized and disinfected before use to minimize risks of infections.</p> | | |
| Operation of acquired assets for holding potential COVID-19 patients | <ul style="list-style-type: none"> - Nonuse of the equipment due to lack of technical know how - Risk of misuse of the equipment - Poor maintenance leading to breakdown | <p>Ensure equipment purchased is of the required standard and specifications,</p> <p>Ensure good control measures in purchase of medical equipment,</p> <p>Equipment's should be disinfected before use to minimize risk of infections</p> <p>Provide requisite training during equipment installation,</p> <p>The equipment's manual should be made available to the medical workers for safe routine procedures</p> <p>Prepare maintenance plan for all equipment</p> | | |
| Blood Collection Storage and delivery | - Unsuitable for transfusion | <p>Blood units found to be unsuitable for transfusion should be promptly removed from the blood stock,</p> <p>Place the blood units in a steel container with a lid or in an autoclavable polythene bag as the bags may burst while being autoclaved and cause blood to spray out,</p> <p>Autoclave the blood bags under a pressure 2 bar (200 kPa) at a temperature of 121°C for a minimum of 20 minutes,</p> <p>Treated blood units can be disposed of by burying in a secured landfill</p> | | |
| | <ul style="list-style-type: none"> - Injuries from sharps - Risk of infectious waste - Exposure to harmful toxins like dioxin and furans | <p>Disinfect infectious liquid waste (e.g. blood samples used for testing, infectious effluent from test procedures) by chemical treatment using at least 1% sodium hypochlorite solution.</p> <p>Only after 30 minutes or more of exposure to the disinfectant, may the inactivated liquid waste be discharged into drains/ sewers for safe dispersal.</p> | | |

COVID-19 Response ESMF – ICWMP

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|--|---------------------------------------|---|--|--|
| <p>Handling of dead bodies in the case of COVID-19</p> | <p>-Risk of spread of the disease</p> | <p>Use full PPEs (disposable gown with long sleeves, water proof apron, disposable gloves, surgical mask, eye protection, rubber gloves and boots, surgical masks to safely handle; No washing, spraying/ embalming the dead body; Register contact(s) at the HCF, Notify the HCF Director / Medical Superintendent Follow up on health status of the staff</p> | | |
|--|---------------------------------------|---|--|--|

VI. Code of Conduct for Contractors and workers hired under the Rwanda COVID-19 ERP and its Vaccine AF

General Code of Conduct for Rwanda COVID-19 ERP to be inserted in the ESMP and/or Tender documents and Contract

The Rwanda COVID-19 ERP will comply with ESS2 and ESS4 and the Environmental, Social Health and Safety Guidelines of the WB (ESHS) and the Occupational Health and Safety (OHS) and Labor regulations of Rwanda. The following is a general Code of conduct to be inserted in the contract of contractors for ERP minor civil works or other contracted activities.

1. Company Code of Conduct for Implementing ESHS and OHS Standards, Preventing Gender Based Violence and Violence against Children

----- (company name) is committed to ensuring that the project is implemented in such a way which minimizes any negative impacts on the local environment, communities, and its workers. This shall be done by respecting the environmental, social, health and safety (ESHS) standards, and ensuring appropriate occupational health and safety (OHS) standards are met. The company is also committed to creating and maintaining an environment in which gender-based violence (GBV) and violence against children (VAC) have no place, and where they shall not be tolerated by any employee, associate, or representative of the company.

Therefore, in order to ensure that all those engaged in the project are aware of this commitment, the company commits to the following core principles and minimum standards of behavior that shall apply to all company employees, associates, and representatives including sub-contractors, without exception:

General

1. The company, and therefore all employees, associates, and representatives, commits to complying with all relevant national laws, rules and regulations and the World Bank Environmental and Social Standards which can read in the internet in this website:
 - a. <https://www.worldbank.org/en/projects-operations/environmental-and-social-framework>
2. The contractor is responsible to comply with the requirements defined in ESMP which are integral part of the contract.
3. The company commits to full implementing its 'Contractors Environmental and Social Management Plan' (C-ESMP) which will be prepared based on the ESIA/ESMP prepared by the government for the works.
4. The company commits to treating women, children (persons under the age of 18), and men with respect regardless of race, colour, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status. Acts of GBV and VAC are in violation of this commitment.
5. The company shall ensure that interactions with local community members are done with respect and non-discrimination.
6. Demeaning, threatening, harassing, abusive, culturally inappropriate, or sexually provocative language and behaviour are prohibited among all company employees, associates, and its representatives.
7. Respect to reasonable work instructions (including regarding environmental and social norms)
8. Protect and ensure proper use of property (for example, to prohibit theft, carelessness or waste)
9. Prohibit illegal activities by their workers such as: polluting the soil, rivers, wetlands, hunting, poaching wildlife, setting up fires, spilling diesel, oils in the soil, cutting trees without permit.

Health and Safety

10. The company shall ensure to hire professional in occupational health and safety to implement the ESMP.
11. The company shall ensure that the project’s occupational health and safety (OHS) management plan is effectively implemented, including wearing prescribed personal protective equipment, preventing avoidable accidents and reporting accidents of all type within less of 24 hours or conditions or practices in the project sites that pose a safety hazard or threaten the environment and the people.
12. The company will:
 - a. Prohibit the use of alcohol during work activities.
 - b. The company shall prohibit the use of illegal substances, at all times.
13. The company shall ensure that adequate eating, changing and sanitation facilities are available on site and at any worker accommodations provided by the contractor.
14. The company will obey labour, contracting and health and safety regulation in case of accidents, death and incapacity of workers (skilled or no skilled) and pay the compensation required by law.

Gender Based Violence and Violence against Children

15. Acts of GBV or VAC constitute gross misconduct and are therefore grounds for sanctions, which may include penalties and/or termination of employment. All forms of GBV and VAC, including grooming are unacceptable, regardless of whether they take place on the work site, the work site surroundings, at worker’s camps or at worker’s homes.
16. In addition to company sanctions, legal prosecution of those who commit acts of GBV or VAC shall be pursued if appropriate.
17. Sexual contact or activity with children under 18—including through digital media—is prohibited. Mistaken belief regarding the age of a child is not a defence. Consent from the child is also not a defence or excuse.
18. Sexual Harassment—for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct, of a sexual nature, including subtle acts of such behavior, is prohibited. For example: Looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; giving personal gifts; making comments about somebody’s sex life; etc. is prohibited.
19. Sexual favours—for instance, making promises or favourable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behaviour are prohibited.
20. Unless there is full consent²⁰ by all parties involved in the sexual act, sexual interactions between the company’s employees (at any level) and members of the communities surrounding the work-place are prohibited. This includes relationships involving the withholding/promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex—such sexual activity is considered “non-consensual” within the scope of this Code.
21. All employees, including volunteers and sub-contractors are highly encouraged to report suspected or actual acts of GBV and/or VAC by a fellow worker, whether in the same company or not. Reports must be made in accordance with GBV and VAC Allegation Procedures.
22. Managers are required to report suspected or actual acts of GBV and/or VAC as they have a responsibility to uphold company commitments and hold their direct reports responsible.

²⁰ **Consent** is defined as the informed choice underlying an individual’s free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

Implementation

To ensure that the above principles are implemented effectively the company commits to ensuring that:

23. All managers sign the ‘Manager’s Code of Conduct’ detailing their responsibilities for implementing the company’s commitments and enforcing the responsibilities in the ‘Individual Code of Conduct’.
24. All employees sign the project’s ‘Individual Code of Conduct’ confirming their agreement to comply with ESHS and OHS standards, and not to engage in activities resulting in GBV or VAC.
25. Displaying the Company and Individual Codes of Conduct prominently and in clear view at workers’ camps, offices, and in public areas of the work-place. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.
26. Ensure that posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.
27. An appropriate person is nominated as the company’s ‘Focal Point’ for addressing GBV and VAC issues, including representing the company on the GBV and VAC Compliance Team which is comprised of representatives from the client, contractor(s), the supervision consultant, and local service provider(s).
28. Ensuring that an effective GBV and VAC Action Plan is developed in consultation with the Compliance Team which includes as a minimum:
 - a. **GBV and VAC Allegation Procedure** to report GBV and VAC issues through the project Grievance Redress Mechanism (GRM);
 - b. **Accountability Measures** to protect confidentiality of all involved; and,
 - c. **Response Protocol** applicable to GBV and VAC survivors and perpetrators.
29. That the company effectively implements the GBV and VAC Action Plan, providing feedback to the Compliance Team for improvements and updates as appropriate.
30. All employees attend an induction training course prior to commencing work on site to ensure they are familiar with the company’s commitments to ESHS and OHS standards, and the project’s GBV and VAC Codes of Conduct.
31. All employees attend a mandatory training course once a month for the duration of the contract starting from the first induction training prior to commencement of work to reinforce the understanding of the project’s ESHS and OHS standards and the GBV and VAC Code of Conduct.

I do hereby acknowledge that I have read the foregoing Company Code of Conduct, and on behalf of the company agree to comply with the standards contained therein. I understand my role and responsibilities to support the project’s OHS and ESHS standards, and to prevent and respond to GBV and VAC. I understand that any action inconsistent with this Company Code of Conduct or failure to take action mandated by this Company Code of Conduct may result in disciplinary action.

Company name: _____

Signature: _____

2. Manager's Code of Conduct

Manager's Code of Conduct Implementing ESHS and OHS Standards and Preventing Gender Based Violence and Violence against Children

Managers at all levels have a responsibility to uphold the company's commitment to implementing the ESHS and OHS standards, and preventing and addressing GBV and VAC. This means that managers have an acute responsibility to create and maintain an environment that respects these standards and prevents GBV and VAC. Managers need to support and promote the implementation of the Company Code of Conduct. To this end, managers must adhere this Manager's Code of Conduct and also sign the Individual Code of Conduct. This commits them to supporting the implementation of the C-ESMP and the OHS Management Plan and developing systems that facilitate the implementation of the GBV and VAC Action Plan. They need to maintain a safe workplace, as well as a GBV-free and VAC-free environment at the workplace and in the local community. These responsibilities include but are not limited to:

Implementation

1. To ensure maximum effectiveness of the Company and Individual Codes of Conduct:
 - a. Prominently displaying the Company and Individual Codes of Conduct in clear view at workers' camps, offices, and in public areas of the work-place. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.
 - b. Ensuring all posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.
2. Verbally and in writing explain the Company and Individual Codes of Conduct to all staff.
3. Ensure that:
 - a. All direct reportees sign the 'Individual Code of Conduct', including acknowledgment that they have read and agree with the Code of Conduct.
 - b. Staff lists and signed copies of the Individual Code of Conduct are provided to the OHS Manager, the Compliance Team, and the client.
 - c. Participate in training and ensure that staff also participate as outlined below.
 - d. Put in place a mechanism for staff to:
 - i. report concerns on ESHS or OHS compliance; and,
 - ii. confidentially report GBV or VAC incidents to the Grievance Redress Mechanism (GRM)
 - e. Staff are encouraged to report suspected or actual ESHS, OHS, GBV or VAC issues, emphasizing the staff's responsibility to the Company and the country hosting their employment, and emphasizing the respect for confidentiality.
4. In compliance with applicable laws and to the best of your abilities, prevent perpetrators of sexual exploitation and abuse from being hired, re-hired or deployed. Use background and criminal reference checks for all employees.
5. Ensure that when engaging in partnership, sub-contractor or similar agreements, these agreements:
 - a. Incorporate the ESHS, OHS, GBV and VAC Codes of Conduct as an attachment.
 - b. Include the appropriate language requiring such contracting entities and individuals, and their employees and volunteers, to comply with the Individual Codes of Conduct.
 - c. expressly state that the failure of those entities or individuals, as appropriate, to ensure compliance with the ESHS and OHS standards, take preventive measures against GBV and VAC, to investigate allegations thereof, or to take corrective actions when GBV or VAC has occurred, shall constitute grounds for sanctions and penalties in accordance with the Individual Codes of Conduct.

6. Provide support and resources to the Compliance Team to create and disseminate internal sensitization initiatives through the awareness-raising strategy under the GBV and VAC Action Plan.
7. Ensure that any GBV or VAC issue warranting police action is reported to the client and the World Bank immediately.
8. Ensure that any major ESHS or OHS incidents are reported to the client and the supervision engineer immediately.

Training

9. The managers are responsible to:
 - a. Ensure that the OHS Management Plan is implemented, with suitable training required for all staff, including sub-contractors and suppliers; and,
 - b. Ensure that staff have a suitable understanding of the C-ESMP and are trained as appropriate to implement the C-ESMP requirements.
10. All managers are required to attend an induction manager training course prior to commencing work on site to ensure that they are familiar with their roles and responsibilities in upholding the GBV and VAC elements of these Codes of Conduct. This training shall be separate from the induction training course required of all employees and shall provide managers with the necessary understanding and technical support needed to begin to develop the GBV and VAC Action Plan for addressing GBV and VAC issues.
11. Managers are required to attend and assist with the project facilitated monthly training courses for all employees. Managers shall be required to introduce the trainings and announce the self-evaluations, including collecting satisfaction surveys to evaluate training experiences and provide advice on improving the effectiveness of training.
12. Ensure that time is provided during work hours and that staff prior to commencing work on site attend the mandatory project facilitated induction training on:
 - a. OHS and ESHS; and,
 - b. GBV and VAC required of all employees.
13. During civil works, ensure that staff attend ongoing OHS and ESHS training, as well as the monthly mandatory refresher training course required of all employees to combat increased risk of GBV and VAC.

Response

14. Managers shall be required to take appropriate actions to address any ESHS or OHS incidents.
15. With regard to GBV and VAC:
 - a. Provide input to the GBV and VAC Allegation Procedures and Response Protocol developed by the Compliance Team as part of the final cleared GBV and VAC Action Plan.
 - b. Once adopted by the Company, managers shall uphold the Accountability Measures set forth in the GBV and VAC Action Plan to maintain the confidentiality of all employees who report or (allegedly) perpetrate incidences of GBV and VAC (unless a breach of confidentiality is required to protect persons or property from serious harm or where required by law).
 - c. If a manager develops concerns or suspicions regarding any form of GBV or VAC by one of his/her direct reportees, or by an employee working for another contractor on the same work site, s/he is required to report the case using the GRM.
 - d. Once a sanction has been determined, the relevant manager(s) is/are expected to be personally responsible for ensuring that the measure is effectively enforced, within a maximum timeframe of 14 days from the date on which the decision to sanction was made

- e. If a Manager has a conflict of interest due to personal or familial relationships with the survivor and/or perpetrator, he/she must notify the respective company and the Compliance Team. The Company shall be required to appoint another manager without a conflict of interest to respond to complaints.
16. Managers failing to address ESHS or OHS incidents or failing to report or comply with the GBV and VAC provisions may be subject to disciplinary measures, to be determined and enacted by the company's CEO, Managing Director or equivalent highest-ranking manager. Those measures may include:
- f. Informal warning.
 - g. Formal warning.
 - h. Additional Training.
 - i. Loss of up to one week's salary.
 - j. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
 - k. Termination of employment.

17. Ultimately, failure to effectively respond to ESHS, OHS GBV and VAC cases on the work site by the company's managers or CEO may provide grounds for legal actions by authorities.

I do hereby acknowledge that I have read the foregoing Manager's Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS GBV and VAC requirements. I understand that any action inconsistent with this Manager's Code of Conduct or failure to take action mandated by this Manager's Code of Conduct may result in disciplinary action.

Signature: _____

Printed Name: _____

Title: _____

3. Code of Conduct to be signed by individual workers (skilled and unskilled, casual or non-casual) for Preventing Gender Based Violence (GBV) and Violence against Children (VAC)

I, _____, acknowledge that adhering to environmental, social health and safety (ESHS) standards, following the project’s occupational health and safety (OHS) requirements, and preventing gender-based violence (GBV) and violence against children (VAC) is important. All forms of GBV or VAC are unacceptable, be it on the work site, the work site surroundings, at worker’s camps, or the surrounding communities.

The company considers that failure to follow ESHS and OHS standards, or to partake in GBV or VAC activities, constitute acts of gross misconduct and are therefore grounds for sanctions, penalties or potential termination of employment. Prosecution of those who commit GBV or VAC may be pursued if appropriate.

I agree that while working on the project I will:

- Attend and actively partake in training courses related to ESHS, OHS, HIV/AIDS, GBV and VAC as requested by my employer.
- Shall wear my personal protective equipment (PPE), in the correct prescribed manner, at all times when at the work site or engaged in project related activities.
- Take all practical steps to implement the contractor’s environmental and social management plan (CESMP).
- Implement the OHS Management Plan.
- Adhere to a zero-alcohol policy during work activities, and refrain from the use of illegal substances at all times.
- Consent to a police background check.
- Treat women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.
- Not use language or behavior towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- Not participate in sexual contact or activity with children—including grooming or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
- Not engage in sexual harassment—for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct, of a sexual nature, including subtle acts of such behavior. Ex. Looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; giving personal gifts; making comments about somebody’s sex life; etc.
- Not engage in sexual favors—for instance, making promises or favorable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
- Unless there is the full consent²¹ by all parties involved, I shall not have sexual interactions with members of the surrounding communities. This includes relationships involving the withholding or promise of actual provision of benefit (monetary or non-monetary) to

²¹ **Consent** is defined as the informed choice underlying an individual’s free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

community members in exchange for sex—such sexual activity is considered “non-consensual” within the scope of this Code.

- Consider reporting through the GRM (Grievance Redress Mechanism) or to my manager any suspected or actual GBV or VAC by a fellow worker, whether employed by my employer or not, or any breaches of this Code of Conduct.

With regard to children under the age of 18:

- Wherever possible, ensure that another adult is present when working in the proximity of children.
- Not invite unaccompanied children unrelated to my family into my home, unless they are at immediate risk of injury or in physical danger.
- Not sleep close to unsupervised children unless absolutely necessary, in which case I must obtain my supervisor's permission, and ensure that another adult is present if possible.
- Use any computers, mobile phones, or video and digital cameras appropriately, and never to exploit or harass children or to access child pornography through any medium (see also “Use of children's images for work related purposes” below).
- Refrain from physical punishment or discipline of children.
- Refrain from hiring children for domestic or other labor which is inappropriate given their age or developmental stage, which interferes with their time available for education and recreational activities, or which places them at significant risk of injury.
- Comply with all relevant local legislation, including labor laws in relation to child labor.

Use of children's images for work related purposes

When photographing or filming a child for work related purposes, I must:

- Before photographing or filming a child, assess and endeavor to comply with local traditions or restrictions for reproducing personal images.
- Before photographing or filming a child, obtain informed consent from the child and a parent or guardian of the child. As part of this I must explain how the photograph or film shall be used.
- Ensure photographs, films, videos and DVDs present children in a dignified and respectful manner and not in a vulnerable or submissive manner. Children should be adequately clothed and not in poses that could be seen as sexually suggestive.
- Ensure images are honest representations of the context and the facts.
- Ensure file labels do not reveal identifying information about a child when sending images electronically.

Sanctions

I understand that if I breach this Individual Code of Conduct, my employer shall take disciplinary action which could include:

- Informal warning.
- Formal warning.
- Additional Training.
- Loss of up to one week's salary.
- Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
- Termination of employment.
- Report to the police if wanted.

I understand that it is my responsibility to ensure that the environmental, social, health and safety standards are met. That I shall adhere to the occupational health and safety management plan. That I shall avoid actions or behaviors that could be construed as GBV or VAC. Any such actions shall be a breach this Individual Code of Conduct. I do hereby acknowledge that I have read the foregoing Individual Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, GBV and VAC issues. I understand that any action inconsistent with this Individual Code of Conduct or failure to take action mandated by this Individual Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Contractor _____

Supervisor _____

Date _____

VII. Resource List: COVID-19 Guidance

Given the COVID-19 situation is rapidly evolving, a version of this resource list will be regularly updated and made available on the World Bank COVID-19 operations intranet page (<http://covidoperations/>).

WHO Guidance

Advice for the public

- WHO advice for the public, including on social distancing, respiratory hygiene, self-quarantine, and seeking medical advice, can be consulted on this WHO website:
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>

Technical guidance

- [Infection prevention and control during health care when novel coronavirus \(nCoV\) infection is suspected](#), issued on March 19, 2020
- [Recommendations to Member States to Improve Hygiene Practices](#), issued on April 1, 2020
- [Severe Acute Respiratory Infections Treatment Center](#), issued on March 28, 2020
- [Infection prevention and control at health care facilities \(with a focus on settings with limited resources\)](#), issued in 2018
- [Laboratory biosafety guidance related to coronavirus disease 2019 \(COVID-19\)](#), issued on March 18, 2020
- [Laboratory Biosafety Manual, 3rd edition](#), issued in 2014
- [Laboratory testing for COVID-19, including specimen collection and shipment](#), issued on March 19, 2020
- [Prioritized Laboratory Testing Strategy According to 4Cs Transmission Scenarios](#), issued on March 21, 2020
- [Infection Prevention and Control for the safe management of a dead body in the context of COVID-19](#), issued on March 24, 2020
- [Key considerations for repatriation and quarantine of travelers in relation to the outbreak COVID-19](#), issued on February 11, 2020
- [Preparedness, prevention and control of COVID-19 for refugees and migrants in non-camp settings](#), issued on April 17, 2020
- [Water, sanitation, hygiene, and waste management for the COVID-19 virus: interim guidance](#), issued on April 23, 2020
- [Coronavirus disease \(COVID-19\) outbreak: rights, roles and responsibilities of health workers, including key considerations for occupational safety and health](#), issued on March 18, 2020
- [Oxygen sources and distribution for COVID-19 treatment centers](#), issued on April 4, 2020
- [Risk Communication and Community Engagement \(RCCE\) Action Plan Guidance COVID-19 Preparedness and Response](#), issued on March 16, 2020
- [Considerations for quarantine of individuals in the context of containment for coronavirus disease \(COVID-19\)](#), issued on March 19, 2020
- [Operational considerations for case management of COVID-19 in health facility and community](#), issued on March 19, 2020
- [Rational use of personal protective equipment for coronavirus disease 2019 \(COVID-19\)](#), issued on February 27, 2020
- [Getting your workplace ready for COVID-19](#), issued on March 19, 2020
- [Safe management of wastes from health-care activities](#), issued in 2014

- [Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus \(COVID-19\) outbreak](#), issued on March 19, 2020
- [Disability Considerations during the COVID-19 outbreak](#), issued on March 26, 2020

WORLD BANK GROUP GUIDANCE

- [Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings](#), issued on March 20, 2020
- [Technical Note: Use of Military Forces to Assist in COVID-19 Operations](#), issued on March 25, 2020
- [ESF/Safeguards Interim Note: COVID-19 Considerations in Construction/Civil Works Projects](#), issued on April 7, 2020
- [Technical Note on SEA/H for HNP COVID Response Operations](#), issued in March 2020
- [Interim Advice for IFC Clients on Preventing and Managing Health Risks of COVID-19 in the Workplace](#), issued on April 6, 2020
- [Interim Advice for IFC Clients on Supporting Workers in the Context of COVID-19](#), issued on April 6, 2020
- [IFC Tip Sheet for Company Leadership on Crisis Response: Facing the COVID-19 Pandemic](#), issued on April 6, 2020
- [WBG EHS Guidelines for Healthcare Facilities](#), issued on April 30, 2007

ILO GUIDANCE

- [ILO Standards and COVID-19 FAQ](#), issued on March 23, 2020 (provides a compilation of answers to most frequently asked questions related to international labor standards and COVID-19)

MFI GUIDANCE

- [ADB Managing Infectious Medical Waste during the COVID-19 Pandemic](#)
- [IDB Invest Guidance for Infrastructure Projects on COVID-19: A Rapid Risk Profile and Decision Framework](#)
- [KfW DEG COVID-19 Guidance for employers, issued on March 31, 2020](#)
- [CDC Group COVID-19 Guidance for Employers, issued on March 23, 2020](#)

CDC Guidance

- [Vaccine Storage and Handling Toolkit-November 2020 \(cdc.gov\) \(COVID Annex\)](#)
- [Healthcare Professions: preparing for COVID-19 Vaccination](#)

VIII. Chance find procedure

1. Purpose of the chance find procedure

The chance find procedure is a project-specific procedure that outlines actions required if previously unknown heritage resources, particularly archaeological resources, are encountered during project design, construction or operation. A Chance Find Procedure, as described in World Bank ESS 8, is a process that prevents chance finds from being disturbed until an assessment by a competent specialist is made and actions consistent with the requirements are implemented.

2. Responsibility

The SPIU responsible for implantation of ERP is responsible for siting and designing the project to avoid significant damage to cultural heritage. When the proposed location of a project is in areas where cultural heritage is expected to be found, either during construction or operations, the client will implement chance find procedures established through the Environmental and Social Assessment. The client will not disturb any chance finds further until an Assessment by a competent specialist is made and actions consistent with the requirements of this Performance Standard are identified.

3. Scope of the chance find procedure

This procedure will be applicable to all activities conducted by the personnel, including contractors at the sub-project level that have the potential to uncover a heritage item/site. The procedure details the actions to be taken when a previously unidentified and potential heritage item/site is found during construction activities. Procedure outlines the roles and responsibilities and the response times required from both project staff, and any relevant heritage authority.

4. Induction/Training

All personnel, especially those working on earth movements and excavations, are to be inducted on the identification of potential heritage items/sites and the relevant actions for them with regards to this procedure during the Project induction and regular toolbox talks.

5. Chance find procedure

If any person/worker under COVID-19 ERP discovers a physical cultural resource, such as (but not limited to) archaeological sites, historical sites, remains and objects, or a cemetery and/or individual graves during excavation or construction, the following steps shall be taken:

- 1) Stop all works in the vicinity of the find, until a solution is found for the preservation of these artefacts, or advice from the relevant authorities is obtained especially the Institute of National Museums of Rwanda (INMR);
- 2) Immediately notify the foreman. The foreman will then notify the Site engineer and the Environment Officer of the contractor;
- 3) Record details in Incident Report and take photos of the find;
- 4) Delineate the discovered site or area; secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities take over;

- 5) Preliminary evaluation of the findings by archaeologists. The archaeologist must make a rapid assessment of the site or find to determine its importance. Based on this assessment the appropriate strategy can be implemented. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage such as aesthetic, historic, scientific or research, social and economic values of the find;
- 6) Sites of minor significance (such as isolated or unclear features, and isolated finds) should be recorded immediately by the archaeologist, thus causing a minimum disruption to the work schedule of the Contractor. The results of all archaeological work must be reported to the INMR, once completed.
- 7) In case of significant find the INMR, will be informed immediately and in writing within 7 days from the find,
- 8) The onsite archaeologist provides INMR with photos, other information as relevant for identification and assessment of the significance of heritage items.
- 9) The INMR will investigate the fact and provide response in writing.
- 10) Decisions on how to handle the finding shall be taken by the responsible authorities which is INMR. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage;
- 11) Construction works could resume only after permission is granted from the responsible authorities.
- 12) In case no response received, this will be considered as authorization to proceed with suspended construction works. One of the main requirements of the procedure is record keeping. All finds must be registered. Photolog, copies of communication with decision making authorities, conclusions and recommendations/guidance, implementation reports are kept.

6. Additional information

Management options for archaeological site

- Site avoidance. If the boundaries of the site have been delineated attempt must be made to redesign the proposed development to avoid the site. (The fastest and most cost-effective management option);
- Mitigation. If it is not feasible to avoid the site through redesign, it will be necessary to sample it using data collection program prior to its loss. This could include surface collection and/or excavation. (The most expensive and time-consuming management option.)
- Site Protection. It may be possible to protect the site through the installation of barriers during the time of the development and/or possibly for a longer term. This could include the erection of high visibility fencing around the site or covering the site area with a geotextile and then capping it with fill. The exact prescription would be site- specific.

7. Management of replicable and non-replicable heritage

Different approaches for the finds apply to replicable and non-replicable heritage.

Replicable heritage

Where tangible cultural heritage that is replicable (Replicable cultural heritage is defined as tangible forms of cultural heritage that can themselves be moved to another location or that can be replaced by a similar structure or natural features to which the cultural values can be transferred by appropriate measures. Archaeological or historical sites may be considered replicable where the particular eras and

cultural values they represent are well represented by other sites and/or structures and not critical is encountered, mitigation measures will be applied. The mitigation hierarchy is as follows:

- i. Avoidance;
- ii. Minimization of adverse impacts and implementation of restoration measures, in situ;
- iii. Restoration of the functionality of the cultural heritage, in a different location; Permanent removal of historical and archaeological artefacts and structures;
- iv. Compensation of loss - where minimization of adverse impacts and restoration not feasible.

Non-replicable heritage

Most cultural heritage is best protected by in situ preservation, since removal is likely to result in irreparable damage or even destruction of the cultural heritage. Nonreplicable cultural heritage (Nonreplicable cultural heritage may relate to the social, economic, cultural, environmental, and climatic conditions of past peoples, their evolving ecologies, adaptive strategies, and early forms of environmental management, where the (i) cultural heritage is unique or relatively unique for the period it represents, or (ii) cultural heritage is unique or relatively unique in linking several periods in the same site.

Examples of non-replicable cultural heritage may include an ancient city or temple, or a site unique in the period that it represents) must not be removed unless all of the following conditions are met:

- i. There are no technically or financially feasible alternatives to removal;
- ii. The overall benefits of the project conclusively outweigh the anticipated cultural heritage loss from removal; and any removal of cultural heritage must be conducted using the best available technique advised by relevant authority and supervised by archaeologist.

Human Remains Management Options

The handling of human remains believed to be archaeological in nature requires communication according to the same procedure described above.

There are two possible courses of action:

- i. **Avoid.** The development project is redesigned to completely avoid the found remains. An assessment should be made as to whether the remains may be affected by residual or accumulative impacts associated with the development, and properly addressed by a comprehensive management plan.
- ii. **Exhume.** Exhumation of the remains in a manner considered appropriate by decision makers. This will involve the predetermination of a site suitable for the reburial of the remains. Certain ceremonies or procedures may need to be followed before development activities can recommence in the area of the discovery.

Emergency Contacts

Institute of National Museums of Rwanda (INMR)

Address: KN 90 St2, Kigali

Telephone: 0730 741 09

Email: info@museum.gov.rw

Website: www.museum.gov.rw

IX. VC Stakeholder Consultation Oct 16 2020 – Chat registration record

Kanyamarere Leonard from Munini DH
from user to everyone: 10:13 AM
Dr DUFATANYE Erhard,Clinical director MUNINI DH
from Mujawayezu Odette to everyone: 10:37 AM
Amajwi ntabwo yumvikana
from Rutarindwa Alphonse to everyone: 10:46 AM
gasabo abitabiriye:
from RUSIMBUKAYEJO to everyone: 10:46 AM
amajwi ameze nabi pe
from Mwumvaneza MUTAGOMA to everyone: 10:47 AM
Component 4, handitswe ko ari cost zero.
from Mwumvaneza MUTAGOMA to everyone: 10:47 AM
Is it possible?
from Rutarindwa Alphonse to everyone: 10:48 AM
Dir. of health .environmental health officer(district) . hygiene & sanitation officer
(District).Epidemiological surveillance officer (DH).
from anzakizwanayo to everyone: 10:48 AM
Ruhango abitabiriye: Francoise NZAKIZWANAYO;EHO Ruhango provincial hospital.
NKURIKIYIMANA Edmond ,DAF Ruhango provincial hospital.
from Ntakirutimana Zacharie to everyone: 10:48 AM
Ese muri waste management uyu mushinga uzaha ibitaro incinerator
from Rutarindwa Alphonse to everyone: 10:49 AM
Gasabo :Dir. of health .environmental health officer(district) . hygiene & sanitation officer
(District).Epidemiological surveillance officer (DH).
from Dr Issa Ngabonziza to everyone: 10:49 AM
Dr Issa Ngabonziza DG Gatunda DH
from Rutagengwa William to everyone: 10:50 AM
Bugesera: Dr William Rutagengwa DG Nyamata Hospital
from user to everyone: 10:12 AM
Kanyamarere Leonard from Munini DH
from user to everyone: 10:13 AM
Dr DUFATANYE Erhard,Clinical director MUNINI DH
from Mujawayezu Odette to everyone: 10:37 AM
Amajwi ntabwo yumvikana
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NKURIKIYIMANA Edmond ,DAF Ruhango provincial hospital.

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from Ntakirutimana Zacharie to everyone: 10:48 AM
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(District).Epidemiological surveillance officer (DH).
from Dr Issa Ngabonziza to everyone: 10:49 AM
Dr Issa Ngabonziza DG Gatunda DH
from Rutagengwa William to everyone: 10:50 AM
Bugesera: Dr William Rutagengwa DG Nyamata Hospital
from Director Health Unit to everyone: 10:50 AM
NDAYISABYE Viateur, Director of Health Unit/ Bugesera District.
from Niringiyimana Eugene to everyone: 10:50 AM
Dr Eugene NIRINGIYIMANA - DG Hopital Murunda / Rutsiro District
from UWIZEYE PROTOGENE to everyone: 10:50 AM
UWIZEYE PROTOGENE ENVIRONMENTAL HEALTH OFFICER KIBILIZI DH GISAGARA
DISTRICT
from Rutarindwa Alphonse to everyone: 10:50 AM
Gasabo amazina yabitabiriye:
from irankunda Innocent to everyone: 10:51 AM
Irakunda Innocent,EHO of Butaro,Burera district.
from user to everyone: 10:51 AM
Karemera Athanase Dir of Health Nyaruguru
from John Bosco NDUWAMUNGU to everyone: 10:52 AM
nitwa Bosco shinzwe Isuku Kicukiro ku Karere mwazatekereza no kuri waste zizava muri community
ijyanye na Covid 19 mubya home based care
from Rutarindwa Alphonse to everyone: 10:52 AM
Gasabo amazina yabitabiriye:ALPHONSE RUTARINDWA.Umwngirije Oswald. Dr.karemera
M.Claire. Tuyizere Vivine
from RUSIMBUKAYEJO to everyone: 10:54 AM
MUHANGA DISTRICT Attendance:RUSIMBUKAYEJO J.Baptiste ,KAYITESI
Antoinette,KAYONGA Donathi,UMUTONIWASE KAMANA Sosthene
from Ntakirutimana Zacharie to everyone: 10:54 AM
Nitwa Ntakirutimana Zacharie EHO Mibilizi DH mwatekereza no kubitaro bidafite modern incinerator
muri waste management
from user to everyone: 10:57 AM
Presentantion muziduhe
from RUSIMBUKAYEJO to everyone: 10:57 AM
Thanks. ari izo presentations turazikeneye
from user to everyone: 10:57 AM
erhardufatanye@gmail.com
from Mbayire Vedaste to everyone: 10:57 AM
mbavedi@gmail.com
from Adrien KUBWIMANA to everyone: 10:57 AM
kubwadrien@gmail.com
from irankunda Innocent to everyone: 10:58 AM
irinnocent2@gmail.com
from user to everyone: 10:58 AM
kanyamixleo@yahoo.fr
from RUSIMBUKAYEJO to everyone: 10:58 AM
my email:kayitesiantoine12@gmail.com
from John Bosco NDUWAMUNGU to everyone: 10:58 AM

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Kicukiro email:jbosco.nduwamungu@kicukiro.gov.rw, nduwabosco@gmail.com
from Dr Placide NSHIZIRUNGU to everyone: 10:58 AM
Nanjye muze kunyohereza izo PPT presentations kuri pnshizirungu@gmail.com
from kabera to everyone: 10:59 AM
Nyanza District:
from kabera to everyone: 10:59 AM
Kabera clement diector of health
from kabera to everyone: 10:59 AM
Ndayisabye Daniel Saho
from UWAMARIYA Jeannette to everyone: 11:01 AM
my email: uwamariyajanet@yahoo.com
from Dr NZARAMBA Theoneste to everyone: 11:01 AM
Dr nzaramba Theoneste,DG of mibilizi DH, email; nzarambat@gmail.com
from alphage2000 to everyone: 11:02 AM
alphage2000@yahoo.fr
from alphage2000 to everyone: 11:02 AM
Nyamasheke District team:
from alphage2000 to everyone: 11:03 AM
Hagengimana Alfred director of health, Nyirabambanza Clementine Hygiene and sanitation officer
(Nyamasheke District)

X. DHSOs/EHOs/C-EHOs Consultation Oct 12-15, 2020

| | Names of Officer | HCF | Function |
|----|----------------------------|---------------|--|
| 1 | Mfitumugisha Emmanuel | Mudende HC | Community Environmental Health Officer |
| 2 | Twizerimana Audace | Biruyi HC | Community Environmental Health Officer |
| 3 | Nikuze Justine | Kinunu HC | Community Environmental Health Officer |
| 4 | Mukamana Gervasie | Murunda HC | Community Environmental Health Officer |
| 5 | Uwingabiye Chlotte | Cyimbiri HC | Community Environmental Health Officer |
| 6 | Ufitinema Emertha | Karumbi HC | Community Environmental Health Officer |
| 7 | Musabyimana Xaverne | Kabona HC | Community Environmental Health Officer |
| 8 | Nizeyimana Bahizi Emmanuel | Mukura HC | Community Environmental Health Officer |
| 9 | Sinibagiwe Adrien | Kivumu HC | Community Environmental Health Officer |
| 10 | Mukaneretse Alphonsine | Musasa HC | Community Environmental Health Officer |
| 11 | Nsengiyumva Gregoire | Nyabirasi HC | Community Environmental Health Officer |
| 12 | Sebazungu Jonathan | Bitenga HC | Community Environmental Health Officer |
| 13 | Uwamahoro Eugene | Sigenyi DH | Environmental Health Officer |
| 14 | Rudahusha Dieu Donnee | Nyakiriba HC | Community Environmental Health Officer |
| 15 | Nyirasafari Gaudence | Kigufi HC | Community Environmental Health Officer |
| 16 | Kayitare Jean Paul | Gacuba HC | Community Environmental Health Officer |
| 17 | Ntacyarutimana Thomas | Busigari HC | Community Environmental Health Officer |
| 18 | Karinganire JMV | Bugeshi HC | Community Environmental Health Officer |
| 19 | Uwayisabye Veneranda | Murara hc | Community Environmental Health Officer |
| 20 | Kabatesi Christine | Karambo HC | Community Environmental Health Officer |
| 21 | Masengesho Irene | Nyundo HC | Community Environmental Health Officer |
| 22 | Harindintwari F Xavier | Congonil HC | Community Environmental Health Officer |
| 23 | Bagiyumugambi Joseph | Mushubati HC | Community Environmental Health Officer |
| 24 | Nkinzehiki Emmanuel | Kibingo HC | Community Environmental Health Officer |
| 25 | Mugarura Gabriel | Kabari CH | Community Environmental Health Officer |
| 26 | Nsekerabanzi Jackson | Busasamana HC | Community Environmental Health Officer |
| 27 | Kariwabo Felicien Passy | Gisenyi HC | Community Environmental Health Officer |
| 28 | Bizimungu Alain | Byahi HC | Environmental Health Officer |
| 29 | Sibomana Jean de Dieu | Rutsiro HC | Community Environmental Health Officer |
| 30 | Mutabazi Francois | Kinihira HC | Environmental Health Officer |
| 31 | Kwineza Esperance | Kayove HC | Community Environmental Health Officer |

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Meeting Info: Mute menu bar

Audio & Video Participant Meeting Help

Connected

Environmental & Social Baseline

rbc Rwanda Bureau of Standards

- COVID-19 National Preparedness and Response Plan
- Ports of Entry
 - 31 Ports of Entry (Stats available from Rwanda Directorate of Immigration and Emigration for Kigali International Airport and 32 ports of entry)
- Priority Communities from Integrated Disease Surveillance and Response System (IDSR)
 - Urban communities bordering DRC: Rusizi, Nyamashenge, Karongi, Rutsizi, Rubavu
 - Urban communities bordering Uganda: Nyabihu, Musanze, Buhara, Gicumbi and Nyagatare
 - Urban communities bordering Burundi/Nyanga and Bugesera bordering Burundi
 - City of Kigali districts of Gasabo, Kicukiro, and Nyarugenge
- Rwanda Healthcare System
 - Medical Waste Management Framework
 - Current Medical Waste Practices
 - COVID-19 Associated Waste Management (adapted from MWMP, 2020)
 - Waste management implementation arrangements
- Testing for COVID-19

Participants (70)

Chat

Evelyn Ag Director of Health 41 NDUWAMUNGU Jean Bosco DHSO Kicukiro from NISINGIZWE Made to everyone 3:14 AM
 Dr Emmanuel BYAMUKAMA/DG Kirinda DH
 NISINGIZWE ManiEHO kirinda DH attended within the Hospital

Unmute Start video Share

9:18 AM 10/16/2020

COVID-19 Incident Management & Coordination Structure

National Epidemic Preparedness & Response Coordination Committee (NEPRCC)

COVID-19 NATIONAL STEERING COMMITTEE

COVID-19 Task Force Coordination (ITFC)

Command Post

Expert Advisory Team

Epidemiology Ops Cell

Admin & Logistics Cell

Comms

Surveillance

Case Management & Infection Ctrl

Lab

Transport

Equipment & Materials

Infrastructure

Point of Entry Screening

Rapid Response Team

Infection Prevention & Control

Isolation and Treatment

Health Facility & Community Surveillance

Contact Tracing & Quarantine Follow-up

Data Management

Participants (72)

Unmute Start video Share

9:18 AM 10/16/2020

Photo Gallery Consultation/training of DHSOs, EHOs and C-EHOs 12-15 Oct 2020



XI. Consultations Attendance List for the Vaccine AF 15 April 2021

Participants (126)

| Initials | Name | Status |
|----------|----------------------|--------|
| I | Isaac Ma | 🔴 |
| DW | Dennis Wanyoni Isaac | 🔴 |
| MR | MCH1 Rwanda Cohort | 🔴 |
| MR | Moyo Rusid-E... | 🔴 |
| 1 | 1830152923 | 🔴 |
| 1 | 1839063303 | 🔴 |
| AK | Alex Kanyaga | 🔴 |
| AR | Aphonse Rutar... | 🔴 |
| AM | Aphonse Mu... | 🔴 |
| A | Amavuto@?1... | 🔴 |
| A | antaganwa65 | 🔴 |

Participants (125)

| Initials | Name | Status |
|----------|-------------------|--------|
| A | antaganwa65 | 🔴 |
| AD | Asoc Kiyonzi... | 🔴 |
| BR | Basha DES Rut... | 🔴 |
| BM | Bienvenu MUV... | 🔴 |
| BD | Butaro Dht/PH | 🔴 |
| BH | Butaro Hospital | 🔴 |
| CK | CBM Karingi | 🔴 |
| CH | CSDM @ Rewe... | 🔴 |
| D | Damasoane | 🔴 |
| DM | David Mugirane... | 🔴 |
| D | DEA | 🔴 |

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Denis Rugege

DR

DW DM ZP 1

Denis Rugege

Participants (125)

Search

- DEA
- DR Denis Rugege
- DK DES Kagaba
- DG DES Ngororo ...
- DH DG Kirehe Datri...
- DH DG Nyarugeng...
- DR DM/ Ruhango
- DD Dr AIME PATR...
- DE Dr Eddy
- DE Dr Emmanuel
- DN Dr Gerard Ntusi...

Zachée - PS/MOH

ZP

DW DR DM 1

Denis Wanzana [100] Denis Rugege Dr. Musingu Zachée - PS/MOH 1836152923

Participants (125)

Search

- DN Dr Gerard Ntusi...
- DH Dr Issa DG Gat...
- DT Dr Jamba theog...
- DM Dr Muhire
- DR Dr Ngabire N. P...
- DS Dr Nkundibiza s...
- DD Dr Nzambimana...
- DN Dr Placide NSH...
- DV Dr Violette
- DG Dr Biziro Gilbert
- DF Dr Fulgence

Kirenga Providence

KP

DW DM V ZP

Kirenga Providence

Participants (111)

Search

- E uzikama2020
- F Françoise
- FR française nyron...
- G Gafima
- GC BASANGANWA...
- GC GASASIRA Gas...
- G Gasegapedhe...
- G Gaston
- GJ GATARIQ Jooq...
- GE Gatera Eglise
- HB Habimana Jean...

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