

Semi-annual Environmental Monitoring Report

Semi-annual Environmental Monitoring Report No. 08

Period: July to December 2023

January 2024

BAN: COVID-19 Emergency Assistance Project

Project Number: 54173-001

Prepared by the Directorate General of Health Services, Health Services Division of the Ministry of Health and Family Welfare for the Asian Development Bank

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EXECUTIVE SUMMARY

1. The COVID-19 Response Emergency Assistance Project supports the Government of Bangladesh in addressing the immediate and urgent needs for financial, logistical, and systemic support to deal with the COVID-19 outbreak. The project supports the procurement of equipment and supplies, the upgrading of health and testing facilities, and build system and community capacities for surveillance, prevention, and response to COVID-19. The project involves civil works supporting the upgrade/extension of existing facilities for the establishment of (i) screening and quarantine areas at points of entry; (ii) critical care and isolation units in existing healthcare facilities; (iii) microbiological diagnostics facilities in existing medical colleges and hospitals across the country.
2. The project is in implementation phase and as per the project structure, the project authority is preparing environmental safeguard reports for all the selected land ports, critical care & isolation units, microbiological diagnostics facilities, and meetings are being held both at webinar platform and at the respective offices maintaining safety precautions. The project is being implemented over a period of 3 years and the loan will close on 30 April 2024.
3. The project is rated Category B for environmental safeguards. Most civil and structural works consists of rehabilitation or minor extensions to buildings within existing premises. Therefore, potential direct, indirect, cumulative, and induced impacts of the project are anticipated to be site-specific and minor, few if any of them being irreversible in nature. The civil construction for most of the packages have already been completed and remaining packages will be finished soon. The monitoring activities for the project during the reporting period including the preparation of environmental safeguard reports, environmental audits, fill up checklist, site visits etc. have been conducted and given in this EMR accordingly.
4. The Project is following the requirements proposed in the EMP as well as the guidelines given in the EARF. All the contract packages ensured the EMP in its Contract document and the respective Contractor is fully aware of it. Additionally, the individual consultants of PIU are regularly visiting the project sites and ensuring the EMP implementation. During the semester period the Civil Engineer and the Environmental Safeguards Specialist of PIU visited six construction sites. On the other hand, the PWD is also monitoring the project works as a partner implementing agency. The ADB environmental safeguard team arranged a comprehensive training for PWD officials along with the PIU personnel on the environmental safeguards and its management at the starting of this project.
5. In this reporting period (July to December 2023), construction sites have been continued following respective EMP and Occupational Health Safety Guidelines. Guidelines on Pandemic COVID-19 has been provided to the Construction workers, site engineers and staffs of all the construction sites. The contractors are following the COVID-19 pandemic strategy, as well as a health and safety measures for each location. Training on the OHS has been provided during the commencement of work and at the time of monitoring by the consultant also. Total two on-job training on occupational health and safety has been provided to the contractors during this semestral and 20 workers along with project officials were present at those sessions.
6. The ADB Loan Review Mission has been started from 26 July but the wrap-up meeting yet to be conducted. The Mission reviewed the progress and familiarized the executing agency (EA) on ADB's guidelines on procurement, financial management and auditing, disbursement, social safeguards, gender action plan, environmental safeguards, anticorruption, public disclosure, and compliance requirements negotiated during the processing of the project.

7. This project has complied with the environmental provisions of the loan covenant and the environmental safeguards requirement set by the ADB and the DoE. However, according to ADB this project is under Category B and therefore, the EMP is being prepared by the project for different contract packages. The civil works has been started during the monitoring period and those are being implemented by the Contractors under supervision by the DGHS. Though some limitations on the environmental monitoring have been identified during the reporting period but those are not critical and not hindering the project progress or making problem on environmental status. An action plan has also been proposed on the corrective measures and the PIU will work on the measures for successful implementation during the next monitoring period.

I. INTRODUCTION

A. Project Background

1. COVID-19 is a new disease with similar symptoms as influenza but different in terms of severity and community transmission¹. The World Health Organization (WHO) declared the COVID-19 as a Public Health Emergency of International Concern on 30 January 2020 under the International Health Regulations (IHR) 2005 and recognized it as a pandemic on 11 March 2020².

2. On 23 March 2020, the Government of Bangladesh requested ADB for a support for its preparedness and response to the COVID-19 outbreak. Accordingly, ADB approved a loan of \$100 million from its ordinary capital concessional resource for Loan 3918-BAN(COL): COVID-19 Response Emergency Assistance Project (the project) on 30 April 2020. The loan agreement was signed on 13 May 2020 and became effective on 16 May 2020. The loan completion date is 30 April 2024. HSD of the Ministry of Health and Family Welfare (MOHFW) is the executing agency (EA); and DGHS under the Health Services Division (HSD), Central Medical Stores Depot (CMSD) under MOHFW, and Public Works Department (PWD) under the Ministry of Housing and Public Works are the implementing agencies (IAs) of the project.

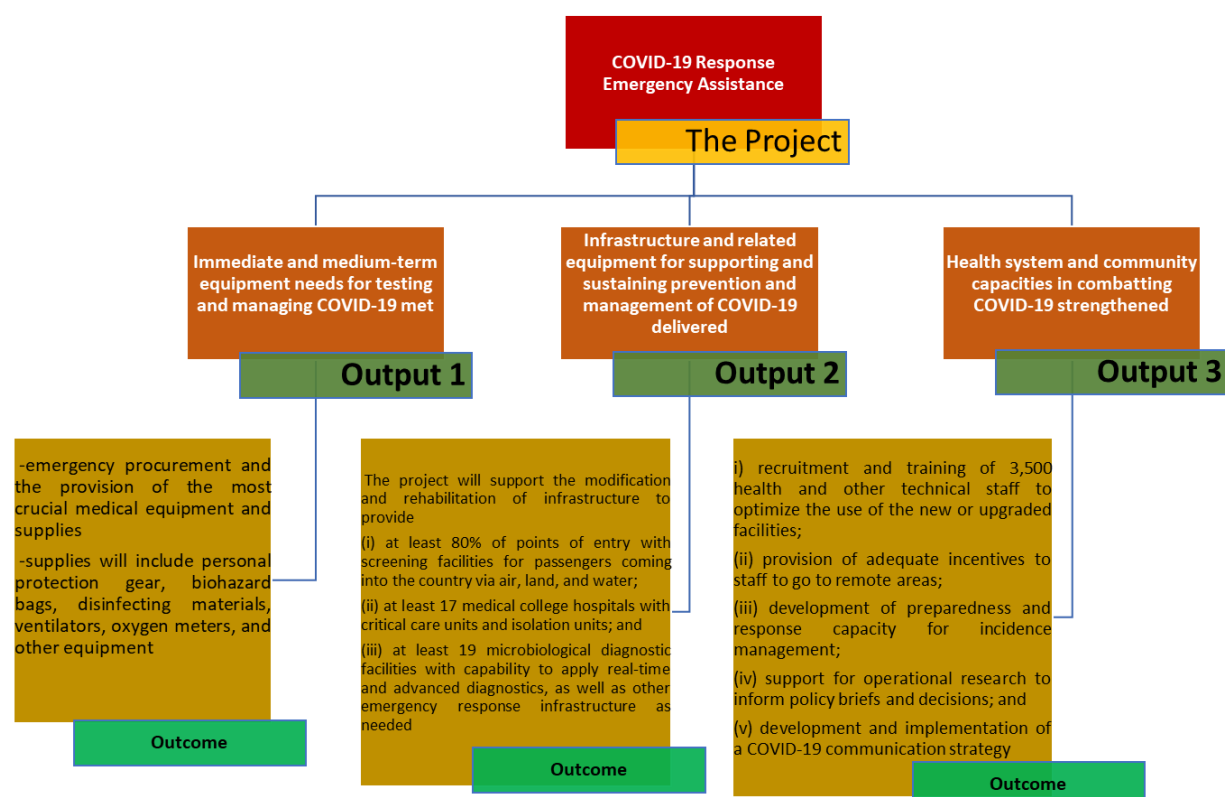
3. The COVID-19 Response Emergency Assistance Project (the project) is supporting the Government of Bangladesh in addressing the immediate and urgent needs for financial, logistical, and systemic support to deal with the COVID-19 outbreak. The project follows a request to Asian Development Bank (ADB) from the Ministry of Finance, and the project is an integral and vital part of the National Preparedness and Response Plan for containment, mitigation, and management of COVID-19. The project supports the procurement of equipment and supplies, the upgrading of health and testing facilities, and build system and community capacities for surveillance, prevention, and response to COVID-19.

B. Project Output

4. The project is aligned with the overall goal of the government's National Preparedness and Response Plan (NPRP). The project's outcome will be the improved Health and wellbeing of COVID-19 affected persons. The project has three outputs: (i) Output 1: Immediate and urgent needs are met in prevention and control of COVID-19; (ii) Output 2: Infrastructure and related equipment are delivered to support and sustain prevention and management of COVID-19; and (iii) Output 3: Health system and community capacities in combatting COVID-19 are strengthened. In particular, the project involves civil works supporting the upgrade/extension of existing facilities for the establishment of (i) screening and quarantine areas at points of entry; (ii) critical care and isolation units in existing healthcare facilities; (iii) microbiological diagnostics facilities in existing medical colleges and hospitals across the country.

¹ WHO Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. https://www.who.int/health-topics/coronavirus#tab=tab_1.

² WHO. International Health Regulations (2005). 3rd Ed. <https://www.who.int/ihr/publications/9789241580496/en>.



C. Report Purpose and Rationale

5. As part of the borrower's commitment, Semi-Annual Environmental Monitoring reports (EMR) are to be prepared to report on the Contractors' progress with implementing the requirements of the Environmental Management Plan (EMP), as well as the borrower's responses to non-compliance issues.

6. The purpose of this 8th EMR is to document the environmental management activities and compliance with the approved EMP of this Project and provides details of project activities during the period from July to December 2023. This report is prepared in accordance with the environmental monitoring program as part of the EMP. As the 8th EMR, it will cover only the construction phase as the compliance with the EMP for the design, bidding, and construction status of the packages. In line with targets aimed at reducing the negative environmental impacts of the Project and in accordance with all the relevant specifications and standards of the Government of Bangladesh (GOB), as well as the policies of the Asian Development Bank (ADB), this report will emphasize: (i) progress made in implementing the EMP, (ii) implementation of mitigation measures, (iii) environmental compliance and (iv) problems that have occurred, and corrective actions taken.

D. Implementation Schedule

7. The project is in implementation stage. There are several subprojects which already have been completed and a few are under construction stage. There is no remaining subproject which is now in preparation stage. The project authority is preparing the environmental safeguard monitoring report for all the selected land ports, critical care & isolation units, microbiological diagnostics facilities, and meetings are being held both at webinar platform and at the respective subprojects sites maintaining safety precautions.

8. The project is being implemented over a period of 3 years and the loan will close on 30 April 2024. The project is estimated to cost \$113.38 million, inclusive of taxes and duties, physical and price contingencies, interest, and other charges during implementation.

E. Project Progress Status

a. Procurement of Civil Works

9. The project has made necessary arrangements for getting PWD as one of the Implementing Agencies responsible for the procurement and implementation of civil works. All the civil works activities were categorized in three types: (i) establishment of 50-bed isolation centres and 10-bed critical care units in 17 MCHs; (ii) establishment of screening centres/medical centres in selected land ports in 26 land ports; and (iii) embellishment of 19 microbiology labs with PCR facilities. However, the selected sites under the Project till date has been given on a map in Figure I.1. The status of the three categories of civil works is as follows:

10. **Establishment of Isolation Centres (IC) and Critical Care Units (CCU) in MCHs.** At the appraisal, the establishment of Isolation Centres (ICs) and Critical Care Units (CCUs)/Intensive Care Units (ICUs) were planned at the 17 Medical College Hospitals (MCHs) for better treatment of the COVID-19 cases. Initially, 8 MCHs were selected for the of construction/rehabilitation, electro-mechanical and installation of the medical gas system works (15 lots of procurement) in 2021 since they have space readily available. A total of 19 contracts have been awarded to establish ICs/CCUs and medical gas system works in 10 MCHs and 17 out of 19 Lots has already been completed. The EA will be able to establish ICs and CCUs in 10 MCHs instead of 17 MCHs.

11. **Establishment of Screening Centres/Medical Centres in Land Ports.** It was planned to establish medical centres in 7 land ports which are operated and managed by BLPA in phase 1. The process of making the land/site available, preparing the architectural plan etc. have already initiated and progressed accordingly. It was informed that inter-ministerial committee meeting was held in October 2021 for selecting sites/ endorsing design of the centres while it was decided to visit the site area by the concerned GOB officials before selecting/ finalizing the sites. Location for Medical Center at Akhaura Land Port has been selected and tender documents has prepared accordingly. The EA will be able to construct Medical Center at Akhaura Land Port only instead of 7 land ports.

12. **Reconstruction/upgradation of existing Microbiology Lab facilities.** It was agreed in principle that at least 20 PCR labs will be established, especially in those districts where no facilities were available. Total 14 laboratory facilities have already been established by utilizing GOB fund due to small civil renovation works and the EA has plan to utilize ADB allocation in only two places, i.e., DNCC Covid-19 Hospital and National Institute of Preventive and Social Medicine (NIPSOM) in Dhaka. Construction of PCR laboratory for DNCC has already been completed and for NIPSOM it is ongoing.

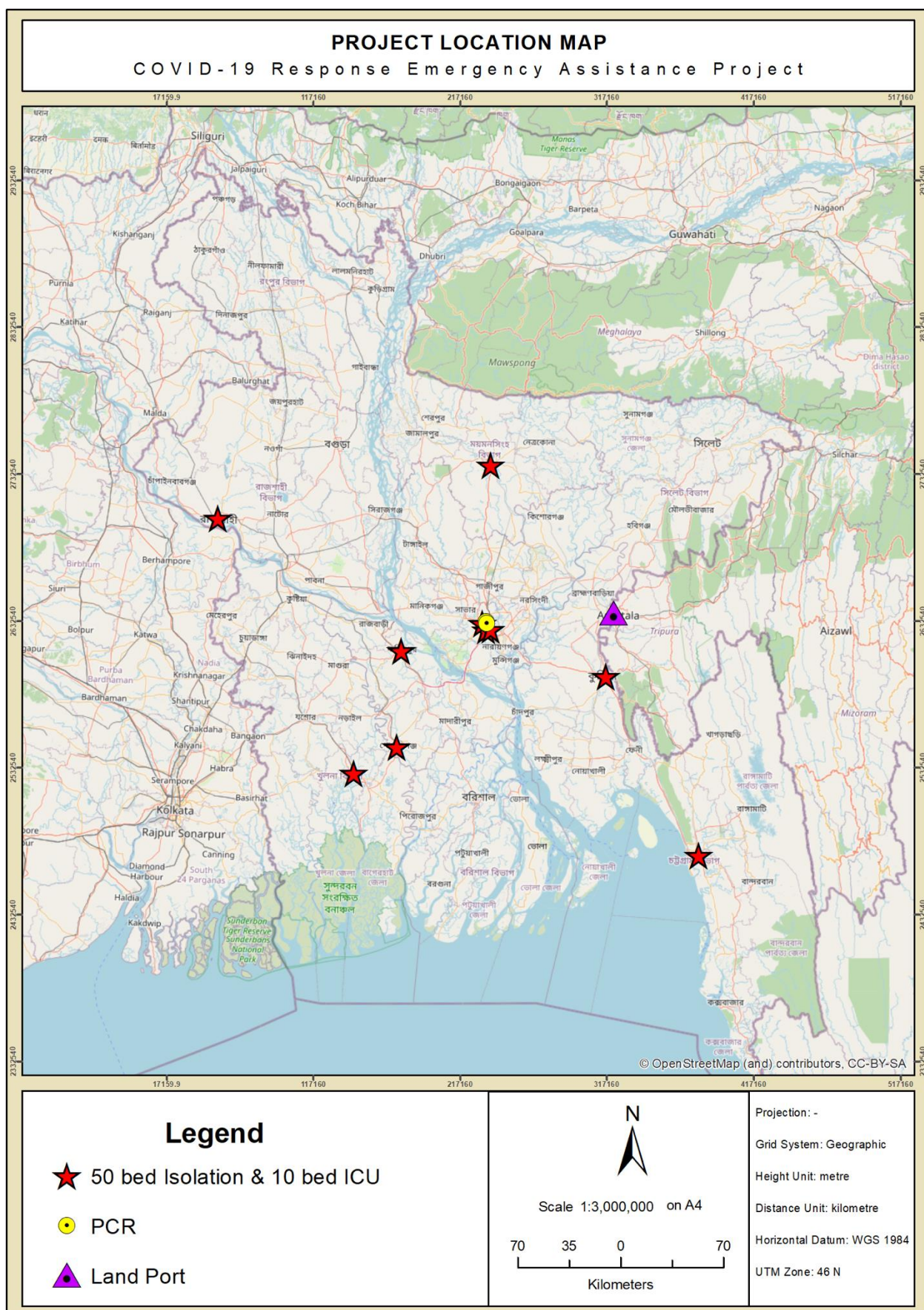


Figure I.1: Project Location Map

b. Physical Progress

13. The activities were carried out during the monitoring period enabling the detailed design of twenty-two contract packages incorporating the various components of the Project to be completed in 2024. Based on the completed designs, tender documents were prepared and issued to contractors and the status of the Procurement process and construction work up to the end of December 2023 is summarized in Table I.1.

Table I.1. Status of Physical Progress of Contract Packages under The Project

SL	Description	Estimated Cost	IFT Date	Opening Date	NOA Date	Contract Sign Date	Completion Date	Contract Price	Physical Progress	IEE/EMP Prepared	EMP Approved	IEE/EMP Disclosed	Remark
	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU												
1	Dhaka Medical College Hospital, Dhaka												
a	50 bed Isolation Unit & 10 bed ICU/CCU	339.21	06/12/21	03/01/22	01/03/22	20/03/22	15/12/22	304.82	100%	YES	YES	YES	Work completed
b	Installation of Medical Gas System	50.00	15/09/21	18/10/21	25/11/21	06/12/21	07/01/23	43.89		YES	YES	YES	
2	Mugda 500 bed General Hospital, Dhaka												
a	50 bed Isolation Unit & 10 bed ICU/CCU	20.00	09/09/21	30/09/21	23/11/21	25/11/21	24/01/22	19.97	100%	YES	YES	YES	Work completed
b	Installation of Medical Gas System	224.26	28/09/21	27/10/21	28/12/21	24/01/22	31/12/22	213.09		YES	YES	YES	
3	Rajshahi Medical College Hospital, Rajshahi												
a	50 bed Isolation Unit & 10 bed ICU/CCU	1096.09	08/08/21	07/09/21	12/10/21	31/10/21	31/03/22	1095.42	100%	YES	YES	YES	Work completed
b	Installation of Medical Gas System	70.00	08/12/21	07/09/21	14/10/21	31/10/21	30/05/23	59.94		YES	YES	YES	
4	Shaheed Suhrawardy Medical College Hospital, Dhaka												
a	50 bed Isolation Unit & 10 bed ICU/CCU	130.26	05/09/21	29/09/21	19/10/21	24/10/21	28/02/22	129.87	100%	YES	YES	YES	Work completed
b	Installation of Medical Gas System	258.98	12/09/21	11/10/21	13/12/21	23/12/21	22/06/22	249.54		YES	YES	YES	
5	Mymensingh Medical College Hospital, Mymensingh												
a	50 bed Isolation Unit & 10 bed ICU/CCU	74.9	25/08/21	20/09/21	14/11/21	16/11/21	16/02/22	62.89	100%	YES	YES	YES	Work completed
b	Installation of Medical Gas System	61.98	25/08/21	20/09/21	14/11/21	16/11/21	16/02/22	53.28		YES	YES	YES	
6	Faridpur Medical College Hospital, Faridpur												
a	50 bed Isolation Unit & 10 bed ICU/CCU	57.02	16/08/21	8/9/2021	19/10/21	19/10/21	27/12/21	51.23	100%	YES	YES	YES	Work completed
7	Cumilla Medical College Hospital, Cumilla												
a	50 bed Isolation Unit & 10 bed ICU/CCU	88.35	15/06/21	13/07/21	20/09/21	21/09/21	20/12/21	84.75	100%	YES	YES	YES	Work completed
b	Installation of Medical Gas System	68.63	15/06/21	13/07/21	25/10/21	26/10/21	25/01/22	61.76		YES	YES	YES	
8	Khulna Medical College, Khulna												
a	50 bed Isolation Unit & 10 bed ICU/CCU	350.00	06/01/22	07/02/22	05/10/22	22/5/22	21/06/23	273.91	100%	YES	YES	YES	Work completed
b	Installation of Medical Gas System	50.00	06/01/22	07/02/22	23/06/22	21/07/22	20/6/23	41.00		YES	YES	YES	
9	Chittagong Medical College Hospital, Chittagong												
a	50 bed Isolation Unit & 10 bed ICU/CCU	350	23/10/22	14/11/22	22/03/23	4/9/23	9/8/23	271.99	98%	YES	YES	NO	Finishing Work is going on
b	Installation of Medical Gas System	50	57.48	8/2/23	7/3/23	5/2/23	10/10/23	37.49	99%	YES	YES	YES	Finishing Work is going on

SL	Description	Estimated Cost	IFT Date	Opening Date	NOA Date	Contract Sign Date	Completion Date	Contract Price	Physical Progress	IEE/EMP Prepared	EMP Approved	IEE/EMP Disclosed	Remark
10	Gopalganj Medical College Hospital, Gopalganj												
a	50 bed Isolation Unit & 10 bed ICU/CCU	350.00	5/3/23	6/5/23	26/06/23	7/10/23	15/10/23	218.45	100%	YES	YES	YES	Work completed
b	Installation of Medical Gas System	50.00	16/5/23	15/06/23	26/06/23	7/10/23	15/10/23	1.87		YES		NO	Work completed
	Construction of PCR lab at MCH/Institute												
1	DNCC dedicated COVID -19 Hospital, Dhaka.	95	4/10/22	5/8/22	21/8/22	22/8/22	13/12/23	81.29	100%	YES	YES	NO	Work completed
2	National Institute of Preventive & Social Medicine, Dhaka	95	7/3/22	16/8/22	26/6/23	7/10/23	10/10/23	284.82	5%	YES	YES	NO	Electrical Ducting work is going on
	Establishment of Medical Centers in Land-Ports												
1	Akhaura Land Port, Brahmanbaria	600	13/02/23	15/03/23	13/04/23	5/9/23	30/9/23	562.52	70%	YES	YES	YES	2nd floor brick work is going on

II. COMPLIANCE TO NATIONAL REGULATIONS

14. The project is complying with the environmental laws, standards, rules, and requirements of the government. These requirements set forth restrictions on project activities to avoid, minimize or mitigate the likely impact on the environment. MOHFW and DGHS is responsible for ensuring that all activities under the project comply with these requirements from design, construction, and in the operation and maintenance of the facilities.

15. The project is not involved construction of new multi-storied building. Upgrading and construction of additional structures is being designed within the existing physical footprints of the health facilities, medical colleges, IEDCR and the BITID. As such, no environmental clearance is required.

Regulation	Brief Description	Implications to the Project	Responsible Agency	Compliance Status
Infectious Diseases (Prevention, Control and Elimination) Act 2018	<ul style="list-style-type: none"> This Act provides to "keep or quarantine any suspected person infected with an infectious disease, at a specific hospital, temporary hospital, establishment or home". This law empowers government in notification, isolation, quarantine, sample collection and testing in emerging diseases. Under section 26, if false or incorrect information is being spread or given by any person who is aware of the correct information, he or she can potentially be found guilty. 	Design of project components is complying with the provisions under the Act	MOHFW	Being Complied
Medical Waste Management Rules 2008	<ul style="list-style-type: none"> Any solid, liquid, gaseous, and radioactive waste material generated during the diagnosis, treatment, preventive and curative measure, or in research activities pertaining to disease diagnosis when it is released, discharged, or disposed causing detrimental effect on human health and environment is considered medical waste Main existing complete code to be followed by all concerned agencies for proper disposal of medical waste to safeguard the environment 	Management of medical wastes generated from the considered health facilities, medical colleges, IEDCR, and BITID under this project is complying with these rules.	Department of Environment	Being Complied
Public Health (Emergency Provisions) Ordinance, 1994	Calls for special provisions in case of emergency to prevent the spread of human disease, safeguarding public health and providing them adequate medical service and other services essential to the health of respective community and workers in particular during the construction related work	Design, construction, and operation and maintenance of project components is complying with the special provisions of this Ordinance	Local Government Division	Being Complied
National Disaster Management Act 2012	This Act provides for activities on disaster management coordinated, object oriented and strengthened; and to formulate rules that will build up infrastructures of effective disaster management in fighting all types of disaster.	Setting-up emergency response procedures	Ministry of Disaster and Relief	Being Complied

Regulation	Brief Description	Implications to the Project	Responsible Agency	Compliance Status
Environment Court Act 2000 (amended in 2002 and 2010)	This Act ensures the resolution of disputes on environmental and social damages resulting from any development activities. This also allows for the completion of environment-related legal proceedings effectively.	Mechanism for affected persons to file grievances/complaints related to environment safeguard	MOEFCC	Being Complied
Vehicle Act 1927, the Motor Vehicles Ordinance 1983, and Bengal Motor Vehicle Rules 1940	These regulations control vehicular emissions and noise including road safety	Vehicles used during upgrading works in the facilities is complying with relevant requirements of the Act	Bangladesh Road and Transport Authority	Being Complied
National Environmental Policy, 1992	Policy that ensures development components do not pollute the environment or degrade resources and sets out the basic framework for environmental action together with a set of broad sectoral action guidelines.	<ul style="list-style-type: none"> Regulation on vehicles emitting smoke which is harmful to the environment Follow standards on quality of air, water, noise and soil Sets limits for discharging waste 	MOEFCC	Being Complied
Bangladesh Water Act 2013	Makes provisions for integrated development, management, abstraction, distribution, use, protection, and conservation of water resources. Ensures water sources are free from any type of pollution.	Construction works is not causing water pollution	Ministry of Water Resources	Being Complied
National Safe Drinking Water Supply and Sanitation Policy of 1998	Ensures access to safe water and sanitation services at an affordable cost	Construction and operation of project components is adhering to the relevant provisions	Ministry of Local Government, Rural Development, and Cooperatives	Being Complied
Bangladesh Labour Act 2006 (amended 2013)	These regulations aim to protect the interests and rights of the workers, in provision of comfortable working environment, reasonable working conditions, and to ensure workers' safety. This also provides for the prohibition of employment of children and adolescent.	<ul style="list-style-type: none"> Compliance to provisions on employment standards, occupational health and safety, welfare and social protection, labor relations and social dialogue, and enforcement. Prohibition of employment of children and adolescents (below 14 years old) 	Ministry of Labour and Employment	Being Complied
Bangladesh Labour Rules 2015	Provides for the rules on registration of laborers, misconduct rules, income and benefits, health and fire safety, factory plan	Contractors are implementing occupational health and safety measures and liable for compensation for work-related injuries.	Department of Labor	Being Complied

Regulation	Brief Description	Implications to the Project	Responsible Agency	Compliance Status
Bangladesh National Building Code 2006	Sets minimum standards for design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings to safeguard, within achievable limits, life, limb, health, property and public welfare	Design of upgrading the existing health facilities, medical colleges, IEDCR, and BITID are complying with relevant requirements and specifications	Ministry of Housing and Public Works (MHPW)	Being Complied
Bangladesh Building Construction Rules 2008	<ul style="list-style-type: none"> These rules seek to control development plot-by-plot and case-by-case. It controls development by imposing conditions on set-backs, site coverage, construction of garages, access to plot, provision of lift, land use of that particular plot and height of building. Regulates technical details of building construction and to maintain standards of building construction 	Construction works are complying with relevant provisions, standards, and specifications has been prepared to ensure structural integrity of existing facilities with upgrading	MHPW and its relevant agencies	Being Complied
Bangladesh Factory Act 2006	The Act requires every workplace including small- or large-scale construction where women are employed to have an arrangement of childcare services. Based on this Act and Labor Laws - medical facilities, first aid and accident and emergency arrangements are to be provided by the authority to the workers at workplaces.	Contractors are providing first aid and emergency arrangements for the workers during construction works and costs are given in EMP as well as bid document	Ministry of Labor	Being Complied
Local Government (Pourashava) Act 2009 and the Local Government (City Corporation) Act 2009	<ul style="list-style-type: none"> Provides guidance for integrated community and workers health and hygiene at the construction, and operation and maintenance stages of the project <i>Pourashava</i> wide responsibilities in town planning and development, public health and sanitation, water supply and sewage disposal, maintenance of public infrastructure and amenities. 	Coordinate with <i>Pourashava</i> committees on disaster management measures, water and sanitation, and waste management.	Local Government Division	Yet not required but will be applicable if necessary

III. COMPLIANCE TO ENVIRONMENTAL REQUIREMENTS FROM THE ADB LOAN AGREEMENT

16. The Safeguard Policy Statement (SPS) 2009 of ADB sets out the requirements for environmental safeguard that applies to all ADB-financed projects and grants SPS 2009 comprises three key safeguard areas: environment, involuntary resettlement, and indigenous peoples; and aims to avoid adverse project impacts to both the environment and the affected people; minimize, mitigate and/or compensate for adverse project impacts; and help Borrowers to strengthen their safeguard systems and to develop their capacity in managing the environmental and social risks.

17. The ADB started a Loan Review Mission³ of the aforesaid project during 24 July 2023. The mission was supposed to end on 03 August 2023, but it was yet not completed. The Mission reviewed: (i) overall project implementation progress, previously-agreed actions and identify issues, challenges in project implementation; (ii) procurement progress; (iii) progress and achievements of the design and monitoring framework (DMF) and assess delivery of the project outputs and outcome; (iv) reviewed and updated the DMF targets and indicators as appropriate; (v) reviewed and updated gender action plan (GAP), social and environmental safeguards requirements; (vi) assessed and discussed on the partial cancellation of loan; (vii) reviewed quarterly progress reports including the financial reports; (viii) reviewed progress of follow-on actions mentioned in the audit report, and resolve the audit observations; (ix) followed up on loan disbursement and liquidation; and (x) process the project administration handover to a new project officer and prepared a list of project issues and action needed for next steps. The Mission had virtual/physical meetings with the officials of the Health Services Division (HSD); Directorate General of Health Services (DGHS); Central Medical Stores Depot (CMSD); Public Works Department (PWD); Department of Architecture (DOA); Bangladesh Land Port Authority (BLPA); Economic Relations Division (ERD); Implementation Monitoring Evaluation Division (IMED); and Planning Commission (PC) to review, discuss, and agree on the expeditious implementation of this Emergency Assistance Project. The mission yet not concluded since no wrap up meeting has been conducted. Consequently, no Aide-Memoire has yet been developed upon discussions and agreements between the government and ADB.

18. Overall, the COVID-19 response emergency assistance project has complied with the environmental provisions of the loan covenant. The EARF was prepared during processing as guidance for the screening and assessment of subprojects. Based on SPS 2009, the project is rated category B for environmental safeguards as the potential impacts are considered to be site-specific, temporary, with few if any of them irreversible, and in most cases mitigation measures can be designed readily. An Environmental Assessment and Review Framework (EARF) was prepared to address these impacts and risks. Impacts will be mitigated through the development of guidelines for waste management, health and safety risk assessment and management plans, Environmental Code of Practices, provision of PPE, and trainings with mitigation measures included in Environmental Management Plans, implementation of which shall be closely supervised and monitored. Activities related to building Isolation Unit with at least 50 beds or more within the hospital premise or activities outside the existing facilities or for which impacts are unknown are subject to

³ Mission comprised of Rui Liu, Health Specialist, SDSC-HEA/BRM (Mission Leader); Md. Monjurul Ahmed, Senior Financial Management Officer; Mohammed Zulyaminayn, Senior Procurement Officer; Farhat Jahan Chowdhury, Senior Project Officer (Environment); Nasheeba Selim, Senior Social Development Officer (Gender); Md. Humayun Kabir, Procurement Officer; Kazi Akhmila, Safeguards Officer (Resettlement); Md. Sharif Hossain, Associate Financial Control Officer; Ruby Sarcar, Project Analyst; Mosammat Salma Jahan, Associate Safeguards Analyst; Mohammad Alauddin Khan, Senior Operations Assistant all from BRM. Besides, TA consultants also participated in the Mission.

detailed assessment. Impacts of those activities will be assessed through a well-developed EMP.

19. During the reporting period (July to December 2023), Individual Consultants of PIU arranged several site visits to different subprojects locations for the successful planning of infrastructures development and implementation of the EMP as per the contract document. The picture of the visit is given in Annex VI of the report.

20. Covenants written into the loan agreement that are related to environmental safeguards are as listed in Table III.1. These refer to actions that need to be taken up during the implementation of sub-project construction activities. Status of compliance with the environmental provisions of the Loan Covenant are shown in Tables III.1 of the report.

Table III.1 Status of Compliance with the Environmental Provisions of the Loan Covenant 54173-001

Sl. No.	Covenant	Status of Compliance	Action Required
Environment:			
1.	The Borrower shall ensure, or cause the Project Executing Agency to ensure that the preparation, design, construction, implementation, operation and decommissioning of the project, each Subproject and all project facilities comply with (a) all applicable laws, rules and regulations of the Borrower relating to environment, health and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being complied	IEE and EMP is prepared by complying all relevant National Laws, Safeguard Policy Statement (SPS 2009) of ADB, Environment Assessment Review Framework (EARF). IEE/EMP will be updated and revised in case of any change of scope and location. All measures and requirements as prescribed in EMP is being considered during implementation. Corrective or preventive action plans are reflected in Environment Monitoring Report and project implementation authority is taking care.
Small Ethnic Community Peoples:			
2.	The Borrower shall ensure, or cause the project Executing Agency to ensure that the preparation, design, construction, implementation and operation of the project and all project facilities comply with (a) all applicable laws, rules and regulations of the Borrower relating to small ethnic community peoples; (b) the indigenous peoples Safeguards; (c) the SECPF, and (d) all measures and requirements set forth in the respective SECDP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being Complied	No small ethnic people's impacts have yet been involved in the project activities.
Human and Financial Resources to Implement Safeguards Requirements:			
3.	The Borrower shall make available, or cause the project Executing Agency to make available, necessary budgetary and human resources to fully implement the EMP, the RP and the SECDP (if any).	Being Complied	Budgetary provisions are included in EMP for several ongoing packages of the emergency response project. Environment and Social Management Coordinator of PMU/PIU is in place. Human resource (project consultant, i.e., Environmental Specialist) for implementation of EMPs is in place for regular compliance.
Safeguards Related Provisions in Bidding Documents and Works Contracts:			
4.	The Borrower shall ensure, or cause the project Executing Agency to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures relevant to the contractor set forth in the limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), the RP and the SECDP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set forth in a Safeguards Monitoring Report; (b) make available a budget for all such environmental and social measures; (c) provide the Borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), the RP or the SECDP (if any); (d) adequately record the condition of roads, agricultural land, and other infrastructure prior to starting to transport materials and construction, and	Being Complied	(a) The limited assessment (Environmental Screening) and Detailed Assessment (IEE including EMP) are prepared by Project consultant. The EMP has also added in the bid document. Corrective measures (if any); will be disclosed to contractor and same will be reflected in the "Environment Monitoring Report". (b) The limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP) is prepared and added in the indicates budgetary provisions of bidding documents. (d) Haul roads are marked properly (by avoiding residences and agricultural land) before commencement of transportation of materials.

Sl. No.	Covenant	Status of Compliance	Action Required
	(e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.		(e) Pathways, land which are likely to be affected for a short period during implementation of the sub project will be restored by concerned construction agency before acceptance of the work. Restoration status will be reflected in post construction monitoring report.
Safeguard Monitoring and Reporting:			
5.	The Borrower shall do the following or cause the project Executing Agency to do the following: (a) submit semiannual safeguards Monitoring Reports to ADB and disclose relevant Information from such reports to affected persons promptly/upon submission; (b) If any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the project that were not considered in the limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), the RP or the SECDP (if any) promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and (c) Report any actual or potential breach of compliance with the measures and requirements set forth in the limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (IEE including EMP), the RP or the SECDP (if any) promptly after becoming aware of the breach.	Being Complied	(a) As per action plan of ADB, semi-annual Monitoring Report is prepared regularly, which covers loan covenant part, management plan format and construction compliance. (b) With the development of project and implementation, in case of additional impacts/risks due to change in scope/area, will be reflected in limited assessment (Environmental Screening & ECOPs) and Detailed Assessment (EMP) and accordingly Executing Agency (EA) will inform the ADB along with corrective action plan which will be reflected in the Monitoring Report. (c) In case of any breach of compliance with the measures and requirements set forth in the EMP; EA will promptly inform ADB, and suitable corrective action plan will be planned.
Labor, Health and Anti-Human Trafficking:			
6.	The Borrower, the Project Executing Agency and Participating Pourashavas shall ensure that contractors, comply with all applicable labor, health, and safety laws, rules, and regulations of the Borrower and, in particular, (a) do not employ child labor for construction and maintenance activities; and (b) provide appropriate facilities (latrines, etc.) for workers at construction sites. The Borrower shall require contractors not to differentiate wages between men and women for work of equal value. The Borrower and the Project Executing Agency shall ensure that specific clauses are included in bidding documents to ensure adherence to these provisions, and that compliance shall be strictly monitored during Project implementation.	Being Complied	PMU through its Consultants is supervising and monitoring the compliance with labor, health, and safety law regulations. The project work will in full compliance with ADB's requirements
7.	The Borrower, the Project Executing Agency and Participating Pourashavas shall ensure that contractors shall disseminate information on the risk of transmission of sexually transmitted diseases, including HIV/AIDS, in health and safety programs to all construction workers employed under the Project. Specific provisions to this effect shall be included in bidding documents and civil works contracts, and compliance shall be monitored by the Project Executing Agency and reported to ADB.	Being Complied	Provisions are included (as per EMP & BID document) to carry out HIV/AIDS awareness programs for construction contractor, application of all relevant labour laws for health and safety including child labour law and engagement of local labours (preferably from economically backward group) covering women labours. In case of any breach of provision, necessary corrective measures as per contract clauses shall be taken. All activities including awareness program will be reflected in "Monitoring Report".
8.	The Borrower, the Project Executing Agency and Participating Pourashavas shall ensure that awareness campaign on anti-human trafficking shall be conducted and that information and print material on anti-human trafficking shall be developed and distributed to all construction	Being Complied	

Sl. No.	Covenant	Status of Compliance	Action Required
	workers and the community in the Project areas throughout the project implementation period. Compliance shall be monitored by the Project Executing Agency and reported to ADB.		

IV. COMPLIANCE TO ENVIRONMENTAL MANAGEMENT PLAN

21. The Environmental Management Plan (EMP) are prepared for all the contract packages as guided in the Environmental Assessment Review Framework (EARF) for all the identified environmental impacts during construction and operation stages due to implementation of project activities and associated development. The aim of the EMP is to ensure implementation of the recommended mitigation measures effectively. The mitigation measures are designed either to prevent impacts or by mitigating those to reduce the effect to an acceptable level that complies with the environmental guidelines of DoE and with the guidelines of the ADB's SPS (2009) by adopting the most suitable cost-effective options. The EMP also ensures that the positive environmental impacts are conserved and enhanced.

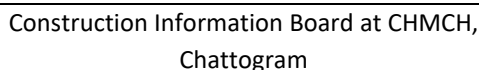
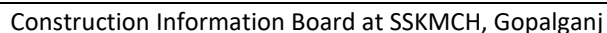
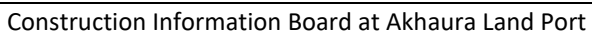
22. The project is on implementing stage and several civil works has already started. The monitoring activities for the project during the reporting period including the preparation of environmental safeguard reports, environmental audits, fill up checklist, preparation of EMPs, and site visits. The prepared EMP had been added with the bidding document and ensured as a part of the contract document as well. Furthermore, the Contractors has also submitted a Site-specific EMP (SEMP) for their individual packages. However, for better implementation the PIU is following the EMP which was included in the bidding document as it was more stringent. Sample format for Environmental Audit Checklist, Environmental Management Plan (EMP) for both the small-scale civil works and Medical Gas System for the construction of isolation unit and ICU/CCU are given in Appendix I, Appendix II, and Appendix III respectively of the report. Additionally, EMP for the construction of Medical Center at Land Ports is given in Appendix IV.

A. Summary of Environmental Management

a. Notice and Signboards

23. The construction sites are properly attainable by posted notice boards providing information on the construction activities. Moreover, people are also aware of the construction works because of several safety precautions notice and signboard around the construction sites. Instruction has been provided to maintain the practice and always provide clear safety signs throughout the construction period.

	
<p>Safety Sign at PCR Laboratory Construction, NIPSOM, Dhaka</p>	<p>Construction Safety Sign at CMCH, Chattogram</p>



b. Noise Level

24. Being present in a silent area the optimum sound level for the construction site must maintain the limit of 50 dB during day time and 40 dB during night time (According to Noise control rules, 2006, DoE). Instruction has been provided to maintain heavy vehicle and machineries with oil & grease to reduce noise.

c. Air and Dust condition

25. Minor civil construction works are in progress under Project. All stockpiles are covered with tarpaulin. Dust pollution level is very low here. However, available water spraying tools are present in the construction site which will be in effect by the contractor based on their activity. It is also suggested to spray water at least twice a day during ongoing construction activity to control dust pollution in the site.



Windows are Covered at PCR Laboratory Construction, NIPSOM, Dhaka

d. Drinking Water

26. Drinking water source is a crucial component in any construction site which is responsible for workers health. The construction sites collect jar water from vendors or from hospital premises as a groundwater source.



Water Bottle for Workers at PCR Laboratory Construction, NIPSOM, Dhaka

e. Waste Management

27. Generally, two types of waste generate from a construction site; construction waste and general waste. Construction waste contains broken bricks, broken rebar, broken woods, wires, and sometimes cement-concretes. General waste contains food waste and organic waste generated by

workers. Adequate number of dustbins are provided inside the subproject boundary to collect waste. The accumulated waste is later collected by city corporation vans and dumped in the waste dumping area defined by city corporation authority.

28. At the medical center construction site, the contractor usually stores all the wastes related to civil construction in a designated place and sale it after one month. As per the record from the Site Manager, approximately 400-500kg of wastes (construction wastes) are generated in each month. On the other hand, approximately 25-30 workers stay at the camp regularly and around 20kg of domestic wastes are generated accordingly. Since there is no waste collection system by the local authority therefore the contractor keeps the degradable domestic waste after digging a pit near the construction site. However, from last three months all the workers are having their meals at nearby restaurants and no kitchen activities are being continued at workers' camp. Therefore, presently no domestic wastes are generated and that will continue till the end of construction.

f. Sanitation and Hygiene

29. Several sanitation facilities are already present in the subproject site both for labors and engineers for maintaining proper sanitation in the area. Available water supply and handwashing facilities are also added to maintain hygiene. Regular cleaning and maintenance are done through responsible authority to keep it clean and germ free.

g. Management of Workers' Facility

30. Lack of proper facilities such as well-ventilated accommodation, safe and hygiene toilet facilities may pose health hazards to workers. Ensure sufficient space and well-structured workers sheds at work site for living. Also, provision of an appropriate number of toilets and hand-washing points.

h. Occupational Health and Safety

31. Labors and workers are provided with proper personal protective equipment to properly maintain occupational health safety in the construction site and to avoid any kind of accident. Safety signs with possible danger - risk and safety tips are installed inside the project boundary for labors and workers knowledge.



First Aid Box and Fire Extinguisher at SSKMCH



First Aid Box and Fire Extinguisher at NIPSOM



First Aid Box and Fire Extinguisher at Akhaura Land Port

i. COVID-19 Precautions

32. As the COVID-19 situation is becoming alarming once again in Bangladesh, the workers of the project are guided to take precautions to protect themselves from the COVID-19 virus and reduce the spread of the disease. Workers were motivated to get vaccinated with proper dose.

33. PPE, first aid boxes, soap and water are available at site. Hand sanitizers are available at site office. Infrared thermometer is also available at construction site. An EHS Officer (designated) is working at site appointed by the Contractor who is maintaining all the environmental issues following the EMP.

B. Safeguards Documentation Status

34. The project has an approved Environmental Assessment and Review Framework (EARF) which has already disclosed to the DGHS website. Additionally, total seven (07) final semi-annual environmental monitoring reports (EMRs) have also been shared with MIS department of DGHS and will be published to the website soon. The disclosure link of those documents is given in Table IV.2.

35. All prepared IEE and EMPs are attached with bid document. Furthermore, it was mandatory to the bidders to submit Contractors Environmental Management Plan and Health Safety Plan during the tender submission. Later, the prepared IEE and EMP has been included in the Contract document so that the respective contractor can follow the environmental management during implementation. However, it was discussed earlier with ADB that the prepared EMPs (by PIU) will be using as working EMP for respective packages. Since the Contractor(s) will be engaged or already engaged do not have technical expert to prepare a standalone plan (SEMP/OHS) for these small-scale packages.

Table IV.1: Project's Environmental Safeguards Documentation Status

Document/Report Name	Approved by ADB (Yes/No)	Disclosed on ADB Website (Yes/No)	Disclosed on DGHS/project Website (Yes/No)	Disclosure Link on DGHS Website
Environmental Assessment and Review Framework (EARF)	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-25-0d549683f878c74fab58bf04fcf0209e.pdf
Semi-annual Environmental Monitoring Report (January-June 2020)	YES	YES	NO	
Semi-annual Environmental Monitoring Report (July-December 2020)	YES	YES	NO	
Semi-annual Environmental Monitoring Report (January-June 2021)	YES	YES	NO	
Semi-annual Environmental Monitoring Report (July-December 2021)	YES	YES	NO	
Semi-annual Environmental Monitoring Report (January-June 2022)	YES	YES	NO	
Semi-annual Environmental Monitoring Report (July-December 2022)	YES	YES	NO	
Semi-annual Environmental Monitoring Report (January-June 2023)	YES	YES	NO	

Table IV.2: Package-wise Environmental Safeguards Documentation Status

Package/Lot	Final IEE/EMP Provided to Contractor (Yes/No)	Disclosed on DGHS/project website	Site-specific EMP Approved by PIU (Yes/No)	Disclosure Link
Construction of 50 bed Isolation Unit & 10 bed ICU/CCU				
Dhaka Medical College Hospital				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-10-4e25762efac5d7b6f504a652423388cf.pdf
Installation of Medical Gas System	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-13-a9ed30358037d9d749ba8383ea32e307.pdf
Mugda 500 bed General Hospital				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-06-cba30afe6e90e27aacfb1af487f0eef8.pdf
Installation of Medical Gas System	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-16-56a0cd797e1e40949f3ad84e407a5460.pdf
Rajshahi Medical College Hospital, Rajshahi				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-16-56a0cd797e1e40949f3ad84e407a5460.pdf

Package/Lot	Final IEE/EMP Provided to Contractor (Yes/No)	Disclosed on DGHS/project website	Site-specific EMP Approved by PIU (Yes/No)	Disclosure Link
				69e61/2023-11-02-07-08-795a95aa8e9538a50b69250eeb19828a.pdf
Installation of Medical Gas System	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-19-530ec431475a4862e1d27981996512d9.pdf
Shaheed Suhrawardy Medical College Hospital, Dhaka				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-09-b749b689a696a0bc93a706076db71bcbf.pdf
Installation of Medical Gas System	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-18-d9f30c06e5b3c3042e7649feac063625.pdf
Mymensingh Medical College Hospital, Mymensingh				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-05-3384a2bd2fa8f3a36da6f97b407d258b.pdf
Installation of Medical Gas System	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-15-5de7a452373d65f2653a1a9d27a9b332.pdf
Faridpur Medical College Hospital, Faridpur				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-02-420cbddcd8b15cd5a1808c336118e80d.pdf
Cumilla Medical College Hospital, Cumilla				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-01-433fe0c5b2752a564ac5ab68358fd652.pdf
Installation of Medical Gas System	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-12-2af039c4465bbd154d342f890f1ccdf3.pdf
Khulna Medical College, Khulna				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-03-7c3c46532704febbe93fdd4968615ce1.pdf

Package/Lot	Final IEE/EMP Provided to Contractor (Yes/No)	Disclosed on DGHS/project website	Site-specific EMP Approved by PIU (Yes/No)	Disclosure Link
Installation of Medical Gas System	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-14-51f1f464398fae54ed7c6cd6283838a7.pdf
Chittagong Medical College Hospital, Chittagong				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-06-56-09f12f8975963d8f91a57987d1aeb411.pdf
Installation of Medical Gas System	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-11-8c105898132e55167a02aece2420dfd5.pdf
Gopalganj Medical College Hospital, Gopalganj				
50 bed Isolation Unit & 10 bed ICU/CCU	YES	NO	YES	
Installation of Medical Gas System	YES	NO	YES	
Construction of PCR lab at MCH/Institute				
DNCC dedicated COVID -19 Hospital, Dhaka.	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-21-61afac2023ba7b62a3eb47f6f64eb286.pdf
National Institute of Preventive & Social Medicine, Dhaka	YES	YES		https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-22-b0a5cd912a3fa53dd9ef128ce7ab0bb4.pdf
Establishment of Medical Centers in Land-Ports				
Akhaura Land Port, Brahmanbaria	YES	YES	YES	https://dghs.portal.gov.bd/sites/default/files/files/dghs.portal.gov.bd/page/05b4a937_ed7b_40b5_a708_a70e98a69e61/2023-11-02-07-26-f54ad2c12f55587534f889ce29db2a94.pdf

C. Summary of EMP Implementation Status

36. Several packages under this project are under construction stage. The PIU consultants visited the sites during this semestral and checked the compliance status of the EMP. The below Table VI.3, Table VI.4, and Table VI.5 are given with compliance status for Construction of 50 Bed Isolation Unit and 10 Bed Critical Care Unit, Installation of Medical Gas System respectively and Construction of Medical Center at Land Port.

Table IV.3: Summary of EMP Implementation for Construction of 50 Bed Isolation Unit and 10 Bed Critical Care Unit

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
CONSTRUCTION PHASE							
Waste Management for Construction and COVID Waste	<ul style="list-style-type: none">• Soil, water and air pollution from the improper management of wastes and excess materials from the construction sites.• The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	<ul style="list-style-type: none">• Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.• Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place.• Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines.• Train on correct use and disposal of PPEs and check that they understand.• Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust.• Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills.• Do not burn/throw in any wastes to the water bodies/drains.• The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	<ul style="list-style-type: none">• Waste Management Plan has already been prepared.• Adequate safety equipment is provided by the contractors.• No COVID waste was found at the sites.	FC			
Management of Workers Facility	<ul style="list-style-type: none">• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	<ul style="list-style-type: none">• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also provision of an appropriate number of toilets and hand-washing points.• At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other.• Check the availability of medical kits at the site on weekly basis.• Preparation of daily routine checkup including temperature screenings of the workers and staff.	<ul style="list-style-type: none">• Contractors have provided sufficient soap, sanitizer and washing materials at work site.• Contractors purchased the medical kits and available at sites.	FC			
Drinking Water Quality	<ul style="list-style-type: none">• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	<ul style="list-style-type: none">• Provide the drinking water that meets national standards.• Select aquifers for drinking water free from arsenic and other contaminants.• Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection	<ul style="list-style-type: none">• Contractors arranged drinking water either from hospital premises or bought it from vendors.• Workers are always using safe drinking water.	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
		of aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.					
Drainage Congestion	<ul style="list-style-type: none"> Waterlogging due to improper management of drainage for rainwater/liquid waste or wastewater. 	<ul style="list-style-type: none"> Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem. Stockpile materials away from drainage lines. Reconstruct internal road-side drains immediately if damaged by any activities. 	<ul style="list-style-type: none"> Contractor is aware about the drainage congestion. Stockpiles are kept away from the drainage lines. 	FC			
Dust/Air Quality Management	<ul style="list-style-type: none"> Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads is a nuisance in the environment and can be a health hazard. 	<ul style="list-style-type: none"> During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site. Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). Cover haul vehicles carrying dusty materials moving outside the construction site. Fit machinery/vehicles with appropriate exhaust systems and emission control devices. 	<ul style="list-style-type: none"> Contractors are taking action to reduce the dust from the construction activities. Water spray, cleaning the debris from construction sites are monitored by the Contractor's engineer or PIU personnel. 	FC			
Noise and Vibration Management	<ul style="list-style-type: none"> Noise may have an impact on workers, patients, hospital staffs, local residents etc. 	<ul style="list-style-type: none"> Appropriately site all noise generating activities to avoid noise pollution to workers, patients, hospital staffs, local residents etc. Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures. 	<ul style="list-style-type: none"> All noise generating works are performed away from the patients, hospital staff area. Since the sites are located either on another floor or away from patients' ward/cabin therefore disturbance due to noise is limited. 	FC			Contractors completed the noisy works consulting with the PWD officials or hospital authority and finished all works quickly.
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. Lack of first aid and health care facilities in the immediate vicinity. Health risk of construction workers due to COVID-19. 	<ul style="list-style-type: none"> Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. Prepare the health and safety guidance for COVID-19 at work sites and get approval from PMU, and strictly follow the guidance at worksite; 	<ul style="list-style-type: none"> Contractors provided adequate PPE to workers. Workers are wearing the safety equipment during their works. PIU/PWD personnel and the hospital authority are advising to follow COVID-19 guidance. 	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
		<ul style="list-style-type: none"> 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 KMCH; Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, hospital staff and patients against construction risks. Simple poster/signage in Bangla explaining entry procedures. Signage available in hospitals to remind health personnel to wear masks if necessary and wash hands before entering/leaving. Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). Train all construction workers in OHS matters, and on the specific hazards of their work and maintain a register of the person present during the training. Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, health staff, patients and their relatives. 					
Site Reinstatement	<ul style="list-style-type: none"> Damage due to debris, spoils, excess construction materials. 	<ul style="list-style-type: none"> Remove all spoils wreckage, rubbish, or temporary structures from the construction and camp sites; All affected structures rehabilitated. 	<ul style="list-style-type: none"> Contractors are advised to handover the site after removing all debris, wastes, etc. when their work is completed. Currently the work site is clean and it is maintained regularly. 	FC			The contractors handed over the completed sites clean and tidy condition.

Table IV.4: Summary of EMP Implementation for Installation of Medical Gas System

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
CONSTRUCTION PHASE							
Waste Management for Construction and COVID Waste	<ul style="list-style-type: none">• Soil, water and air pollution from the improper management of wastes and excess materials from the construction sites.• The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	<ul style="list-style-type: none">• Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.• Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place.• Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines.• Train on correct use and disposal of PPEs and check that they understand.• Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust.• Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills.• Do not burn/throw in any wastes to the water bodies/drains.• The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	<ul style="list-style-type: none">• Waste Management Plan has already been prepared.• Adequate safety equipment is provided by the contractors.• No COVID waste was found at the sites.	FC			
Management of Workers Facility	<ul style="list-style-type: none">• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	<ul style="list-style-type: none">• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also, provision of an appropriate number of toilets and hand-washing points.• At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other.• Check the availability of medical kits at the site on weekly basis.• Preparation of daily routine checkup including temperature screenings of the workers and staff.	<ul style="list-style-type: none">• Contractors have provided sufficient soap, sanitizer and washing materials at work site.• Contractors purchased the medical kits and available at sites.	FC			
Drinking Water Quality	<ul style="list-style-type: none">• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	<ul style="list-style-type: none">• Provide the drinking water that meets national standards.• Select aquifers for drinking water free from arsenic and other contaminants.• Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection	<ul style="list-style-type: none">• Contractors arranged drinking water either from hospital premises or bought it from vendors.• Workers are always using safe drinking water.	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
		of aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.					
Drainage Congestion	<ul style="list-style-type: none"> Water logging due to improper management of drainage for rainwater/liquid waste or wastewater. 	<ul style="list-style-type: none"> Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem. Stockpile materials away from drainage lines. Reconstruct internal road-side drains immediately if damaged by any activities. 	<ul style="list-style-type: none"> Contractor is aware about the drainage congestion. Stockpiles are kept away from the drainage lines. 	FC			
Dust/Air Quality Management	<ul style="list-style-type: none"> Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads are a nuisance in the environment and can be a health hazard. 	<ul style="list-style-type: none"> During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site. Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). Cover hauls vehicles carrying dusty materials moving outside the construction site. Fit machinery/vehicles with appropriate exhaust systems and emission control devices. 	<ul style="list-style-type: none"> Contractors are taking action to reduce the dust from the construction activities. Water spray, cleaning the debris from construction sites are monitored by the Contractor's engineer or PIU personnel. 	FC			
Noise and Vibration Management	<ul style="list-style-type: none"> Noise may have an impact on workers, patients, hospital staffs, local residents etc. 	<ul style="list-style-type: none"> Appropriately site all noise generating activities to avoid noise pollution to workers, patients, hospital staffs, local residents etc. Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures. 	<ul style="list-style-type: none"> All noise generating works are performed away from the patients, hospital staff area. Noisy works under this package is very limited. Since the sites are located either on another floor or away from patients' ward/cabin therefore disturbance due to noise is limited. 	FC			
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. Lack of first aid and health care facilities in the immediate vicinity. Health risk of construction workers due to COVID-19. 	<ul style="list-style-type: none"> Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. Prepare the health and safety guidance for COVID-19 at work sites and get approval from PMU, and strictly follow the guidance at worksite; 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 DMCH; 	<ul style="list-style-type: none"> Contractors provided adequate PPE to workers. Workers are wearing the safety equipment during their works. PIU/PWD personnel and the hospital authority are advising to follow COVID-19 guidance. 	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
		<ul style="list-style-type: none"> Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, hospital staff and patients against construction risks. Simple poster/signage in Bangla explaining entry procedures. Signage available in hospitals to remind health personnel to wear masks if necessary and wash hands before entering/leaving. Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). Train all construction workers in OHS matters and on the specific hazards of their work and maintain a register of the person present during the training. Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, health staff, patients and their relatives. 					
Site Reinstatement	<ul style="list-style-type: none"> Damage due to debris, spoils, excess construction materials. 	<ul style="list-style-type: none"> Remove all spoils wreckage, rubbish, or temporary structures from the construction and camp sites; All affected structures rehabilitated. 	<ul style="list-style-type: none"> Contractors are advised to handover the site after removing all debris, wastes, etc. when their work is completed. Currently the work site is clean and it is maintained regularly. 	FC			The contractors handed over the completed sites clean and tidy condition.

Table IV.5: Summary of EMP Implementation for Construction of Medical Center at Land Port

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
CONSTRUCTION PHASE							
Waste Management for Construction and COVID Waste	<ul style="list-style-type: none">• Soil, water, and air pollution from the improper management of wastes and excess materials from the construction sites.• The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	<ul style="list-style-type: none">• Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.• Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place.• Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines.• Train on correct use and disposal of PPEs and check that they understand.• Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust.• Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills.• Do not burn/throw in any wastes to the water bodies/drains.• The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.• Waste management plan has been attached in the appendix stating specific mitigation measures for domestic and sanitary wastes disposal in a manner that will not cause soil and water contamination	<ul style="list-style-type: none">• Waste Management Plan has already been prepared.• Adequate safety equipment is provided by the contractors.• No COVID waste was found at the sites.	FC			
Management of Workers Facility	<ul style="list-style-type: none">• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	<ul style="list-style-type: none">• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also, provision of an appropriate number of toilets and hand-washing points.• At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other.• Check the availability of medical kits at the site on weekly basis.• Preparation of daily routine checkup including temperature screenings of the workers and staff.	<ul style="list-style-type: none">• Contractors have provided sufficient soap, sanitizer and washing materials at work site.• Contractors purchased the medical kits and available at sites.	FC			
Drinking Water Quality	<ul style="list-style-type: none">• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	<ul style="list-style-type: none">• Provide the drinking water that meets national standards.• Select aquifers for drinking water free from arsenic and other contaminants.• Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection	<ul style="list-style-type: none">• Contractors arranged drinking water either from land port premises or bought it from vendors.• Workers are always using safe drinking water.	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
		of aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.					
Drainage Congestion	<ul style="list-style-type: none"> Waterlogging due to improper management of drainage for rainwater/liquid waste or wastewater. 	<ul style="list-style-type: none"> Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem. Stockpile materials away from drainage lines. Reconstruct internal road-side drains immediately if damaged by any activities. 	<ul style="list-style-type: none"> Contractor is aware about the drainage congestion. Stockpiles are kept away from the drainage lines. 	FC			
Dust/Air Quality Management	<ul style="list-style-type: none"> Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads are a nuisance in the environment and can be a health hazard. 	<ul style="list-style-type: none"> During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site. Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). Cover haul vehicles carrying dusty materials moving outside the construction site. Fit machinery/vehicles with appropriate exhaust systems and emission control devices. Provision for a daily dust control log sheet that will be monitored by PIU which will be reported in semi-annual monitoring report 	<ul style="list-style-type: none"> Contractors are taking action to reduce the dust from the construction activities. Water spray, cleaning the debris from construction sites are monitored by the Contractor's engineer or PIU personnel. 	FC			
Noise and Vibration Management	<ul style="list-style-type: none"> Noise may have an impact on workers, patients, medical centre staffs, local residents etc. 	<ul style="list-style-type: none"> Appropriately site all noise generating activities to avoid noise pollution to workers, immigrants, BLPA and other officials and local residents etc. Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures. 	<ul style="list-style-type: none"> All noise generating works are performed in daytime. 	FC			During piling works Contractors, PWD, and BLPA persons visited nearby buildings and checked the vibration level as well as consulted with the residents.
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. 	<ul style="list-style-type: none"> Prepare the health and safety guidance for COVID-19 at work sites and get approval from PIU, and strictly follow the guidance at worksite; 	<ul style="list-style-type: none"> Contractors provided adequate PPE to workers. Workers are wearing the safety equipment during their works. 	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
	<ul style="list-style-type: none"> Lack of first aid and health care facilities in the immediate vicinity. Health risk of construction workers due to COVID-19. 	<ul style="list-style-type: none"> Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. 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 nearest laboratory; Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, BLPA and other officials against construction risks. Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). Train all construction workers in OHS matters, and on the specific hazards of their work and maintain a register of the person present during the training. Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, port staff, immigrants, and visitors. 					
Community Health and Safety	<ul style="list-style-type: none"> Construction works will impede the access of visitors and officials in limited cases. The impacts are minor negative but short-term, site-specific within a relatively small area and reversible by mitigation measures. Poor safety signage and lack of barriers at work site and trenches will create hazard to the visitors and officials. 	<ul style="list-style-type: none"> Provide safety signage at construction sites visible to public Provide safety barriers near any trenches, and cover trenches with planks during non-work hours. Contractor's activities and movement of staff will be restricted to designated construction areas. Consult with local authority on the designated areas for stockpiling of, soils, gravel, and other construction materials. If the contractor chooses to locate the work camp/storage area on private land, he must get prior permission from the environment specialist. Recycling and the provision of separate waste receptacles for different types of waste shall be encouraged. A general regard for the social and ecological well-being of the site and adjacent areas is expected of the site staff. Workers need to be made aware of the following general rules: (i) no alcohol/drugs on site; (ii) prevent excessive noise; (iii) construction staff are to make use of 	<ul style="list-style-type: none"> Contractors provided safety signage in construction area. Public movement is strictly maintained by the Contractor's personnel. 	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
		<p>the facilities provided for them, as opposed to ad hoc alternatives (e.g. fires for cooking, the use of surrounding bushes as a toilet facility); (iv) no fires permitted on site except if needed for the construction works; (v) trespassing on private/commercial properties adjoining the site is forbidden; (vi) other than pre-approved security staff, no workers shall be permitted to live on the construction site; and (vii) no worker may be forced to do work that is potentially dangerous or that he/she is not trained to do.</p> <ul style="list-style-type: none"> Interested and affected parties need to be made aware of the existence of the complaints book and the methods of communication available to them. The contractor must address queries and complaints by: (i) documenting details of such communications; (ii) submitting these for inclusion in complaints register; (iii) bringing issues to the Environmental Safeguard Specialist's attention immediately; and (iv) taking remedial action as per specialist's instruction. The contractor shall immediately take the necessary remedial action on any complaint/grievance received by him and forward the details of the grievance along with the action taken to the environmental specialist within 48 hours of receipt of such complaint/grievance. 					
Earth Excavation	<ul style="list-style-type: none"> Excavation of borrow pits will add to the destruction of flora. Dust generation will be occurred from earth excavation, earth & sand stockpiles during dry period. 	<ul style="list-style-type: none"> Water spray to the dry earth/material stockpiles, access roads and bare soils as and when required to minimize the potential for environmental nuisance due to dust. Contractors will be prohibited from opening new areas in local waterbody for extracting and/or sourcing sands, especially areas in local rivers that remain in relatively good natural conditions and areas that support fish of conservation importance. 	<ul style="list-style-type: none"> Earth excavation is not started yet. 	FC			
Flora and Fauna	<ul style="list-style-type: none"> Effects of construction work on species of conservation concern—and on local wildlife and habitats in general 	<ul style="list-style-type: none"> Temporary fencing should be installed around standing water areas to reinforce the prohibition. Where runoff from active work areas is directed to ponds, silt curtains and temporary sediment traps should be used to limit siltation. 	<ul style="list-style-type: none"> No flora is required to cut yet. 	FC			No damage is expected due to the activities.
Water Pollution	<ul style="list-style-type: none"> Construction activity involving excavation and earthworks inevitably exposes loose soil to the elements. Construction camps are a common source of surface water contamination, as toilet facilities are typically rudimentary and likely to leak raw or virtually untreated effluent. This may significantly exacerbate existing surface water quality problems, which 	<ul style="list-style-type: none"> Protecting disturbed soil from rain by keeping exposed areas covered with mulches, fiber mats and other temporary coverings; Keeping all stockpiles of erodible materials covered with tarpaulins whenever they are not in active use; Arranging construction site drainage so surface runoff is directed away from exposed soils and materials stockpiles; Installing and regularly maintaining sediment traps in site runoff channels; Strictly requiring use of drip mats during refueling and equipment repairs and servicing; 	<ul style="list-style-type: none"> Wastes are collected in a bin and managed properly. No wastes are dumped into the water body. 	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
	are prevalent in most areas of Bangladesh	<ul style="list-style-type: none"> • Maintaining a regimen of systematic daily checks of all motorized equipment and tanks to detect leaks, so they can be promptly repaired; and • Training all workers involved in refueling, equipment servicing and moving containers in proper spill prevention and response. • 					
Soil Pollution	<ul style="list-style-type: none"> • The chief threat to soils during construction is erosion, especially during extreme rainfall events and flash floods. Valuable topsoil may be lost to nearby surface water bodies if not properly protected from rain and overland flow. The BCP sites are quite flat, so the risk of serious erosion problems here is not especially high. 	<ul style="list-style-type: none"> • Topsoil should be removed prior to major earthworks and stored separately, for use in reinstatement of the site. The soil surface should be promptly reinstated and revegetated as soon as construction work has been completed in each area of the work site, rather than all reinstatement taking place at once as the last step in the construction process. 	<ul style="list-style-type: none"> • No spillage or chemical was used during construction activity. 	FC			
Traffic Safety	<ul style="list-style-type: none"> • Increased traffic use of narrow access road by construction vehicle will affect the movement of normal road traffics and the safety of the road users specially the students. 	<ul style="list-style-type: none"> • The contractor should prepare proper Traffic Management Plan (TMP) during starting of construction & follow it strictly; • In this TMP, the road safety measures such as speed breakers, warning signs/lights, road safety signs, flagman etc. should be included to ensure uninterrupted traffic; • Movement specially at nearby the educational (Schools, colleges, Madrasha etc.), community infrastructure (mosques, graveyards, Prayer Ground etc.) and health complex; • In addition, BRTA traffic rules and regulations should be strictly followed; • Divert traffic to follow alternative routes to avoid traffic jams; • All construction drivers will undergo Defensive Driving training and talking with mobile phones during driving will be forbidden. 	<ul style="list-style-type: none"> • Designated site personnel both from the Contractor as well as BLPA is available. 	FC			
Public Safety	<ul style="list-style-type: none"> • Public safety—especially the safety of women and girls—can also be threatened by operation of construction camps in proximity to local settlements, especially when camps house many non-local workers who may feel unencumbered by the norms and mores of their faraway home communities. Camps may become a locus for prostitution, and the violence that often accompanies it. Sometimes, local resentment over the hiring of non-local workers, perhaps exacerbated by cultural 	<ul style="list-style-type: none"> • The best means of limiting construction camp-related public safety impacts is to avoid the need for camps at all by hiring only local workers. The town of Akhaura is large and nearby the BCP, so this should be quite feasible. If a camp must be established, resident workers should be given awareness training, and subject to strict controls on off-site travel and behavior. The contractor responsible for the camp should work proactively with local community leaders—including female leaders—to monitor interaction between the resident worker population and the local public, and promptly address emerging problems such as prostitution and bad worker behavior off-site. These measures should be included in the Construction Camp Management Plan, which will be appended to the CEMP. 	<ul style="list-style-type: none"> • Safety signage is provided in construction site. 	FC			

IEC	Potential Impact	Mitigation Measures	Actual Implementation	Compliance Status			Remarks
				FC	PC	NC	
	misunderstanding or racial and religious animus, can lead to violent conflict between resident workers and local people.						
Livelihoods	<ul style="list-style-type: none"> Construction activity typically affects livelihoods in a few ways. On the negative side, poor management of the construction site can lead to property damage in adjacent areas. Crops in nearby areas may get trampled by operation and parking of machinery without regard to the site boundary. This could be a concern at the Akhaura BCP, as it is surrounded by actively cultivated fields, but work near the site boundary will likely involve only rebuilding the boundary wall, so this is a minimal risk. 	<ul style="list-style-type: none"> To maximize the positive impact of the construction process for the local community, the primary contractor and all subcontractors should be contractually obliged to give local workers first priority in hiring. Bringing in crews from other areas should only be permitted if the contractor can demonstrate that local workers are insufficient in number or do not possess the necessary skills and experience. As Akhaura is a sizable town, this seems unlikely to be a great hardship for the contractors. 	<ul style="list-style-type: none"> Construction activities are within the boundary wall and livelihood is affected by the activity. 	FC			Workers are recruited both from locally and remote areas.
Site Reinstatement	<ul style="list-style-type: none"> Damage due to debris, spoils, excess construction materials. 	<ul style="list-style-type: none"> Remove all spoils wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required. All disrupted utilities restored. All affected structures rehabilitated/ compensated. The construction camp is to be checked for spills of substances such as used container/water bottles, paint, etc. and these shall be cleaned up. All hardened surfaces within the construction camp area shall be ripped, all imported materials removed, and the area shall be top soiled and regressed using the guidelines set out in the re-vegetation specification that forms part of this document. The contractor must arrange the cancellation of all temporary services. Request PMU/PIU to report in writing that worksites and camps have been vacated and restored to pre-project conditions before acceptance of work. No payment should be made if the site is not cleared. 	<ul style="list-style-type: none"> Contractors are advised to handover the site after removing all debris, wastes, etc. when their work is completed. Currently the work site is clean, and it is maintained regularly. 	FC			Work is still ongoing

V. COMPLIANCE TO OCCUPATIONAL HEALTH AND SAFETY (OHS)

A. Regulatory Requirements

37. Summary of the National OSH related provisions that are considered for site management:
- *Occupational Accidents, Hazards and Diseases:* The key provision on occupational accidents, hazards and diseases relates to accident prevention regulations (prevention from workplace hazards; disease prevention and safeguards; record keeping and planning; rehabilitation and building awareness of OSH. Details of these are outlined in the National OSH Policy, 2013/2015)
 - *Safety Equipment/Tools and Facilities:* The safety equipment/ tools and facilities include firefighting apparatus and the emergency fire exit, protective kits and the safety of buildings/machineries. (The BLA Section 78A sets clear guidance on using safety appliances for personal safety at work.)
 - *Workplace Safety:* The National OSH Policy obligates to identify all of the risks regarding OHS and orients all persons of the workplace on possible accidents and OHS risks (Labor Act 2006, Clause 4.d.2). It also suggests developing a safe work plan and ensuring its effective practice (Labor Act 2006, Clause 4.d.8).

B. OHS Training

38. Trainings on occupational health and safety measures are being provided to all employees/workers, including contractors and subcontractors, working at the subproject construction site. These training basically include general induction, health and safety issues and job-specific training, as necessary. The Site Manager/Supervisor is responsible for ensuring contractors and sub-contractors/employees work in a safe and healthy manner and are not harmed or do not cause harm to others while working at the construction work site.

39. During this semestral, two on-job trainings on occupational health and safety has been provided to the workers along with project officials. The PIU Consultants conducted one training at Sheikh Sayera Khatun Medical College Hospital, Gopalganj and another one at National Institute of Preventive and Social Medicine (NIPSOM). In both the trainings total 20 workers were present including one female worker. In addition to the workers, the project officials from PWD were also present and had the opportunity to know about the construction safety. The details of the trainings conducted at the project period including the two during this semestral are given in chapter VI of this report.

C. Supply of Personal Protective Equipment (PPE)

40. The subproject sites ensure sufficient PPEs according to the number of workers for a specific site. Additionally, all equipment related to COVID-19 protection has been supplied by the contractors and are available at subproject sites. Status of available PPEs are given in below table.

Table V.1: Supply Status of Personal Protective Equipment (PPE)

Types of PPE	Description	Condition	Quantity
1. Hard hat (Helmet)	A hard hat protects the head from falling objects.	Good	Sufficient
2. Eye protector	Eye protector or goggles can protect eyes from flying objects or chemicals	Good	Sufficient

Types of PPE	Description	Condition	Quantity
3. Safety Gloves	Gloves protect hands from cuts, burns, abrasions and other injuries.	Good	Sufficient
4. Ear plugs (Hearing protection)	Ear plugs is necessary when working around loud noise environment	Good	Sufficient
5. Protective footwear (Boots)	Used to protect against foot injuries caused by falling objects or hot surfaces	Good	Sufficient
6. Dust Mask	Used to protect against dust environment (respiratory protection)	Good	Sufficient
7. Reflective Vests	Help prevent accident by increasing the chances of being seen and reducing the risk of collision	Good	Sufficient
8. Hand Sanitizer	Antiseptic hand sanitizer with broad-spectrum antimicrobial properties, provides instant protection by killing germs	Good	Sufficient
9. Face Mask	Masks and respirators are effective at reducing transmission of SARS-CoV-2, the virus that causes COVID-19, when worn consistently and correctly.	Good	Sufficient
10. Hand Wash, Soap	Handwashing with soap remains one of the best defenses against the virus.	-	Sufficient

D. Site- specific OHS Control Measures

41. The site-specific occupational health and safety (OHS) control measures, which are being implemented at subproject sites, are delineated in the following table:

Type of Hazards	Control Measures
1. Falls from height	<ul style="list-style-type: none"> Implement guardrails, safety nets, and/or personal fall arrest systems Provide appropriate ladders or scaffolds Train workers on proper use of fall protection equipment Regularly inspect and maintain fall protection equipment
2. Struck by objects	<ul style="list-style-type: none"> Establish a safety zone around each work area Ensure workers wear appropriate PPE, such as hard hats, safety glasses, safety boots, gloves etc. Regularly inspect and maintain equipment Use warning signs and signals to indicate work areas
3. Electrocution	<ul style="list-style-type: none"> Identify electrical hazards and implement appropriate controls, such as grounding and circuit protection devices Train workers on proper use of electrical equipment Regularly inspect and maintain electrical equipment Ensure proper use of PPE, such as insulated gloves and boots
4. Trenching and excavation hazards	<ul style="list-style-type: none"> Ensure proper shoring or sloping of trenches Provide proper access and egress to trenches Train workers on proper excavation procedures and hazards Regularly inspect and maintain trenching equipment Use warning signs and barricades to indicate work areas
5. Hazardous materials	<ul style="list-style-type: none"> Identify and label hazardous materials and establish appropriate controls for handling and disposal Train workers on proper handling procedures for hazardous materials Provide appropriate PPE, such as gloves, respirators, and protective clothing Regularly inspect and maintain equipment used for handling hazardous materials
6. Musculoskeletal disorders	<ul style="list-style-type: none"> Train workers on proper lifting and handling techniques Encourage stretching and breaks to prevent repetitive strain injuries

	<ul style="list-style-type: none"> • Regularly inspect and maintain equipment to ensure it is in good working condition
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a. Site-specific OHS Monitoring

42. To document the implementation status of site-specific OHS security measures at construction/camp site a well-developed checklist has been used. The filled-in checklists are included in Annex VIII for visited packages (Akhaura Land Port and Sheikh Sayera Khatun Medical College Hospital) to demonstrate the site-specific OHS implementation and compliance status for subproject sites.

E. Accident & Incident Records

43. As a part of OHS measures, it is required to record all environmental accident/incident/near miss that occur at the work site and brought to the attention of the Environmental Consultant / PIU Focal person / Site Manager for action to take. In this regard, a sample form (attached in Annex IX) has been provided to the contractor for recording accident/incident/near miss (if any occurrence takes place). However, it is worthwhile to point out here that no accident/incident/near miss was found to occur during this reporting period.

VI. SAFEGUARDS MONITORING RESULTS AND UNANTICIPATED IMPACTS

F. Safeguards Monitoring

44. The project construction related activities has already been started during this monitoring period and the EMP is under implementation by the respective contractors. The executing agency (DGHS) along with the assisting department (PWD) is responsible for monitoring and contractor is responsible for the implementation of the EMP as per the suggested guidelines. The institutional arrangement of implementing the EMP is given in Figure V.1 below. In case of any unanticipated impacts, the PIU will conduct further assessment of the environmental impact or reflect in the environmental monitoring report and will mobilize the resources needed to implement required mitigation measures including their monitoring.

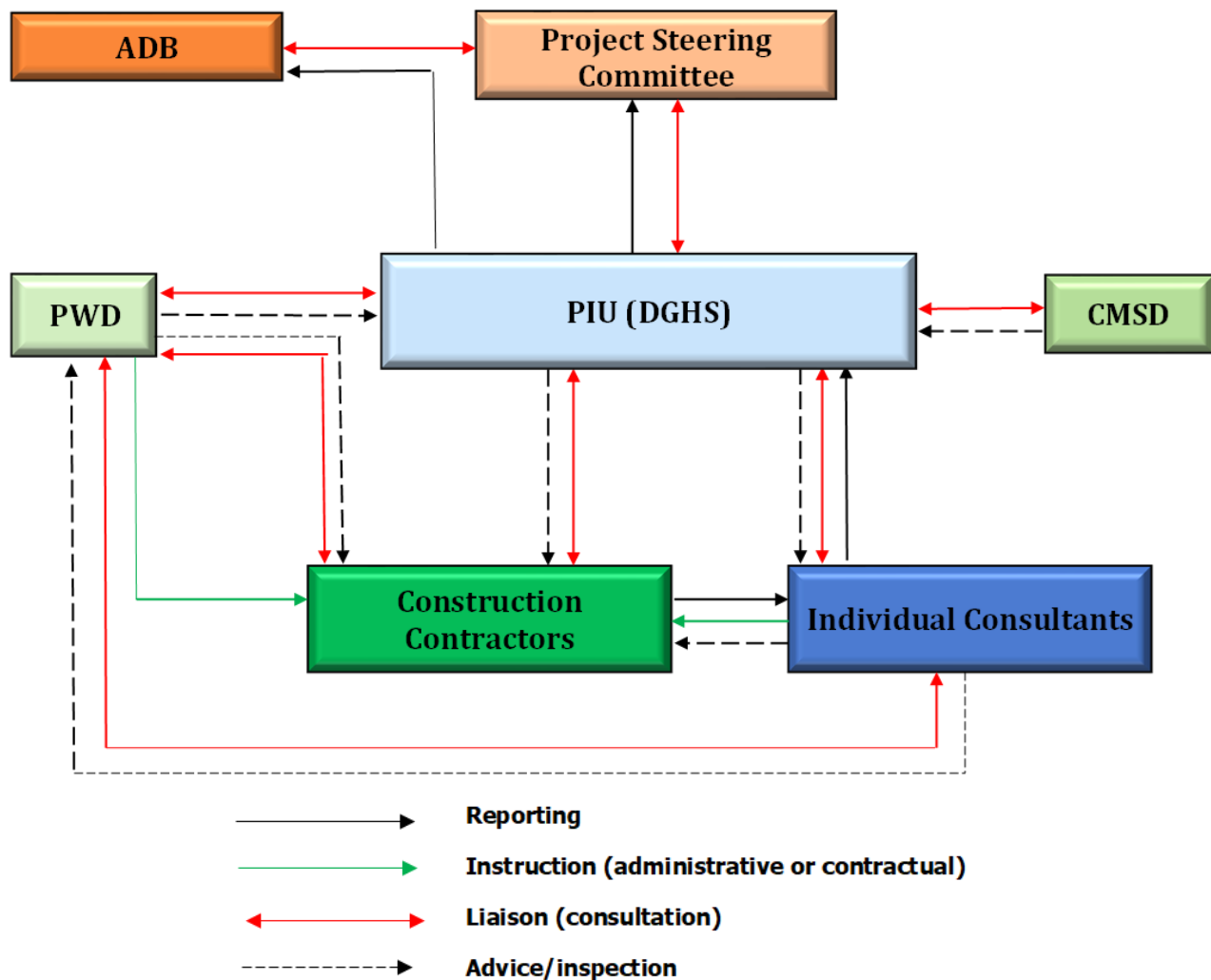


Figure VI.1: Institutional Arrangement of the Project

45. The PIU is formed with several individual consultants from different sectors. One environmental safeguards specialist and one social safeguards specialist is appointed to monitoring the safeguards performance of the Project. Table V.1 shows the details of the safeguards team of

PIU and Table V.2 from the Contractors of the Project.

Table VI.1: Safeguard Personnel in CREAP (PIU)

Name	Organization and Designation	Email	Contact no.	Remarks
Dr. Avique Asaf	DGHS/PIU Medical Officer/Safeguard Focal Person of CREAP	dr.avique.creap@gmail.com	01788594284	Transferred in June 2023
Dr. Ms. Sharmin Jahan	DGHS/PIU Medical Officer/Safeguard Focal Person of CREAP	sharminsemu17@gmail.com	01936467489	Appointed in December 2023
Raisin Akhter Feroz	Individual Consultant Environmental Safeguards Specialist	raisinakhterferoz@gmail.com	01712555517	
Md Mayen Uddin Tazim	Individual Consultant Social Safeguards (IP & IR) and Gender Specialist	mayentazim@gmail.com	01715108687	Demobilized in October 2023

Table VI.2: Safeguard Personnel in CREAP (Contractors)

Name of Safeguard Personnel	Designation	Institute	Package Name	Contact no.
Shah Mohammad Faridul Aziz	Site Manager	DMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	01718431594
Ferdous Pavel	Site Manager		Installation of Medical Gas System	01312464896
Md. Moyen Uddin Babu	Site Manager	RMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	01714257616
Md. Mustakin Billah	Site Manager		Installation of Medical Gas System	01958093026
Md. Masum Billal Khan	Site Manager	CuMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	01930518355
Kawser Murad	Site Manager		Installation of Medical Gas System	01757860934
Fardin Rayhan	Site Manager	KMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	01946512079
Md. Mustakin Billah	Site Manager		Installation of Medical Gas System	01958093026
Md. Rony Mridha	Site Manager	SSKMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	01317717511
			Installation of Medical Gas System	
Shafiqul Islam Rasel	Site Manager	Akhaura Land Port	Construction of Medical Center	01748496619
Md. Jamal	Site Manager	NIPSOM	Construction of PCR Laboratory at National Institute of Preventive and Social Medicine (NIPSOM), Dhaka	01712918334
Md. Jahangir Alam	Site Manager	CMCH	Construction of 50 bed Isolation Unit & 10 bed ICU/CCU	01958184805
	Site Manager		Installation of Medical Gas System	

46. Site visits on different medical facilities were conducted by the individual consultants and found the implementation of the EMP as satisfactory. The photographs of site visits are given in Annex V. However, it was noticed that the construction works of had already been finished within this monitoring period.

Table VI.3: List of site visit during the reporting period (July to December 2023)

Name of Package	Date of Inspection	Conducted by Whom
Construction of Medical Center at Akhaura Land Port, Brahmanbaria	31 August 2023	Project Director, ADB Mission Team Environmental Safeguards Specialist, Civil Engineer, and Procurement Expert
Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU and Installation of Medical Gas System at Khulna Medical College Hospital, Khulna	04 September 2023	Environmental Safeguards Specialist, Civil Engineer, and Procurement Expert
Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU and Installation of Medical Gas System at Sheikh Sayera Khatun Medical College Hospital, Gopalganj	05 September 2023	Environmental Safeguards Specialist, Civil Engineer, and Procurement Expert
Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU and Installation of Medical Gas System at Mymensingh Medical College Hospital, Mymensingh	14 September 2023	Environmental Safeguards Specialist, Civil Engineer, and Procurement Expert
Construction of PCR Laboratory at National Institute of Preventive and Social Medicine (NIPSOM), Dhaka	26 December 2023	Environmental Safeguards Specialist, Civil Engineer, and Procurement Expert
Construction of PCR Laboratory at DNCC dedicated COVID-19 Hospital, Dhaka	26 December 2023	Environmental Safeguards Specialist, Civil Engineer, and Procurement Expert
Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU and Installation of Medical Gas System at Cumilla Medical College Hospital, Cumilla	27 December 2023	Environmental Safeguards Specialist, Civil Engineer, and Procurement Expert
Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU and Installation of Medical Gas System at Chattogram Medical College Hospital, Chattogram	28 December 2023	Project Director, Environmental Safeguards Specialist, Civil Engineer, and Procurement Expert

G. Corrective Action Plan (CAP)

47. The consultant and the representative of PIU observed the present status of environmental monitoring and management of the Project and found all the sites satisfactory but some limitations. They had discussed with the personnel of Contractors and tried to point out the specific shortfalls within the management practices. Some of the major limitations are discussed in below table with necessary corrective actions.

Table VI.4: Limitations and Corrective Actions of Environmental Management

Sl. No.	Name of Package	Major Limitations Found	Required Corrective Action	Timeline
1	Construction of Medical Center at Akhaura Land Port, Brahmanbaria	- The contractor has adequate PPEs for regular workers. However, on a casting day additional number of workers are engaged by sub-contractors and those workers do	- The contractor's personnel are advised to arrange sufficient PPEs for all the workers engaged by the contractor and sub-contractors.	By 29 February 2024

Sl. No.	Name of Package	Major Limitations Found	Required Corrective Action	Timeline
		not have proper PPEs.		
2	Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU at Khulna Medical College Hospital, Khulna	- All the construction activities are completed. However, no marking and signboard was found at the entrance about the project as well as the facilities developed by the project.	- The contractor's representative is advised to provide proper sign and notice in front of all facilities including the project information.	Before handover to hospital authority.
3	Installation of Medical Gas System at Khulna Medical College Hospital, Khulna	- Contractor yet not provided the autoclave as mentioned in the EMP.	- Contractor's representative is guided to purchase the autoclave before handing over the site.	
4	Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU at Sheikh Sayera Khatun Medical College Hospital, Gopalganj	- Though construction wastes are removed daily from the site, but the wastes are not kept properly which make difficulty to move around the site.	- The contractor's representative is advised to remove/manage the waste properly to avoid any accident.	- Construction work is completed. However, it was monitored during the period and ensured regularly. - Before handover to hospital authority.
5	Installation of Medical Gas System at Sheikh Sayera Khatun Medical College Hospital, Gopalganj	- Contractor yet not purchased the autoclave as mentioned in the EMP.	- Contractor's representative is guided to purchase the autoclave before handing over the site.	
6	Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU at Mymensingh Medical College Hospital, Mymensingh	NA	- The site is handed over following the requirement of EMP.	
7	Installation of Medical Gas System at Mymensingh Medical College Hospital, Mymensingh			
8	Construction of PCR Laboratory at National Institute of Preventive and Social Medicine (NIPSOM), Dhaka	NA	- A few workers are working following the guidance given in EMP. Therefore, no further instruction was given by the Consultant.	
9	Construction of PCR Laboratory at DNCC dedicated COVID-19 Hospital, Dhaka	- All the construction activities are completed. However, no marking and signboard was found at the entrance about the project as well as the facilities developed by the project.	- The contractor's representative is advised to provide proper sign and notice in front of all facilities including the project information.	Before handover to hospital authority.
10	Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU at Cumilla Medical College Hospital, Cumilla	- The contractor handed over the site long ago. However, the facility is yet not started its operation due to unavailability of equipment. The	- The hospital authority requested to keep the facility clean before receiving the equipment.	Before supplying the instruments

Sl. No.	Name of Package	Major Limitations Found	Required Corrective Action	Timeline
11	Installation of Medical Gas System at Cumilla Medical College Hospital, Cumilla	project will supply the equipment very soon. The facility is not cleaned properly by the hospital authority.		
12	Construction of 50 Bed Isolation Unit & 10 Bed ICU/CCU at Chattogram Medical College Hospital, Chattogram	- All the construction activities are completed. However, no marking and signboard was found at the entrance about the project as well as the facilities developed by the project.	- The contractor's representative is advised to provide proper sign and notice in front of all facilities including the project information.	Before handover to hospital authority.
13	Installation of Medical Gas System at Chattogram Medical College Hospital, Chattogram	- Contractor yet not purchased the autoclave as mentioned in the EMP.	- Contractor's representative is guided to purchase the autoclave before handing over the site.	

H. COVID-19 Response Monitoring

48. During the site visits by the Individual Consultants several information regarding the implementation of COVID-19 response measurements at work sites was collected. Additionally, status of the EMP implementation on the COVID-19 response also collected through phone call to different contractors. Since there are only three sites presently has ongoing construction works therefore the Table V.5 below provides the respective sites' information on the implementation on COVID-19 response monitoring.

Table VI.5: COVID-19 Response Performance at Work Site

COVID-19 Response Questions	DMCH	RMCH	CuMCH	MMCH	SSKMCH	KMCH	MuMCH	SSMCH	CMCH	DNCC COVID dedicated Hospital	NIPSOM	FMCH	MC at Akhaura Land Port	Remarks
Engage a full time EHS professional at site	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	
Purchase thermometer gun, soap, hand sanitizer, disinfectants, and PPEs (mask, hand gloves, hard shoes etc.) and keep it at worksite office.	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	
Establish site entrance protocol. Redesign the site safety notices/signboards/protocol according to the ADB guidelines	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	
Arrange washbasin, soap, and clean water at the entrance of every worksite/campsite. Also keep either a disinfectant tub for shoes or keep disinfectant spray that must be sprayed under the boots/hard shoes of the persons entering worksite.	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	
Provide every personnel working in the site with mask, hand gloves and hard shoes for their personal use.	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	
Everyone entering the worksite must wear a mask, gloves and hard shoes	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	
Daily worksite protocol	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	
At the start and end of the day disinfect the total worksite.	PC	FC	PC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	Contractor is advised to ensure
Encourage site personnel/camp dwellers to not touch their eyes, mouth or nose if not washed thoroughly with soap recently.	PC	FC	PC	PC	FC	FC	FC	FC	FC	FC	FC	FC	FC	Workers are advised to follow the rules

COVID-19 Response Questions	DMCH	RMCH	CuMCH	MMCH	SSKMCH	KMCH	MuMCH	SSMCH	CMCH	DNCC COVID dedicated Hospital	NIPSOM	FMCH	MC at Akshaura Land Port	Remarks
Also discourage hand shaking or hugs.														
Arrange a mandatory site brief on COVID awareness in the morning. The session must be conducted by the EHS/medical professional.	PC	PC	PC	PC	FC	FC	FC	FC	FC	PC	PC	FC	PC	Contractor's Focal Person is advised to ensure it in daily toolbox meeting
While worksites are commonly well ventilated (if not make sure the work sites are well ventilated), ensure that the camp sites including the rooms designated for the camp dwellers are well ventilated and spacious.	PC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	Contractor is advised to ensure
Discourage site personnel to gather and gossip at any time, rather encourage physical distance while chatting/discussing.	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	
Restrict worksite personnel to go outside unnecessarily. Also restrict campsite personnel to go outside without any valid cause.	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	
If any person related at worksite/campsite fall victim to COVID-19 or being kept isolated for pre-caution, consider paid leave with no exception allowed.	No	No	No	No	No	No	No	No	No	No	No	No	No	
Train workers on how to properly put on, use/wear, and take off protective clothing and equipment. The on-site EHS/Medical person should be in-charge of these trainings. These trainings must maintain the WHO's social distancing protocol.	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	FC	PC	PC	Contractor's Focal Person is advised to ensure it in daily toolbox meeting

COVID-19 Response Questions	DMCH	RMCH	CuMCH	MMCH	SSKMCH	KMCH	MuMCH	SSMCH	CMCH	DNCC COVID dedicated Hospital	NIPSOM	FMCH	MC at Akhaura Land Port	Remarks
Make these trainings mandatory at worksites. Provide 10-15 minutes of a workday for such 'training and encouragement' activities.														

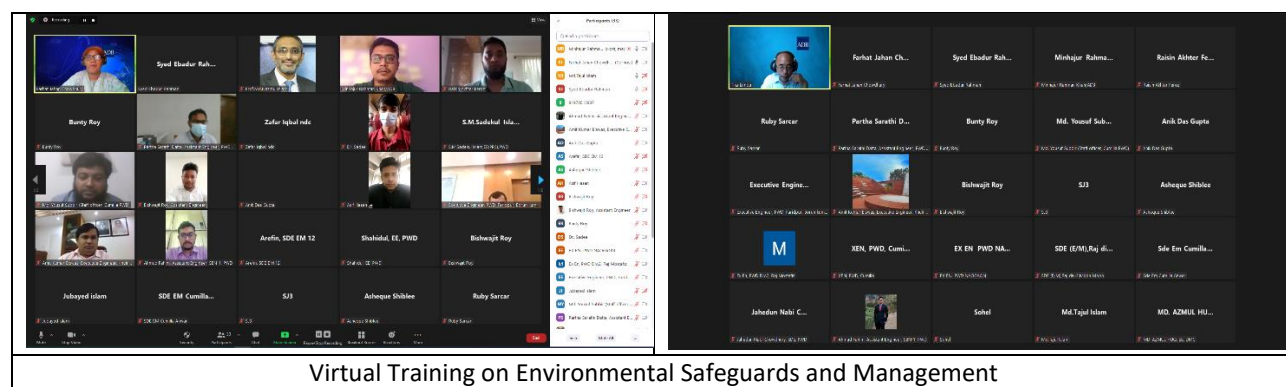
I. Safeguards Training

a. Training for Project's Officials

49. A training on Environmental Safeguards and Management with all respective official from PIU, PWD, Consultants had been completed successfully on 27 October 2021 through online platform. The training was designed with several sessions covering the ADB safeguard policy to its management and monitoring. The environmental safeguard personnel from the ADB, BRM conducted different sessions along with the environmental safeguard consultant of PIU.

Table VI.6: Details of Virtual Training for Project's Officials

Sl.	Training Title	Date	Category of Participant	No. of Participant		
				Male	Female	Total
1	Training on Environmental Safeguards and Management	27/10/2021	ADB Officials, PIU Staff, PWD Officials	28	5	33



Virtual Training on Environmental Safeguards and Management

Figure VI.2: Photographs of Virtual Training for Project's Officials

50. The ADB has advised the DGHS/PIU to prepare a list of participants with all the potentials officials both from the DGHS and PWD to organize another training programme on environmental safeguards. However, during this monitoring period (July-December 2023) no training has been arranged on environmental safeguards for the respective project's officials. It is to be noted that a brief discussion on the funding allocation has been done in the ADB Loan Review Mission from 26 February—2 April 2023. However, no decision has been made by the ADB regarding the funding yet to conduct the training session. If all the decision will be taken immediately then the DGHS/PIU will try to organize the training session with the help of the Consultants in the next semestral. A list of the tentative training participants is given in Annex V of this report.

b. Training for Contractors/Workers

51. A training on occupational health and safety was conducted prior to commencement of physical work for construction of isolation center and ICU/CCU at Rajshahi Medical College Hospital. At this training the Director of RMCH, PWD Officials, relevant stakeholders and the contractor with its workforce were present. Additionally, several on-job trainings were provided by the Environmental Safeguards Specialist to the Contractor's workforce during the site visit for monitoring of EMP implementation along with PWD Officials. There are two on-job training at NIPSOM and SSKMCH conducted during this semestral and the participants list only for NIPSOM are given in Annex X. The

details of these training sessions are given below Table V.7.

Table VI.7: Training for Contractors and Workers of CREAP during Project Period

Sl .	Training Title	Date	Package	Category of Participant	No. of Participant (Contractor Only)		
					Male	Female	Total
1	Training on Occupational Health & Safety	26/12/2023	Construction of PCR Laboratory at National Institute of Preventive and Social Medicine (NIPSOM), Dhaka	PIU Staff, PWD Officials, Contractor, Workers	5	0	5
2	Training on Occupational Health & Safety	04/09/2023	50 bed Isolation Unit & 10 bed ICU/CCU, and Installation of Medical Gas System at SSKMCH	PIU Staff, PWD Officials, Contractor, Workers	14	1	15
3	Training on Occupational Health & Safety	11/06/2023	Construction of Medical Center, Akhaura Land Port	PIU Staff, PWD Officials, Contractor, Workers	20	0	20
4	Training on Occupational Health & Safety	28/12/2022	50 bed Isolation Unit & 10 bed ICU/CCU, RMCH	PIU Staff, PWD Officials, Contractor, Workers	14	0	14
5	Training & Briefing on Occupational Health & Safety for Workers	26/12/2021	50 bed Isolation Unit & 10 bed ICU/CCU, RMCH	RMCH Officials, PIU Staff, PWD Officials, Contractor, Workers	26	1	27



On-job Training at NIPSOM



On-job Training at SSKMCH



On-job Training at Akhaura Land Port





Introduction Training on OHS at RMCH

On-job Training at RMCH

Figure VI.3: Photographs of Training on OHS

J. ADB Mission

52. The ADB Loan Review Mission started on 24 July 2023 yet not completed. The last completed mission (26 February–2 April 2023) carried out a detailed discussion on the overall safeguard implementation progress and provided guidance on how to enhance quality of safeguard reports and monitoring. Therefore, this EMR provides the status of compliance on the recommendations given during the previous mission. Table V.8 below shows the status of recommended corrective action measures proved during the ADB mission to PIU.

Table VI.8: Status of Implementation of Corrective Action Plan

Recommended Corrective Action Measures	Timeline	Implementation Status
DGHS/PIU will revise the IEE including EMP for Tamabil and Akhaura land port screening facilities considering the detailed design and submit for ADB's approval	by 15 May 2023	<p>Already submitted the revised IEE for Akhaura Land Port with available design. However, no detailed design is produced by PWD/Architectural Department on solar system, internal road, water supply system, and substation & generator facility etc.</p> <p>Package for Tamabil Land Port has been dropped.</p>

Recommended Corrective Action Measures	Timeline	Implementation Status
DGHS/PIU to ensure timely submission of EMR ensuring quality by incorporating earlier recommendations; A PCR-EMR is required to submit in October 2023.	by 30 June 2023	Submitted as per given dateline by the ADB. The Project time has been extended to April 2024. Therefore, a PCR EMR will be prepared and submitted accordingly.
Environmental safeguard specialist was advised to conduct monitoring of all completed and ongoing subprojects from March to May and submit a report.	by 15 June 2023. A monitoring plan will be shared with ADB by 15 May 2023	Most of the subprojects have already been visited by the Environmental safeguard specialist and Civil Engineer. Remaining subprojects will be visited within February 2024.
DGHS/PIU will revise the EMP for the NIPSOM lab and submit to ADB in order to get approval	by 15 May 2023	Submitted the revised EMP
DGHS/PIU will organize more training sessions covering EMP implementation and occupational health and safety for the engineers and contractors	by 30 June 2023	Conducted at SSKMCH, NIPSOM and Akhaura Land Port Sites.
DGHS/PIU to review existing GRM and propose changes for strengthening government's GRM procedure for both infrastructure and medical services	by 15 May 2023	A Project level GRC has already been developed in April 2023.
DGHS/PIU to disclose the approved IEE, EMP and EMRs on DGHS/project website	by 15 May 2023	IEE and EMPs have already been disclosed and the link have also been provided to ADB as well as in this EMR. DGHS will disclose all the EMRs soon on its website.
Management of medical waste is a concern in some completed ICU and CCUs. DGHS/PIU is advised to identify the issues and include appropriate measures (autoclave, biohazard bag, etc.).		PIU is consulting with respective MCHs and advising accordingly.



Akhaura Land Port

Figure VI.4: Photographs of Site Visit during ADB Mission

VII. IMPLEMENTATION OF GRIEVANCE REDRESS MECHANISM AND COMPLAINTS RECEIVED FROM STAKEHOLDERS

53. The grievance redress mechanism (GRM) is a process of handling complaints that is understandable, transparent, gender-responsive, culturally appropriate, and easily accessible to affected persons without cost and retribution. The Grievance Redress Mechanism (GRM) shall resolve complaints in a time-bound and transparent manner. MOHFW will ensure that affected persons will have the chance to express their legitimate grievances or to file a complaint about the project by setting up a GRM as soon as the loan becomes effective. The GRM process will be aligned with the process adopted by MOHFW; however, compliance with the policy principles of ADB SPS 2009 will be ensured. The GRM will be reviewed in consultation with MOHFW and DGHS and finalized before the effectiveness.

54. **Objectives:** The GRM aims to resolve complaints in a time-bound and transparent manner. MOHFW will ensure that: (i) all complaints are registered, investigated, and resolved in a manner consistent with the requirements of SPS 2009 and the government; (ii) the complainants are kept informed on the status of their concerns and the resolutions available to them; and (iii) adequate staff and resources will be made available to implement the GRM.

55. **Filing a complaint:** Affected persons can submit a complaint either verbally or in written form. Verbal complaints can be submitted through a phone call, walk-in or in person while written complaints can be posted through mail/letter, comments/suggestions drop-box, MOHFW website, email, or fax. However, due to the restrictions of face-to-face communication because of the COVID-19 outbreak, complaint submission in written format or through phone calls will be recommended.

56. DGHS has a web-based, text message-based, and phone-based platform for citizen engagement that can be used as a complementary way of submitting a complaint; its link is MOHFW will designate a staff as the GRM Focal Person.

57. **Structure:** The grievance redress mechanism will be under the responsibility of the Project Implementation Committee (PIC) under the chairmanship of DG, DGHS. MOHFW and DGHS will ensure the representation of women in the committee.

58. **Levels of grievance redress.** The complainant is not restricted to seek redress through the legal system at any point in the GRM process. Complainants or affected persons can seek redress to their complaints in three levels (see figure VI.1).

59. It is to be noted that the PIU has already been formulated the GRM Committee for this Project. During this semestral, Dr. Avique Asaf (Project Officer) has been transferred in June 2023 and Dr. Ms. Sharmin Jahan has been appointed in December 2023. Additionally, Mr. Mayen Uddin Tazim (Social Safeguard Specialist) has been demobilized in October 2023 and this position is vacant till now. The Grievance Redress Committee (GRC) for this project is formulated as given in Table VI.1. The Project yet not received any complaints during this monitoring period through any of the above-mentioned platform.

Table VII.1: Grievance Redress Committee (GRC) of the Project

SL. No	Name	Designation	Role in the Committee
1.	Dr. Mohammad Harun Ur Rashid	Deputy Project Director	Chairperson
2.	Dr. Ms. Sharmin Jahan	Project Officer	Member Secretary
3.	Dr. Sabrina Shams	Deputy Programme Manager, DGHS	Member (Female)
4.	Mayen Uddin Tazim	Social Safeguard Specialist (Demobilized in October 2023)	Member
5.	Raisin Akhter Feroz	Environmental Safeguards Specialist	Member

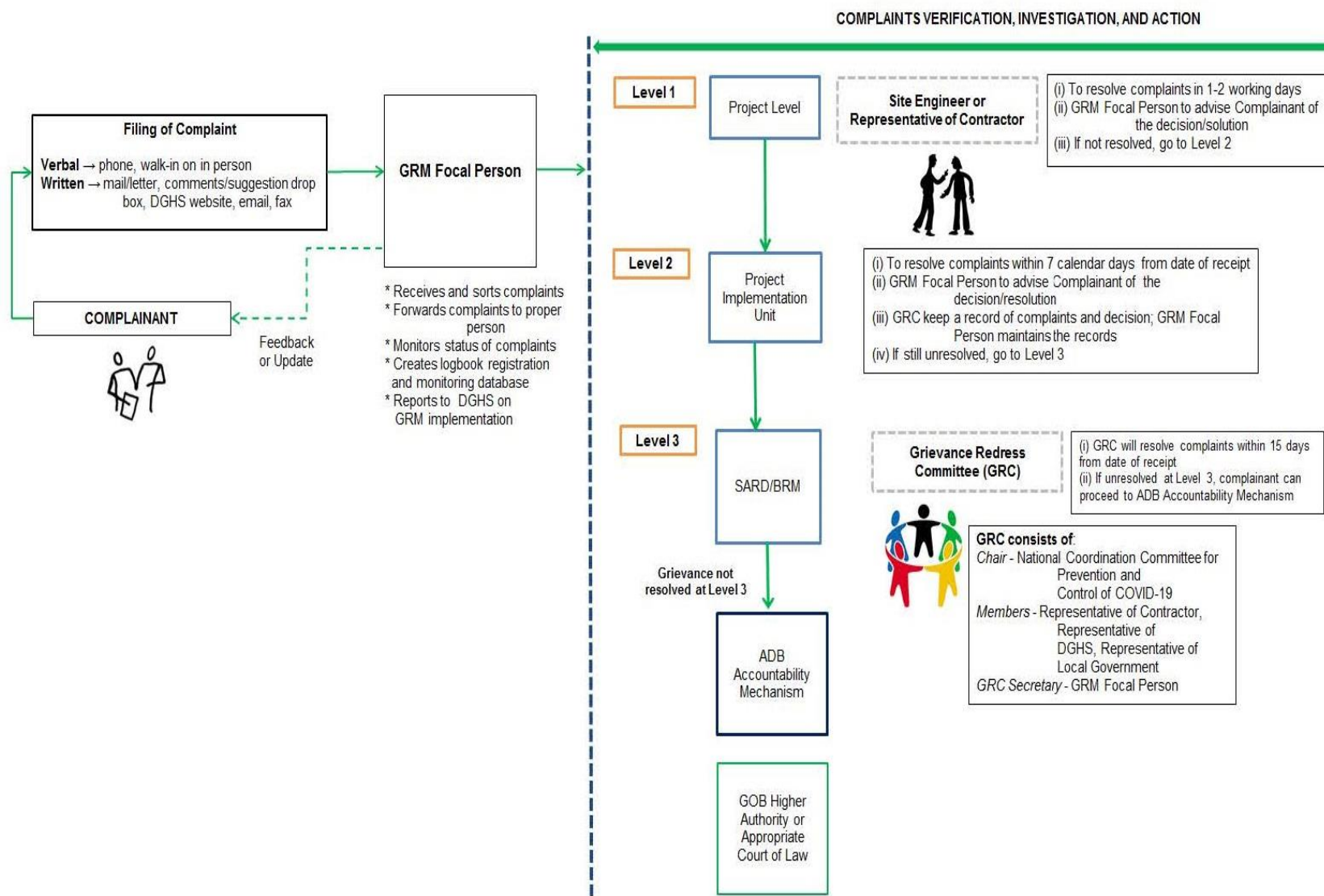


Figure VII.2: Grievance Redress Mechanism

VIII. CONCLUSION AND RECOMMENDATIONS

60. Overall, the COVID-19 response emergency assistance project has substantial compliance to the environmental safeguard's requirement set by the ADB and the GoB. The environmental safeguard monitoring report preparation was ongoing by project authority. No notices of violation were received by the PIU for any of the centers. Almost all the constructions are completed within this monitoring period except the PCR laboratory at NIPSOM, Dhaka. Since, the activities related to PCR laboratory are very minor therefore it can be expected that no violation of EMP would be occurred related to this construction. The project period is going to be finished in April 2024 and by this time all the remaining works will be completed. The PIU consultants will continue the monitoring for successful implementation of the EMP and other requirements from the Project. A PCR EMR will be prepared and submitted at the end of the Project covering all the issues by the PIU.

61. COVID-19 response emergency assistance project has complied with the environmental provisions of the loan covenant and the environmental safeguards requirement set by the ADB.

A. Action Plan for the Next Period

Table VIII.1: Compliance status of the CAPs suggested for Jul-Dec 2023 and CAPs for Jan-Apr 2024

Sl.	Recommended Corrective Action Measures Jan-Jun 2023	Responsibility	Timeframe	Remarks
1	Conduct site visit to all completed packages and prepare Corrective Action Plan (CAP) as per requirement	PIU Consultants	Previous Dateline: By 30 September 2023 Proposed Dateline: By 29 February 2024	PIU Consultants already visited most of the sites. Some are yet to visit by the consultants. Therefore, a new completion timeline is proposed.
2	Conduct adequate consultations in the subproject sites with the relative stakeholders.	PIU Consultants	By 31 October 2023	Consultations have been conducted during site visits. Additional consultation will be done during next visits.
3	Formulation of GRC for the Project in consultation and assistance with the PIU and Social Safeguards (IP & IR) and Gender Specialist.	PIU	By 31 August 2023	Task completed
Sl.	Recommended Corrective Action Measures Jan-Apr 2024	Responsibility	Timeframe	Remarks
1	The environmental safeguards specialist will conduct field visits as per the requirement to monitor the implementation of EMP.	PIU Consultants	By 30 April 2024	
2	Prepare PCR EMR	PIU Consultants	By 30 April 2024	

ANNEX

Annex I: Environmental Audit Checklist

BAN: COVID-19 RESPONSE EMERGENCY ASSISTANCE

ENVIRONMENTAL CHECKLIST/ AUDIT FOR THE EXISTING FACILITIES

ENVIRONMENTAL CHECKLIST				
Name and address of the medical facility:				
Type of healthcare facility:			Number of beds:	
Average no of patients in out-patient dept.:			Date of survey:	
Are any of the following environmental concerns currently in evidence at the site? (Describe situation for any that are marked 'Y' and 'N')	Y	N	N/A	Comments/Description
General and Medical Waste (MW) Management				
Quantity of medical waste generated/day from the facility				
Is there any arrangement of different bins for primary disposal of different type of MWs (infectious waste, liquid waste, plastic waste, sharp waste, and general waste)?				
Any arrangement of collection and transportation method of different types of waste from the facility				
Any in-house facility to treat infectious waste (autoclaving)				
Any recycling system for plastic and glass				
Any in-house facility to treat other wastes				
Disposal method of wastes from the facility				
Any deep burial pits for final disposal of the wastes				
If no in-house facility to treat infectious waste, any external facility i.e., common waste treatment facility for treatment and disposal				
Mode of transport of medical waste to external treatment facility				
Any MWM team responsible for monitoring the facility Level of awareness and training at different levels of staff to improve MWM Actions taken to improve MWM				
Any NGO or external agency working with the facility to improve MWM				
Other Environmental Issues				
Raw sewage discharge from the facility				
Poor drainage system in and around the facility				
Quality of drinking water supplied in the facility				
Health and Safety Issues				
Any occupational health and safety (OHS) plan and procedures				
Any OHS training and safety drills				
Available and appropriate PPEs and safety gears				

ENVIRONMENTAL CHECKLIST				
Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.)				
Provision of fire safety				
Provision of safe drinking water				
Provision of sanitary facilities separate from patients and health workers (also separate male and female)				
Any community health and safety plan and procedures				

Recommendations/comments for further improvement:

Annex II: EMP for Construction of 50 Bed Isolation Unit and 10 Bed Critical Care Unit

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
CONSTRUCTION PHASE						
Waste Management for Construction and COVID Waste	<ul style="list-style-type: none">• Soil, water and air pollution from the improper management of wastes and excess materials from the construction sites.• The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	<ul style="list-style-type: none">• Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.• Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place.• Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines.• Train on correct use and disposal of PPEs and check that they understand.• Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust.• Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills.• Do not burn/throw in any wastes to the water bodies/drains.• The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	<ul style="list-style-type: none">• Record of waste type and quantity and the disposal method	Construction camp and work sites during construction period	Contractor	PIU and Environmental Consultant (ES)
Management of Workers Facility	<ul style="list-style-type: none">• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	<ul style="list-style-type: none">• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also provision of an appropriate number of toilets and hand-washing points.• At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other.• Check the availability of medical kits at the site on weekly basis.• Preparation of daily routine checkup including temperature screenings of the workers and staff.	<ul style="list-style-type: none">• Visual inspection & consultation with worker;• Health checkup record.	Construction camp site during construction period	Contractor	PIU and ES
Drinking Water Quality	<ul style="list-style-type: none">• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	<ul style="list-style-type: none">• Provide the drinking water that meets national standards.• Select aquifers for drinking water free from arsenic and other contaminants.• Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection of	<ul style="list-style-type: none">• Record of water-borne diseases	Regular monitoring the drinking water source during	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.		construction period		
Drainage Congestion	<ul style="list-style-type: none"> Waterlogging due to improper management of drainage for rainwater/liquid waste or wastewater. 	<ul style="list-style-type: none"> Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem. Stockpile materials away from drainage lines. Reconstruct internal road-side drains immediately if damaged by any activities. 	<ul style="list-style-type: none"> Visual inspection & consultation with hospital staff and visitors. 	In the project area during construction period	Contractor	PIU and ES
Dust/Air Quality Management	<ul style="list-style-type: none"> Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads is a nuisance in the environment and can be a health hazard. 	<ul style="list-style-type: none"> During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site. Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). Cover haul vehicles carrying dusty materials moving outside the construction site. Fit machinery/vehicles with appropriate exhaust systems and emission control devices. 	<ul style="list-style-type: none"> Visual inspection & consultation with hospital staff, doctors, patients and their relatives 	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Noise and Vibration Management	<ul style="list-style-type: none"> Noise may have an impact on workers, patients, hospital staffs, local residents etc. 	<ul style="list-style-type: none"> Appropriately site all noise generating activities to avoid noise pollution to workers, patients, hospital staffs, local residents etc. Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures. 	<ul style="list-style-type: none"> Visual inspection & consultation with hospital staff, doctors, patients and their relatives 	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. Lack of first aid and health care facilities in the immediate vicinity. Health risk of construction workers due to COVID-19. 	<ul style="list-style-type: none"> Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. Prepare the health and safety guidance for COVID-19 at work sites and get approval from PMU, and strictly follow the guidance at worksite; 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 KMCH; 	<ul style="list-style-type: none"> Visual inspection & consultation with hospital staff, doctors, patients and their relatives Record of accidents Obtain record of training Provision of regular temperature check, using disinfectants and also provision of time- 	Contractor' site office and work site during construction	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		<ul style="list-style-type: none"> Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, hospital staff and patients against construction risks. Simple poster/signage in Bangla explaining entry procedures. Signage available in hospitals to remind health personnel to wear masks if necessary and wash hands before entering/leaving. Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). Train all construction workers in OHS matters, and on the specific hazards of their work and maintain a register of the person present during the training. Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, health staff, patients and their relatives. 	to-time hand wash are required to limit the COVID-19 pandemic.			
Site Reinstatement	<ul style="list-style-type: none"> Damage due to debris, spoils, excess construction materials. 	<ul style="list-style-type: none"> Remove all spoils wreckage, rubbish, or temporary structures from the construction and camp sites; All affected structures rehabilitated. 	<ul style="list-style-type: none"> Visual inspection & consultation with local people 	At the end of construction period	Contractor	PIU and ES
OPERATION PHASE						
COVID Waste Management	<ul style="list-style-type: none"> COVID waste has posed serious health hazards and can spread the contagion among hospital staff, waste handlers and the community. 	<ul style="list-style-type: none"> Prepare medical waste management plan that will cover the waste generated from the response to the COVID-19 infection. The plan will follow ADB's guidance note on managing medical waste during COVID-19 pandemic as well as any other government regulations. All medical waste produced during the care of COVID-19 patients must be considered as infectious waste and should be segregated and collected safely in designated colored coded containers. Use of colored bins (like yellow) and to put Covid wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any 	<ul style="list-style-type: none"> Visual inspection and consultation with hospital staff and cleaners. Record of waste type and quantity and the disposal method. 	Hospital area especially in COVID ward during operation period	MCH	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		<p>other germicides and then safely transport them through marked vehicles in a marked place.</p> <ul style="list-style-type: none"> Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with WHO COVID-19 Guidelines. Train the staffs on color coding and handling of infectious Covid wastes. 				
Medical Waste Management	<ul style="list-style-type: none"> Poor management of medical waste exposes healthcare workers, waste handlers and the community to infections, toxic effects and injuries. Soil, water and air pollution from the improper management of wastes generated from the facility. 	<ul style="list-style-type: none"> Provision of color coded, covered receptacles in strategic positions of the facility for separate categories of waste and regular cleaning of waste bins. Labels showing the type of waste that should be disposed of in each container should be placed near to the bins to guide staff and reinforce good habits. Medical wastes generated in the hospital will be treated by in-house facility and then this treated wastes will be disposed of as per a pre-determined SOP in accordance with international good practices. Transport the medical waste with covered vehicle. The records of waste disposal will be maintained as proof for proper management as designed. Ensure necessary PPE (gown, gloves, face mask, goggles or face shield, gumboots) is provided to all staffs, as required, and ensure them to wear PPE when handling and disposing waste according to national and WHO guideline. Do not burn the wastes openly or throw into water bodies or do not dispose on soil. Audit for any off-site waste disposal will be required on a monthly basis and institute any remedial measures required to ensure compliance. 	<ul style="list-style-type: none"> Visual inspection and consultation with hospital staff and cleaners. Record of waste type and quantity and the disposal method. 	Hospital area during operation period	MCH	DGHS
Hazards due to Substation & Generator	<ul style="list-style-type: none"> Noise and vibration may have an impact on hospital staff, doctors, patients and their relatives; Accidental spillage of oil and toxic coolants that would contaminate land and water. Risk of fire and electrocution hazards from substation. 	<ul style="list-style-type: none"> Have provision to use canopy to absorb 0.7 dB to 0.8dB of noise. Periodic maintenance of equipment such as transformers and capacitors to minimize noise generation. Provision of oil-water separator and oil containment structure. Substation room will be entry restricted and security staff assigned to prevent unauthorized public access. Place warning signs at substation and generator room. Ensure firefighting arrangement such as fire extinguishers, fire alarms etc. in the substation site. Use of PPE, proper training, awareness, keeping safe distance from hazardous points, maintaining safety of high switchyard and cable gallery. 	<ul style="list-style-type: none"> Regular inspection and testing of all safety features and hazard control measures and personal protective features. 	Substation room during operation period	MCH	DGHS
Occupational Health and Safety	<ul style="list-style-type: none"> Needle-sticks, surgical cuts, and other injuries posing transmission risk of blood-borne diseases such as COVID-19, Hepatitis C, HIV-AIDS, etc. 	<ul style="list-style-type: none"> Prepare a health and safety guidance for COVID-19 and strictly follow the guidance at the facility. Refer to IFC EHS Guidelines for Healthcare Facilities (2007) and relevant national guidelines and protocols. 	<ul style="list-style-type: none"> Regular inspection and testing of all safety features and hazard control measures and 	Hospital area	MCH	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
including COVID H&S	<ul style="list-style-type: none"> • Dermatitis and allergic reactions due to workplace exposures. 	<ul style="list-style-type: none"> • Implement suitable safety standards for all workers and facility visitors. • Mandatory use of personal protective equipment and safety gears, where required. • Arrangements for safe drinking water and sanitation facilities. • Provide regular OHS training to healthcare workers. • Provide incentives to staff and create a work-life balance in work schedule. 	personal protective features	during operation period		
Accidental Releases of Gas and Fluids	<ul style="list-style-type: none"> • Leakage of infectious or hazardous substances may pose serious health hazards and can spread the contagion among hospital staff and patients, cleaners etc. 	<ul style="list-style-type: none"> • Develop an Emergency Response Plan and follow strictly during emergency incident. • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Wear disposable gloves and, if aerosols are formed, glasses and a respirator for particles. • Cover the contaminated area with a disinfectant in a concentric way, starting at the edge and progressing towards the center of the contamination. • Avoid spraying or pouring the disinfectant from above, which can cause aerosols. • Mop up, and dispose of all waste and contaminated material in the appropriate container (infectious waste). • Conduct monthly safety audit of facility to identify fire risks, electrocution hazards and other unsafe conditions, and assess adequacy of fire extinguishers and first aid provisions. 	<ul style="list-style-type: none"> • Record of regular inspection. 	Hospital area during operation period	MCH	DGHS

Annex III: EMP for Installation of Medical Gas System

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
CONSTRUCTION PHASE						
Waste Management for Construction and COVID Waste	<ul style="list-style-type: none">• Soil, water and air pollution from the improper management of wastes and excess materials from the construction sites.• The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	<ul style="list-style-type: none">• Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.• Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place.• Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines.• Train on correct use and disposal of PPEs and check that they understand.• Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust.• Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills.• Do not burn/throw in any wastes to the water bodies/drains.• The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	<ul style="list-style-type: none">• Record of waste type and quantity and the disposal method	Construction camp and work sites during construction period	Contractor	PIU and Environmental Consultant (ES)
Management of Workers Facility	<ul style="list-style-type: none">• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	<ul style="list-style-type: none">• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also, provision of an appropriate number of toilets and hand-washing points.• At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other.• Check the availability of medical kits at the site on weekly basis.• Preparation of daily routine checkup including temperature screenings of the workers and staff.	<ul style="list-style-type: none">• Visual inspection & consultation with worker;• Health checkup record.	Construction camp site during construction period	Contractor	PIU and ES
Drinking Water Quality	<ul style="list-style-type: none">• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	<ul style="list-style-type: none">• Provide the drinking water that meets national standards.• Select aquifers for drinking water free from arsenic and other contaminants.• Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection of aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.	<ul style="list-style-type: none">• Record of water-borne diseases	Regular monitoring the drinking water source during construction period	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
Drainage Congestion	<ul style="list-style-type: none"> Water logging due to improper management of drainage for rainwater/liquid waste or wastewater. 	<ul style="list-style-type: none"> Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem. Stockpile materials away from drainage lines. Reconstruct internal road-side drains immediately if damaged by any activities. 	<ul style="list-style-type: none"> Visual inspection & consultation with hospital staff and visitors. 	In the project area during construction period	Contractor	PIU and ES
Dust/Air Quality Management	<ul style="list-style-type: none"> Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads are a nuisance in the environment and can be a health hazard. 	<ul style="list-style-type: none"> During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site. Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). Cover hauls vehicles carrying dusty materials moving outside the construction site. Fit machinery/vehicles with appropriate exhaust systems and emission control devices. 	<ul style="list-style-type: none"> Visual inspection & consultation with hospital staff, doctors, patients and their relatives 	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Noise and Vibration Management	<ul style="list-style-type: none"> Noise may have an impact on workers, patients, hospital staffs, local residents etc. 	<ul style="list-style-type: none"> Appropriately site all noise generating activities to avoid noise pollution to workers, patients, hospital staffs, local residents etc. Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures. 	<ul style="list-style-type: none"> Visual inspection & consultation with hospital staff, doctors, patients and their relatives 	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. Lack of first aid and health care facilities in the immediate vicinity. Health risk of construction workers due to COVID-19. 	<ul style="list-style-type: none"> Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. Prepare the health and safety guidance for COVID-19 at work sites and get approval from PMU, and strictly follow the guidance at worksite; 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 DMCH; Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. 	<ul style="list-style-type: none"> Visual inspection & consultation with hospital staff, doctors, patients and their relatives Record of accidents Obtain record of training Provision of regular temperature check, using disinfectants and also provision of time-to-time hand wash are required to 	Contractor' site office and work site during construction	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		<ul style="list-style-type: none"> Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, hospital staff and patients against construction risks. Simple poster/signage in Bangla explaining entry procedures. Signage available in hospitals to remind health personnel to wear masks if necessary and wash hands before entering/leaving. Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). Train all construction workers in OHS matters and on the specific hazards of their work and maintain a register of the person present during the training. Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, health staff, patients and their relatives. 	limit the COVID-19 pandemic.			
Site Reinstatement	<ul style="list-style-type: none"> Damage due to debris, spoils, excess construction materials. 	<ul style="list-style-type: none"> Remove all spoils wreckage, rubbish, or temporary structures from the construction and camp sites; All affected structures rehabilitated. 	<ul style="list-style-type: none"> Visual inspection & consultation with local people 	At the end of construction period	Contractor	PIU and ES
OPERATION PHASE						
COVID Waste Management	<ul style="list-style-type: none"> COVID waste has posed serious health hazards and can spread the contagion among hospital staff, waste handlers and the community. 	<ul style="list-style-type: none"> Prepare medical waste management plan that will cover the waste generated from the response to the COVID-19 infection. The plan will follow ADB's guidance note on managing medical waste during COVID-19 pandemic as well as any other government regulations. All medical waste produced during the care of COVID-19 patients must be considered as infectious waste and should be segregated and collected safely in designated colored coded containers. Use of colored bins (like yellow) and to put Covid-19 wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place. Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with WHO COVID-19 Guidelines. Train the staffs on color coding and handling of infectious Covid-19 wastes. 	<ul style="list-style-type: none"> Visual inspection and consultation with hospital staff and cleaners. Record of waste type and quantity and the disposal method. 	Hospital area especially in COVID ward during operation period	MCH	DGHS
Medical Waste	<ul style="list-style-type: none"> Poor management of medical waste exposes healthcare workers, waste 	<ul style="list-style-type: none"> Provision of color coded, covered receptacles in strategic positions of the facility for separate categories of waste and regular cleaning of waste bins. Labels showing the type of waste that should be disposed 	<ul style="list-style-type: none"> Visual inspection and consultation with 	Hospital area	MCH	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
Management	<p>handlers and the community to infections, toxic effects and injuries.</p> <ul style="list-style-type: none"> • Soil, water and air pollution from the improper management of wastes generated from the facility. 	<p>of in each container should be placed near to the bins to guide staff and reinforce good habits.</p> <ul style="list-style-type: none"> • Medical wastes generated in the hospital will be treated by in-house facility and then these treated wastes will be disposed of as per a pre-determined SOP in accordance with international good practices. Transport the medical waste with covered vehicle. The records of waste disposal will be maintained as proof for proper management as designed. • Ensure necessary PPE (gown, gloves, face mask, goggles or face shield, gumboots) is provided to all staffs, as required and ensure them to wear PPE when handling and disposing waste according to national and WHO guideline. • Do not burn the wastes openly or throw in to water bodies or do not dispose on soil. • Audit for any off-site waste disposal will be required on a monthly basis and institute any remedial measures required to ensure compliance. 	<p>hospital staff and cleaners.</p> <ul style="list-style-type: none"> • Record of waste type and quantity and the disposal method. 	during operation period		
Occupational Health and Safety including COVID H&S	<ul style="list-style-type: none"> • Needle-sticks, surgical cuts, and other injuries posing transmission risk of blood-borne diseases such as COVID-19, Hepatitis C, HIV-AIDS, etc. • Dermatitis and allergic reactions due to workplace exposures. 	<ul style="list-style-type: none"> • Prepare a health and safety guidance for COVID-19 and strictly follow the guidance at the facility. • Refer to IFC EHS Guidelines for Healthcare Facilities (2007) and relevant national guidelines and protocols. • Implement suitable safety standards for all workers and facility visitors. • Mandatory use of personal protective equipment and safety gears, where required. • Arrangements for safe drinking water and sanitation facilities. • Provide regular OHS training to healthcare workers. • Provide incentives to staff and create a work-life balance in work schedule. 	<ul style="list-style-type: none"> • Regular inspection and testing of all safety features and hazard control measures and personal protective features 	Hospital area during operation period	MCH	DGHS
Accidental Releases of Gas and Fluids	<ul style="list-style-type: none"> • Leakage of infectious or hazardous substances may pose serious health hazards and can spread the contagion among hospital staff and patients, cleaners etc. 	<ul style="list-style-type: none"> • Develop an Emergency Response Plan and follow strictly during emergency incident. • Follow the suggested medical gas safety management plan as given in Annex 4. • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Wear disposable gloves and, if aerosols are formed, glasses and a respirator for particles. • Cover the contaminated area with a disinfectant in a concentric way, starting at the edge and progressing towards the center of the contamination. • Avoid spraying or pouring the disinfectant from above, which can cause aerosols. 	<ul style="list-style-type: none"> • Record of regular inspection. 	Hospital area during operation period	MCH	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		<ul style="list-style-type: none"> Mop up, and dispose of all waste and contaminated material in the appropriate container (infectious waste). Conduct monthly safety audit of facility to identify fire risks, electrocution hazards and other unsafe conditions, and assess adequacy of fire extinguishers and first aid provisions. 				
Medical Gas Safety Management	<ul style="list-style-type: none"> Haphazardly stored and lack of regular maintenance often create hazards. Cylinders are often the same colour regardless of the contents and the labelling is often a poor quality and inconsistent. Because of this, there is a risk of the wrong cylinder being delivered accidentally to healthcare facilities. Poorly trained staffs are not aware of the importance of ensuring the correct tanks are connected to the right lines and management of gas cylinders 	<ul style="list-style-type: none"> Develop a Medical Gas Safety Management Plan during the operation and follow strictly. Follow the suggested medical gas safety management plan as given in Annex 4. Regularly check and update the management plan as per the requirement. Follow the Emergency Response Plan if required and maintain a direct communication channel with the emergency response team/in case of emergency. Ensure labeling, safety signs and inspection for all the gas cylinders and locations. Ensure regular training to the personnel engaged with the medical gas safety management. 	<ul style="list-style-type: none"> Record of regular inspection. 	Hospital area during operation period	MCH	DGHS

Annex IV: EMP for Construction of Medical Centers at Port of Entry

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
PRE-CONSTRUCTION PHASE						
Obtaining of SSC/NOCs/ECC	<ul style="list-style-type: none">Failure to obtain necessary consents, permits, NOC's can result in design revisions and/or stoppage of the Works	<ul style="list-style-type: none">The proposed medical centre will be constructed in BLPA own empty land, and it is within the boundary of its administrative area.The BLPA has already issued a NOC to the DGHS/Project to construct the facility.	<ul style="list-style-type: none">Record of NOC	Before design confirmation	PIU	DGHS
Existing Utilities	<ul style="list-style-type: none">Disruption of services (short term).	<ul style="list-style-type: none">Drawing from the consultant's visit, there was no utility or services found at the selected location. However, some lamp posts were observed along the boundary wall but those will not be impacted due to the construction.There is no vegetation within the proposed site, but 4-6 small trees are found along the boundary wall and those will not be impacted during construction. In addition, there is no water body nearby sub-project site. No impact is expected on flora and fauna.If construction work is expected to disrupt the lamp posts and vegetations, notice to the respective authority shall be served 7 days in advance and again 1 day prior to start of construction.	<ul style="list-style-type: none">Record of request letter and approval	Before construction	PIU	DGHS
CEMP Verification	<ul style="list-style-type: none">Mitigation will be inadequate if the CEMP is not fully specified	<ul style="list-style-type: none">Review CEMP to ensure all primary contractor responsibilities are fully reflected, including monitoring and reporting	<ul style="list-style-type: none">Approval of CEMP	Before construction	PIU/ES	DGHS
Sources of Materials	<ul style="list-style-type: none">Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and water pollution.	<ul style="list-style-type: none">Prepare list of approved quarry sites and sources of materialsSelect authorized supplier prior to sourcing the materialsSand/silt material that only quarries duly licensed by the authorized government agencies will be considered as sources of construction material for the project.Illegal quarries and hill cutting is not permitted at all.	<ul style="list-style-type: none">Approval of the supplier	Before construction	PIU/ES	DGHS
EMP Implementation Training	<ul style="list-style-type: none">Irreversible impact to the environment, contactor representative/workers, PWD/PIU officials	<ul style="list-style-type: none">Training will be required to undergo EMP implementation including waste management, Standard operating procedures (SOP) for construction works; health and safety (H&S), core labor laws, applicable environmental laws, etc.	<ul style="list-style-type: none">Record of training	Before construction	PIU/ES	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
CONSTRUCTION PHASE						
Waste Management for Construction and COVID Waste	<ul style="list-style-type: none">• Soil, water, and air pollution from the improper management of wastes and excess materials from the construction sites.• The discarded PPE has posed serious health hazards and can spread the contagion among cleaners and walkers.	<ul style="list-style-type: none">• Develop a waste management plan including COVID waste by the help of the environmental consultant and later to update the plan, if required.• Use of colored bins (like yellow) and to put medical wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place.• Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with GOB, ADB and WHO COVID-19 Guidelines.• Train on correct use and disposal of PPEs and check that they understand.• Construction wastes (such as piece of rod, wood, bamboo, tin sheet, brick etc.) shall be kept in designated area and sprayed water mist to reduce the dust.• Use PPE for staff handling any hazardous materials seepage of hazardous chemicals in case of any accidental spills.• Do not burn/throw in any wastes to the water bodies/drains.• The PIU will audit any off-site waste disposal required on a monthly basis and institute any remedial measures required to ensure compliance.	<ul style="list-style-type: none">• Record of waste type and quantity and the disposal method	Construction camp and work sites during construction period	Contractor	PIU and Environmental Consultant (ES)
Management of Workers Facility	<ul style="list-style-type: none">• Lack of proper facilities such as water supply and sanitation facilities may pose health hazards to workers.	<ul style="list-style-type: none">• Ensure sufficient stock of soap, sanitizer, washing facility and safe water at work site. Also, provision of an appropriate number of toilets and hand-washing points.• At the entrance of the worksite every personnel must wash their hands for 20 second with maintaining a distance of at least 6ft from each other.• Check the availability of medical kits at the site on weekly basis.• Preparation of daily routine checkup including temperature screenings of the workers and staff.	<ul style="list-style-type: none">• Visual inspection & consultation with worker;• Health checkup record.	Construction camp site during construction period	Contractor	PIU and ES
Drinking Water Quality	<ul style="list-style-type: none">• Groundwater at shallow depths may be contaminated with arsenic and other parameters and hence not suitable for drinking purposes.	<ul style="list-style-type: none">• Provide the drinking water that meets national standards.• Select aquifers for drinking water free from arsenic and other contaminants.• Tube wells will be installed with due regard for surface environment, protection of groundwater from surface contaminants, and protection of aquifer cross contamination. Sanitary waste should be adequately disposed-off to avoid groundwater contamination.	<ul style="list-style-type: none">• Record of water-borne diseases	Regular monitoring the drinking water source during construction period	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
Drainage Congestion	<ul style="list-style-type: none"> Waterlogging due to improper management of drainage for rainwater/liquid waste or wastewater. 	<ul style="list-style-type: none"> Regularly inspect and maintain all drains to assess and alleviate any drainage congestion problem. Stockpile materials away from drainage lines. Reconstruct internal road-side drains immediately if damaged by any activities. 	<ul style="list-style-type: none"> Visual inspection & consultation with BLPA staff, visitors and local people. 	In the project area during construction period	Contractor	PIU and ES
Dust/Air Quality Management	<ul style="list-style-type: none"> Dust generation from construction sites, material stockpiles specially earth material stockpiles and access roads are a nuisance in the environment and can be a health hazard. 	<ul style="list-style-type: none"> During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site. Water spraying the material stockpiles and access roads when and as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (especially during the dry period and high winds). Cover haul vehicles carrying dusty materials moving outside the construction site. Fit machinery/vehicles with appropriate exhaust systems and emission control devices. 	<ul style="list-style-type: none"> Visual inspection & consultation with BLPA staff, and local people 	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Noise and Vibration Management	<ul style="list-style-type: none"> Noise may have an impact on workers, patients, medical centre staffs, local residents etc. 	<ul style="list-style-type: none"> Appropriately site all noise generating activities to avoid noise pollution to workers, immigrants, BLPA and other officials and local residents etc. Install temporary noise barriers by screen, tin, wood around generators to reduce noise levels. Employ best available work practices on-site to minimize occupational noise levels. Use ear plugs in noisy areas of the construction activities. Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures. 	<ul style="list-style-type: none"> Visual inspection & consultation with BLPA staff, and local people 	On the worksite Weekly monitoring during construction period	Contractor	PIU and ES
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> Construction works may pose health and safety risks to construction workers that may cause severe injuries and deaths. Lack of first aid and health care facilities in the immediate vicinity. Health risk of construction workers due to COVID-19. 	<ul style="list-style-type: none"> Prepare the health and safety guidance for COVID-19 at work sites and get approval from PIU, and strictly follow the guidance at worksite; Develop and implement an Occupational Health and Safety Plan to ensure competent and consistent attention to worker health and safety throughout the construction phase. 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 nearest laboratory; Workers involved for any short renovation activities at isolation area for COVID-19 will have WHO certified PPE and subsequently dispose the PPE in designated areas. Provide PPE to workers such as safety shoes, safety helmets, face masks, hand gloves, protective clothing, goggles, full face eye shields, and ear plugs and monitor to maintain them. 	<ul style="list-style-type: none"> Visual inspection & consultation with BLPA staff, and local people Record of accidents Obtain record of training Provision of regular temperature check, using disinfectants and provision of time-to-time hand wash are required to limit the COVID-19 pandemic. 	Contractor' site office and work site during construction	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		<ul style="list-style-type: none"> Ensure hand washing and other sanitary stations are always supplied with clean water, soap, and disinfectant; Provide safety measures as appropriate during works such first aid kits, restricted access zones, warning signs, overhead protection against falling debris, lighting system to protect community, BLPA and other officials against construction risks. Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). Train all construction workers in OHS matters, and on the specific hazards of their work and maintain a register of the person present during the training. Grievance Redress mechanism (GRM) developed to readdress complaints raised by community, port staff, immigrants, and visitors. 				
Community Health and Safety	<ul style="list-style-type: none"> Construction works will impede the access of visitors and officials in limited cases. The impacts are minor negative but short-term, site-specific within a relatively small area and reversible by mitigation measures. Poor safety signage and lack of barriers at work site and trenches will create hazard to the visitors and officials. 	<ul style="list-style-type: none"> Provide safety signage at construction sites visible to public Provide safety barriers near any trenches, and cover trenches with planks during non-work hours. Contractor's activities and movement of staff will be restricted to designated construction areas. Consult with local authority on the designated areas for stockpiling of, soils, gravel, and other construction materials. If the contractor chooses to locate the work camp/storage area on private land, he must get prior permission from the environment specialist. Recycling and the provision of separate waste receptacles for different types of waste shall be encouraged. A general regard for the social and ecological well-being of the site and adjacent areas is expected of the site staff. Workers need to be made aware of the following general rules: (i) no alcohol/drugs on site; (ii) prevent excessive noise; (iii) construction staff are to make use of the facilities provided for them, as opposed to ad hoc alternatives (e.g. fires for cooking, the use of surrounding bushes as a toilet facility); (iv) no fires permitted on site except if needed for the construction works; (v) trespassing on private/commercial properties adjoining the site is forbidden; (vi) other than pre-approved security staff, no workers shall be permitted to live on the construction site; and (vii) no worker may be forced to do work that is potentially dangerous or that he/she is not trained to do. Interested and affected parties need to be made aware of the existence of the complaints book and the methods of communication available to them. The contractor must address queries and complaints by: (i) documenting details of such communications; (ii) submitting these for inclusion in 	<ul style="list-style-type: none"> Provision of complaints register Consultation with local people 	Work site during construction	Contractor	PIU and ES

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
		<p>complaints register; (iii) bringing issues to the Environmental Safeguard Specialist's attention immediately; and (iv) taking remedial action as per specialist's instruction.</p> <ul style="list-style-type: none"> The contractor shall immediately take the necessary remedial action on any complaint/grievance received by him and forward the details of the grievance along with the action taken to the environmental specialist within 48 hours of receipt of such complaint/grievance. 				
Site Reinstatement	<ul style="list-style-type: none"> Damage due to debris, spoils, excess construction materials. 	<ul style="list-style-type: none"> Remove all spoils wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required. All disrupted utilities restored All affected structures rehabilitated/ compensated The construction camp is to be checked for spills of substances such as used container/water bottles, paint, etc. and these shall be cleaned up. All hardened surfaces within the construction camp area shall be ripped, all imported materials removed, and the area shall be top soiled and regressed using the guidelines set out in the re-vegetation specification that forms part of this document. The contractor must arrange the cancellation of all temporary services. Request PMU/PIU to report in writing that worksites and camps have been vacated and restored to pre-project conditions before acceptance of work. No payment should be made if the site is not cleared. 	<ul style="list-style-type: none"> Visual inspection & consultation with local people 	At the end of construction period	Contractor	PIU and ES
OPERATION PHASE						
COVID Management	<p>Waste</p> <ul style="list-style-type: none"> COVID waste has posed serious health hazards and can spread the contagion among medical centre staff, waste handlers and the community. 	<ul style="list-style-type: none"> Prepare medical waste management plan that will cover the waste generated from the response to the COVID-19 infection. The plan will follow ADB's guidance note on managing medical waste during COVID-19 pandemic as well as any other government regulations. All medical waste produced during the care of COVID-19 patients must be considered as infectious waste and should be segregated and collected safely in designated colored coded containers. Use of colored bins (like yellow) and to put Covid wastes in 2-3 layered plastic bag. These wastes need to disinfectant first using chlorine or any other germicides and then safely transport them through marked vehicles in a marked place. Waste segregation, packaging, collection, storage disposal, and transport will be conducted in compliance with WHO COVID-19 Guidelines. Train the staffs on color coding and handling of infectious Covid wastes. 	<ul style="list-style-type: none"> Visual inspection and consultation with medical centre staff and cleaners. Record of waste type and quantity and the disposal method. 	Medical Centre premises	Civil Surgeon/UHFPO	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
Medical Waste Management	<ul style="list-style-type: none"> Poor management of medical waste exposes healthcare workers, waste handlers and the community to infections, toxic effects, and injuries. Soil, water, and air pollution from the improper management of wastes generated from the facility. 	<ul style="list-style-type: none"> Provision of color coded, covered receptacles in strategic positions of the facility for separate categories of waste and regular cleaning of waste bins. Labels showing the type of waste that should be disposed of in each container should be placed near to the bins to guide staff and reinforce good habits. Medical wastes generated in the medical centre will be treated by in-house facility and then these treated wastes will be disposed of as per a pre-determined SOP in accordance with international good practices. Transport the medical waste in a biohazard bag with covered vehicle. The records of waste disposal will be maintained as proof for proper management as designed. Ensure necessary PPE (gown, gloves, face mask, goggles or face shield, gumboots) is provided to all staffs, as required and ensure them to wear PPE when handling and disposing waste according to national and WHO guideline. Do not burn the wastes openly or throw in to water bodies or do not dispose on soil. Audit for any off-site waste disposal will be required on a monthly basis and institute any remedial measures required to ensure compliance. 	<ul style="list-style-type: none"> Visual inspection and consultation with medical centre staff and cleaners. Record of waste type and quantity and the disposal method. 	Medical Centre premises	Civil Surgeon/UHFPO	DGHS
Hazards due to Substation & Generator	<ul style="list-style-type: none"> Noise and vibration may have an impact on medical centre staff, doctors, patients and their relatives. Accidental spillage of oil and toxic coolants that would contaminate land and water. Risk of fire and electrocution hazards from substation. 	<ul style="list-style-type: none"> Develop an Emergency Response Plan and follow strictly during emergency incident. Have provision to use canopy to absorb 0.7 dB to 0.8dB of noise. Periodic maintenance of equipment such as transformers and capacitors to minimize noise generation. Provision of oil-water separator and oil containment structure. Substation room will be entry restricted and security staff assigned to prevent unauthorized public access. Place warning signs at substation and generator room. Ensure firefighting arrangement such as fire extinguishers, fire alarms etc. in the substation site. Use of PPE, proper training, awareness, keeping safe distance from hazardous points, maintaining safety of high switchyard and cable gallery. 	<ul style="list-style-type: none"> Regular inspection and testing of all safety features and hazard control measures and personal protective features. 	Substation room during operation period	Civil Surgeon/UHFPO	DGHS
Occupational Health and Safety including COVID H&S	<ul style="list-style-type: none"> Needle-sticks, surgical cuts, and other injuries posing transmission risk of blood-borne diseases such as COVID-19, 	<ul style="list-style-type: none"> Prepare a health and safety guidance for COVID-19 and strictly follow the guidance at the facility. Refer to IFC EHS Guidelines for Healthcare Facilities (2007) and relevant national guidelines and protocols. Implement suitable safety standards for all workers and facility visitors. 	<ul style="list-style-type: none"> Regular inspection and testing of all safety features and hazard control measures and 	Medical Centre premises	Civil Surgeon/UHFPO	DGHS

IEC	Potential Impact	Mitigation Measures	Monitoring Method		Responsibility	
			Method of Collecting and Reporting Data	Location and Frequency	Implementation	Supervision
	Hepatitis C, HIV-AIDS, etc. • Dermatitis and allergic reactions due to workplace exposures.	• Mandatory use of personal protective equipment and safety gears, where required. • Arrangements for safe drinking water and sanitation facilities. • Provide regular OHS training to healthcare workers. • Provide incentives to staff and create a work-life balance in work schedule.	personal protective features			
Accidental Releases of Gas and Fluids	• Leakage of infectious or hazardous substances may pose serious health hazards and can spread the contagion among medical centre staff and patients, cleaners etc.	• Develop an Emergency Response Plan and follow strictly during emergency incident. • Emergency preparedness and response procedures and equipment (warning signs, fire extinguishers, fire exit etc.). • Wear disposable gloves and, if aerosols are formed, glasses and a respirator for particles. • Cover the contaminated area with a disinfectant in a concentric way, starting at the edge and progressing towards the center of the contamination. • Avoid spraying or pouring the disinfectant from above, which can cause aerosols. • Mop up and dispose of all waste and contaminated material in the appropriate container (infectious waste). • Conduct monthly safety audit of facility to identify fire risks, electrocution hazards and other unsafe conditions, and assess adequacy of fire extinguishers and first aid provisions.	• Record of regular inspection.	Medical Centre premises	Civil Surgeon/UHFPO	DGHS

Annex V: Tentative List of Participants for Training on ADB Safeguard

Sl. No.	Name	Designation	Email	Telephone
PIU Officials				
1	Prof. (Dr.) Md. Nazmul Islam	Project Director	pdcreap@ld.dghs.gov.bd	01711269170
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3	Dr. Ms. Sharmin Jahan	Medical Officer	sharminsemu17@gmail.com	01936467489
Consultants				
1	Abu Sayed Mojumder	Procurement Specialist	sayed_mojumder@yahoo.com	01819510493
2	Mohammad Kamruzzaman	Civil Engineer	mk56527@gmail.com	01725116850
3	Alim Talukder	Financial Management Specialist	alim.talukder@yahoo.com	01914200439
PWD Officials				
Dhaka Medical College Division				
1	Ajmul Haq	Executive Engineer	ee_dmc@pwd.gov.bd	01711231466
2	Himel Das	Sub-Divisional Engineer	sde_dmc@pwd.gov.bd	01729731581
PWD E/M Division-4, Dhaka				
3	Md. Muhibul Islam	Executive Engineer	ee_emdk4@pwd.gov.bd	01819847778
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Rajshahi PWD Division, Rajshahi				
5	Md. Mostafijur Rahman	Executive Engineer	ee_raj2@pwd.gov.bd	01747643777
6	Munmun Hossain	Sub-Divisional Engineer	sde_em_raj2@pwd.gov.bd	01716071800
7	Md. Kawsar Sarkar	Assistant Engineer	kawsar.pwd@gmail.com	01743773253
Mymensingh PWD Division, Mymensingh				
8	Rashed Ahsan	Executive Engineer	ee_mymen@pwd.gov.bd	01737114442
Cumilla PWD Division, Cumilla				
9	Md. Abdus Sattar	Executive Engineer	ee_comil@pwd.gov.bd	01712180509
10	Md. Anowerul Alom Mazumdar	Sub-Divisional Engineer	sde_em_comil@pwd.gov.bd	01670994657
Khulna PWD Division-1, Khulna				
11	Amit Kumar Bishwas	Executive Engineer	ee_khul1@pwd.gov.bd	01712603301
12	Md. Awledul Islam Khan	Sub-Divisional Engineer(E/M)	sde_em_khul1@pwd.gov.bd	01920651011
Chattogram PWD Division-1, Chattogram				
13	Rahul Guho	Executive Engineer	ee_ctg1@pwd.gov.bd	01722865068
PWD E/M Division-1, Chattogram				
14	S. M. Moynul Haque	Executive Engineer	ee_emctg1@pwd.gov.bd	01911310679
Mohakhali PWD Division, Dhaka				
15	Md. Aman Ullah Sarkar	Executive Engineer	ee_mhkli@pwd.gov.bd	01914646938
Sylhet PWD Division, Sylhet				
16	Ripon Kumer Roy	Executive Engineer	ee_syl@pwd.gov.bd	01926138056
17	Khaled Saifullah	Sub-Divisional Engineer	sde3_syl@pwd.gov.bd	01882115451
Jashore PWD Division, Jashore				
18	Md. Ariful Islam	Executive Engineer	ee_jessr@pwd.gov.bd	01816820488

Sl. No.	Name	Designation	Email	Telephone
	Lalmonirhat PWD Division, Lalmonirhat			
19	Md. Mijanur Rahaman	Executive Engineer	ee_lmnht@pwd.gov.bd	01726-316541
	Brahmanbaria PWD Division, Brahmanbaria			
20	Md. Shakiul Alam	Executive Engineer	ee_bbari@pwd.gov.bd	01925-607980
	Satkhira PWD Division, Satkhira			
21	Abu Hyat Mohammad Shakiul Azam	Executive Engineer	ee_satkh@pwd.gov.bd	01712880844
	Dinajpur PWD Division, Dinajpur			
22	Md. Qutub Al Hossain	Executive Engineer	ee_dinaj@pwd.gov.bd	01712488003
	Panchagarh PWD Division, Panchagarh			
23	Md. Moniruzaman	Executive Engineer	ee_panch@pwd.gov.bd	01737342894
	Population Project Cell (PPC)			
24	Fatema Binte Mamun	Sub-Divisional Engineer	ee_ppc@pwd.gov.bd	01723434617
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26	Shah Alam	Assistant Engineer	ee_ppc@pwd.gov.bd	01739543955

Annex VI: Photographs of Site Visits



Mymensingh Medical Collage Hospital, Mymensingh



Sheikh Sayera Khatun Medical College Hospital, Gopalganj



Medical Center at Akhaura Land Port, Brahmanbaria



Khulna Medical College Hospital, Khulna



NIPSOM, Dhaka



DNCC dedicated COVID-19 Hospital, Dhaka





Cumilla Medical College Hospital, Cumilla



Chattogram Medical College Hospital, Chattogram


Annex VII: Environmental Compliance Monitoring Checklist*ENVIRONMENTAL COMPLIANCE MONITORING CHECKLIST***COVID-19 Response Emergency Assistance Project****Name of the Site Location:** Construction of Medical Center at Akhaura Land Port, Brahmanbaria**Date:** 31 August 2023**Environmental Compliance Monitoring Checklist**

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
A.	General				
1.	Legal working hours	✓			Contractor is following legal working hours.
2.	Employment Recordkeeping arrangement	✓			Contractor and sub-contractor both has record keeping provisions.
3.	Payment Record keeping arrangement	✓			Sub-contractor has payment record keeping arrangement
4.	Environment, Health, and Safety Officer designated	✓			The Site Manager employed by the Contractor is playing the additional role of Environment, Health, and Safety Officer.
5.	Provision for the monthly meeting for the inspection of site activities	✓			The contractor is arranging the monthly meeting regularly.
B.	Health and Sanitation				
Public Health					
1.	Emergency medical facilities & first aid box at field office and work sites	✓			Emergency medical facilities and first aid box is available.
2.	Waste disposal arrangement at camp and work sites	✓			Available.
3.	Safe water supply arrangements	✓			Contractor/sub-contractor is providing safe drinking water.
Occupational Health					
1.	First-Aid Box availability at worksites	✓			First aid box with necessary belongings is available for the workers.
2.	Provision of personal protection equipment's (PPEs)		✓		All are purchased by the Contractor as mentioned in EMP. Subcontractors' workers do not have PPEs sufficiently during a casting day. The Contractor's representative is advised to ensure PPEs for all the time.

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
3.	Handling of cement and other hazardous materials by workers	<input type="checkbox"/>			Workers are using hand gloves during the work.
4.	Fire extinguishers/fighting facilities maintenance and validation	<input type="checkbox"/>			New and adequate fire extinguishers are installed at the work site.
5.	Workers' complaints have been taken care of by the supervisor	<input type="checkbox"/>			Workers are satisfied with their work conditions and complaints are taken care of by the supervisor.
6.	Children below 15 employments	<input type="checkbox"/>			Not available.
C. Environmental Pollution					
Dust and emission control					
1.	Construction vehicles and machinery are maintained properly to reduce emissions	<input type="checkbox"/>			Minimum numbers of machineries and vehicles are using and those are well maintained.
2.	Proper storage of materials and regular watering and maintaining log books		<input type="checkbox"/>		Following regularly but advised to be more careful.
3.	Availability of equipment for watering in case of dust generation	<input type="checkbox"/>			No dust is visible due to site condition.
Noise Pollution					
1.	Movement of vehicles at desired hours	<input type="checkbox"/>			Strictly maintaining by the Contractor and BLPA.
2.	Noise control measures at sites	<input type="checkbox"/>			The project area is surrounded by raised concrete boundary and no sensitive receptors around this location.
Water Pollution					
1.	Wastes, cement, effluents, and junks not disposed of in the water	<input type="checkbox"/>			Following properly.
Flora and Fauna					
1.	Trees and bushes outside the construction area preserved from damages	<input type="checkbox"/>			Yet not hampered.
Waste Management					
1.	Construction wastes are removed off-site regularly	<input type="checkbox"/>			Cleaning regularly.
2.	Chemical wastes, if any, collected and disposed of properly	<input type="checkbox"/>			Following proper guidance.
D. Environmental documents at Field Office and Project sites					
1.	Field Office possesses copies of EMP, the contract document, and Technical Specifications	<input type="checkbox"/>			Found available.

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
2.	Heavy equipment maintenance records		☐		
E.	Other relevant concern if any at Project sites				
1.					
2.					

*FC- Full Compliance; PC- Partially Compliance; NC-Non-Compliance

Consultant's Representative Name: Raisin Akhter Feroz Position: Environmental Safeguards Specialist  Signature:	Contractor's Representative Name: Position: Signature:
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ENVIRONMENTAL COMPLIANCE MONITORING CHECKLIST

COVID-19 Response Emergency Assistance Project

Name of the Site Location: Construction of 10 Bed ICU and 50 Bed Isolation and Medical Gas System at Sheikh Sayera Khatun Medical College Hospital

Date: 18 September 2023


Environmental Compliance Monitoring Checklist

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
A.	General				
1.	Legal working hours	✓			Contractor is following legal working hours.
2.	Employment Recordkeeping arrangement	✓			Contractor has record keeping provisions.
3.	Payment Record keeping arrangement	✓			Contractor has payment record keeping arrangement
4.	Environment, Health, and Safety Officer designated	✓			The Site Manager employed by the Contractor is playing the additional role of Environment, Health, and Safety Officer.
5.	Provision for the monthly meeting for the inspection of site activities		✓		Not regular.
B.	Health and Sanitation				
Public Health					
1.	Emergency medical facilities & first aid box at field office and work sites	✓			Emergency medical facilities and first aid box is available.
2.	Waste disposal arrangement at camp and work sites	✓			Wastes are kept in front of the facility and municipal authority is collecting it regularly.
3.	Safe water supply arrangements	✓			Contractor is providing safe drinking water.
Occupational Health					
1.	First-Aid Box availability at worksites	✓			First aid box with necessary belongings is available for the workers.
2.	Provision of personal protection equipment's (PPEs)	✓			All are purchased by the Contractor as mentioned in EMP.
3.	Handling of cement and other hazardous materials by workers	✓			Workers are using hand gloves during the work.

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
4.	Fire extinguishers/fighting facilities maintenance and validation	<input type="checkbox"/>			New and adequate fire extinguishers are installed at the work site.
5.	Workers' complaints have been taken care of by the supervisor	<input type="checkbox"/>			Workers are satisfied with their work conditions and complaints are taken care of by the supervisor.
6.	Children below 15 employments	<input type="checkbox"/>			Not available.
C. Environmental Pollution					
Dust and emission control					
1.	Construction vehicles and machinery are maintained properly to reduce emissions	<input type="checkbox"/>			Minimum numbers of machineries and vehicles are using and those are well maintained.
2.	Proper storage of materials and regular watering and maintaining log books		<input type="checkbox"/>		Following regularly but advised to be more careful.
3.	Availability of equipment for watering in case of dust generation	<input type="checkbox"/>			No dust is visible due to site condition.
Noise Pollution					
1.	Movement of vehicles at desired hours	<input type="checkbox"/>			Strictly maintaining by the Contractor and SSKMCH.
2.	Noise control measures at sites	<input type="checkbox"/>			The hospital only deals with the outpatients and the site is located in second floor where no movements are found.
Water Pollution					
1.	Wastes, cement, effluents, and junks not disposed of in the water	<input type="checkbox"/>			Following properly.
Flora and Fauna					
1.	Trees and bushes outside the construction area preserved from damages	<input type="checkbox"/>			Yet not hampered.
Waste Management					
1.	Construction wastes are removed off-site regularly	<input type="checkbox"/>			Cleaning regularly.
2.	Chemical wastes, if any, collected and disposed of properly	<input type="checkbox"/>			Following proper guidance.
D. Environmental documents at Field Office and Project sites					
1.	Field Office possesses copies of EMP, the contract document, and Technical Specifications	<input type="checkbox"/>			Found available.
2.	Heavy equipment maintenance records		<input type="checkbox"/>		

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
E.	Other relevant concern if any at Project sites				
1.					
2.					

*FC- Full Compliance; PC- Partially Compliance; NC-Non-Compliance

<p>Consultant's Representative Name:</p> <p>Raisin Akhter Feroz</p> <p>Position: Environmental Safeguards Specialist</p> <p></p> <p>Signature:</p>	<p>Contractor's Representative Name:</p> <p>Position:</p> <p>Signature:</p>
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ENVIRONMENTAL COMPLIANCE MONITORING CHECKLIST

COVID-19 Response Emergency Assistance Project

Name of the Site Location: Construction of PCR Laboratory at National Institute of Preventive and Social Medicine (NIPSOM), Dhaka

Date: 26 December 2023


Environmental Compliance Monitoring Checklist

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
A.	General				
1.	Legal working hours	✓			Contractor is following legal working hours.
2.	Employment Recordkeeping arrangement	✓			Contractor has record keeping provisions.
3.	Payment Record keeping arrangement	✓			Contractor has payment record keeping arrangement
4.	Environment, Health, and Safety Officer designated	✓			The Site Manager employed by the Contractor is playing the additional role of Environment, Health, and Safety Officer.
5.	Provision for the monthly meeting for the inspection of site activities		✓		Not regular. Moreover, the contractor has just started the work.
B.	Health and Sanitation				
Public Health					
1.	Emergency medical facilities & first aid box at field office and work sites	✓			Emergency medical facilities and first aid box is available.
2.	Waste disposal arrangement at camp and work sites	✓			Available.
3.	Safe water supply arrangements	✓			Contractor is providing safe drinking water.
Occupational Health					
1.	First-Aid Box availability at worksites	✓			First aid box with necessary belongings is available for the workers.
2.	Provision of personal protection equipment's (PPEs)	✓			All are purchased by the Contractor as mentioned in EMP.
3.	Handling of cement and other hazardous materials by workers	✓			Workers are using hand gloves during the work.

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
4.	Fire extinguishers/fighting facilities maintenance and validation	<input type="checkbox"/>			New and adequate fire extinguishers are installed at the work site.
5.	Workers' complaints have been taken care of by the supervisor	<input type="checkbox"/>			Workers are satisfied with their work conditions and complaints are taken care of by the supervisor.
6.	Children below 15 employments	<input type="checkbox"/>			Not available.
C. Environmental Pollution					
Dust and emission control					
1.	Construction vehicles and machinery are maintained properly to reduce emissions	<input type="checkbox"/>			Minimum numbers of machineries and vehicles are using and those are well maintained.
2.	Proper storage of materials and regular watering and maintaining log books		<input type="checkbox"/>		Following regularly but advised to be more careful.
3.	Availability of equipment for watering in case of dust generation	<input type="checkbox"/>			No dust is visible due to site condition.
Noise Pollution					
1.	Movement of vehicles at desired hours	<input type="checkbox"/>			Strictly maintaining by the Contractor and NIPSOM.
2.	Noise control measures at sites	<input type="checkbox"/>			The site is located at the upper floor of this building where people movement is very limited. Also, the contractor discussed with authority regarding noise pollution and adjusted the work time accordingly.
Water Pollution					
1.	Wastes, cement, effluents, and junks not disposed of in the water	<input type="checkbox"/>			Following properly.
Flora and Fauna					
1.	Trees and bushes outside the construction area preserved from damages	<input type="checkbox"/>			Do not have any chance of damage due to work location and nature.
Waste Management					
1.	Construction wastes are removed off-site regularly	<input type="checkbox"/>			Cleaning regularly.
2.	Chemical wastes, if any, collected and disposed of properly	<input type="checkbox"/>			Following proper guidance.
D. Environmental documents at Field Office and Project sites					
1.	Field Office possesses copies of EMP, the contract document, and Technical Specifications	<input type="checkbox"/>			Found available.

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
2.	Heavy equipment maintenance records	☐			
E.	Other relevant concern if any at Project sites				
1.					
2.					

*FC- Full Compliance; PC- Partially Compliance; NC-Non-Compliance

<p>Consultant's Representative Name:</p> <p>Raisin Akhter Feroz</p> <p>Position: Environmental Safeguards Specialist</p> <p></p> <p>Signature:</p>	<p>Contractor's Representative Name:</p> <p>Position:</p> <p>Signature:</p>
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ENVIRONMENTAL COMPLIANCE MONITORING CHECKLIST

COVID-19 Response Emergency Assistance Project

Name of the Site Location: Construction of 10 Bed ICU and 50 Bed Isolation and Medical Gas System at Chattogram Medical College Hospital, Chattogram

Date: 28 December 2023


Environmental Compliance Monitoring Checklist

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
A.	General				
1.	Legal working hours	✓			Contractor is following legal working hours.
2.	Employment Recordkeeping arrangement	✓			Contractor and sub-contractor both has record keeping provisions.
3.	Payment Record keeping arrangement	✓			Sub-contractor has payment record keeping arrangement
4.	Environment, Health, and Safety Officer designated	✓			The Site Manager employed by the Contractor is playing the additional role of Environment, Health, and Safety Officer.
5.	Provision for the monthly meeting for the inspection of site activities		✓		Not regular.
B.	Health and Sanitation				
Public Health					
1.	Emergency medical facilities & first aid box at field office and work sites	✓			Emergency medical facilities and first aid box is available.
2.	Waste disposal arrangement at camp and work sites	✓			Available.
3.	Safe water supply arrangements	✓			Contractor/sub-contractor is providing safe drinking water.
Occupational Health					
1.	First-Aid Box availability at worksites	✓			First aid box with necessary belongings is available for the workers.
2.	Provision of personal protection equipment's (PPEs)	✓			All are purchased by the Contractor as mentioned in EMP.
3.	Handling of cement and other hazardous materials by workers	✓			Workers are using hand gloves during the work.

SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
4.	Fire extinguishers/fighting facilities maintenance and validation	<input type="checkbox"/>			New and adequate fire extinguishers are installed at the work site.
5.	Workers' complaints have been taken care of by the supervisor	<input type="checkbox"/>			Workers are satisfied with their work conditions and complaints are taken care of by the supervisor.
6.	Children below 15 employments	<input type="checkbox"/>			Not available.
C. Environmental Pollution					
Dust and emission control					
1.	Construction vehicles and machinery are maintained properly to reduce emissions	<input type="checkbox"/>			Minimum numbers of machineries and vehicles are using and those are well maintained.
2.	Proper storage of materials and regular watering and maintaining log books		<input type="checkbox"/>		Following regularly but advised to be more careful.
3.	Availability of equipment for watering in case of dust generation	<input type="checkbox"/>			No dust is visible due to site condition.
Noise Pollution					
1.	Movement of vehicles at desired hours	<input type="checkbox"/>			Strictly maintaining by the Contractor and CMCH.
2.	Noise control measures at sites	<input type="checkbox"/>			The project area is surrounded by raised concrete boundary and no sensitive receptors around this location. Moreover, the site is located in a side of the building where patient movement is limited.
Water Pollution					
1.	Wastes, cement, effluents, and junks not disposed of in the water	<input type="checkbox"/>			Following properly.
Flora and Fauna					
1.	Trees and bushes outside the construction area preserved from damages	<input type="checkbox"/>			Yet not hampered.
Waste Management					
1.	Construction wastes are removed off-site regularly	<input type="checkbox"/>			Cleaning regularly.
2.	Chemical wastes, if any, collected and disposed of properly	<input type="checkbox"/>			Following proper guidance.
D. Environmental documents at Field Office and Project sites					
1.	Field Office possesses copies of EMP, the contract document, and Technical Specifications	<input type="checkbox"/>			Found available.

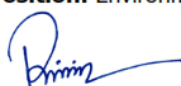
SL	Aspects of Environmental issues	Compliance Status*			Remarks
		FC	PC	NC	
2.	Heavy equipment maintenance records		☐		
E.	Other relevant concern if any at Project sites				
1.					
2.					

*FC- Full Compliance; PC- Partially Compliance; NC-Non-Compliance

<p>Consultant's Representative Name:</p> <p>Raisin Akhter Feroz</p> <p>Position: Environmental Safeguards Specialist</p> <p></p> <p>Signature:</p>	<p>Contractor's Representative Name:</p> <p>Position:</p> <p>Signature:</p>
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Annex VIII: OHS Compliance Monitoring Checklist**OHS COMPLIANCE MONITORING CHECKLIST****COVID-19 Response Emergency Assistance Project****Name of the Site Location:** Construction of Medical Center at Akhaura Land Port, Brahmanbaria**Date:** 31 August 2023

OHS Implementation Measures	Description	OHS implementation/ compliance status Put Tick (✓)			Remarks
		Y	N	N/A	
1. Personal Protective Equipment (PPE)	Is there an adequate supply of PPE available on-site?	✓			
	Are workers trained in the proper use and maintenance of PPE?	✓			
	Are all workers wearing appropriate PPE, such as hard hats, safety glasses, gloves, high-visibility clothing, and steel-toed boots?	✓			Sub-contractors' workers are advised to wear also.
2. Machinery Safety	Are all machinery and equipment on-site regularly inspected and maintained?	✓			
	Are workers trained and certified to operate the machinery and equipment?	✓			
	Are all machinery and equipment being used in accordance with manufacturer guidelines and safety procedures?	✓			
3. Manual Handling	Are lifting equipment, such as cranes and hoists, being used for heavy lifting tasks?			✓	Materials are not required to lift at height during this monitoring period.
	Are workers trained in proper lifting techniques?			✓	
	Are workers avoiding manual lifting when it exceeds safe weight limits?			✓	
4. Dust Control	Is water spraying/sprinkling method is used to dampen down dust?	✓			
	Are workers wearing respiratory protection when necessary?	✓			
5. Noise Control	Are noise control measures, such as sound barriers and mufflers, in place and functioning properly?	✓			
	Are workers wearing appropriate hearing protection when exposed to excessive noise?	✓			
6. First Aid	Is a properly stocked first aid kit available on-site?	✓			
	Are workers trained in basic first aid procedures?	✓			
	Are incidents and injuries recorded and reported, and appropriate first aid provided?	✓			
7. Hazardous Materials Control	Are hazardous materials properly stored, labeled, and handled on-site?	✓			
	Are workers trained in the safe handling and disposal of hazardous materials?	✓			
8. Excavation & Trenching	Has a competent person inspected the excavation and determined if protective systems are necessary?			✓	Excavation works had already been finished.
	Is the excavation area barricaded or otherwise protected from workers and equipment?			✓	
	Are all workers trained in excavation and trenching safety?			✓	
	Has the excavation been inspected regularly for signs of instability or collapse?			✓	


OHS Implementation Measures	Description	OHS implementation/ compliance status Put Tick (✓)			Remarks
		Y	N	N/A	
	Are workers prohibited from entering the trench when equipment is operating nearby?			✓	
	Are materials and equipment stored away from the edge of the excavation to prevent falls or collapses?			✓	
9. Scaffolding	Has a qualified and competent person inspected the scaffolding and determined it is safe to use?	✓			During the site visit the consultant found some limitations with using the scaffolding. Proper using of scaffolding with wearing PPEs are advised to follow regularly.
	Is the scaffolding properly anchored and tied off to the building or structure?	✓			
	Are guardrails, mid-rails, and toe boards in place on all open sides and ends of the scaffold?	✓			
	Is the scaffolding regularly inspected, including before each use?	✓			
	Are workers required to wear hard hats, safety glasses, gloves, high visibility vests, safety boots, and another PPE?	✓			
	Is the scaffold being used only for its intended purpose?	✓			
	Is the scaffold properly loaded and balanced to prevent overloading or instability?	✓			
	Are workers prohibited from working on the scaffold during high winds or other adverse weather conditions?	✓			
	Are materials and equipment stored away from the edge of the scaffold to prevent falls or collapses?	✓			
10. Piling	Is the type of pile suitable for the soil conditions and the load requirements?			✓	Piling works had been completed already.
	Has determined the pile length required for the load- bearing capacity of the soil?			✓	
	Is the pile spacing/alignment, correct?			✓	
	Is it ensured that the piles are driven to the required depth?			✓	
11. COVID-19 Protection Measures	Is there adequate face mask, sanitizer, handwash, soap etc.?	✓			
	Is there any handwash facility?	✓			
	Are the workers aware of using COVID-19 protection equipment?	✓			
<p>Consultant's Representative Name:</p> <p>Raisin Akhter Feroz</p> <p>Position: Environmental Safeguards Specialist</p> <p></p> <p>Signature:</p>					

OHS COMPLIANCE MONITORING CHECKLIST**COVID-19 Response Emergency Assistance Project**

Name of the Site Location: Construction of 10 Bed ICU and 50 Bed Isolation and Medical Gas System at Sheikh Sayera Khatun Medical College Hospital

Date: 18 September 2023

OHS Implementation Measures	Description	OHS implementation/ compliance status Put Tick (✓)			Remarks
		Y	N	N/A	
1. Personal Protective Equipment (PPE)	Is there an adequate supply of PPE available on-site?	✓			
	Are workers trained in the proper use and maintenance of PPE?	✓			
	Are all workers wearing appropriate PPE, such as hard hats, safety glasses, gloves, high-visibility clothing, and steel-toed boots?	✓			
2. Machinery Safety	Are all machinery and equipment on-site regularly inspected and maintained?	✓			
	Are workers trained and certified to operate the machinery and equipment?	✓			
	Are all machinery and equipment being used in accordance with manufacturer guidelines and safety procedures?	✓			
3. Manual Handling	Are lifting equipment, such as cranes and hoists, being used for heavy lifting tasks?			✓	Materials are not required to lift at height.
	Are workers trained in proper lifting techniques?			✓	
	Are workers avoiding manual lifting when it exceeds safe weight limits?			✓	
4. Dust Control	Is water spraying/sprinkling method is used to dampen down dust?	✓			
	Are workers wearing respiratory protection when necessary?	✓			
5. Noise Control	Are noise control measures, such as sound barriers and mufflers, in place and functioning properly?	✓			
	Are workers wearing appropriate hearing protection when exposed to excessive noise?	✓			
6. First Aid	Is a properly stocked first aid kit available on-site?	✓			
	Are workers trained in basic first aid procedures?	✓			
	Are incidents and injuries recorded and reported, and appropriate first aid provided?	✓			
7. Hazardous Materials Control	Are hazardous materials properly stored, labeled, and handled on-site?	✓			
	Are workers trained in the safe handling and disposal of hazardous materials?	✓			
8. Excavation & Trenching	Has a competent person inspected the excavation and determined if protective systems are necessary?			✓	Not Applicable as it is being constructed within existing building.
	Is the excavation area barricaded or otherwise protected from workers and equipment?			✓	
	Are all workers trained in excavation and trenching safety?			✓	

OHS Implementation Measures	Description	OHS implementation/ compliance status Put Tick (✓)			Remarks
		Y	N	N/A	
	Has the excavation been inspected regularly for signs of instability or collapse?			✓	
	Are workers prohibited from entering the trench when equipment is operating nearby?			✓	
	Are materials and equipment stored away from the edge of the excavation to prevent falls or collapses?			✓	
9. Scaffolding	Has a qualified and competent person inspected the scaffolding and determined it is safe to use?			✓	Not Applicable as it is being constructed within existing building.
	Is the scaffolding properly anchored and tied off to the building or structure?			✓	
	Are guardrails, mid-rails, and toe boards in place on all open sides and ends of the scaffold?			✓	
	Is the scaffolding regularly inspected, including before each use?			✓	
	Are workers required to wear hard hats, safety glasses, gloves, high visibility vests, safety boots, and another PPE?			✓	
	Is the scaffold being used only for its intended purpose?			✓	
	Is the scaffold properly loaded and balanced to prevent overloading or instability?			✓	
	Are workers prohibited from working on the scaffold during high winds or other adverse weather conditions?			✓	
	Are materials and equipment stored away from the edge of the scaffold to prevent falls or collapses?			✓	
10. Piling	Is the type of pile suitable for the soil conditions and the load requirements?			✓	Not Applicable as it is being constructed within existing building.
	Has determined the pile length required for the load- bearing capacity of the soil?			✓	
	Is the pile spacing/alignment, correct?			✓	
	Is it ensured that the piles are driven to the required depth?			✓	
11. COVID-19 Protection Measures	Is there adequate face mask, sanitizer, handwash, soap etc.?	✓			
	Is there any handwash facility?	✓			
	Are the workers aware of using COVID-19 protection equipment?	✓			
Consultant's Representative Name: Raisin Akhter Feroz Position: Environmental Safeguards Specialist  Signature:					

Annex IX: Accident and Incident Record Form

Accident and Incident Record Form

(Reporting by Contractor to Consultant and PIU)

(Attach Photograph of the accident / incident site)

Name of the Contractor or his Representative:

Contact no:

Project Name:	
Subproject/ Scheme Name:	
Place of Occurrence	
Date of Occurrence	
Details of What Happened	
Cause of Incident	
Remarks	

Annex X: Participants List for On-Job Training

Sl. No.	Name	Designation
1	Reza Taymur Malik	Executive Engineer, PWD
2	Sayed Zaki	SAE, PWD
3	Abdul Mannan	SAE (EM), PWD
4	Abu Sayed Mojumder	Procurement Consultant, PIU
5	Mohammad Kamruzzaman	Civil Engineer, PIU
6	Md. Zillur	Worker
7	Yasir Arafat	Worker
8	Md. Ahsan	Worker
9	Md. Hasan	Worker
10	Md. Siam	Worker