

ENVIRONMENT AND SOCIAL MANAGEMENT FRAMEWORK
FOR
BANGLADESH: COVID-19 EMERGENCY RESPONSE AND PANDEMIC
PREPAREDNESS PROJECT (P173757)

DIRECTORATE GENERAL OF HEALTH SERVICES
MINISTRY OF HEALTH AND FAMILY WELFARE

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Introduction

This *Environmental and Social Management Framework* (ESMF) assists the Government of Bangladesh (GoB) in identifying the type of environmental and social assessment that should be carried out for the ***BD COVID-19 Emergency Response and Pandemic Preparedness Project (PI73757)***, that involve the ***construction, expansion, rehabilitation and/or operation of healthcare facilities in response to the COVID-19 pandemic***, and in developing the environmental and social (E&S) management plans in accordance with the World Bank's Environmental and Social Framework (ESF).

For the BD 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 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 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 Government of Bangladesh (GoB) legislation.

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

control and healthcare waste management practices during the operation of healthcare facilities. The ESMP and ICWMP should set out appropriate measures for infection control and waste management during operation of the relevant healthcare facilities.

For the BD COVID-19 project an Environment and Social Commitment Plan (ESCP) detailing material measures and action for the Borrower's to adopt, Stakeholder Engagement Plan (SEP) to illustrate engagement procedure and provision of grievance redress mechanism and a Human and Occupational Resource Management Procedure (HoRMP, or LMP in ESF terms) to address issues with project workers have already been prepared.

1. BACKGROUND

An outbreak of Coronavirus Disease (COVID-19) caused by the 2019 novel coronavirus (SARS-CoV-2) has been spreading rapidly across the world since December 2019. On March 11, 2020, the World Health Organization (WHO) declared the rapidly spreading Coronavirus outbreak a pandemic, acknowledging what has seemed clear for some time—the virus will likely spread to all corners of the globe. As of May 01, 2020, more than three million cases in almost all the countries in the world have been recorded with a death toll near 250,000. As of May 01, 2020, more than 8,000 cases have been identified in Bangladesh, including more than a hundred deaths.

Given the novelty, transmission method and lack of effective antidotes, the outbreak has the potential for greater loss of life, significant disruptions in global supply chains, travel and associated industries, financial markets, commodity prices and availability of basic essentials, and economic losses in both developed and developing countries. The COVID-19 outbreak is affecting supply chains and disrupting manufacturing operations around the world. Economic activity has fallen in the past two months and is expected to remain depressed for months. The outbreak is taking place at a time when global economic activity is facing uncertainty and governments have limited policy space to act. The length and severity of impacts of the COVID-19 outbreak will depend on the projected length and location(s) of the outbreak, as well as on whether there is a concerted, fast track response to support developing countries, where health systems are often weak. With proactive containment measures, the loss of life and economic impact of the outbreak could be mitigated. It is hence critical for the international community to work together on the underlying factors that are enabling the outbreak, on supporting policy responses, and on strengthening response capacity in developing countries—where health systems are weak, and populations most vulnerable.

The Emergency Pandemic Preparedness and Response Project, which became effective on April 10, 2020 aims to respond and mitigate the threat posed by COVID-19 in Bangladesh and strengthen national systems for public health preparedness for the present and future. This project was selected for financing under the WB Fast Track Facility because there were a number of confirmed cases of COVID-19 in Bangladesh and a far greater number in the neighboring countries. In addition, Bangladesh is one of the most densely populated countries in the world. This project has triggered paragraph 12 of the Investment Project Financing Bank Policy (*Situation of Urgent Need of Assistance or Capacity Constraints*).

The Project Development Objective (PDO) is *to support the Government of Bangladesh to prevent, detect and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness.*

The Project will support enhancement of disease detection and case management capacity at selected health care facilities (HCF) to serve as focal hospitals for the management of COVID-19. It will also support the improvement of functionality of the Public Health Emergency Operations Center (PHEOC), capacity building of IEDCR, health emergency surveillance capacity of selected district and tertiary care level

hospitals, support for stockpiling of critical medical supplies, carrying out research on COVID-19 preparedness and response efforts.

2. PROJECT DESCRIPTION

The Project will be implemented under following Components:

Component 1: Surveillance, Diagnostics and Community Engagement. This component will focus on limiting local transmission through containment strategies and subsequently mitigation strategies. More specifically, it will support enhancement of disease detection capacities through provision of technical expertise and laboratory equipment, and development of systems to ensure prompt case finding, contact tracing, and disease reporting.

Sub-component 1.1: Surveillance, Case Investigation and Rapid Response. This sub-component will provide support to enhance disease detection, COVID-19 case investigation and rapid response including *inter alia* (a) increasing surveillance and information capacities, including screening at points of entry; (b) strengthening laboratory and diagnostic systems and capacities; and (c) supporting prompt case finding and local containment.

Surveillance activities will include: (a) activating the COVID-19 surveillance system; (b) implementing active case identification and contact tracing using the existing micro-planning approach for measles control/elimination; and (c) implementing screening at Points of Entry (PoE) (i.e. IHR-designated air, land and seaports). Effective surveillance and case investigation will require: (a) essential personal and protective equipment (PPE), as well as training in the proper use and disposal of PPE; and (b) sensitization/ orientation/ refresher training of health and other concerned staff on detection and response (including risk communication), based on recognized standard guidelines to ensure standardized and uniform service delivery. In addition, rapid-response teams will be trained and equipped to investigate cases and clusters, and conduct contact tracing, based on Ministry of Health and Family Welfare (MoHFW) protocols.

Improving diagnostic laboratory capacity for COVID-19 will include: (a) training on bio-safety and bio-security; (b) training of relevant staff to ensure that the existing system to handle samples at the national and sub-national levels is understood, and consistently applied; and (c) expanding diagnostic services at national and sub-national levels beyond Institute for Epidemiology, Disease Control and Research (IEDCR). In addition, a key focus will be to ensure the functionality (and certification) of the Bio-Safety Level 3 laboratories at IEDCR and the Bangladesh Institute of Tropical and Infectious Diseases (BITID) through procurement of essential diagnostic equipment and supplies.

Sub-component 1.2: Risk Communication and Community Engagement. This sub-component will support risk communication and community engagement including *inter alia*: (a) community awareness strategy development, testing, and implementation; (b) development and implementation of information, guidelines and training for health care providers; and (c) support for implementation of social distancing and other preventative measures. Specifically, activities would include developing and testing messages and materials to be used for the COVID-19 outbreak (which could be adapted to other pandemic or emerging infectious disease outbreaks), and further enhancing systems to disseminate information from the national to sub-national levels, and between the public and private sectors. Communication will be done through a number of channels, involving a multi-sectoral approach. Local communities (through trusted community groups, community leaders, local networks, and media personnel) will be mobilized to support messaging. The project will support implementation of immediate responses to mitigate inter-personal transmission of COVID-19, that is, classic “social distancing measures” such as school

closings, based on protocols for escalation and de-escalation, backed up by a well-designed communication strategy.

Component 2: Health Care Strengthening. As COVID-19 is expected to place a substantial burden on inpatient and outpatient health care services, this component will focus on strengthening the health care system to ensure that appropriate medical care is provided to COVID-19 confirmed and suspected patients, whilst safeguarding essential community services and minimizing risks to other patients and health personnel. The MoHFW will explore possibilities for partnership with the private sector to increase health care capacity.

Sub-component 2.1: Case Management. This subcomponent will provide support to enhance COVID-19 case management capacity at selected Health Care Facilities (HCFs) through: (a) screening and triage of suspected cases; (b) diagnosis, treatment and referral of COVID-19 cases; (c) infection prevention and control (IPC) activities; (d) establishment of surge capacity for diagnosis and case management. More specifically, it will focus on supporting management of suspected and confirmed COVID-19 patients in a range of health facilities (including, for example, semi-government-owned, district hospitals, medical college hospitals etc.) through: (a) development/ updating of appropriate guidelines and protocols for testing of suspected COVID-19 cases, and treatment guidelines for suspected and confirmed cases (including guidance on referrals and contingency planning); (b) training of health workers and support staff (including on, detection and treatment of COVID-19, IPC, and appropriate bio-hazard measures); and (c) procurement of medicines and consumables, and PPE and IPC materials. The project will also support the MoHFW's plans to establish surge capacity, including through increasing available human resources.

Sub-component 2.2: Hospital Capacity. This sub-component will support *upgrading the capacity of, and rehabilitation of* selected health facilities to serve as focal hospitals for the management of COVID-19. This will include, inter alia: (a) strengthening diagnosis and laboratory capacity; (b) improving the capacity of intensive care units; (c) establishing triage systems and isolation units; (d) carrying out a series of activities to ensure diagnosis and treatment of COVID-19 cases; and (e) carrying out a series of activities to ensure infection control including bio-safety and medical waste management. More specifically, the capacity of selected public health facilities will be upgraded to ensure that they can serve as focal hospitals for management of COVID-19 (including isolation and intensive care units). These facilities include: the Infectious Disease Hospital (IDH); the Bangladesh Institute of Tropical and Infectious Diseases (BITID); and Medical College Hospitals. This sub-component will support: (i) improved and expanded intensive care units; (ii) establishment of triage systems and isolation rooms; (iii) medical equipment; (iv) supplies of essential IPC materials; (v) water and sanitation services/hand hygiene stations; (vi) bio-safety measures and medical waste management and disposal systems; (vii) strengthened microbiology lab facilities; and (viii) other essential equipment and materials. Work under this sub-component will be closely aligned with support to case management and IPC under sub-component 2.1.

Component 3: Institutional Capacity. This component will improve management, monitoring and preparedness capacity, including:

Emergency Operations Center (EOC): Support for expanding the scope and improving the

functionality of the Public Health Emergency Operations Center (PHEOC), including, *inter alia*, upgrading the system for epidemiology intelligence, information gathering and use, and rapid response, improving risk communication and community engagement, and capacity building of IEDCR. The scope of IEDCR's PHEOC will be expanded to ensure that this: (a) covers all hazards; and (b) follows the Incident Management System structure at the national and sub-national levels under an all hazards/ one-health umbrella. This would involve supporting: (i) the development of an improved system for epi-intelligence, information gathering and use, and rapid response; (ii) risk communication and social mobilization/ community engagement; and (iii) capacity building support to IEDCR, as the mandated lead agency for preparedness and response in Bangladesh.

District-level surveillance capacity: Enhancing the health emergency surveillance capacity of selected district and tertiary care level hospitals through: (a) improving the functionality of epidemiology units in each such hospital; and (b) supporting the District Health Information System (DHIS2) to enable timely reporting by such hospitals. Support will be provided to improving the functionality of Epi-units in selected district-level, and tertiary-care hospitals. In addition, the DHIS2 will be supported to ensure that designated hospitals can report on a real-time basis. This will involve support to data flow and information management to improve data recording, reporting and use.

Stockpiling of critical medical supplies: This will include support for stockpiling of critical medical supplies and vaccines including enhancing forecasting capability, strengthening of sub-national distribution channels, developing inventory systems, and provision of therapeutic medicines and vaccines. More specifically, it will support forecasting, strengthening distribution channels to the sub-national level, development of an inventory system, and procurement of the required medical supplies. Funding under this component would be used for procurement of therapeutic medicines and vaccines once these become available.

Operational Research: carrying out research on relevant operational topics related to *inter alia*, COVID-19 preparedness and response efforts. This could include, for example: nosocomial infection rate assessment; intra-family and slum/community transmission dynamics; severity assessment; natural progression of the disease and seroprevalence; ability of hospitals to maintain non-COVID routine health services. This activity will support learning – a key objective of the MPA program.

Implementation Management: Support for project implementation and management, including for procurement, financial management, and monitoring and evaluation.

Component 4: Contingent Emergency Response Component (CERC)

This will ensure provision of immediate response to an Eligible Crisis or Health Emergency. In the event of an Eligible Crisis or Emergency, the project will contribute to providing immediate and effective response to said crisis or emergency. Any unused balance under the first three components can be reallocated to the CERC component, in the event of an emergency. A negative list for CERC has been appended in Annex II with the subproject screening form indicating ineligible emergency activities that cannot be financed under CERC.

Based on the Project component it is envisaged that the HCFs will be upgraded necessitating minor civil works and thus will entail the employment of construction workers and suppliers. Present waste management system and existing landfills, incinerators, and wastewater treatment plants will be used. The Project will also finance goods such as medical equipment, Personal Protective Equipment (PPE), chemical/biological reagent, and other medical supplies or materials. Given that the existing HCF will be upgraded, no land acquisition will be acquired. The Project will also not involve trans-boundary movement of specimen, samples or any hazardous materials. The project will not support the enforcement of such

measures when they involve actions by the police or the military, or otherwise that require the use of force. As per the assessment of ES risk, both the Environmental and Social risks are categorized as Substantial.

When subproject locations/ design will be known, each subproject will be screened for ES risks and impacts. Annex II provides a screening form (including negative list for CERC) which 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.

POLICY, LEGAL AND REGULATORY FRAMEWORK

Various legal and regulatory requirements of both the GoB 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 pertinent laws/ policies are described below:

Relevant GoB Policies and Laws:

Constitution of the People's Republic of Bangladesh, 04 November 1972

Bangladesh's Constitution defines the rights of every citizen to have access to medical care where the State is responsible for the provision of Basic Necessities for the citizens. Article 15 (1) notes that it shall be a fundamental responsibility of the State to ... "the provision of the basic necessities of life, including food, clothing, shelter, education and medical care". Article 27 and 28 of the Constitution are about fundamental rights of citizens. Article 27 states that all citizens are equal before law and are entitled to equal protection of law. Article 28 states that The State shall not discriminate against any citizen on grounds only of religion, race caste, sex or place of birth and Women shall have equal rights with men in all spheres of the State and of public life. It also states that no citizen shall, on grounds only of religion, race, caste, sex or place of birth be subjected to any disability, liability, restriction or condition with regard to access to any place of public entertainment or resort, or admission to any educational institution and nothing in this article shall prevent the State from making special provision in favor of women or children or for the advancement of any backward section of citizens.

Communicable Diseases (Prevention, Control and Eradication) Act 2018.

The Act was passed in 2018 and it repealed and merged some of the dated laws and ordinances regarding infectious disease control, including the Epidemic Diseases Act (1897), the Public Health (Emergency Provisions) Ordinance (1944), the Bangladesh Malaria Eradication Board Ordinance (1977) and the Prevention of Malaria (Special Provisions) Ordinance (1978). The objective is to protect the people from the national and international spread of infectious diseases, to prevent, control and eradicate such diseases, to issue global alerts and to increase mutual support for the outbreak of the disease, to increase the capacity for precise risk management and to spread related education, to review the progress of diseases, to protect rights including systematic loss.

National Health Policy (NHP) 2011

National Health Policy (NHP) 2011 views access to health as a part of recognized human rights. In order to achieve good health for all people, equity, gender parity, disabled and marginalized population access in health care need to be ascertained.

National Environmental Policy (NEP), 1992

The NEP sets out the basic framework for environmental action together with a set of broad sectoral guidelines for action. Major elements of the policy covers maintaining of the ecological balance for ensuring sustainable development; protection of the country against natural disasters; identifying and controlling activities which are polluting and destroying the environment.

Bangladesh Environmental Conservation Act (ECA), 1995 amended 2002

This umbrella Act includes laws for conservation of the environment, improvement of environmental standards, and control and mitigation of environmental pollution. It is currently the main legislative framework document relating to environmental protection in Bangladesh. The Department of

Environment (DoE) implements the Act. A Director General (DG) heads DoE. Under the Act, operators of industries/projects must inform the Director General of any pollution incident. In the event of an accidental pollution, the Director General may take control of an operation and the respective operator is bound to help. The operator is responsible for the costs incurred and possible payments for compensation.

Environment Conservation Rules, 1997 and its Amendment

These are the first set of rules, promulgated under the Environment Conservation Act 1995. Among other things, these rules set (i) the National Environmental Quality Standards for ambient air, various types of water, industrial effluent, emission, noise, vehicular exhaust etc., (ii) requirement for and procedures to obtain Environmental Clearance, and (iii) requirements for IEE/EIA according to categories of industrial and other development interventions. Any proponent planning to set up or operate an industrial project is required to obtain an "Environmental Clearance Certificate" from the Department of Environment (DoE), under the Environment Conservation Act 1995 amended in 2002. The wastewater generated from healthcare facilities are subjected to the discharge standards set in ECR 1997.

Medical Waste (Management and Treatment) Rules 2008

The GoB promulgated the Medical Waste (Management and Treatment) Rule, 2008 for processing and management of MW in Bangladesh. It was prepared through active participation of MoHFW, MOL and MOEFCC mainly with the objective of proper management of medical waste and protecting the environment. The Medical Waste (Management and Treatment) Rules 2008 forms the base of management of all medical waste in the country. The rules are applicable only to waste management facility/operators i.e. those involved in transportation, treatment and disposal of medical waste. The law provides for guidance on the collections, storage treatment and disposal of medical waste for management facilities/operators. The institutions or agencies involved in collection, transport, storage, have to obtain authorization from the DoE.

Manual for Hospital Waste Management 2001

Directorate General of Health Service (DGHS) has developed a manual for hospital waste management in 2001 which was later updated. The manual is aimed for the hospital managers, health providers, policy makers and all the administrators, with an interest for and with responsibility to ensure hospital wastes are disposed of efficiently and economically as far as possible with a minimal environmental and health impact.

Hospital Infection Prevention and Control Manual, 2018¹

This document lays down the policies and broad guidelines required for the practice of a nationally acceptable standard of Infection Prevention and Control (IPC) in health care settings. The purpose of this manual is to provide IPC guidelines (with customization options, depending on the level and type of hospital) for healthcare providers (hospital administrators, nurses and midwives, doctors and support staff) to use in all categories and all level of hospitals, public and private in Bangladesh. The guidance includes strategic directions, approaches, and actions for

¹ Available at: <http://qis.gov.bd/wp-content/uploads/2019/05/Hospital-Infection-Prevention-and-Control-Manual.pdf>

all major hospital services and sections. The manual incorporates and adapts mostly from the World Health Organization's Practical Guidelines for Infection Control in Health Care Facilities and some other international publications. Part 4 of the guideline discusses hand washing, PPE, safe handling of sharps, spillages, waste and laundry management. Part 5 discusses contact precautions, droplet transmission and precautions, Part 6 discusses decontamination, disinfection and sterilization. Parts 7, 8 and 9 discuss laboratory biosafety protocols, general housekeeping and waste management respectively.

National Women Development Policy 2011

This policy was developed with the objective to establish equal rights of men and women in areas of state and public life, to ensure security and safety of women, to ensure the socio-economic, political, administrative and legal empowerment and to establish human rights of women.

Bangladesh Labor Act, 2006 and Amendment 2013

Terms and Conditions of employment is guided by the Bangladesh Labor Act, 2006 and Amendment 2013 that illustrates the basic conditions of employment which are materially consistent with ESS 2. The Act makes it mandatory for employers to furnish employees with written particulars of employment stating, hours of work, wages, leave entitlements, job description, grievance procedure, benefits if any etc. This Act also covers issues of Occupational Health and Safety (OHS) of factory workers and the provision of a comfortable work environment and reasonable working conditions, safety precaution regarding explosive or inflammable dust/ gas, protection of eyes, protection against fire, works with cranes and other lifting machinery, lifting of excessive weights, provision of safety measures like appliances of first aid, maintenance of safety record book, rooms for children, housing facilities, medical care, group insurance etc.

Right to Information Act, 2009

The Act makes provisions for ensuring free flow of information and people's right to information. The freedom of thought, conscience and speech is recognized in Bangladesh Constitution as a fundamental right and the right to information is an alienable part of it. The right to information act ensures that transparency and accountability in all public, autonomous and statutory organizations and in private organizations run on government or foreign funding shall increase, corruption shall decrease and good governance shall be established. As per the Act, every citizen has a right to information from the Authority and the Authority shall on demand from a citizen be bound to provide information, except those that might create a threat to national security, intellectual property rights, that can obstruct enforcement of law or endanger any individual or institutions, among others.

Tribal People's Right

The Constitution of Bangladesh guarantees equal rights and equality before law of its citizens. Article 27 guarantees equality of citizens before the law and Article 28 prohibits discrimination on grounds of religion, sex, caste, race and place of birth. Besides the Constitution, there is also a corpus of legal, institutional and policy dispositions for the safeguards of the tribal peoples' rights in Bangladesh.

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) 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. MoHFW 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. A Stakeholder Engagement Plan (SEP) has already been made 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 Human and Occupational Resources Management Procedures (HORMP) (or LMP, in ESF term) will be 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).

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 medical college hospitals, the National Infectious Diseases Hospital (NIDH), and the Bangladesh Institute of Tropical and Infectious Diseases (BITID). However, presence of a small number of squatters will have to be identified within the existing health complexes who might be adversely affected. If they are adversely impacted, an abbreviated RAP (Template for A-RAP at Annex VII) may need to be prepared.

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 now. Relevant steps will have to be taken to communicate project related information to these communities in a culturally appropriate manner, taking into consideration their special circumstances and potential for being excluded.

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. Bangladesh is also a signatory to a number of International Conventions and Treaties including Stockholm Convention for Persistent Organic Pollutants, 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. As the situation remains fluid it is critical that those managing both the national response as well as specific HCF and programs keep abreast of guidance provided by the WHO and other international best practice. 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](#). Additional guidance is listed in Annex VIII-Resource List: COVID-19 Guidance.

ENVIRONMENTAL AND SOCIAL BASELINE

Background. Bangladesh has been conducting a number of programs for prevention, management and elimination of major communicable diseases of public health importance for years. Some of these programs have successfully been able to eradicate, prevent and eliminate a considerable number of communicable diseases at the country level. Also, these programs have played a significant role in the eradication of Polio at the global level. The country has set targets to control and eliminate a number of other communicable diseases in the near future; these targets are specially aligned with SDG goals. During 2017 and 2018, there were outbreaks of a few communicable diseases: one Chikungunya and two measles outbreaks in Dhaka and Chittagong, and one Diphtheria outbreak among Displaced Rohingya People (DRP) and the nearby Bangladeshi-host community of Cox's Bazaar. These outbreaks induced mass morbidity and a few deaths. However, due to prompt and constructive actions from DGHS, it has been possible to successfully control and manage all these outbreaks.

Waste Management. In Bangladesh, MoHFW is responsible for in-house waste management including proper segregation and temporary storage. Local government agencies are responsible for managing out-house waste, including collection from temporary storage, transportation and final disposal. This concept holds good for all the district hospitals, medical college hospitals and specialized hospitals. To make the concept/program effective, supply of logistics and technical support to the hospitals together with smooth coordination with local government agencies and department of environment is of paramount importance.

In Bangladesh, the Ministry of Local Government, Rural Development and Cooperatives (MoLGRDC) (through city corporations, municipalities/pourashavas) is responsible for waste management including medical waste management. Out-house management of medical waste is operational in five cities namely Dhaka, Jessore, Bogra, Comilla, and Chittagong where centralized facilities have been set up for medical waste management. In these cities, there is agreement between city corporation/pourasava and service providers e.g NGOs. These NGOs need to get registered with the DoE under the medical waste (Management and Treatment) Rule 2008 and also need to obtain their trade licenses from city authorities. The institutions or agencies involved in the collection, transport, and storage have to obtain authorization from MoEF/DoE. These NGOs are responsible for collection, treatment and disposal of waste. They meet their expenses through the service charges it collects directly from the healthcare facilities with whom it enters into a service contract for transport, treatment and disposal of the medical waste.

The out-house medical waste management facility in Dhaka is operated by an NGO named PRISM. PRISM has established a medical waste treatment plant at Matuail, Dhaka in 2004 in collaboration with Dhaka City Corporation (currently Dhaka South City Corporation) and support from other international donors. PRISM has 7 specialized collection vehicles, 2 incinerators, 2 autoclaves, 12 pits and 1 chemical disinfection unit for waste transportation and disposal at present. In Bogra and Khulna, the NGOs 'Swopno' and 'Prodipan' respectively are carrying out medical waste management. Pilferage of medical waste in hospitals is a major issue and the NGOs operating the out-house facilities receive a fraction of the waste that is generated from hospitals. It is anticipated that, since the recyclable materials have economic value, most of it is pilfered out through unauthorized channels.

The coverage of out-house medical waste management (through centralized facilities) is low and mainly confined to major cities. In other hospitals, there is limited arrangement for medical waste management (i.e. tertiary healthcare facilities). Some district hospitals have set-up in-house management with incinerators whereas the facilities at the secondary and tertiary level do not have these facilities. The secondary and tertiary facilities sometimes store and send their waste to district hospitals to be incinerated. However, waste logs are rarely maintained and complete information of waste generated, processed or treated is not available. Besides, there are other issues associated with medical waste management which are discussed below.

Medical Waste Management (MWM) has been previously identified as a challenge in the health sector in Bangladesh as highlighted in several reports and assessments (The Environmental Assessment and Action Plan for HPNSDP in 2011-16, EMP implementation status report of 2014 etc.). The major findings from the assessment are the following:

- The Medical Waste Generators by and large do not maintain any proper record of the different streams of MW generated. Inadequate number of color-coded bins, often improperly placed, results in different waste streams getting mixed.
- The segregation of waste is delegated to the ward boys and the sweepers who do not have formal training. The nurses or the ward-in-charge who has received MWM training are not being able to supervise or transfer their knowledge adequately resulting in MWM practices not being implemented.
- There is lack of uniformity in color-coding and segregation procedures among the facilities.
- Needles and syringes were not destroyed before disposal. The needle cutters were not functional (blades becoming blunt after one or two uses) and more often the needle-cutters are usually kept inside the cupboards and are not used. It was also observed that bins used for sharps are not properly designed as per international standards. There is a general reluctance of destroying the sharps and needles.
- The Information, Education and Communication (IEC) materials were not visible at the appropriate places in the facilities.
- The waste trolleys have become defunct and instead the trolleys used for ferrying patients were used for transporting the waste from the wards.
- The temporary storage of the different streams of Medical Waste is not done properly at the HCFs especially in the Public Hospitals.
- The use of PPE such as gloves, masks, boots, etc. is partial. The employees/waste pickers also do not undergo immunization at regular periods, as is required under the Infection Control guidelines.

Under the previous sector programs, the Directorate General of Health Services (DGHS) has taken initiatives to address some of these issues related to Medical Waste Management (MWM) in the health sector. In this regard, the DGHS has developed an online record-keeping, reporting and monitoring system for in-house waste management, conducted training on MWM at various levels, explored the feasibility of different out-house waste management options in several hospitals in the country. DGHS has also developed new IEC materials promoting awareness campaign on MWM. Although the medical waste management practices of the selected Upazila level HCFs under the Health, Nutrition And Population Sector Support Program (2017 - ongoing) is done as per medical guidelines (segregation, transportation, storage, incineration and landfill disposal), the issues associated with MWM still broadly persists in different HCFs all over the country.

Social. Life expectancy of Bangladesh population at birth is 71/74 (m/f). Total expenditure on health per capita is USD 88 and as a percentage of GDP is 2.8. Bangladesh suffers from both a shortage of and geographic mal distribution of human resources for health. There are an estimated 3.05 physicians per 10,000 population and 1.07 nurses per 10,000 population (estimates based on MoHFW HRD 2011). There is a gap between sanctioned and filled health worker positions: 36% vacancy in sanctioned health worker

positions and only 32% of facilities have 75% or more of the sanctioned staff working in the facilities (World Bank, 2009). 28% of treatment provided in government health facilities is through alternative medicine (Ayurveda, Unani, and Homeopathy), yet as of June 2011, there was a 50% vacancy rate for alternative medicine providers (MoHFW AMC 2011).

Health workers are concentrated in urban secondary and tertiary hospitals, although 70% of the population lives in rural areas (Country Case study GHWA, 2008). Major challenges include: an overly- centralized health system, governance structure and regulatory framework, fragmented public service delivery, allocation of public resources, lack of regulation of the private sector which employs 58% of all physicians, shortage of human resources, turnover and absenteeism of health workers, and maintenance of health facilities and medical equipment.

Vulnerable/Disadvantaged People. People with multiple disadvantaged identities face a higher risk of discrimination and exclusion (e.g. malnourished female informal workers living in dense, low income settlements), compared to people who are disadvantaged due to one characteristic e.g. only gender. Experience from past outbreaks illustrates that public health emergencies compound existing gender inequalities. The coronavirus outbreak could disproportionately affect most women in Bangladesh both in the short and long term. These adverse impacts include disruptions on their health and well-being, food security and nutrition, livelihoods, and potentially increases in domestic violence. Further, individuals most at risk for COVID-19 include adults over 60 years old and those with chronic conditions (such as diabetes, heart disease, and lung disease). 53.8% of Bangladesh's older persons had a prevalence of multi-morbidity (2 or more of 9 chronic medical conditions) and this number was higher for women, illiterate people and people living alone. Almost 95% of elderly women reported multi-morbidity. Lack of social safety nets makes urban informal workers more vulnerable to economic shocks. Living conditions of urban informal workers are precarious and characterized by overcrowding, insecure housing/tenure, poor waste management and lack of access to clean water and sanitation, health, nutrition, and other basic services. With COVID-19, the risks of infection in such dense, poorly served areas are particularly high. Also, COVID-19 pandemic evidence shows that small and informal enterprises are more vulnerable to exogenous shocks given their limited financial, managerial and information resources. Due to the pandemic Bangladeshi workers who remain overseas are vulnerable to risks of exploitation, abuse, low or withheld wages and discrimination. They often live in crowded, unhygienic conditions with low levels of sanitation. Health care is difficult to access due to language and cultural barriers in host countries. Persons with disabilities face higher risk factors due to lack of accessible water and sanitation facilities, unavailability of public health information in accessible formats, secondary health conditions, and reliance on aides and caregivers which makes social distancing difficult.

Since this is a national project, Indigenous peoples (IPs)/small ethnic minority communities are present in the overall project implementation area. It is not expected that any of the activities related to the project will have neither direct nor indirect negative impacts on these communities. All the activities financed by the project will respect the human rights, dignity, aspirations, identity, culture and livelihoods of IPs. Training and capacity building for health care professionals under the project will ensure that care is provided for all, irrespective of origin or ethnicity, with due care to consider the distinctive cultural and language requirements of IPs.

To ensure broad community support and equal access to health service through meaningful consultations with small ethnic communities, the PIU will ensure their widespread participation with adequate gender and generational representation, community elders/leaders and civil society organizations.

Testing for COVID-19. Testing for COVID-19 in the country began with a slow pace though in early May, around 3,000 individuals are being tested every day through 31 testing labs countrywide (May 01, 2020) with a capacity of around 5,000 tests per day. The present rate of testing per million people is 426, which is one of the lowest in South Asia. The Government is planning as of May 01, 2020, to open test centers at Upazila (Sub-district) levels. Further, three new testing centers in three upscale private hospitals have also been approved by the government (Square, United and Evercare Hospitals). As of 01 May 2020, around 65,000 individuals have been tested. National hotline and online/ telemedicine support in limited scale have also been implemented. Screening in all ports of entry has also been implemented and more than 200,000 passengers have been screened. At the moment no mobile testing services are available. However, samples are being sent to these testing centers from various health facilities of the country and there are potential risks while samples are being handled and transported. Recently rapid tests kits have been developed by “Gono Shastho Kendra” (a health service provider and hospital) which have been sent to the Directorate General of Drug Administration for verification and approval. If verified and approved, these rapid kits can be used in garments factories and other places to detect presence of COVID-19 within 10-15 minutes.

POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND MITIGATION

Environmental Risks. The major environmental risks are: (i) the occupational health and safety issues related to testing and handling of supplies; (ii) MWM and community health and safety issues related to the handling, transportation and disposal of healthcare wastes; and (iii) minor/moderate scale construction impacts related to air, water, noise emissions and waste. Waste that will be generated from labs, quarantine facilities and screening posts could include liquid contaminated waste (e.g. blood, other body fluids and contaminated fluid) and infected materials (water used; lab solutions and reagents, syringes, bed sheets, majority of waste from labs and quarantine and isolation centers, etc.) which require special handling and awareness, as it may pose an infectious risk to healthcare workers who come in contact with or handling the waste. Poor infection control and occupational health and safety practices due to lack of proper Personal Protective Equipment (PPE) and lack of training, awareness and understanding of health risks can contribute to increased risk of infection (can be fatal in case of Covid-19) in HCFs. When the healthcare workers exposed to the hospital environment do not use appropriate personal protective equipment (PPE) they become vulnerable to diseases.

Other environmental concern from medical facilities are limited number of color-coded and labeled waste bins in HCFs. This compromises the medical waste segregation at the source of generation. Infectious and non-infectious wastes are stored and transported in a plastic bag. This pose operational risks to waste workers. Significant number of HCF transfer medical wastes to the nearby facility for incineration using public transports (*Tomtom* and/or *Rikshaw*) which may cause potential infection transmission to the public. The service coverage and quality of incineration/treatment facilities is limited, temporary incinerators, open burning or/and disposed in the general waste bins while exposing the public and environment to additional risks. Inadequate storage, poor collection and untimely disposal can attract stray animals and rag pickers and become breeding grounds for vector- borne, water-based and fecal-oral infections. There is also the risk of contamination of water bodies which can potentially affect a larger community beyond the hospital workers and rag-pickers. The minor civil works may cause noise and emissions from vehicles and machinery, waste generation and may involve risks regarding workplace and community health and safety.

Social Risks. As the social risks are concerned, the project will support renovation/refurbishment of selected HCFs, but only within existing footprints, therefore, no land acquisition or restrictions on land use and impacts on livelihoods from such restrictions/acquisition, is envisaged due to project activities. During implementation phase, squatters may be found inside health facilities. The refurbishment and rehabilitation of the HCFs will entail employment of local labor, the number of which is not likely to cause any significant labor influx and its associated risks and impacts. The Project beneficiaries will also include indigenous peoples and small ethnic minority communities, relevant steps will have to be taken to communicate project related information to these communities in a culturally appropriate manner, taking into consideration their special circumstances and potential for being excluded.

Emerging evidence from COVID-19 impacts as well as lessons from past epidemic suggest that risks of GBV may increase, especially in contexts with weak health systems, weak rule of law, and already high levels of GBV and gender inequality. The risks can also be attributable to the state of quarantine and the isolation centers the project will help establish. The project related risks will be screened during implementation and mitigation actions will be proposed accordingly in the ESMPs .. Codes of Conduct (CoC) commits all persons engaged by the contractor, including sub-contractors and suppliers, to

acceptable standards of behavior. The CoC must include sanctions for non-compliance, including non-compliance with specific policies related to gender-based violence, sexual exploitation and sexual harassment (e.g., termination).

MITIGATION MEASURES

PLANNING AND DESIGN STAGE

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

- ***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 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:** The 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.
- Proper design and functional layout of healthcare facilities, which may involve several aspects: i) structural and equipment safety, universal access²; ii) nosocomial infection³ control; iii) waste segregation, storage and processing. Internationally recognized guidelines are available and should be referenced.
- No land acquisition is envisaged since civil work involved will be refurbishment and rehabilitation of 8 divisional medical college hospitals, the National Infectious Diseases Hospital (NIDH), and the Bangladesh Institute of Tropical and Infectious Diseases (BITID). No new infrastructure has been planned to be built either on public or private property. Existing waste management facilities will be used for waste disposal and no additional waste management facilities/ dumpsite/ landfill will be required. However, it is anticipated that there will be a small number of squatters within the existing health complexes. Since the detailed designs of these project intervention are yet to be finalized, at present, it is not clear whether these squatters will be relocated or not. If yes, the

² Refer to ESS 4 Community Health and Safety

³ Nosocomial infection can be described as an infection acquired in hospital by a patient who was admitted for a reason other than that infection. Also called “hospital acquired infection”.

relocation process should in line with the requirements of ESS5 and an Abbreviated Resettlement Action Plan will be developed (per template provided in Annex VII).

CONSTRUCTION STAGE

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 subprojects. The site-specific ESMP will include:

- Environmental risks and issues such as resource efficiency and material supply;
- Construction related solid wastes, wastewater, noise, dust and emission management;
- Hazardous materials management;
- Occupational Health and Safety (OHS) issues;
- Labor influx, security personnel management, GBV/SEAH risks, gender issue; and
- Labor and working conditions.

The ESMP will form part of the Contract and the ESMF will be part of the bidding document.

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

Medical waste management and disposal. The PIU and HCFs 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.

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.
- Ensure that if health care workers are pushed to work without proper PPEs, they can access the GRM register for complaint. Refer to LMP for issues related to raising concern about

workplace safety.

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>

For detailed HCF infection and prevention control protocol and WASH protocol guidelines are provided in the Annexes V and VI.

OHS and labor and working conditions: A Human and Occupational Resource Management Procedure (HORMP) had been developed to address the risk.

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 these makeshift structure would be done in line with the Table 4 of the ESMP template provided in the Annex III.

PROCEDURES TO ADDRESS ENVIRONMENTAL AND SOCIAL ISSUES

The Implementing Agency (MoHFW) 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, GoB laws and regulations, Good International Industry Practice (GIIP); EHS; WHO COVID-19 Guidelines and this ESMF. The PIU will be adequately staffed (especially with an Environmental and a Social Specialist) to oversee the project's work and ensure that each HCF complies with all project procedures and receive professional implementation and project management support, including for procurement. 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.

Each individual HCF undertaking activities financed by the project will 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. If needed, an Abbreviated Resettlement Action Plan will be developed under the ESMP per template provided in Annex VII.

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. 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.

PUBLIC CONSULTATION AND DISCLOSURE

Due to the nature of COVID-19 outbreak and its diffusion mechanism, initial consultation has been limited to public authorities and national health experts, as well as international health organization representatives. As per the SEP, the project will adapt to different situation and requirements as they develop to disclose information regarding COVID-19 and other relevant issues. Information will build on national guidance on avoiding the spread of the virus and will focus specifically on risks associated with project activities.

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 MoHFW 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, HORMP	WB and MoHFW website	All stakeholders identified above	IA
Quarterly	Progress report including summaries of complaints and resolution	WB and MoHFW website	Implementing partners	IA
Before key activities	ESIA or ESMP	WB and MoHFW website	Key stakeholders for specific activities	IA
Annual	Annual report on progress and lessons learnt	WB and MoHFW website	General public	IA

Further, following guidelines has been suggested by the WB for projects under preparation, to be adopted while conducting stakeholder consultation and engagement:

- Review the country COVID-19 spread in the project area, and the restrictions put in place by the government to contain virus spread;
- Review the SEP, particularly the approach, methods and forms of engagement proposed, and assess the associated potential risks of virus transmission in conducting various engagement activities;
- Be sure that all PIU and HCF members articulate and express their understandings on social behavior and good hygiene practices, and that any stakeholder engagement events be preceded with the procedure of articulating such hygienic practices;
- Avoid public gatherings (taking into account national restrictions), including public hearings, workshops and community meetings, and minimize direct interaction between project agencies and beneficiaries / affected people;
- If smaller meetings are permitted, conduct consultations in small-group sessions, such as focus group meetings. If not permitted, make all reasonable efforts to conduct meetings through online channels, including WebEx, Zoom and Skype meetings;

- Diversify means of communication and rely more on social media and online channels. Where possible and appropriate, create dedicated online platforms and chat groups appropriate for the purpose, based on the type and category of stakeholders;
- Employ traditional channels of communications (TV, newspaper, radio, dedicated phone-lines, public announcements and mail) when stakeholders do not have access to online channels or do not use them frequently;
- Employ online communication tools to design virtual workshops in situations where large meetings and workshops are essential, given the preparatory stage of the project;
- In situations where online interaction is challenging, information can be disseminated through digital platform (where available) like Facebook, Twitter, WhatsApp groups, Project weblinks/ websites, and traditional means of communications (TV, newspaper, radio, phone calls and mails with clear description of mechanisms for providing feedback via mail and / or dedicated telephone lines. All channels of communication need to clearly specify how stakeholders can provide their feedback and suggestions;

STAKEHOLDER ENGAGEMENT

A Stakeholder Engagement Plan (SEP) has been prepared for the 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.

INSTITUTIONAL ARRANGEMENTS, RESPONSIBILITIES AND CAPACITY BUILDING

The Project will set up a Project Implementation Unit (PIU) in the DGHS that will be headed by a Project Director (PD). A Project Steering Committee (PSC) will be established to provide guidance to the PIU. PIU will recruit an Environmental and a Social Specialist in the PIU, who will be responsible for:

- Preparation and consultation for required ES instruments
- Addressing ES risks and impacts including monitoring of the implementation of all ES instruments, community health and safety measures, the functioning of the grievance redress mechanism (GRM) etc.
- Screening of subprojects (Form at Annex II) for ES issues, disclosure, review and clearance of subprojects to monitoring the implementation of the ESMP, A-RAP (if required, Template at Annex VII) etc
- Prepare ICWMP (Template at Annex IV) in coordination with the Head of HCFs and ensure implementation and monitoring

In the Operation stage, the PIU will ensure the following aspects are followed in the HCFs:

- Define roles and responsibilities along each link of the chain along the cradle-to-crave infection control and waste management process;
- Ensure adequate and qualified staff are in place in all HCFs, including those in charge of infection control and biosafety and waste management facility operation.
- Stress that the Head of an HCF takes overall responsibility for infection control and waste management;
- The management involves all relevant departments in a healthcare facility, and build an intra-departmental team to manage, coordinate and regularly review the 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.

The training topics will include (for health workers, administrative and operational personnel, construction workers and community in general):

- Use and disposal of PPE (for all)
- Working in COVID-19 environment (construction workers)
- COVID-19 Infection Prevention and Control Recommendations (Health care workers)
- Laboratory biosafety guidance related to the COVID-19 (Laboratory personnel)
- Specimen collection and shipment (Laboratory personnel)
- Standard precautions for COVID-19 patients (Health care workers)
- Risk communication, prevention and community engagement (Administrative and operational personnel)

- WHO and CDC guidelines on quarantine including case management
- Waste disposal and management (Waste disposal staffs and healthcare personnel)

Annexes

- I. Abbreviations and Acronyms
- II. Screening Form for Potential Environment and Social Issues (including negative list for CERC)
- III. Environmental and Social Management Plan (ESMP) Template
- IV. Infection Control and Waste Management Plan (ICWMP) Template
- V. Infection and Prevention Control Protocol
- VI. WASH Protocol for HCF Treating COVID-19 Patients
- VII. Template for A-RAP
- VIII. Resource List COVID-19 Guidance

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
HORMP	Human and Occupational Resource Management Procedure
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

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 ES risk rating for these subprojects and specifying the type of environmental and social assessment required, including specific instruments/plans. Use of this form will allow the PIU to form an initial view of the potential risks and impacts of a subproject. ***It is not a substitute for project-specific ES assessments or specific mitigation plans.***

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

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

Questions	Answer		ESS relevance	Due diligence / Actions
	Yes	No		
Does the subproject involve civil works including new construction, expansion, upgrading or rehabilitation of healthcare facilities and/or waste management facilities?			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	HORMP, 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 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

Conclusions:

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

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

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

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

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

1. Screening ES Risks of Medical laboratories

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

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

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

2. Screening ES Risks of Quarantine and Isolation Centers

According to WHO:

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

Many COVID-19 projects include construction, renovation and equipping of quarantine and isolation centers at Point of Entry (POE), in urban and in remote areas. There may also be circumstances where tents are used for quarantine or isolation. Public or private facilities such as a stadium or hotel may also be acquired for this purpose.

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

- contextual risks such as conflicts and presence or influx of refugees
- construction and decommissioning related risks
- 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

The following documents provide further guidance regarding quarantine of persons.

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

3. SCREENING ES RISKS OF TREATMENT CENTERS

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](#)

4. SCREENING ES RISKS RELATING TO LABOR AND WORKING CONDITIONS

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

NEGATIVE LIST FOR CERC

Attributes of Ineligible Subprojects
GENERAL CHARACTERISTICS
Concerning significant conversion or degradation of critical natural habitats. Including, but not limited to, any activity within wildlife and forest reserves, national parks, conservation forests and sanctuaries.
Damages cultural property, including but not limited to, any activities that affect the properties inscribed in the World Heritage List and : <ul style="list-style-type: none"> • Other archaeological and historical sites; and • Religious monuments, structures and cemeteries.
Requires involuntary acquisition of land, or the resettlement or compensation of more than 200 people
Requiring pesticides that fall in WHO classes IA, IB, or II.
Affecting waters of riparian neighbors.
Roads New primary roads and highways.
Irrigation New irrigation and drainage schemes.
Dams Construction of any dams.
Power New power generating capacity of more than 10 MW.
Oil and Gas New exploration, production or distribution. Rehabilitation of production or distribution systems.
Income Generating Activities Activities involving the use of wood for fuel or as raw material from natural habitats. Activities involving the use of hazardous substances.

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) TEMPLATE

Introduction

The Borrower will ensure that site specific Environmental and Social Management Plans (ESMP) are developed by the PMU, setting out how the environmental and social risks and impacts will be managed through the project lifecycle. This ESMP template includes several matrices identifying key risks and setting out suggested ES mitigation measures. The 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 ES risks, including during the different phases of the project identified in the ESMF: planning and design, construction, operations and decommissioning.

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

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

The Infection Control and Waste Management Plan forms part of the ESMP. The ESMP should identify other specific ES management tools/instruments, such as Human and Occupational Resource Management Procedure (HORMP), and/or Medical Waste Management Plan etc.

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

Key Activities	Potential ES Risks and Impacts	Proposed Mitigation Measures	Responsibilities	Timeline	Budget
Identify the type, location and scale of healthcare facilities (HCF)					
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 ➤ Consider the capacity of existing facilities, and plan to increase capacity, if necessary, through construction, expansion etc. ➤ Specify that the design of the facility considers the collection, segregation, transport and treatment of the anticipated volumes and types of healthcare wastes ➤ Require that receptacles for waste should be sized appropriately for the waste volumes generated, and color coded and labeled according to the types of waste to be deposited. <p>Develop appropriate protocols for the collection of waste and transportation to storage/disposal areas in accordance with WHO guidance. Design training for staff in the segregation of wastes at the time of use</p>			
Identify needs for transboundary movement of samples, specimen, reagent, and other 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 attached HORMP to identify possible mitigation measures 			
Identify needs for using security personnel during construction and/or operation of HCF					

HCF design – general	- Structural safety risk; - Functional layout and engineering control for nosocomial infection				
HCF design - considerations for differentiated treatment for groups of higher sensitivity or vulnerable (the elderly, those with preexisting conditions, or the very young) and those with disabilities	Some groups may have difficulty accessing health facilities				
Design of facility should reflect specific treatment requirements, including triage, isolation or quarantine		<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 HCF 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>			
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 			

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

Activities	Potential ES Risks and Impacts	Proposed Mitigation Measures	Responsibilities	Timeline	Budget
Clearing of vegetation and trees; Construction activities near ecologically sensitive areas/spots	- Impacts on natural habitats, ecological resources and biodiversity				
General construction activities Foundation excavation; borehole digging	- Impacts on soils and groundwater; - Geological risks				
General construction activities	- Resource efficiency issues, including raw materials, water and energy use; - Materials supply				
General construction activities – general pollution management	- Construction solid waste; - Construction wastewater; - Noise; - Vibration; - Dust; - Air emissions from construction equipment				
General construction activities – hazardous waste management	- Fuel, oils, lubricant				
General construction activities – Labor issues	- Workers coming from infected areas - Co-workers becoming infected - Workers introducing infection into community/general public	- Refer to COVID-19 HORMP attached - Consider ways to minimize/control movement in and out of construction areas/site. - If workers are accommodated on site require them to minimize contact with people outside the construction area/site or prohibit them from leaving the area/site for the duration of their contract - Implement procedures to confirm workers are fit for work before they start work, paying special to workers with underlying health issues or who may be otherwise at risk - Check and record temperatures of workers and other people entering the construction			

		<p>area/site or require self-reporting prior to or on entering</p> <ul style="list-style-type: none"> - 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 			
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 ES 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. • 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 hand washing) 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					
Waste minimization, reuse and recycling	Use of incinerators results in emission of dioxins, furans and particulate matter	<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. 			
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					
Onsite waste treatment and disposal					

Waste transportation to and disposal in offsite treatment and disposal facilities					
Transportation and disposal at offsite waste management facilities					
HCF operation – transboundary movement of specimen, samples, reagents, medical equipment, and infectious 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) 			

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

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

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;
- *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 Medical Waste Management Rules 2008 and Standard Operating Procedures of DGHS.
- *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

- Applicable Guidelines: Medical waste management should follow Medical Waste Management Rules 2008, Standard Operating Procedures of DGHS and applicable WHO guidelines⁴.

⁴ Safe management of wastes from health-care activities / edited by Y. Chartier et al. – 2nd ed. Available at:

-
- Waste minimization, reuse and recycling: HCF should consider practices and procedures to minimize waste generation, without sacrificing patient hygiene and safety consideration.
- 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 the 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 incinerator 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 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.
- Disposal of Personal Protective Equipment (PPE): If PPE is exposed to infectious materials during use (e.g., body fluids from an infected person) the PPE is considered contaminated and the wearer should remove it promptly, using proper removal procedures. It is essential that used PPE is stored securely within disposable rubbish bags. These bags should be placed into another bag, tied securely, marked (with date) and kept separate from other waste within the room. This should be put aside for at least 72 hours before being disposed of as normal.
- Wastewater treatment: HCF wastewater is related to the 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 proper 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 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.

- Sanitation and Hygiene facilities and practices at existing healthcare facilities are important because coronavirus can find alternate pathways of infection (e.g. faeces and clothings of patients, PPE). A standard protocol for adoption is provided in Annex VI (water, sanitation and hygiene (WASH) protocols for healthcare facilities treating COVID-19 patients)

3. Emergency Preparedness and Response

Emergency incidents occurred in an 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, community, 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-crave 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 an HCF takes overall responsibility for infection control and waste management;
- Involve all relevant departments in a healthcare facility, and build an intra-departmental team to manage, coordinate and regularly review the 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. 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 system should be in place.

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

Table ICWMP

Activities	Potential ES 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					
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>					

INFECTION AND PREVENTION CONTROL PROTOCOL

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

HEALTH CARE SETTINGS

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

- Visitors should be asked to watch out for symptoms and report signs of acute illness for at least 14 days.

Construction Settings in Areas of Confirmed Cases of COVID-19

1. Minimize Chance of Exposure

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

2. Training of Staff and Precautions

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

3. Managing Access and Spread

- Should a case of COVID-19 be confirmed in a worker on the project site, visitors should be restricted from the site and worker groups should be isolated from each other as much as possible;

Extensive cleaning procedures with high-alcohol content cleaners should be undertaken in the area of the site where the worker was present, prior to any further work being undertaken in that area.

WATER, SANITATION AND HYGIENE (WASH) PROTOCOLS FOR HEALTHCARE FACILITIES TREATING COVID-19 PATIENTS

(Adapted from WHO/UNICEF Water, sanitation, hygiene, and waste management for the COVID-19 virus (Interim guidance) 2019)

The following actions are particularly important: (i) managing excreta (faeces and urine) safely, including ensuring that no one comes into contact with it and that it is treated and disposed of correctly; (ii) engaging in frequent hand hygiene using appropriate techniques; (iii) implementing regular cleaning and disinfection practices; and (iv) safely managing health care waste. Other important measures include providing sufficient safe drinking-water to staff, caregivers, and patients; ensuring that personal hygiene can be maintained, including hand hygiene, for patients, staff and caregivers; regularly laundering bed sheets and patients' clothing; providing adequate and accessible toilets (including separate facilities for confirmed and suspected cases of COVID-19 infection); and segregating and safely disposing of health care waste.

1. Hand hygiene practices:

If hands are not visibly dirty, the preferred method is to perform hand hygiene with an alcohol-based hand rub for 20–30 seconds using the appropriate technique. When hands are visibly dirty, they should be washed with soap and water for 40–60 seconds using the appropriate technique. Hand hygiene should be performed at all five moments, including before putting on PPE and after removing it, when changing gloves, after any contact with a patient with suspected or confirmed COVID-19 infection or their waste, after contact with any respiratory secretions, before eating, and after using the toilet. If an alcohol-based hand rub and soap are not available, then using chlorinated water (0.05%) for hand washing is an option, but it is not ideal because frequent use may lead to dermatitis, which could increase the risk of infection and asthma and because prepared dilutions might be inaccurate. However, if other options are not available or feasible, using chlorinated water for hand washing is an option.

Functional hand hygiene facilities should be present for all health care workers at all points of care and in areas where PPE is put on or taken off. In addition, functional hand hygiene facilities should be available for all patients, family members, and visitors, and should be available within 5 m of toilets, as well as in waiting and dining rooms and other public areas.

2. Sanitation and plumbing

People with suspected or confirmed COVID-19 disease should be provided with their own flush toilet or latrine that has a door that closes to separate it from the patient's room. Flush toilets should operate properly and have functioning drain traps. When possible, the toilet should be flushed with the lid down to prevent droplet splatter and aerosol clouds. If it is not possible to provide separate toilets, the toilet should be cleaned and disinfected at least twice daily by a trained cleaner wearing PPE (gown, gloves, boots, mask, and a face shield or goggles). Further, and consistent with existing guidance, staff and health care workers should have toilet facilities that are separate from those used by all patients. WHO recommends the use of standard, well-maintained plumbing, such as sealed bathroom drains, and backflow valves on sprayers and faucets to prevent aerosolized faecal matter from entering the plumbing or ventilation system, together with standard wastewater treatment. If HCF are connected to sewers, a risk assessment should be conducted to confirm that wastewater is contained within the system (that is, the system does not leak) before its arrival at a

functioning treatment or disposal site, or both. For smaller HCF in low-resource settings, if space and local conditions allow, pit latrines may be the preferred option. Standard precautions should be taken to prevent contamination of the environment by excreta. These precautions include ensuring that at least 1.5 m exists between the bottom of the pit and the groundwater table (more space should be allowed in coarse sands, gravels, and fissured formations) and that the latrines are located at least 30 m horizontally from any groundwater source (including both shallow wells and boreholes). If there is a high groundwater table or a lack of space to dig pits, excreta should be retained in impermeable storage containers and left for as long as feasible to allow for a reduction in virus levels before moving it off-site for additional treatment or safe disposal, or both. A two-tank system with parallel tanks would help facilitate inactivation by maximizing retention times, as one tank could be used until full, then allowed to sit while the next tank is being filled. Particular care should be taken to avoid splashing and the release of droplets while cleaning or emptying tanks.

3. Toilets and the handling of faeces

It is critical to conduct hand hygiene when there is suspected or direct contact with faeces (if hands are dirty, then soap and water are preferred to the use of an alcohol-based hand rub). If the patient is unable to use a latrine, excreta should be collected in either a diaper or a clean bedpan and immediately and carefully disposed of into a separate toilet or latrine used only by suspected or confirmed cases of COVID-19. In all health care settings, including those with suspected or confirmed COVID-19 cases, faeces must be treated as a biohazard and handled as little as possible. Anyone handling faeces should follow WHO contact and droplet precautions and use PPE to prevent exposure, including long-sleeved gowns, gloves, boots, masks, and goggles or a face shield. If diapers are used, they should be disposed of as infectious waste as they would be in all situations. Workers should be properly trained in how to put on, use, and remove PPE so that these protective barriers are not breached. If PPE is not available or the supply is limited, hand hygiene should be regularly practiced, and workers should keep at least 1 m distance from any suspected or confirmed cases. If a bedpan is used, after disposing of excreta from it, the bedpan should be cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, and then rinsed with clean water; the rinse water should be disposed of in a drain or a toilet or latrine. Other effective disinfectants include commercially available quaternary ammonium compounds, such as cetylpyridinium chloride, used according to manufacturer's instructions, and peracetic or peroxyacetic acid at concentrations of 500–2000 mg/L. Chlorine is ineffective for disinfecting media containing large amounts of solid and dissolved organic matter. Therefore, there is limited benefit to adding chlorine solution to fresh excreta and it is possible that this may introduce risks associated with splashing.

4. Emptying latrines and holding tanks, and transporting excreta off-site.

There is no reason to empty latrines and holding tanks of excreta from suspected or confirmed COVID-19 cases unless they are at capacity. In general, the best practices for safely managing excreta should be followed. Latrines or holding tanks should be designed to meet patient demand, considering potential sudden increases in cases, and there should be a regular schedule for emptying them based on the wastewater volumes generated. PPE (long-sleeved gown, gloves, boots, masks, and goggles or a face shield) should be worn at all times when handling or transporting excreta offsite, and great care should be taken to avoid splashing. For crews, this includes pumping out tanks or unloading pumper trucks. After handling the waste and once there is no risk of further exposure, individuals should safely remove their

PPE and perform hand hygiene before entering the transport vehicle. Soiled PPE should be put in a sealed bag for later safe laundering (see Cleaning practices). Where there is no off-site treatment, in-situ treatment can be done using lime. Such treatment involves using a 10% lime slurry added at 1-part lime slurry per 10 parts of waste.

5. Cleaning practices

Laundry should be done and surfaces in all environments in which COVID-19 patients receive care (treatment units, community care centres) should be cleaned at least once a day and when a patient is discharged. Many disinfectants are active against enveloped viruses, such as the COVID-19 virus, including commonly used hospital disinfectants. Currently, WHO recommends using:

- 70% ethyl alcohol to disinfect small areas between uses, such as reusable dedicated equipment (for example, thermometers);
- sodium hypochlorite at 0.5% (equivalent to 5000 ppm) for disinfecting surfaces.

All individuals dealing with soiled bedding, towels, and clothes from patients with COVID-19 infection should wear appropriate PPE before touching soiled items, including heavy duty gloves, a mask, eye protection (goggles or a face shield), a long-sleeved gown, an apron if the gown is not fluid resistant, and boots or closed shoes. They should perform hand hygiene after exposure to blood or body fluids and after removing PPE. Soiled linen should be placed in clearly labelled, leak-proof bags or containers, after carefully removing any solid excrement and putting it in a covered bucket to be disposed of in a toilet or latrine. Machine washing with warm water at 60–90°C (140–194°F) with laundry detergent is recommended. The laundry can then be dried according to routine procedures. If machine washing is not possible, linens can be soaked in hot water and soap in a large drum using a stick to stir and being careful to avoid splashing. The drum should then be emptied, and the linens soaked in 0.05% chlorine for approximately 30 minutes. Finally, the laundry should be rinsed with clean water and the linens allowed to dry fully in sunlight. If excreta are on surfaces (such as linens or the floor), the excreta should be carefully removed with towels and immediately safely disposed of in a toilet or latrine. If the towels are single use, they should be treated as infectious waste; if they are reusable, they should be treated as soiled linens. The area should then be cleaned and disinfected (with, for example, 0.5% free chlorine solution), following published guidance on cleaning and disinfection procedures for spilled body fluids.

6. Safely disposing of greywater or water from washing PPE, surfaces and floors.

Current WHO recommendations are to clean utility gloves or heavy duty, reusable plastic aprons with soap and water and then decontaminate them with 0.5% sodium hypochlorite solution after each use. Single-use gloves (nitrile or latex) and gowns should be discarded after each use and not reused; hand hygiene should be performed after PPE is removed. If greywater includes disinfectant used in prior cleaning, it does not need to be chlorinated or treated again. However, it is important that such water is disposed of in drains connected to a septic system or sewer or in a soakaway pit. If greywater is disposed of in a soakaway pit, the pit should be fenced off within the health facility grounds to prevent tampering and to avoid possible exposure in the case of overflow.

7. Safe management of health care waste

Best practices for safely managing health care waste should be followed, including assigning responsibility and sufficient human and material resources to dispose of such waste safely. All health care waste produced during the care of COVID-19 patients should be collected safely in designated

containers and bags, treated, and then safely disposed of or treated, or both, preferably onsite. If waste is moved off-site, it is critical to understand where and how it will be treated and destroyed. All who handle health care waste should wear appropriate PPE (boots, apron, long-sleeved gown, thick gloves, mask, and goggles or a face shield) and perform hand hygiene after removing it.

TEMPLATE FOR ABBREVIATED RESETTLEMENT ACTION PLAN (A-RAP)

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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

WORLD BANK GROUP GUIDANCE

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

ILO GUIDANCE

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

MFI GUIDANCE

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