

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK
FOR COVID-19 EMERGENCY RESPONSE AND
HEALTH SYSTEMS PREPAREDNESS PROJECT
MINISTRY OF HEALTH
THE ROYAL GOVERNMENT OF BHUTAN

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(FOR RESTRUCTURING)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK FOR COVID-19 EMERGENCY RESPONSE

Introduction

This *Environmental and Social Management Framework* (ESMF) assists the Royal Government of Bhutan (RGB) in identifying the type of environmental and social assessment that should be carried out for the Restructuring of COVID-19 Emergency Response and Health Systems Preparedness Project under the COVID-19 Strategic Preparedness and Response Program (SPRP) using the Multiphase Programmatic Approach (MPA), that involves enhancement of disease detection capacities through provision of technical expertise, laboratory equipment and systems; information and communication activities to raise awareness, knowledge and understanding among the general population; support the strengthening of the MoH structures and agencies for the coordination and management of the COVID-19 response, vaccination and a Contingent Emergency Response Component. This ESMF provides updated environmental and social due diligence associated with the proposed restructuring of the project.

For the Bhutan COVID-19 Emergency Response and Pandemic Preparedness Project, specific project locations and the specific sub-projects (including sub-project sites and design) are yet to be identified, hence a *framework approach* has been adopted through the development of this Environmental and Social Management Framework (ESMF). The *framework* for carrying out ES assessment of sub-projects to be implemented under the project has been prepared based on an *overall ES assessment* of the preliminary selected sub-projects areas. This Environmental and Social Management Framework (ESMF) is an integral part of the project E&S management instruments.

This ESMF has been updated based on the ESMF prepared for the parent project to cover all the relevant activities to be supported under the parent project and the restructuring, and to also incorporate the lessons learnt from the existing activities. The ESMF illustrates policies, procedures and directives on how to assess specific ES risks and provide guidance to mitigate them. The ESMF also provides guidelines for screening sub-projects for ES risks by the implementing agency. During implementation, site-specific ES assessments will be carried out in accordance with this ESMF and ESMPs will be prepared and implemented prior to the commencement of the specific works. The site-specific assessments will help adoption of mitigation measures against the ES risk and impacts (through preparation of ESMP, Template at

Annex III) and to address the issues of inclusion, social vulnerability of certain groups, gender and GBV, consultation and communication strategy and any other issues identified via the assessment and the stakeholder consultations.

The main purposes of this ESMF are to:

- Provide tools and guidelines for environmental and social (ES) risk categorization of all the sub-projects to be implemented under the project for which detail information are not available at this stage
- Set out the detailed procedures to be followed for various sub-project categories to assess and manage ES risks
- Consider in an integrated manner, the potential ES risks, benefits and impacts of the project and help identify measures to avoid, minimize and manage risks and impacts while enhancing benefits
- Ensure all relevant ES issues are mainstreamed into the design and implementation of the sub-projects
- Provide guidance for preparation of various Environmental and Social Framework (ESF) related instruments
- Provide guidance for ensuring stakeholder engagement at various stages of sub-project implementation.

Once details of the project sites/ subprojects are available at later stages of the project, the need for and type of ES assessments and management plans, will be reviewed, according to World Bank (WB) policies and Royal Government of Bhutan legislation.

Major Changes those have been made from the parent ESMF include revision of cost for different subcomponents, however total cost of the project remains unchanged. In addition to the existing parent project’s environmental risks exposure to a wide range of communities and disposal of vaccine related wastes will be added as new risks. Social risks are also likely to be augmented comparing to the parent project due to possibilities of inequity in access to vaccines. The significant changes incorporated from the parent project ESMF for restructuring are summarized below:

Para/page No.	Contents of Parent ESMF	Updated for Restructuring	Remarks
Project Description Subcomponent 1.1	Case Detection, Confirmation, Contact Tracing, Recording, Reporting: Original cost- US\$1.70 million;	Revised cost- US\$0.50 million.	Cost saving is due to technical assistance provided by other partners
Project Description Sub-component 1.2	Health System Strengthening Original Cost- US\$2.65 million	Revised cost- US\$1.85 million.	Cost saving is due to technical assistance provided by other partners

<p>Project Description Sub-component 1.3</p>	<p>New inclusion</p>	<p>New sub-component-estimated cost US\$2 million</p>	<p>COVID-19 vaccination, cold chain facilities, other goods, services and operating costs.</p>
<p>Key Env Risks</p>	<p>Proper management, transportation, and disposal the medical waste generated by the vaccination</p>	<p>In addition to parent project’s risk, there will be a risk of exposure to a wide range of potentially affected communities and individuals (health care workers, professional and civic community). Disposal of vaccine related wastes from syringe, vials, used medical supplies, vaccine Cold storage facilities, etc. Also there are risks associated with occupational health and safety (OHS) of healthcare personnel and life and fire safety concerns in COVID-19 designated health facilities supported with oxygen generation plants.</p>	
<p>Key Social Risk</p>		<p>In addition to parent project’s risk, there will be a risk of inequity in access to vaccines.</p> <p>Increased incidence of reprisals and retaliation against healthcare workers and researchers.</p>	

ESMF Outline

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1. Background

Bhutan reported its **first confirmed COVID-19** (coronavirus) case on **06 March 2020**. Given the importance of COVID-19 and the potential difficulties in preventing and controlling both spread of this outbreak and the economic and social impact on the population, the Royal Government of Bhutan (RBOB) is aware of the urgent need to mount an effective and immediate response to COVID-19. As a first step, a National Preparedness and Response Plan (NPRP) for COVID-19 was developed on January 21, 2020 by the Ministry of Health. The objective of NPRP is to enhance the health sector's capacity to enhance surveillance, detect, control and prevent, respond, investigate and recover from COVID-19 outbreak in the country.

As of **January 25**, the total number of **reported cases** in Bhutan is **3811**, out of which **2,654** have been fully recovered, **1154 are active cases** and **three death cases**. Bhutan also experienced the third wave of COVID-19 beginning April 2021 with delta variants of COVID-19. The peak has been reached and the present trend is declining. However, as the new Omicron coronavirus variant kept spreading around the world from late November, with cases detected in Australia, UK, South Africa, Botswana and when some countries tried to seal themselves off by imposing travel restrictions. However, it might become a great concern in near future.

Due to extensive research conducted globally a breakthrough has taken place in the state of science through the emergence of new therapies and several COVID-19 vaccines. With this development vaccination campaign started in different countries. Bhutan initiated the first dose of the COVID-19 vaccination campaign on 27 March, 2021 with Covishield doses received from India. So far Bhutan has **vaccinated more than 96% of adult population** with 1st dose and 91% with 2nd dose of COVID-19 vaccines. The country intends to buy appropriate vaccines to fully vaccinate eligible children 12-17 years of age. Approximately 64 percent of the total population has been fully vaccinated against COVID-19, and 11 percent have been partially vaccinated as per the latest report.

A restructuring of the original project has been proposed to support the revised activities of Bhutan CERHSP under the COVID-19 Strategic Preparedness and Response Program (SPRP). The primary objective of the Restructuring is to enable affordable and equitable access to COVID-19 vaccines and help ensure effective vaccine deployment in Bhutan through vaccination system strengthening, and to further strengthen preparedness and response activities

under the parent project. The purpose of the proposed restructuring is to help the Royal Government of Bhutan (RGOB) purchase and deploy safe and effective COVID-19 vaccines that meet the World Bank's Vaccine Approval Criteria (VAC), strengthen relevant health systems that are necessary for a successful deployment, and to prepare for the future.

The Project Development Objective (PDO) is *to prevent, detect and respond to the threat posed by COVID-19 and to strengthen national systems for public health preparedness in Bhutan*. The project will i) support enhancement of disease detection capacities through provision of technical expertise and laboratory equipment, ii) assist health care system for preparedness planning to provide optimal medical care, provide affordable and equitable access to vaccination, maintain essential community services and to minimize risks for patients and health personnel, iii) support information and communication activities to raise awareness, knowledge and understanding among the general population about the risk and potential impact of the pandemic and iv) support the strengthening of the MoH structures and agencies for the coordination and management of the COVID-19 response. This project is prepared under the global framework of the World Bank COVID-19 Response financed under the Fast Track COVID-19 Facility (FCTF).

2. Project Description

After restructuring the Project will have the following **four** components:

Component 1: Emergency COVID-19 Response (Original cost-US\$4.35 million; Revised cost-unchanged): This component provides immediate support to Bhutan to prevent COVID-19 for limiting local transmission through containment strategies.

- Subcomponent 1.1: Case Detection, Confirmation, Contact Tracing, Recording, Reporting (Original cost-US\$1.70 million; Revised cost-US\$0.50 million). This sub-component would help (i) strengthen disease surveillance systems, public health laboratories, and epidemiological capacity for early detection and confirmation of cases; (ii) combine detection of new cases with active contact tracing; (iii) support epidemiological investigation; (iv) strengthen risk assessment, and (v) provide on-time data and information for guiding decision-making and response and mitigation activities. Due to technical assistance provided through other partners, there is cost saving under this component.
- Sub-component 1.2: Health System Strengthening (Original Cost- US\$2.65 million; Revised cost- US\$1.85 million). Assistance was provided to the health care system for preparedness planning to provide optimal medical care, maintain essential community 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. Due to technical assistance provided through other partners, there is cost saving under this component.
- Sub-component 1.3: COVID-19 vaccination: (New sub-component- estimated cost US\$2 million). This is a new sub-component added to support the COVID-19 vaccination, including, inter alia, purchase, delivery and distribution of the Project

COVID-19 Vaccines, cold chain facilities, other goods, services and operating costs necessary for safe immunization service delivery.

Component 2: Community Engagement and Risk Communication (Original cost-US\$0.4 million; Revised cost unchanged) This component will continue to support information and communication activities to raise awareness, knowledge and understanding among the general population about the risk and potential impact of the pandemic., including social distancing measures, health promotion, social mobilization, stakeholder engagement and community engagement, as well as vaccine deployment and address vaccine hesitancy.

Component 3: Implementation Management and Monitoring and Evaluation (**Original cost-US\$0.25 million; Revised Cost- Unchanged**). This component will continue to support the strengthening of the MOH structures and agencies for the coordination and management of the COVID-19 response, including coordination of project activities, financial management, procurement, and E&S management. This component would also support monitoring and evaluation of prevention and preparedness, building capacity for clinical and public health research and joint learning across and within countries.

Component 4: Contingency Emergency Response Component (CERC) (US\$0). This component will provide immediate response to an eligible crisis or health emergency.

Bhutan started vaccination campaign using the existing HCF and within 16 days, Bhutan vaccinated nearly 93 per cent of the eligible population. The second dose COVID-19 vaccination campaign was rolled out on 20th July 2021 and ended on 26th July 2021. The vaccines available were AstraZeneca, Moderna and Sinopharm. The vaccines were flown to eight districts by helicopter service to reach remote communities. Refrigerated trucks were used to transport vaccines to other regions. Home-based vaccination services were provided for people with reduced mobility, such as people with visual disabilities and the elderly.

No public or private facilities such as churches, mosques, community centers will be used for **vaccination purposes**. No permanent or temporary land acquisition, involuntary resettlement or restrictions on land use will be carried out for purposes of the project.

An effective communication and outreach campaign being designed to encourage participation, ensure inclusion and strengthen outreach to those who meet the priority vaccination criteria but live in hard-to-reach areas or isolated.

Project will utilize existing waste management systems for restructuring activities. The Project financing will mainly be used for purchasing vaccines including, inter alia delivery and distribution

of the COVID-19 Vaccines, cold chain facilities, other goods, services and operating costs necessary for safe immunization service delivery.

Like the parent project, the key environmental risks are related to proper management, transport and disposal of medical waste generated by COVID-19 response measures, including the vaccination campaign. In addition, there is a risk of exposure to COVID-19 for a range of communities and individuals, including frontline health care workers and others involved in the vaccination campaign. The environmental risks, therefore, are considered Substantial. The social risk is also anticipated to be substantial because in addition to the existing risk of the parent project activities there could be broader social risk of inequity in access to vaccines, such as due to political pressures to provide vaccines to groups that are not prioritized due to need or vulnerability or should target groups be misaligned with available vaccines. This includes possible exclusion of population groups based on gender, race, ethnicity, refugee status, religion, or others.

While use of military or security personnel (Security Personnel) is not anticipated, in the event that they do need to be engaged in Project activities, measures as agreed in the ESCP shall be adopted to ensure that the engagement of Security Personnel in the implementation of Project activities is carried out in accordance with the ESSs.

Eligibility criteria for exclusion of subprojects have been set out as follows:

- Activities that may cause long term, permanent and/or irreversible adverse environmental or social impacts;
- Activities that may involve permanent/temporary resettlement or land acquisition or adverse impacts on IPs and cultural heritage.

During the project implementation, the project implementation agency will be responsible for environmental and social risk screening and its risk classification for each subproject. Screening Form for Potential Environmental and Social Issues (Annex 2) of this ESMF sets out a list of questions on the screening of ES risks and impacts, identifies the relevant ESSs and the type of assessments and management tools that can be developed.

3. Policy, Legal and Regulatory Framework

World Banks' ESFs and all national laws, acts, regulations and guidelines of the Royal Government of Bhutan will govern the implementation of the project-related infrastructure and procurement works. Various legal and regulatory requirements of both the Royal Government of Bhutan and WB toward health, communicable diseases, labor, environment, waste management, women etc to address the risk and impact of recent COVID-19 outbreak have been studied and salient features are described below. Relevant Bhutan Policies and Laws:

Sustainable development is enshrined in the government's National Environment Strategy for Bhutan 1998, which aims to maintain a balance between environment and development. The Environmental Assessment Act 2000, which requires that all environmental concerns are fully considered prior to the formulation of new projects and it establishes procedures for assessing the potential impacts of plans, policies, programs, and projects. The act mandates that an environmental clearance from a competent authority should be conducted as a pre-requisite for a project.

The environmental clearance procedure is described in the Regulation for the Environmental Clearance of Projects (2016), and specific guidance is given in a series of sectoral guidelines, prepared in 1999 and revised with ADB assistance in 2006. According to the Environment Assessment Act, the proponent is required to submit an environmental clearance application to a designated competent authority wherein all environmental concerns are fully considered and documented.

When developmental projects are in the Thromde (municipality), the project is governed by the Thromde Act of Bhutan (2007), and the Thromde Rules (2011) and the designated competent agency to grant development and environment clearance is the Thromde. Where development projects such as construction of Basic Health Units (BHU) in rural areas or where small improvement works within rural health care facilities (HCFs) are proposed, the designated competent authority is the district environmental officer and must abide by Rural Construction Rules (2013) for the Ministry of Works and Human Settlement (MWHS).

All construction works within Thimphu city limits must be in line with the Thimphu Structural Plan (2004), Thimphu Municipal Development Control Regulations (2004), and the Bhutan Building Rules (2002), which apply to all urban areas. In rural areas, Rural Construction Rules (2013) apply. These rules dictate the maximum plot sizes and maximum building heights so that aesthetic as well as environmental impacts on neighboring areas are minimized. The MWHS has released the Bhutan Green Building Design Guidelines in 2013 which provides guidance to architects, engineers, and builders on practical green building design and construction principles and solutions that can be adopted in Bhutan. It promotes the use of low energy local construction methods and natural resources coupled with designs that was adapted to respond to local climatic environment combined with vernacular architecture in Bhutan. The National Health Policy (2011) provides guidance to the Ministry of Health (MOH) to achieve its national and international health goals as guided by the constitution. The design and minimum requirements for the satellite clinics is guided by the Bhutan Services Standards (2009) for BHUs and satellite clinics. Other relevant regulations and standards are the Water Regulation of Bhutan (2014) and the Environmental Standards (2010) that regulate the water and ambient air quality standard.

Under the Thromde Act and Rules, development applications are categorized as major, and those that can be routed through the green channel or those considered as development priority considered as minor. Where development work is undertaken on behalf of the government, by a government agency, the construction clearance for the project can be processed through the "priority channel". Through this channel, the construction approval is granted within 5 working days (excluding the time taken to seek clearance from the Bhutan Power Corporation for electrical connections) of submission of all the required architectural, structural, electrical, and water supply

and sanitation drawings. All government works are guided by the Procurement Rules and Regulations (2009), and therefore procurement of all equipment and construction works will follow government standard bidding processes.

As per the Disaster Management Act of Bhutan (2013) to reduce the risks from disaster, the Department of Disaster Management has prepared Dzongkhag Disaster Management Planning Guidelines to guide the Dzongkhags, through the Dzongkhag Disaster Management Committees, to develop and implement a Dzongkhag Contingency Plan. Most Dzongkhags are now undertaking the planning process that includes hazard mapping to identify the most hazard-prone areas of the Dzongkhag so that future development, interventions, and risk mitigation measures can be planned accordingly. A national health emergency and disaster contingency plan has been developed to respond to public health emergencies and disease outbreak. A Health Emergency Operation Centre has been established to ensure effective communication and coordination for emergency response and disaster management.

Bhutan has several acts and rules related to waste management such as the Waste Prevention and Management Act of Bhutan (2009) and Waste Prevention and Management Regulation (2012) that promote the principles of 3Rs (reduce, reuse, and recycle). The act and regulation discuss waste reduction at the source; promoting segregation, reduction, recycling, and disposal of waste in an environmentally sound manner. The act is enforced through the Waste Prevention and Management Guideline (2012). The National Environment Commission Secretariat (NECS) is responsible for implementing the provisions outlined in the act and the guidelines. According to these guidelines, medical waste is categorized into general, pathological, infectious, sharps, pharmaceutical, chemical, radioactive waste, and pressurized containers.

There are guidelines on pharmaceutical waste issued by the Drug Regulatory Authority (DRA) and endorsed by the National Environment Commission (NEC). The guidelines outline the process for collection, segregation, transportation, storage, disposal, and recording of pharmaceutical waste from HCFs as well as private pharmacies. Further, as per the Bhutan Medicines Rules and Regulations (2012), the firms are mandated to segregate and record the quantity of waste generated from the firm and store them separately until disposal. The sale and distribution of expired medicines is prohibited by the Medicine Act (2003). Since not much waste is generated from the private pharmacies, disposal is only carried out once a year. Non-hazardous waste is managed at individual health facility level and hazardous waste is sent to the medical store in Phuentsholing for disposal. The DRA has a memorandum of understanding with the Penden Cement Authority in Gomtu to be able to incinerate hazardous pharmaceutical waste. In 2004, the MOH set up the National Infection Control and Healthcare Waste Management Program (NICHWMP) to address the need for efficient infection control and waste management as well as build the capacity of the health workers to prevent hospital-acquired infections (HAIs). Each HCF is required to send quarterly and annual compliance reports to the MOH and the MOH in turn is responsible for reporting to the NECS. The responsibility in the MOH for waste management is as follows:

- (i) At the national level, the high-level committee provides technical guidance to the NICHWMP.
- (ii) At regional referral hospitals, there is an infection control team who implement infection control and waste management practices.
- (iii) At the hospitals, there is a committee who implement infection control and waste management practices.

(iv) At the primary level, each BHU has a health worker who is an infection focal person and is responsible for infection control and waste management practices.

The Waste Prevention and Management Act of Bhutan (2009) and Chapter IV of the Waste Prevention and Management Regulations (2012) indicates that the municipal authority is responsible for waste management, transport, and disposal at designated sites and for developing public–private partnerships for waste management. Dumping of any kind of waste is punishable by law, all waste needs to be approved by the Environmental Division of the Thromde who will identify the appropriate disposal site in consultation. The Dzongkhag Tshogdue and Thromde Tshogdu are responsible for waste management in district towns and Dzongkhag. They review and approve waste management facilities, landfill locations, and approve collection of waste management services.

There are guidelines on Infection Control and Health Care Waste Management as well as Guideline for Disposal of Pharmaceutical Waste (2014), produced by the DRA, outlines the process for segregation, transportation, storage, disposal, and recording of pharmaceutical waste. The National Guideline on Infection Prevention and Control and Medical Waste Management for Healthcare Facilities (MOH, 2017) outlines the types of waste that can be disposed of in the deep burial pit as well as the type of treatment method required prior to disposal such as autoclaving/ chemical disinfection for solid hazardous waste, and autoclaving and shredding for sharps. The guidelines also outline the standards for deep burial pits construction such as minimum distance, siting, depth, and width, which are included in the environmental management plan (EMP).

WB Environment and Social Framework and Standards (ESF/ESS). Since October 01, 2018, all WB funded Investment Project Financing (IPF) are required to follow the Environmental and Social Framework (ESF) consisting ten (10) Environmental and Social Standards (ESS). These ESSs set out their requirement for the borrowers relating to the identification and assessment of ES risks and impacts associated with any project. A brief description of the ten (10) ESSs including their relations with the project are appended below:

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

ESS1 clarifies the borrower’s responsibilities in identifying and managing the ES risks of the project. The project will provide health services in response to the global COVID-19 outbreak. Given the nature of how the disease spreads and the medical requirement and resources needed to address the issue, the health-care workers, the community members and the environment are likely to be exposed to health risks from medical, solid and liquid wastes generated from the health facilities (if not properly treated and managed) which is expected due to be increased due to expansion of inoculation sites and the interaction among the potential COVID-19 cases and general public. This ESS illustrates the various ES instruments that will be prepared to address the issues of ES risks and impacts.

ESS10 Stakeholder Engagement and Information Disclosure

This ESS illustrates the need and ways stakeholders will be engaged throughout project preparation and implementation. Ministry of Health (MoH) will engage in meaningful consultations with all

stakeholders throughout the project lifecycle, paying special attention to the inclusion of women and vulnerable and disadvantaged groups. The project will address the issue of containment and treatment of COVID-19 which is very infectious, face to face communication and meeting/ gathering/ conferring in a closed place with a significant number of individuals will be avoided. The project implementation will ensure appropriate stakeholder engagement, proper awareness raising and timely information dissemination. This will help: (i) avoid conflicts resulting from false rumors; (ii) ensure equitable access to services for all who need it. The Stakeholder Engagement Plan (SEP) is updated to address issues discussed under this ESS.

ESS2 Labor and Working Conditions

This ESS deals with labor related issues. The healthcare providers, staff and relevant workers, those treat coronavirus patients in the hospital are among the most important individuals in the fight against this virus and they may be gotten hit hardest by the virus. Given the nature of the outbreak, safety of healthcare workers is utmost important, and for the greater interest community. The project will include minor repair and renovation work in health facilities, which will require employment of local labor and their number is not expected to be significant. A Labor Management Procedure (LMP) has been prepared which includes types and number of workers, legal frameworks, nature of their assignment, OHS issues, Grievance Redress Mechanism (GRM) etc.

ESS3 Resource Efficiency and Pollution Prevention and Management

The project is likely to generate a significant amount of medical, solid and liquid wastes. These may affect the health of care givers, local communities and the environment. In line with the guidance of this ESS an Infection Control and Waste Management Plan (ICWMP), (including medical, solid and liquid waste management) will be prepared, per template in Annex IV, to assess and manage waste of different kinds (solid, liquid, medical, hazardous and nonhazardous). The plan will include separation of different kinds of waste, treatment, reuse, recycle and transportation, storage and final disposal of wastes in approved sites/ through incineration/ other methods as per ESS 3 and related ESHGs, GIIP, WHO guidelines and national law.

ESS4 Community Health and Safety

This ESS illustrates the need and requirement for community health and safety issues. Project activities under this project may give rise to a number of risks for community health and safety. The project would support the provision of health services to deter the COVID-19 outbreak through various health facilities. The project will generate both non-hazardous and hazardous waste throughout the renovation and provision of medical service phases. All waste management activities will be guided by this ESS. The Infection Control and Waste Management Plan (ICWMP) will address minimizing exposure to medical waste to the community. Community awareness raising activities and preparedness will be addressed through the Stakeholder Engagement Plan (SEP). The life, fire and other safety standards for in use, storage and handling of therapeutic oxygen in hospital facilities in the treatment of COVID-19 will also be considered in line with WBG EHS guidelines.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Land acquisition and resettlement are guided by this ESS. In this project, no land acquisition is envisaged since civil work involved will be refurbishment and rehabilitation of healthcare facilities which will take place within the existing premises/footprints.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This ESS is about risks and impacts of project activities on biodiversity and living natural resources. The project is not likely to adversely affect any biodiversity or living natural resources.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

Issues related to indigenous peoples is guided by this ESS. Given the width and breadth of the potential beneficiaries and reach of the project, indigenous peoples present in various locations of the country will come under the umbrella of the project components. No specific direct negative impacts on indigenous peoples are envisaged, and all relevant steps will be taken to communicate COVID-19 related information to these communities in a culturally appropriate manner, taking into consideration their special circumstances and potential for being excluded. The consultation is a two-way process, that:

- (a) Begins early in the project planning process to gather initial views on the project proposal and inform project design;
- (b) Encourages stakeholder feedback, particularly as a way of informing project design and engagement by stakeholders in the identification and mitigation of environmental and social risks and impacts;
- (c) Continues on an ongoing basis, as risks and impacts arise;
- (d) Is based on the prior disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information in a timeframe that enables meaningful consultations with stakeholders in a culturally appropriate format, in relevant local language(s) and is understandable to stakeholders;
- (e) Considers and responds to feedback;
- (f) Supports active and inclusive engagement with project-affected parties;
- (g) Is free of external manipulation, interference, coercion, discrimination, and intimidation; and
- (h) Is documented and disclosed by the Borrower.

ESS8 Cultural Heritage

This project is unlikely to adversely affect any cultural heritage.

ESS9 Financial Intermediaries

The proposed project will not involve any financial intermediaries.

Environment, Health and Safety Guidelines (EHSG). The EHSG are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP) and are referred to in the ESF. The EHSG contain the performance levels and measures that are normally acceptable to the World Bank Group (WBG), and that are generally considered to be achievable in new facilities at reasonable costs by existing technology. The WBG requires borrowers to apply the relevant levels or measures of the EHSG. When host country regulations differ from the levels and measures presented in the EHSG, projects will be required to achieve whichever is more stringent. In the case of the present Project the General EHSG will apply. The Implementing Agency (IA) will pay particular attention to EHS 1.5 Hazardous Materials Management; EHS 2.5 Biological Hazards; EHS 2.7 Personal Protective Equipment (PPE); EHS 2.8 Special Hazard Environments; EHS 3.5 Transportation of Hazardous Materials; and EHS 3.6

Disease Prevention. A separate EHS on Health Care Facilities will also apply to this Project intervention. It illustrates waste management, air quality and wastewater disposal guidelines related to HCFs.

International Treaties and Conventions. Bhutan is also a signatory to a number of International Conventions and Treaties including Basel Convention for hazardous wastes and disposal.

World Health Organization (WHO) Guidance:-The WHO is maintaining a website specific to the COVID-19 pandemic with up-to-date country and technical guidance. 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, (ix) surveillance of adverse events following immunization. Additional guidance is listed below in Annex V. In addition, technical guidance notes for health workers and other personnel on the safety and mitigation measures that need to be adhered to when dealing with medical oxygen have been prepared by WHO. Medical oxygen, either in liquid or gas form, is an oxidizing agent that can result in a fire or explosion if not handled properly. Based on these guidelines the MoH may adopt i) Oxygen cylinder safety ii) Oxygen risk management guidance for participating MoH agencies for establishing L&FS risk management procedures in place.

4. Environmental and Social Baseline

Background. Bhutan has a strong immunization structure, even amid the pandemic Bhutan managed to continue providing routine immunization services to ensure the health of mothers and children across the country. The country achieved an immunization coverage above 95 percent whereas 37% countries reported disruption on immunization globally. Bhutan's current routine immunization schedule protects children against 13 diseases.

With the outbreak of pandemic NPRP for COVID-19 was developed by the Ministry of Health. The objective of NPRP is to enhance the health sector's capacity to enhance surveillance, detect, control and prevent, respond, investigate and recover from COVID-19 outbreak in the country. As of December 16, the total number of reported cases in Bhutan is 2652, out of which 2,630 have been fully recovered, 19 are active cases and three death cases. With the help from friendly countries Bhutan initiated the COVID-19 vaccination campaign on 27 March, 2021 and so far, more than 96% of adult population received 1st dose and 91% 2nd dose.

Health Service. Health services in the country are available through a three-tier structure: (i) basic health units (BHUs), sub-posts and outreach clinics (ORCs) at the primary level; (ii) district or general hospitals at the secondary level; and (iii) regional and national referral hospitals at the

tertiary level. Traditional and allopathic medicine services are fully integrated and delivered under one roof. At the grassroots level, village health workers (VHWs) play a key role in health promotion and act as a bridge between health services and the community.

Waste Management.

Bhutan's healthcare system has been expanding progressively with increase in the number of health infrastructures. The increase in these facilities has led to a steady rise in the quantity of health care wastes. At present, there are 29 Hospitals, 01 NRH, 24 BHU1s, 184 BHUs, 28 sub post and 494 ORCs in the country. (Annual Health Bulletin, 2016).

In Bhutan, as per the Annual Medical Waste Report (Ministry of Health, 2017-18) 602 tons of Medical waste is generated by the above stated health facilities. And it is expected to increase over the years due to the increased no. of health care infrastructure and range of health care services. Within this volume of waste, 60% is general waste and 40% is infectious. There is currently very limited knowledge about healthcare waste management among health staff and waste handlers in Bhutan, leading to unsafe practices. As mentioned earlier, the healthcare waste management guidelines are present but there are challenges at the implementation level in the health system which lacks human and technical resources.

So far approximately 178 tonnes of COVID-19 waste (PPEs, food wastes and packages) were accounted for throughout the country and were disposed off as per the established standard procedures of National Guideline on Infection Control and Medical Waste Management for waste management.

The overall picture of waste management is as follows:

- **General waste is segregated at source:** Few hospitals recycle the waste (3 RRH, Samtse, Phuntsholing hospitals), some are burnt and some are dumped in the municipal land fill
- **Infectious waste** is autoclaved in a few hospitals where waste autoclave are available, however in most cases they are dipped in chlorine solution and dumped in the municipal land fill
- **Sharps** are disposed in the yellow box and when it is two-third full, it is thrown in the deep burial pit wherever available
- **Placenta** are disposed in deep burial pits
- **Pharmaceutical waste:** Expired Hazardous waste are burnt at Gomtu Cement factory currently whereas non- hazardous pharmaceutical wastes are disposed in the sewerage system.

The main challenges related to medical waste management are:

- Lack of waste burial pits in healthcare facilities
- Shortage of resources and supplies (PPEs, supply of disinfection agents, autoclaves etc)
- Shortage of color-coded containers and storage areas for wastes.
- Irregular collection schedules of municipal waste collection vehicles
- Lack of digital weighing scales in healthcare facilities which deters appropriate record-keeping of waste generated
- Lack of practice of segregation at source.

- Lack of training of healthcare professionals handling medical waste.
- Lack of manpower

Testing for COVID-19. Under the parent project Bhutan uses the Real Time-PCR as a diagnostic test for testing of SARS-CoV-2 as recommended by WHO and Technical Advisory Group (TAG) for COVID-19 of the Ministry of Health. Bhutan currently has three designated testing centers at RCDC (Thimphu), Eastern Regional Referral Hospital (Mongar) and Phuentsholing General Hospital (Chukha). In addition to the molecular test, Bhutan is also using rapid test kits for COVID-19 for screening high-risk individuals and communities. All positive rapid test results are being further sent for molecular tests for confirmation. The samples of all COVID-19 suspected cases are being mandatorily collected in the flu clinics or at hospitals. Case investigation forms are also filled up. These samples along with the form are then sent to the nearest testing centers for confirmatory tests and further investigation. All these are being guided by the COVID-19 Testing Strategy and COVID-19 Integrated Influenza Surveillance Guideline.

Social:-Life expectancy of Bhutan population at birth is 71.12/71.81 (m/f). Total expenditure on health per capita is USD 290.42 and as a percentage of GDP is 3.19. There are an estimated 4.24 physicians per 10,000 population and 18.52 nurses per 10,000 population (estimates based on World Bank Data). Out of pocket expenditures stand at 13.30% of current health expenditure. There are 17 hospital beds per 10,000 people that comes from 32 hospitals and 208 Basic Health Units (BHU).

Vulnerable/Disadvantaged People

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. The vulnerability may stem from person's origin, gender, age, health condition, economic deficiency and financial insecurity, disadvantaged status in the community (e.g., minorities or fringe groups), dependence on other individuals or natural resources, etc. In this regard [World Bank Directive: Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups](#) and the [WHO Framework for Allocation and Prioritization of COVID-19 Vaccination](#) may be referred. The Framework lists the following potential disadvantaged and vulnerable groups in the case of COVID-19:

- People living in poverty, especially extreme poverty
- Homeless people and those living in informal settlements or urban slums
- Disadvantaged or persecuted ethnic, racial, gender, and religious groups, and sexual minorities and people living with disabilities

- Low-income migrant workers, refugees, internally displaced persons, asylum seekers, populations in conflict setting or those affected by humanitarian emergencies, vulnerable migrants in irregular situations, nomadic populations
- Hard to reach population groups.
- Older adults defined by age-based risk
- Older adults in high risk living situations (examples: long term care facility, those unable to physically distance)
- Groups with comorbidities or health states (e.g. pregnancy/lactation) determined to be at significantly higher risk of severe disease or death
- Sociodemographic groups at disproportionately higher risk of severe disease or death
- Social groups unable to physically distance (examples: geographically remote clustered populations, detention facilities, dormitories, military personnel living in tight quarters, refugee camps)
- Groups living in dense urban neighborhoods
- Groups living in multigenerational households.

Bhutan will use its existing Expanded program of Immunization (EPI) units with additional staffs to deliver the COVID- 19 vaccination which is already proven effective to complete vaccination of 61.8 percent of the total population received from friendly countries. MOH used helicopter and refrigerated trucks to send vaccines to remote communities. Besides, home-based vaccination services were provided for people with reduced mobility, people with visual disabilities and the elderly. The District Health Sectors focuses on educating people in remote areas and underprivileged communities. In addition, the Risk Communication Team of the Ministry of Health uses community radio stations to broadcast radio spots. These radio stations are located in remote communities that also have ethnic minorities. Video clips and voice messages on the multilingual COVID-19 norms and protocols were shared via WeChat and WhatsApp media. The information on the registration for vaccination is shared through multilingual radio points. To reach to all communities the RCCE materials were developed into four different languages (Dzongkha, Tsangla, Lhotsampkha and English).

Vaccination for disadvantaged and vulnerable groups

No specific direct negative impacts on small ethnic communities are envisaged. Interaction with the small ethnic minorities to share information on the benefits of vaccination through community engagement will be done in a culturally appropriate manner and using virtual platforms — respecting the tradition and social environment the ethnic communities might be living under. Targeted and culturally appropriate free, prior and informed consultation will be conducted for any vaccination campaigns where ethnic communities are beneficiaries. If screening confirms IPP is required, IPP will be prepared prior to the commencement of any Project activities affecting small ethnic communities (meeting the criteria of ESS7). There will neither be any forced vaccination nor mandatory vaccination. The program will be completely voluntary. However so far, no barrier has been identified in preventing these group to receive vaccination. In the completed vaccination program, there is no report of deprivation of these vulnerable groups.

Assessment of implementation challenges and lessons learned from the parent project: The parent project's progress towards achievement of the PDO and overall implementation progress is rated satisfactory and the project continues to make good progress. The RGOB has strengthened surveillance capacities and mobilized case investigation and contact tracing teams in all 20 districts. All hospitals and primary health centers were provided with Personal Protective Equipment (PPE) and other COVID- 19 commodities, test kits and equipment. ICUs were prepared in four COVID centers with 54 beds to manage COVID-19 patients needing critical care. Lab capacities for COVID-19 testing were strengthened. Risk communication is being carried out through various channels including media, broadcasting via radio, TV, website information, and placement of print materials at strategic locations. Specifically, 145 different types of awareness campaigns have been launched; 98 different types of video spots and infographic videos were produced and disseminated, and 47 different types of posters, pamphlets, and travel advisories were printed and disseminated. Bhutan has vaccinated more than 96% of adult population with 1st dose and 91% with 2nd dose of COVID-19 vaccines. Adult vaccination was achieved mainly through vaccines received from donations and through COVAX.

5. Potential Environmental and Social Risks and Mitigation

Environmental Risks Similar to the parent project the key environmental risks will spin around properly managing, transporting, and disposing the medical waste generated by the vaccination. In addition, there will be a risk of exposure to a wide range of potentially affected communities

and individuals, starting with medical and health care workers, and extending from there to a wide range of professional and civic community. Vaccines must be continuously stored in a limited temperature range and distributed to local cold storage facilities by refrigerated vehicle.

The core environmental risks are: (i) the occupational health and safety (OHS) issues related to testing and handling of supplies and the possibility that they are not safely used by laboratory technicians and medical crews; (ii) medical waste management and community health and safety issues related to the handling, transportation, and disposal of healthcare waste. The vaccination will generate medical wastes that may include syringe, vials, used medical supplies, masks, and used PPEs, various disinfectant chemicals etc. If not treated, stored, disposed in adherence to GIIP, these may have impact on human health and on the surrounding environment. As the vaccination will cover the whole nation, it is expected that the volume of waste will grow substantially with time and generation of wastes will be from multiple locations/ vaccination sites, Based on the existing procedure for routine vaccination, each health facility will follow the same procedure for disposal of safety box like as incineration, pit burn etc. and (iii) minor/moderate scale construction impacts related to air, water, noise emissions and waste. The ES screening will be required for civil works to evaluate if sub-project activities require specific environmental assessment and necessary ESMP prepared/updated as per screening. The Environmental risk is rated Substantial. This proposed risk classification will be reviewed on a regular basis and changed (if necessary).

Life and fire Safety (L&FS) Risk associated to activities involving oxygen therapy (e.g. concentration, cylinders transport, and supply) specially when near or around open fires, including enhancement of PSA plants are considered in the updated ESMF. These could be effectively managed by providing training/capacity building to workers/users/health care professionals, provision and use of appropriate PPEs, implementation of good international L&FS practices especially around oxygen therapy related activities and open fires near or around hospital and health care centers, emergency response, safe transport and storage of materials and waste management following of hygiene practices and protocols suggested by product manufacturers. In order to manage life and fire safety (L&FS) risk, the hospitals and other healthcare facilities must update their fire safety measures and ensure that all medical gas, PSA plants, and vacuum system zone valves are (i) functional; (ii) have appropriate access restrictions / controls; (iii) are correctly labeled; and (iv) are included in a routine inspection / maintenance program. Hospitals and other healthcare facilities must confirm that building designs comply with earthquake specifications, fire escapes, and other fire prevention requirements, have proper smoke exhaust and detectors, drainage, etc. as required in the National Building Code of India (NBC-2016) Part – IV “Fire & Life Safety” and international best practices, as references. The hospitals must maintain a plan to deal with fire emergencies, including evacuation protocols, operation of medical gas, oxygen, and vacuum system zone valves, and incident reporting root cause analysis and corrective actions and audit. Given the expected increase in storage and handling of oxygen cylinders and proposed PSA plants enhancement, staff shall be trained in the safe handling of oxygen. Similarly, all hospital staff will be trained on the emergency response plans, and evacuation drills will take place periodically, including a well-defined protocol allowing availability of emergency supplies for patient during evacuation or relocation, especially for the elderly, vulnerable patients, and/or those connected to life support equipment.

Social Risk: In addition to the existing risk of the parent project key social risk due to project activities could be risk of inequity in access to vaccines, such as due to political pressures to provide vaccines to groups that are not prioritized due to need or vulnerability or should target groups be misaligned with available vaccines. This comprises possible exclusion of population groups based on gender, race, ethnicity, refugee status, religion, or others.

Another potential risk is the increased incidence of reprisals and retaliation especially against healthcare workers and researchers. The social risk is also envisaged to be substantial.

PLANNING AND DESIGN STAGE

Key ES issues that should be considered at the planning and design stage may include the following features of the subproject:

- **Procurement of goods and supplies:** For vaccine storage, distribution and transport across the country, safety measures and protocols as per WHO guidelines and GIIP should be followed. Any risks related to improper storage of vaccines needs to be identified and addressed. Cold chain equipment should pre-qualified by WHO for performance, quality and safety (PQS).
- **Location, type and scale** of healthcare facilities and associated waste management facilities, including waste transport routes.
 - **Location of facilities:** In addition to normal considerations regarding proximity to sensitive areas such as a cultural heritage/religious site or a nature reserve, the environmental and social assessment should examine nearby sensitive social receptors such as a residential area or school and availability of municipal services such as public water supply, sewage and waste collection services at the location.
 - **Type and scale of facilities:** ES assessment should identify and examine the salient characteristics and carrying/disposal capacity of a targeted facility. The assessment should consider the waste processing and transportation arrangements, operational procedures and working practices, and the required capacity of the type of disposal facility needed for the volume of the wastes generated. For example: a general hospital, a high-level biosafety laboratory for coronavirus testing; a temporary hospital or quarantine area, a pyrolytic incinerator or a hazardous waste landfill for medical waste disposal.
 - **Quarantine and isolation centers:** These may be located at Point of Entry, border, urban and/or rural areas. Tents may be used. The govt is considering setting-up makeshift structures (in the form of tents) within existing govt structure/plot for isolation centers and these will likely include govt schools, sport stadiums, gymnasiums, etc. Requirements on food, water, fuel, hygiene, infection,

GBV/SEAH prevention and control, and monitoring the health of quarantined persons should be considered.

Vaccine Readiness Assessment

- Bhutan has conducted a vaccine readiness assessment to identify gaps and options to address them, as well as to estimate the cost of vaccine deployment, with the support of international organizations WBG, WHO, UNICEF, Gavi. This assessment considers the government's vaccine deployment strategy. Considering the uncertainties related to the COVID vaccine market, including testing, approval, availability and pricing, which require flexibility and close monitoring and strong Bank support during implementation, the assessment will continue to be an evolving process and will be dynamically revised and updated as necessary to continue to improve project implementation.
- There is a phase-wise vaccination to different population groups: Phase 1 for high-risk health care workers, active front liners, elderly population over 60 years and people with comorbid conditions; Phase 2 for passive front liners, students above 18 years and staff of schools and institutions and people with other comorbid conditions; Phase 3 for the rest of the population (18-59 years) and; Phase 4 for children less than 18 years and pregnant women.
- Trainings of healthcare workers for COVID-19 vaccination are in place.

Vaccine readiness and prioritization: Bhutan initiated the first dose of the COVID-19 vaccination campaign on March 27th, 2021 with help of friendly countries using the existing EPI system. The second dose COVID-19 vaccination campaign was rolled out on 20th July 2021 and ended on 26th July 2021. The MOH has been using the existing supply chain mechanism to deploy the vaccines. Bhutan used helicopter to send to eight districts by service to reach remote communities. Refrigerated trucks were used to transport vaccines to other regions. Home-based vaccination services were provided for people with reduced mobility, such as people with visual disabilities and the elderly. A National Covid-19 Vaccine Deployment Plan (NVDP) has been developed covering regulatory requirements, national task force, funding, vaccination strategy, supply chain management of vaccines, human resources management and training, Vaccine communication plan, AEFI, monitoring etc. The NITAG used the evidence from the global experience of identifying high risk groups. The NITAG also referred the WHO SAGE values framework for allocation and prioritization of COVID-19 vaccination and the WHO SAGE Roadmap for prioritizing the target groups for COVID-19 vaccines in context of limited supply. A phase wise vaccine distribution plan has also been prepared covering different group of population along with priority. Additionally, COVID-19 vaccine deployment will be prioritized geographically in the high-risk zones that is demarcated along the international land border with

India and other high-risk areas such as Thimphu and Paro districts which are identified as red zones.

The Ministry of Health is using the existing supply chain mechanism to deploy the vaccines to the various health centers, primary health centers and the vaccination sites. The vaccines upon reaching the airport will be transported using refrigerated vans to the Central EPI Cold store in Thimphu. From Thimphu, it will be distributed to the central, western and eastern EPI cold stores using refrigerated vans. The vaccines will be further distributed to the cold stores of the districts using refrigerated vans from the regional EPI stores. Currently, there are five refrigerated Vans in the country and purchase order for two additional Vans have been placed which are expected to receive by March 2021. From the cold stores in the 20 districts across the country, Cold Boxes and Vaccine Carriers will be used to transport the vaccines to the PHCs and the finalized vaccination sites. In addition to the broad supply and distribution framework of the COVID-19 vaccines, the safe management, handling and transport of vaccines will be conducted in line with the existing SOPs and EPI manual for health workers. Updated guidelines on vaccine handling and management from the WHO, GAVI and the respective vaccine manufacturers will be referred and strictly adhered to.

Surveillance of Adverse Events Following Immunization: Bhutan has a dedicated National Guideline on Surveillance of Adverse Events Following Immunization (AEFI) adopted in 2015 which is being used in conjunction with WHO Vaccine Safety Guidance Manual to report, investigate and monitor AEFIs from COVID-19 vaccines. The guidance document provides the classification of AEFIs, lines of reporting and roles and responsibilities of different stakeholders for AEFIs besides others. WHO COVID-19 reporting form for Adverse Events Following Immunization (AEFI) reporting form will be used to report any cases. Ministry of Health is the main agency responsible for coordinating activities related to AEFI. Upon the receipt of a serious AEFI from health centers (death/disability/hospitalization/cluster), the National AEFI Committee will conduct causality assessment using the WHO AEFI investigation form (Draft COVID-19 vaccines: Safety Surveillance manual). The committee will follow procedures as described in the National Guideline on Surveillance of Adverse Events Following Immunization (AEFI). All AEFI reports will be shared to the Drug Regulatory Authority for further information sharing. Relevant information regarding COVID-19 vaccine safety will be shared to the public as per section 8.6 and 8.7 of the National Guideline on Surveillance of Adverse Events Following Immunization (AEFI). In the official portal of COVID 19 vaccination there is provision for AEFI reporting. So far, no major AEFI has been reported.**National COVID-19 Vaccination and Deployment Plan (NVDP)**

- The RGOB had prepared a National Vaccination and Deployment Plan. The plan covers 79

percent of population, and targets population in different phases. The Ministry of Health has been using the existing supply chain mechanism to deploy the vaccines to the various health centers, primary health centers and the vaccination sites. There are helicopter services for deploying vaccines requiring -70 degrees to remote areas.

- Oversight and monitoring arrangements together with requisite post-vaccine surveillance are in place. The Adverse Events Following Immunization (AEFI) surveillance has been incorporated into Bhutan Vaccine System (BVS)- web-based portal for real time reporting and monitoring of any AEFIs. The National Immunization Technical Advisory Groups (NITAG) and Regional National Immunization Technical Advisory Groups (RITAGs) monitors all AEFI cases on daily basis.
- MOH has established M&E systems and procedures, which are also captured in the NDVP. Existing tools (paper based and digital) for capturing vaccine deployment related data also cater to capturing adolescents

Use of Military or security personnel: While use of military or security personnel (Security Personnel) is not anticipated for this project, in the event that they do need to be engaged in carrying out Project activities, the ESCP outlines the measures to be taken to mitigate the associated risks as shown below:

- Assess the risks and impacts of engagement of the Security Personnel, and implement measures to manage such risks and impacts, guided by the principles of proportionality and GIIP, and by applicable law, in relation to hiring, rules of conduct, training, equipping, and monitoring of such Security Personnel;
- Adopt and enforce standards, protocols and codes of conduct for the selection and use of security personnel, and screen such personnel to verify that they have not engaged in past unlawful or abusive behavior, including sexual exploitation and abuse (SEA), sexual harassment (SH) or excessive use of force;
- Ensure that PIU enters into a memorandum of understanding (MoU), with the home ministry and relevant Security Unit, setting out the arrangements for the engagement of the security personnel under the Project, including compliance with the relevant requirements set by PIU.
- Ensure that security personnel are adequately instructed and trained, prior to deployment and on a regular basis, on the use of force and appropriate conduct (including in relation to civilian-military engagement, SEA and SH, and other relevant areas).
- Ensure that a communication strategy is in place to inform stakeholders of their involvement and ensure that any concerns or grievances regarding the conduct of Security Personnel are received, monitored, documented (taking into account the need to protect confidentiality), resolved through the Project's grievance mechanism and reported to the Association no later than 30 days after being received.

CONSTRUCTION STAGE

As minor civil work is anticipated the PIU will ensure that all rehabilitation work done at the HCFs under the project will be carried out in compliance with a site-specific ESMP based on the template in Annex III of this ESMF. The PIU will develop site specific ESMPs through the E&S consultants hired for the project before the approval of each subproject. The site-specific ESMPs will include:

- Environmental risks and impacts associated with resource efficiency and material supply; construction related solid wastes, wastewater, noise, dust and emission management; hazardous materials management
- Occupational Health and Safety (OHS) issues;
- Community health and safety issues;
- Social issues, including in relation to labor influx, GBV/Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) risks, gender or disability
- Labor and working conditions. Arrangements for employment and accommodation of workers to be engaged in project activities, and issues relating to working conditions (including in relation to periods of sickness and quarantine), particularly if these are impacted by emergency legislation

The ESMP will form part of the Contract and the ESMF will be part of the bidding document. The key suggestions are given below:

- The implementing agency to depute a qualified environment social expert/focal officer to work with the contractors, the agency officials and the WB to comply the relevant needed measures for COVID 19 Pandemic according to above guidance and National regulation.
- The PIUs should review the contract document and identify the obligation the work force and what has to change to cover the COVID requirements in the enclosed documents and how to solve the issues.
- For supervision, using online, mobile-friendly reporting and monitoring tool that will assist both the contractor, government and relevant stakeholders to monitor COVID-19 on construction sites, The contractors are required to complete a daily report per project, whereby all projects details, and health and safety status of employees in utilizing the online reporting and monitoring system.
- To exercise social distancing, the contractor and other parties should consider specific channels of communications for consultation and stakeholder engagement activities.

For a detailed mitigation measures related to construction activities refer to [World Bank Interim Note on COVID-19 Considerations in Construction/Civil Works Projects.](#)

Operational Stage (Including Vaccination Campaigns)

The adverse Env impacts of the operational phase of this project include-managing, transporting, and disposing the medical waste generated by the vaccination. Besides, there will be a risk of exposure to a wide range of potentially affected communities, health care workers etc.

Medical waste management and disposal. The PIU will ensure the following:

- Each HCF is operated in accordance with the ICWMP prepared for the project;
- Waste segregation, packaging, collection, storage disposal, and transport is conducted in compliance with the ICWMP and WHO COVID-19 Guidelines;
 - Onsite waste management and disposal will be reviewed regularly and training on protocols contained in the ICWMP conducted on a weekly basis;
 - The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance; and
- Waste generation, minimization, reuse and recycling are practiced where practical in the COVID-19 context.
- Safety boxes will be used to keep sharps (syringes) produced from the COVID vaccination. Based on the existing procedure for routine vaccination, each health facility will follow the same procedure for disposal of safety box like as incineration, pit burn etc. The disposal of safety box must be done in presence of the waste management committee.

Vaccine, cold chain, logistics, infrastructure: An in-depth assessment has been conducted for the vaccine storage capacity requirement considering vaccinating entire eligible population in the country. The current cold chain requirement, including Walk in coolers needed for storage to deploy vaccines are being addressed. Bhutan will use its existing Expanded program of Immunization (EPI) units to deliver the COVID- 19 vaccines. The relevant unit has been strengthened with human resource and equipment to fulfill the objective.

Protecting healthcare workers. The PIU and HCFs will ensure the following:

- Regular delivery and proper storage of goods, including samples, pharmaceuticals, disinfectant, reagents, other hazardous materials, PPEs, etc.;
- Ensure protocols for regular disinfection of public spaces, wards, ICUs, equipment, tools, and waste are in place and followed;
- Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant;
- Ensure equipment such as autoclaves are in working order; and
- Provide regular testing to healthcare workers routinely in contact with COVID-19 patients.
- No person under the age of 18 is employed for the project given the hazardous work environment.
- Ensure that if health care workers are pushed to work without proper PPEs, they can access the GRM register for complaints. A Grievance Redress Mechanism (GRM) has

been developed in the LMP to allow workers to raise workplace safety, assignment and other security/safety issues through multiple channels.

Containment of COVID-19. The PIU and HCFs will ensure the following:

- Quarantine procedures for COVID-19 patients are maintained;
- Patients in quarantine are not discriminated due to socioeconomic status, level of education, gender, disabilities and any other vulnerabilities.
- When practical, COVID-19 patients are given access to phone or other means of contact with family and friends to lessen the isolation of quarantine;
- Patients in quarantine have access to development and project related information and should be able to take part in consultation through appropriate means
- The public is regularly updated on the situation and reminded of protocols to prevent the spread of COVID-19; and
- Members of the general public (family and friends) who have been exposed to confirmed COVID-19 patients are tested when practical.
- WHO quarantine guidelines can be found at:
<https://apps.who.int/iris/rest/bitstreams/1272428/retrieve>

OHS and labor and working conditions: A Labor Management Procedure (LMP) had been developed to address the labor risks.

Community Health and Safety related to Life and Fire Safety:

- Where the project includes procurement of electrical equipment which can be used in existing health care premises with the oxygen therapy settings MOH should hire before launching bid, suitable qualified L&FS professional acceptable to the Bank to assess the L&FS risk and propose mitigation measures in line with local building codes, local fire department regulations.
- Training and orientation of healthcare workers/facility users on L&FS,
- Provision and use of appropriate PPEs,
- Implementation of good international L&FS practices related to oxygen therapy and open fires near or around hospital and health care centers, emergency response, safe transport and storage of materials and waste management following of hygiene practices and protocols.
- Functionality of fire safety measures including (i) appropriate access restrictions / controls; (ii) correct labelling; and (iv) scheduled routine inspection/maintenance program of equipment
- Fire Safety documentation should be done which will detailed information on the systems installed in the building and it typically contains following information: as-built plans of

the systems, data sheets of all components, list of necessary spare parts, supplier list, system certificates, fire safety design documentation

- Compliance of hospitals/healthcare facilities building designs with earthquake proof specifications, fire escapes, and other fire prevention requirements, have standard smoke exhaust and detectors, drainage, etc. as required in line with the national Building Code and international standards e.g., the US NFPA (National Fire Protection Association) code.
- Plan of Action in hospitals to deal with fire emergencies, including evacuation protocols, operation of medical gas, oxygen, and vacuum system zone valves, and incident reporting root cause analysis and corrective actions and audit.
- Awareness raising campaign, establishing signs in facilities, on L&FS and on oxygen safety issues and mitigation for all staff, patients, and visitors
- Fire prevention and training program for staff responsibilities to prevent a fire.
- Periodic evacuation drills
- Operationalization of a well-defined protocol for emergency supplies for patient during evacuation or relocation, especially for the elderly and fragile patients, and/or patients connected to life support equipment.
- Emergency preparedness and response plan
- The awareness raising activities (safety signs, brochures, etc.) should cover guidance on emergency and precautionary measures for L&FS for patients, contractors and visitors

Key social issues in Operational stage:

Risk of inequity in access to vaccines will be mitigated through several measures to ensure vaccine delivery targets the most vulnerable populations, including poor, and minorities in accordance with criteria specified in this Restructuring. ~~Bank will support~~ Bhutan to develop and adapt an explicit, contextually appropriate, and well-communicated targeting criteria and implementation plan (e.g., the national vaccination program and any subsidiary programs) including criteria for access to vaccines. RGOB will ensure that this plan is subject to timely and meaningful consultations in accordance with ESS 10. To ensure vaccines reaching the disadvantaged and vulnerable groups interaction/communication with such group with in a culturally appropriate manner will be undertaken. Disadvantaged/ vulnerable individuals /groups will be offered door-to-door services. MOH will also target population in high-population density locations.

- Risk of reprisals and retaliation especially against healthcare workers and researchers will be mitigated through explicit inclusion in robust stakeholder identification, consultation and information disclosure processes. The parent project already has a comprehensive

GRM in place to address relevant issues including labor & working conditions and SEA/SH, which will fully apply to the restructured project.

- RGOB has prepared a National Vaccination and Deployment Plan, covering 79 percent of population, and targets all population in four different phases. The MOH has been using the existing supply chain mechanism to deploy the vaccines to the various health centers, primary health centers and the vaccination sites especially for vaccines requiring conventional storage temperature at 2 to 8 degrees and vaccines requiring -20 degree as it can be still stored at 2 to 8 degrees for one month. Ultra-cold chain (-70 degree) storage and its supply chain has been established for Pfizer vaccines. There are helicopter services for deploying vaccines requiring -70 degrees to remote areas.

For the purposes of effective and proper engagement, stakeholders of this project have been divided into three core categories affected parties, other interested Parties and vulnerable groups. Details of these of these categories including stakeholder engagement programs, tools, strategy for information disclosure, awareness raising, detail strategies to effectively engage and communicate to vulnerable group etc. have incorporated in the SEP. The Ministry of Health's COVID-19 Media and Risk Communication Team has designed the strategies for COVID-19 communication plan. The team has developed COVID-19 messages and disseminated over various channels from television, social media, radio and instant messaging apps like WhatsApp and WeChat. They also conduct media monitoring and listening. The team also coordinates regular press briefs on COVID-19 including panel discussion on television to counter negative publicity.

The anticipated **overall environmental** and social risks are **Substantial**.

DECOMMISSIONING STAGE

In response to the surge of COVID-19 testing and treatment, there are plans to establish temporary isolation centers in government facilities like schools, stadiums, gymnasium and open fields etc. The ES risks and assessment due to decommissioning of this makeshift structure would be done in line with the Table 4 of the ESMP template provided in the Annex III.

6. Procedures to Address Environmental and Social Issues

The Implementing Agency (MoH) is responsible for the overall implementation of the project through the PIU. The PIU will have day to day responsibility for project management and support, including ensuring that project implementation is compliant with the World Bank's

ESF, Government of Bhutan laws and regulations, Good International Industry Practice (GIIP); EHS; WHO COVID-19 Guidelines and this ESMF. The PIU recruited an Environmental and Social Specialist under the parent project and is adequately staffed to oversee the project's work and ensure that project activities comply with project procedures. PIU staffs will specifically oversee implementation of medical waste management and disposal systems as well as of general occupational health and safety issues for healthcare workers and minor civil works.

Under the parent project each individual HCF undertaking activities financed by the project to assign one staff member who will be responsible for liaising with the PIU on ESMF implementation throughout the life of the project at that specific HCF. Implementation of this ESMF will include the following activities, to be undertaken by the PIU working closely with the individual HCFs:

Screening. All activities undertaken by the project will be screened using the form found in the Annex II (including negative list for CERC) in order to exclude certain high or substantial risk activities, identify potential ES issues, and classify the ES risks. Copies of each of these screening forms will be kept at the PIU and individual HCFs. The PIU's periodic report to the Bank will include copies of each screening undertaken during the subject quarter.

ES Instruments. The PIU and individual HCFs will prepare and implement the necessary ES instruments for each of the activities financed under the project. The scope of this Project includes following three types of ES instruments:

- **ESMPs.** After the screening, ESMPs, based on the template found in the Annex III, will be prepared for any small-scale works to be conducted at any HCF including the creation or rehabilitation of ICUs and the laboratories, the rehabilitation or installation of sanitary stations and hand washing facilities, and the rehabilitation or installation of medical waste incinerators.
- **ICWMPs.** Each HCF will prepare and implement an ICWMP, based on the sample found in the Annex IV.
- **SEP.** The IA has prepared a SEP for the project and it is applicable to all project financed activities. Individual HCFs will follow the guidelines mentioned in the SEP to ensure patients and their families, local authorities, and the general public are aware of the pandemic situation and have access to community-based hotlines, GRMs, and other important information channels.

Consultation and Disclosure. Given the need for social distancing during the COVID-19 pandemic, stakeholder consultations for the ES instruments, will be conducted virtually whenever possible, as per instructions in the SEP. The SEP has identified key stakeholders and organized consultations for information exchange about the Project and its risks and impacts. All instruments will be disclosed on the PIU website with print copies also available at their offices and preferably with the HCFs. Copies of instruments prepared and disclosed will be included in the PIU's Quarterly Report to the Bank and disclosed on the WB website.

Review and Approval. The individual instruments will be prepared by PIU and will be reviewed

by WB ES teams before they are implemented. Updates on the instruments will also be sent to WB for review, guidance, and comments.

Implementation. The PIU as well as the individual HCF will be responsible for the implementation of the instruments. For ESMPs, this responsibility will be shared with contractors and supervising consultants when applicable. The PIU will also provide implementation support and supervision.

Monitoring and Reporting. There will be two types of reports, Monthly from the HCFs to the PIU and periodic reports from the PIU to the Bank as per ESCP:

- **Monthly Reports.** Individual HCFs will prepare and provide monthly reports to the PIU on each activity being undertaken. These reports will include progress on any on-going small works, statistics related to the implementation of the ICWMP, statistics related to local hotlines, any grievances received via the GRM and information on their resolution, and any other relevant information.
- **Periodic Reports.** The PIU will submit an overall report of project implementation to the Bank as per commitment on the ESCP (Half Yearly (every six months) throughout the Project implementation period). These reports will include statistics on national project implementation; a summary of grievances received and their resolution, a summary of activities for each individual HCF, and copies of screenings and individual HCF instruments prepared during the subject quarter.

7. Consultation and Disclosure

MOH is engaged in meaningful consultations with all stakeholders from the very beginning of the project, and will continue throughout the project life cycle. Due to the nature of COVID-19 outbreak and restriction imposed on public gatherings, initial consultation has been limited to public authorities and national health experts, as well as international health organization representatives. For the parent project two stakeholder consultation meetings were conducted recently under the parent project (1. With the contractor and civil engineer of ERRH at Mongar and, 2. Discussion on the construction of Flu clinics.). Strategy for information disclosure is shown in the table below.

Table. Strategy for Information Disclosure and Consultation Process (will be updated during implementation)

Project stage	Topic of consultation and list of information disclosure	Method used	Target stakeholders	Responsibilities

Done before appraisal	PAD, SEP, ESRS	WB and MoH website	Health stakeholders and the general public	Implementing Agency (IA)
Within one month of effectiveness	Updated SEP and Risk Communication and Community Engagement Strategy, ESMF, , LMP	WB and MoH website	All stakeholders identified above	IA
Quarterly	Progress report including summaries of complaints and resolution	WB and MoH website	Implementing partners	IA
Before key activities	ESIA or ESMP	WB and MoH website	Key stakeholders for specific activities	IA
Annual	Annual report on progress and lessons learnt	WB and MoH website	General public	IA

Further, WB guidelines as mentioned in the parent ESMF and SEP should be adopted while conducting stakeholder consultation and engagement.

8. Stakeholder Engagement

A Stakeholder Engagement Plan (SEP) has been prepared for the restructuring project detailing stakeholder identification, method and subject of communication and grievance redress mechanism. The SEP is referred here for detail requirements on stakeholder engagement and GRM. Implementation of good international L&FS practices related to oxygen therapy and open fires near or around hospital and health care centers have been considered and included in the OHS section.

9. Project Implementation Arrangements, Responsibilities and Capacity Building

Ministry of Health (MOH) is responsible for the execution of activities under the project and no change will take place in implementation arrangement due to the restructuring. A project management and policy support unit (PIU) has been established in MOH to coordinate and manage the overall activities under this project. The PIU has recruited an Environment and

Social Specialist, who will assist the development of a long-term E&S capacity building program for the Ministry, especially those under emergency situations and will support implementation of the E&S instruments prepared for the project. The E&S specialist will also assist in ESMP preparation and implementation, monitoring, and reporting requirements. The Bank's E&S team has provided support to update the ESMF, ESCP, SEP and LMP of the parent project for this restructuring. The hired specialists at PIU will emphasis on the implementation of the ESCP, SEP, LMP, ESMPs and ESMF during project implementation phase.

Bhutan will use its existing Expanded program of Immunization (EPI) units to deliver the COVID- 19 vaccination. The relevant unit has been strengthened with human resource and equipment to fulfill the task. The environmental safeguards aspects in Bhutan are overseen by the National Environment Commission (NEC) which is a high-level autonomous agency of the RGOB and is mandated to look after all issues related to environmental safeguards including waste management, emission standards etc.

Bhutan has dedicated National Immunization Technical Advisory Group (NITAG) with qualified professionals to oversee immunization program. NITAG is supported by two Regional Immunization Technical Advisory Group.

For capacity building training materials developed by WHO will be adapted, and additional training materials will be created if required. The training materials will consist of information about the COVID-19 vaccine(s), infection prevention and control (IPC), microplanning, session organization, cold chain and logistics management, conducting sessions, vaccine safety, AEFI management, waste management, monitoring and supervision. Training on following topics will be conducted including development of additional materials:

- COVID-19 vaccination & IPC guideline for supervisors, field workers and vaccinators.
- Working in COVID-19 environment.
- Vaccine storage, transportation and deployment;
- COVID-19 Infection Prevention and Control Recommendations
- Standard precautions for COVID-19 patients (Health care workers) Waste disposal and management (waste disposal and healthcare personnel)
- Codes of Conduct;
- Risk communication, prevention and community engagement.

Annexes

- I. Abbreviations and Acronyms
- II. Screening Form for Potential Environmental and Social Issues
- III. Environmental and Social Management Plan (ESMP) Template
- IV. Infection Control and Waste Management Plan (ICWMP) Template

V. Resource List: COVID-19 Guidance

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
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
OHS	Occupational Health and Safety
POE	Point of Entry
PPE	Personal Protective Equipment
PPSD	Project Procurement Strategy for Development
Resettlement Action Plan	RAP
Resettlement Policy Framework	RPF
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. Screening Form for Potential Environmental and Social Issues

This form is to be used by the Project Implementation Unit (PIU) to screen for the potential environmental and social risks and impacts of a proposed subproject. It will help the PIU in identifying the relevant Environmental and Social Standards (ESS), establishing an appropriate E&S 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 E&S assessments or specific mitigation plans.***

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

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

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, vaccine cold storage units and/or waste management facilities?			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 unequitable 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 ¹ ?			<i>OP7.50 Projects on International Waterways</i>	Notification (or exceptions)

Conclusions:

- 1. Proposed Environmental and Social Risk Ratings (High, Substantial, Moderate or Low). Provide Justifications.**
- 2. Proposed E&S Management Plans/ Instruments.**

¹ 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 E&S 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 of health care facilities, vaccine cold storage units, healthcare waste and wastewater facilities
- training of medical workers and volunteers
- community engagement and communication

1. Screening E&S 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. 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 E&S 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 E&S 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 E&S 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
- land or asset acquisition
- use of security personnel or military forces
- 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 E&S 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 E&S 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](#).

III. Environmental and Social Management Plan (ESMP) Template

Introduction

The Borrower will need to develop an Environmental and Social Management Plan (ESMP), 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 E&S mitigation measures. The Borrower can use the matrices to assist in identifying risks and possible mitigations.

The ESMP should also include other key elements relevant to delivery of the project, 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 E&S 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 E&S 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 E&S Risks and Impacts	Proposed Mitigation Measures	Responsibilities	Timeline	Budget
Identify the type, location and scale of healthcare facilities (HCF) or facilities to be used for deployment of vaccines					
Identify the need for new construction, expansion, upgrading and/or rehabilitation					
Identify the needs for ancillary works and associated facilities, such as access roads, construction materials, supplies of water and power, sewage system					
Identify the needs for acquisition of land and assets (e.g. acquiring existing assets such as hostel, stadium to hold potential patients)					
Identify onsite and offsite waste management facilities, and waste transportation routes and service providers	Inadequate facilities and processes for treatment of waste	<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 			

COVID-19 Response ESMF – ESMP

		<ul style="list-style-type: none"> ➤ 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 needs for transboundary movement of samples, vaccines, specimen, reagent, and hazardous materials					
Identify needs for workforce and type of project workers		<ul style="list-style-type: none"> ➤ Identify numbers and types of workers ➤ Consider accommodation and measures to minimize cross infection ➤ Use the COVID-19 LMP template to identify possible mitigation measures 			
Identify needs for using security personnel during construction and/or operation of HCF					
HCF design – general	<ul style="list-style-type: none"> - Structural safety risk; - Functional layout and engineering control for nosocomial infection 				
HCF design - considerations for differentiated treatment for groups of higher	Some groups may have difficulty accessing health facilities				

COVID-19 Response ESMF – ESMP

<p>sensitivity or vulnerable (the elderly, those with preexisting conditions, or the very young) and those with disabilities</p>					
<p>Design of facility should reflect specific treatment requirements, including triage, isolation or quarantine</p>		<ul style="list-style-type: none"> ➤ The design, set up and management of will take into account the advice provided by WHO guidance for Severe Acute Respiratory Infections Treatment Center. ➤ 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) ✓ 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>			

COVID-19 Response ESMF – ESMP

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) 			
Identify the needs for an effective communication campaign on vaccination, including tailored outreach to different groups (including disadvantaged or vulnerable groups), with different partners					
Assess the capacity of the Borrower to establish effective vaccine cold chain temperature monitoring	Failure to store and handle vaccines properly can reduce vaccine potency, resulting in inadequate immune responses in patients and poor protection against disease	<ul style="list-style-type: none"> ➤ Support the Borrower to design and establish or improve vaccine cold chain temperature monitoring plan. ➤ See WHO guidance on temperature monitoring ² and CDC Vaccine storage and Handling toolkit³ 			
Assess the capacity of the Borrower to monitor adverse events following immunization (AEFI) in line with WHO guidelines	Insufficient capacity for ensuring immunization safety through detecting, reporting, investigating and responding to AEFI.	<ul style="list-style-type: none"> ➤ Support the Borrower to design and establish or improve surveillance system of AEFI. ➤ See WHO Global manual of surveillance of adverse events following immunization⁴. 			

² https://apps.who.int/iris/bitstream/handle/10665/183583/WHO_IVB_15.04_eng.pdf;jsessionid=9F079AFFA760DBD35C08B13930268B01?sequence=1

³ <https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html>

⁴ https://www.who.int/vaccine_safety/publications/Global_Manual_revised_12102015.pdf?ua=1

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

Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Responsibilities	Timeline	Budget
Clearing of vegetation and trees; Construction activities near ecologically sensitive areas/spots	<ul style="list-style-type: none"> - Impacts on natural habitats, ecological resources and biodiversity 				
General construction activities Foundation excavation; borehole digging	<ul style="list-style-type: none"> - Impacts on soils and groundwater; - Geological risks 				
General construction activities	<ul style="list-style-type: none"> - Resource efficiency issues, including raw materials, water and energy use; - Materials supply 				
General construction activities – general pollution management	<ul style="list-style-type: none"> - Construction solid waste; - Construction wastewater; - Noise; - Vibration; - Dust; - Air emissions from construction equipment 				
General construction activities – hazardous waste management	<ul style="list-style-type: none"> - Fuel, oils, lubricant 				
General construction activities – Labor issues	<ul style="list-style-type: none"> - Workers coming from infected areas - Co-workers becoming infected - Workers introducing infection into 	<ul style="list-style-type: none"> - Refer to COVID-19 LMP if available. - Consider ways to minimize/control movement in and out of construction areas/site. - If workers are accommodated on site require them to minimize 			

	<p>community/general public</p>	<p>contact with people outside the construction area/site or prohibit them from leaving the area/site for the duration of their contract</p> <ul style="list-style-type: none"> - 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 			
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COVID-19 Response ESMF – ESMP

General construction activities – Occupational Health and Safety (OHS)					
General construction activities – traffic and road safety					
General construction activities – security personnel					
General construction activities – land and asset	Acquisition of land and assets				
General construction activities	GBV/SEA issues				
General construction activities – cultural heritage	Cultural heritage	Chance-finds procedure			
General construction activities – emergency preparedness and response					
Construction activities related to <i>onsite</i> waste management facilities, including temporary storage, incinerator, sewerage system and wastewater treatment works					
Construction activities related to demolition of existing structures or facilities (if needed)					
<i>To be expanded</i>					

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

Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Responsibilities	Timeline	Budget
General HCF operation – Environment	General wastes, wastewater and air emissions				
General HCF operation – OHS issues	<ul style="list-style-type: none"> - Physical hazards; - Electrical and explosive hazards; - Fire; - Chemical use; - Ergonomic hazard; - Radioactive hazard 				
HCF operation – Labor issue					
HCF operation - considerations for differentiated treatment for groups with different needs (e.g. the elderly, those with preexisting conditions, the very young, people with disabilities)					
HCF operation – cleaning		<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. 			

COVID-19 Response ESMF – ESMP

		<ul style="list-style-type: none"> • 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). 			
HCF operation - Infection control and waste management plan					
Mass vaccination program involving deployment of vaccines from many facilities (not just HCF), vehicles and locations	Mass vaccination provides a vector for the spread of disease	Develop infection control and waste management plan for vaccination program to consider the use of non-HCF for deployment			

COVID-19 Response ESMF – ESMP

<p>Waste minimization, reuse and recycling</p>	<p>Use of incinerators results in emission of dioxins, furans and particulate matter</p>	<ul style="list-style-type: none"> ➤ Where possible avoid the use of incinerators ➤ If small-scale incineration is the only option, this should be done using best practices, and plans should be in place to transition to alternative treatment as soon as practicable (such as steam treatment prior to disposal with sterile/non-infectious shredded waste and disposed of in suitable waste facilities) ➤ Do not use single-chamber, drum and brick incinerators ➤ If small-scale incinerators are used, adopt best practices to minimize operational impacts. 			
<p>Procurement, delivery and set up of equipment for the storage and handling of vaccines and associated medical equipment</p>	<p>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 receiving procured goods and update working methods as necessary.</p>			

COVID-19 Response ESMF – ESMP

<p>Transport of goods or supplies, including the delivery, storage and handling of vaccine, specimen, samples, reagents, pharmaceuticals and medical supplies</p>	<p>COVID-19 is spread by drivers during the transport and distribution of goods or supplies.</p> <p>Traffic accidents occur during transportation of goods</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 EHSs.</p>			
<p>Waste segregation, packaging, color coding and labeling</p>					
<p>Onsite collection and transport</p>					
<p>Waste storage</p>					
<p>Onsite waste treatment and disposal</p>					
<p>Waste transportation to and disposal in offsite treatment and disposal facilities</p>					
<p>Transportation and disposal at offsite waste management facilities</p>					
<p>HCF operation – transboundary movement of vaccine, specimen, samples, reagents, medical equipment, and</p>					

COVID-19 Response ESMF – ESMP

infectious or hazardous materials					
Operation of acquired assets for holding potential COVID-19 patients					
Emergency events	<ul style="list-style-type: none"> - Spillage; - Occupational exposure to infectious disease; - Exposure to radiation; - Accidental releases of infectious or hazardous substances to the environment; - Medical equipment failure; - Failure of solid waste and wastewater treatment facilities - Fire; - Other emergent events 	<ul style="list-style-type: none"> ➤ Emergency Response Plan 			
Mortuary arrangements	<ul style="list-style-type: none"> - Arrangements are insufficient - Processes are insufficient 	<ul style="list-style-type: none"> ➤ Implement good infection control practices (see WHO Infection Prevention and Control for the safe management of a dead body in the context of COVID-19) ➤ Use mortuaries and body bags, together with appropriate safeguards during funerals (see WHO Practical considerations and recommendations for religious leaders and faith-based communities in the context of COVID-19) 			
Vaccination campaign - considerations for communication and outreach for					

COVID-19 Response ESMF – ESMP

disadvantaged or vulnerable groups					
Stakeholder engagement – considerations for simple, accurate, accessible and culturally appropriate information dissemination; combating misinformation; responding to grievances					
Targeting of beneficiaries is not done in a fair, equitable and inclusive manner	Lack of transparency about the vaccination program	<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>			
	Poorest / most needy households are left out	<p>See above. Clear, transparent and unambiguous eligibility criteria</p> <p>Use good quality Government data combined with geographical targeting</p> <p>Use local community structures to identify and select beneficiaries, based on inclusive consultations</p>			
	Lack of diversity and inclusion in vaccination program, resulting in	Ensure women participate in the program and, where possible,			

COVID-19 Response ESMF – ESMP

	<p>inadequate benefits for other vulnerable groups</p>	<p>give preference to women within households as transferees</p> <p>Work with community representatives/NGOs so that vulnerable groups such as unaccompanied children, youth, Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) survivors, Indigenous Peoples, LGBTI communities, refugees, internally displaced peoples, etc. are included in project activities and benefits</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</p> <p>Grievance Mechanism (GM) to be established as soon as possible to handle complaints</p> <p>Provide information to potential beneficiaries on eligibility criteria and GM process via various media (radio, SMS, television, online, posters)</p> <p>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

Key Activities	Potential E&S Risks and Impacts	Proposed Mitigation Measures	Responsibilities	Timeline	Budget
Decommissioning of interim HCF					
Decommissioning of medical equipment					
Regular decommissioning					
<i>To be expanded</i>					

IV. 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. For new HCF financed by the project, waste disposal facilities should be integrated into the overall design and ESIA developed. Good design, operational practices and internationally adopted emission standards for healthcare waste incinerators can be found in pertaining EHS Guidelines and GIIP.
- 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-grave 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 E&S Issues and Risks	Proposed Mitigation Measures	Responsibilities	Timeline	Budget
General HCF operation – Environment	General wastes, wastewater and air emissions				
General HCF operation – OHS issues	<ul style="list-style-type: none"> - Physical hazards; - Electrical and explosive hazards; - Fire; - Chemical use; - Ergonomic hazard; - Radioactive hazard. 				
HCF operation - Infection control and waste management plan					
Waste minimization, reuse and recycling					
Delivery and storage of specimen, samples, reagents, pharmaceuticals and medical supplies					
Storage and handling of specimen, samples, reagents, and infectious materials					
Waste segregation, packaging, color coding and labeling					
Onsite collection and transport					
Waste storage					

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Onsite waste treatment and disposal					
Waste transportation to and disposal in offsite treatment and disposal facilities					
HCF operation – transboundary movement of specimen, samples, reagents, medical equipment, and infectious materials					
Emergency events	<ul style="list-style-type: none"> - Spillage; - Occupational exposure to infectious; - Exposure to radiation; - Accidental releases of infectious or hazardous substances to the environment; - Medical equipment failure; - Failure of solid waste and wastewater treatment facilities; - Fire; - Other emergent events 	Emergency response plan			
Operation of acquired assets for holding potential COVID-19 patients					
<i>To be expanded</i>					

V. Resource List: COVID-19 Guidance

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
- [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
- [Water, sanitation, hygiene and waste management 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
- [Global manual on Surveillance of adverse events following immunization, issued 2016](#)
- [How to monitor temperature in the vaccine supply chain, issued July 2015](#)

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, 2020

MFI GUIDANCE

- [EBRD COVID-19 resources \(includes list of websites providing information on Covid-19 and guidance materials and resources provided by IFIs\)](#)
- [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 Vaccine Storage and Handling Toolkit, issued 2020](#)