



Government of The People's Republic of Bangladesh
Ministry of Local Government, Rural Development and Co-operatives
Local Government Engineering Department (LGED)
Host and FDMN/DRPs Enhancement of Lives through
Infrastructure Improvement Project (HELP)



ENVIRONMENTAL AND SOCIAL SCREENING REPORT

Of the Sub-project:

Training Facility Construction for LGED at Cox's Bazar.

Under the Package No. HELP-CEMCRP-1

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ACRONYMS

BOQ	Bill of Quantities
D&SC	Design and Supervision Consultant
DoE	Department of Environment
DRP	Displaced Rohingya people
EA	Environmental Assessment
EC	Electrical Conductivity
EMCRP	Emergency Multi-Sector Rohingya Crisis Response Project
ESMP	Environmental Management Plan
ERP	Emergency Response Plan
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FDMN	Forcibly Displaced Myanmar National
FGD	Focus Group Discussion
FSM	Faecal Sludge Management
GBV	Gender Based violence
GRM	Grievance Redress Mechanism
HBB	Herring Bone Bond
IEFs	Important Environmental Features
ISCG	Inter Sector Coordination Group
IUCN	International Union for Conservation of Nature
IWM	Institute of Water Modeling
LGED	Local Government Engineering Department
MPSC	Multi-purpose Community and Service Center
NDRCC	National Disaster Response Coordination Center
PIU	Project Implementation Unit
PMU	Project Management Unit
PPE	Personal Protective Equipment
PSC	Project Steering Committee
SPM	Suspended Particulate Matter
SWM	Solid Waste Management
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
UNHCR	The United Nations High Commissioner for Refugees
VAT	Value-Added Tax
WB	World Bank

Executive Summary

The Host and FDMN/DRPs Enhancement of Lives through Infrastructure Improvement Project (HELP), supported by the World Bank, aims to enhance the resilience and well-being of both the host communities and Forcibly Displaced Myanmar Nationals (FDMN) in Cox's Bazar through improved access to basic services, infrastructure development, and institutional strengthening. As part of the HELP project's efforts to build institutional capacity, a five-story training center is proposed within the premises of the LGED district office in Cox's Bazar. This facility will be used to host trainings, meetings, administrative activities, and accommodation for trainees and officials.

The proposed training center will be constructed on existing government-owned land, ensuring no land acquisition or displacement is required. Its proximity to the LGED district office makes it an ideal location for regular trainings and knowledge sharing sessions for LGED officials and other relevant stakeholders. The training center will contribute to strengthening LGED's institutional capacity at the local level by providing a dedicated space for skill-building activities aligned with HELP project objectives.

The environmental & social assessment confirms that the site is not located in any environmentally sensitive or protected area. The surroundings consist primarily of government and non-government buildings, guest houses, and a few community institutions. While the construction phase will involve typical risks such as dust generation, noise pollution, earth excavation, and increased vehicle movement, these are considered temporary and manageable. Specific mitigation measures such as regular water sprinkling, site fencing, safe storage of materials, and daytime-only work schedules will be enforced to reduce disturbances to nearby institutions and communities.

Five trees will need to be removed to make space for construction. To offset this, 25 trees will be planted within and around the site upon completion, as part of the project's environmental enhancement plan. The building's architectural design includes open green spaces on the 2nd and 4th floors, promoting ventilation, aesthetics, and a cleaner microclimate.

Construction-related impacts, including waste disposal, worker safety, noise, and air quality concerns, will be addressed through the adoption of Good Engineering Practices (GEP), Health, Safety, and Environmental (HSE) protocols, and strict contractor compliance monitoring. The contractor will be required to deploy a dedicated Environmental and Social Safeguard Personnel, conduct regular safety trainings, and maintain documentation of all awareness and compliance activities on-site.

Though the construction will temporarily affect the immediate surroundings, no major social impacts or stakeholder opposition have been identified to date. Stakeholder consultations, including with LGED officials and local representatives, have indicated strong support for the sub-project. The site being within LGED's premises ensures minimal disruption to the broader community and reinforces institutional ownership and responsibility.

This training facility has been a long-desired facility for the LGED officials, and no complaints or complications have been arisen so far, in relation to this specific sub-project. With all the required efforts, once the overall effects for this proposed construction works are minimized to its least level and controlled efficiently, it will turn into a welcoming and beneficial project for the Institution.

1. INTRODUCTION

1.1 Project background

Since 2017, Bangladesh has been hosting nearly one million Displaced Rohingya Population (DRP) who fled violence in Myanmar. Most of this population resides in 33 densely populated camps in Ukhiya and Teknaf upazilas of Cox's Bazar district. At the same time, approximately 30,000 have been voluntarily relocated to Bhasan Char, an isolated island in Noakhali District. This unprecedented humanitarian influx has placed immense pressure on the host communities, infrastructure, essential services, and the surrounding environment in a region already characterized by socio-economic vulnerabilities.

The FDMNs now outnumber host populations in affected areas by a ratio of approximately 2:1, contributing to crowding in local markets, overburdening social service systems, escalating environmental degradation, and heightening risks during disasters. In response to these complex challenges, the Government of Bangladesh (GoB), with support from the World Bank and development partners, has initiated the Host and FDMN/DRPs Enhancement of Lives through Infrastructure Improvement Project (HELP). The project aims to enhance access to basic services and build disaster and climate resilience for DRP and host communities. HELP builds on lessons learned from the ongoing **Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP)**, which has supported emergency response, resilient infrastructure, and institutional strengthening in Cox's Bazar since 2019.

HELP proposes a multi-sectoral development approach focusing on critical needs such as water supply, sanitation, renewable energy, shelter upgrades, solid and fecal waste management, and the improvement of road connectivity. The project also emphasizes disaster risk reduction, climate-resilient infrastructure, and institutional capacity building. It targets the high-priority gaps identified through annual needs assessments and field consultations, with particular attention to vulnerable groups including female-headed households, persons with disabilities, and those residing in disaster-prone areas.

The project scope encompasses a range of integrated infrastructure interventions aimed at improving resilience, accessibility, and service delivery for both the DRP and host communities. Key activities include the construction of new multi-purpose disaster shelters to provide enhanced protection during natural calamities, as well as the improvement and repair of existing shelters to ensure they meet disaster-resilience standards. The project also involves the development of road communication infrastructure, including the construction and rehabilitation of roads, bridges, and culverts to improve connectivity and access to essential services. In addition, various community-level facilities will be developed or upgraded, such as internal roads, drainage systems, hat-bazar (local markets), footpaths, firefighting systems, lightning protection devices, and solar-powered street lighting—contributing to safer and more inclusive living environments.

The project is jointly implemented by four government agencies—LGED, DPHE, RHD, and BPDB—under the Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C), the Ministry of Road Transport and Bridges (MoRTB), and the Ministry of Power, Energy and Mineral Resources (MoPEMR). The project comprises four components, covering resilient water and sanitation services, climate-resilient infrastructure and energy, institutional capacity strengthening,

and emergency response. Under Component 2, LGED will undertake key infrastructure development including rural roads and bridges to ensure improved connectivity and disaster preparedness.

The objective of the Project is to provide greater protection for the FDMN and host communities through:

- Support improved access to basic services, climate-resilient infrastructure, and disaster and emergency response services;
- Improve Road interventions for easy access to essential services;
- Reducing vulnerability to accidental fire;
- To strengthen disaster preparedness and response through construction of multipurpose disaster shelters, provision of key equipment, and disaster risk management trainings at the community level;
- To improve Renewable and sustainable energy infrastructure in camps and for host community;
- To strengthen the GoB's capacity to provide essential services and address the needs of the host communities and the DRP, including risks to disasters and climate change;
- To reduce poverty in the project area

This Environmental and Social Screening Report has been prepared to assess potential environmental and social risks and impacts associated with the proposed intervention under HELP. It provides a preliminary evaluation of the biophysical and socio-economic settings of the project areas—Cox's Bazar and Bhasan Char—and identifies key issues that require further assessment or mitigation. The report serves as a guiding tool for environmentally and socially sound project implementation in compliance with national regulations and the World Bank Environmental and Social Framework (ESF).

1.2 Rationale of Site Selection for Training Center under the project

The overall goal of this project is to aid Government of Bangladesh to improve capacity of infrastructures in order to serve both FDMN and population of the hosting country in parallel. LGED itself along with the donor agency is keen to strengthen LGED's capacity in both national and local level in order to harness the best output from every single intervention across the country. This basic essence of building a better professional infrastructure of LGED has also been realized while implementing many other sub-projects at Cox's Bazar under the jurisdiction of LGED, and it's obvious that ensuring the presence of trained and quality executives is very instrumental to better implementation of quality works. Thus, building upon the available resources should be prioritized always. As Local Government Engineering Department (LGED) is responsible for the implementation of a good number of projects in Cox's Bazar district, healthy supervision and execution is necessary at all levels and it is also significant to take into consideration that adept or quality people are well placed and geared for every necessary actions. In order to compliment this necessity, this project has focused on facilitating corporate enrichment of LGED Cox's Bazar. This proposed component is to be established under the supervision of LGED and under the vicinity of existing Cox's Bazar LGED office in Cox's Bazar municipality area. As the site is proposed just next to the LGED district office

and sufficient space is available for the construction works, it would be highly convenient for the LGED officials to participate and conduct training programs on various relevant subjects, and relate and implement the learning outcome directly to the sites. This training facility has been a long-desired facility for the LGED officials, and no complaints or complications have been arisen so far, in relation to this specific sub-project.

1.3 Background of the Sub-project

HELP (Host and FDMN/DRPs Enhancement of Lives through Infrastructure Improvement Project) is a World Bank-supported initiative that aims to assist the Government of Bangladesh in responding to the continued humanitarian and development challenges posed by the presence of the Forcibly Displaced Myanmar Nationals (FDMNs) and their impact on host communities. The project seeks to improve access to basic services, strengthen disaster and climate resilience, and enhance overall infrastructure in both Cox’s Bazar and Noakhali district.

Under this specific work package (HELP-CEMCRP-1) of the HELP project, a Training facility will be constructed under the Municipality area of Cox’s Bazar Sadar Upazila in Cox’s Bazar district. The catchment area of the subproject comprises the surrounding area in the municipality. Relevant significant features of the sub-project area and the building features and facilities of the proposed sub-project have been tabulated in Table 1.3.1 and 1.3.2 respectively.

Table 1.3.1: Significant features of the area and the Sub-project

Name of the sub project	LGED Training Facility
District	Cox’s Bazar
Upazila	Cox’s Bazar Sadar
Union/locality	Cox’s Bazar Municipality
Owner of land	Government
Land Available (sq.ft.)	12,987
Structural Design Option	Rectangular shape 5-storey building with single Basement area (80 feet 7 inches X 86 feet 2 inches)
Catchment area	Cox’s Bazar Municipality
Tribal people	No tribal people found in the catchment area of the Sub-project
Connecting road	Motel Road, Cox’s Bazar
Land acquisition	Not required
Current land condition	The land is situated on the north-west of the current LGED office of Cox’s Bazar and it is currently used as scrap yard. The location is enclosed with brick wall fencing with a small access gate to the east.

[D&SC and Field survey, 2021]

Table 1.3.2: Building features and facilities of the proposed Sub-project

Floor	Facilities	Dimensions
All Floor	Lift	8'9"x7'0"
	Stair	Single
Ground Floor	Lobby	26'6" x 17'8"
	Reception	16'2" x 16'0"
	Administrative Office	26'1"x 21'6"
	Generator Room	17'2" x 12'2"
	Store	10'6"x8'11"
	Toilet	6'6"x 5'2"; 13'8"x 12'9" (Male); 9'0"x 11'7" (Female); 10'6"x8'0" (Disabled)
	Office Space	9'8"x12'2"; 9'11"x 14'1"; 13'8"x 8'10"; 14'0"x 12'2";
	Info Desk	17'7"x 17'5"
	Car Parking	
1 st Floor	Multipurpose Hall	52'2" x 34'9"
	Conference Room	26'1" x 16'8"
	Office Space	17'7" x 17'5"; 14'0"x 12'2"; 13'8"x 8'10"; 9'11"x 14'1"; 9'8"x12'2"
	Store	10'6"x8'11"
	Toilet	6'6"x 5'2"; 13'8"x 12'9" (Male); 9'0"x 11'7" (Female); 10'6"x8'0" (Disabled)
2 nd Floor	Office Space	9'11"x 14'1"; 13'8"x 8'10"; 14'0"x 12'2"; 17'7" x 17'5"; 26'1"x 17'8"; 26'1"x16'10" (2 Spaces); 17'7"x 16'10"; 9'8"x12'2"
	Toilet	6'6"x 5'2"; 5'0"x 9'0" (attached-2 nos.); 13'8"x 12'9" (Male); 9'0"x 11'7" (Female); 10'6"x8'0" (Disabled)
3 rd Floor	Office Space	13'8"x8'10"
	Room (Guest)	25'3"x17'1"; 25'3"x16'10" (3 nos.); 25'3"x 17'5"
	Attached Veranda	4'6"x10'0" (5 nos.)
	Dining Space	13'8"x17'1"
	Toilet	10'0"x6'0" (Attached-5 nos.); 5'0"x10'2"; 10'6"x8'0"
	Housekeeping	9'11"x14'1"
	Store	20'5"x8'11"
4 th Floor	Gymnasium	26'1"x 26'10"
	Restaurant	26'1"x25'7"
	Office Space	14'0"x12'2"
	Store	13'8"x8'10"; 20'5"x8'11"
	Lounge	14'1"x17'1"
	Kitchen	9'11"x14'1"
	Changing Room	7'0"x7'4"
	Toilet	10'6"x8'0"

The objective of this Environmental and Social Screening Report is to evaluate the environmental and social settings of the proposed training centre construction site under this work package, identify potential impacts both positive and adverse and recommend appropriate mitigation, enhancement, and management measures. This screening ensures that all interventions align with national regulatory requirements and the World Bank's Environmental and Social Framework (ESF), while promoting environmentally sustainable and socially inclusive development.

1.4 Location of Sub-Project

The Sub-project is located in Municipality area of Cox’s Bazar District. The site location is relatively a plain land and accessible through vehicles as 25ft wide BC road is present near the site which is connected with all major roads in the municipality area. The location details of the Sub-project have been summarized in Table 1.4.1. The District Map with project location, Location map of LGED Training Center shown in Figure 1.4.1, Figure 1.4.2 respectively.

Table 1.4.1: Location Details of the Sub-project

Division	Chattogram
District	Cox’s Bazar
Upazila	Cox’s Bazar Sadar
Union	Cox’s Bazar Municipality
GPS position	21.43653°N and 91.97167°E
Distance from Upazila HQ	5.53 Km
Nearby major road	Motel Road, Cox’s Bazar
Nearby river/canal	No mentionable feature

[Sources of data: Field survey, 2021]

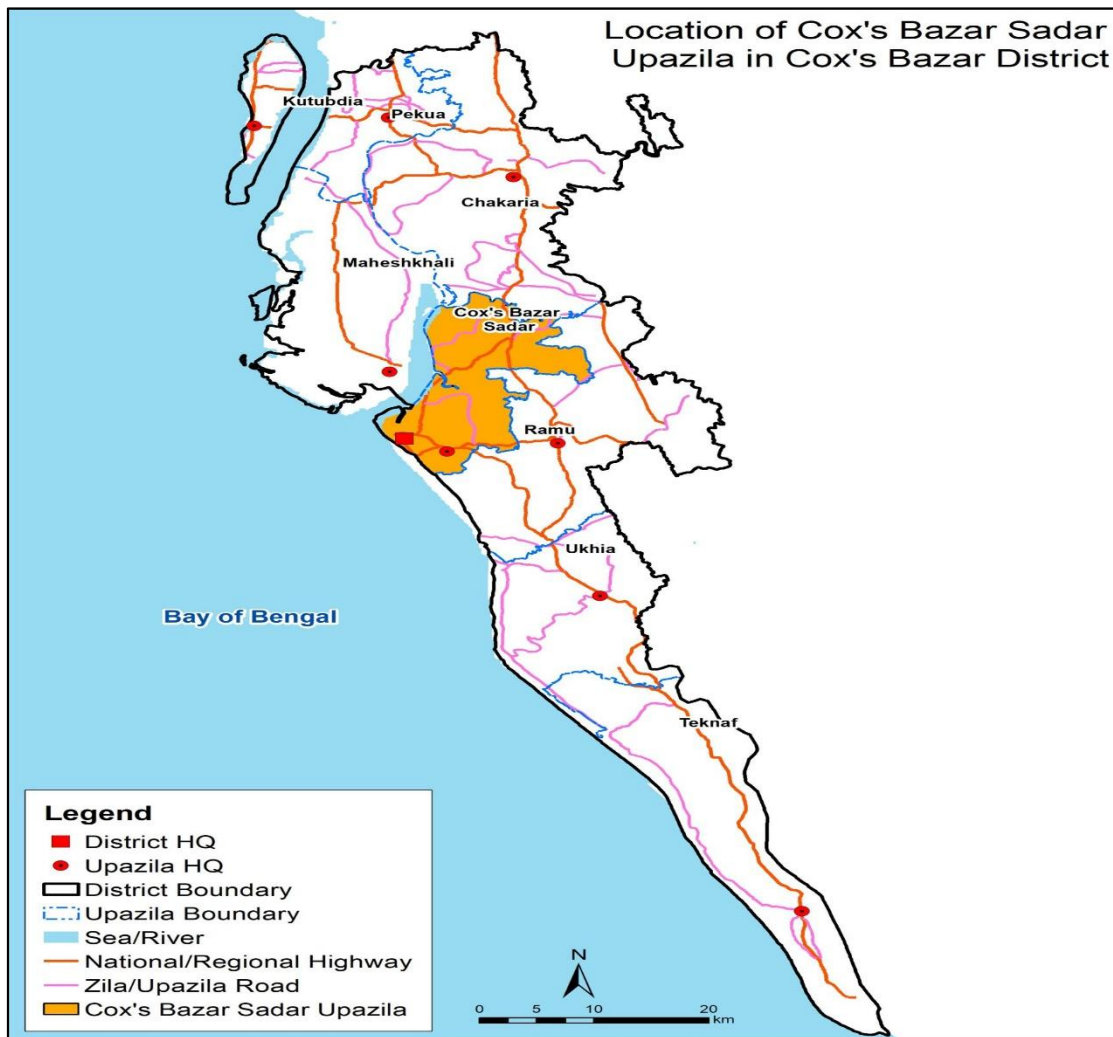


Figure 1.4.1: District Map with project location

Host and FDMN/DRPs Enhancement of Lives through Infrastructure Improvement Project (HELP)
Local Government Engineering Department (LGED)

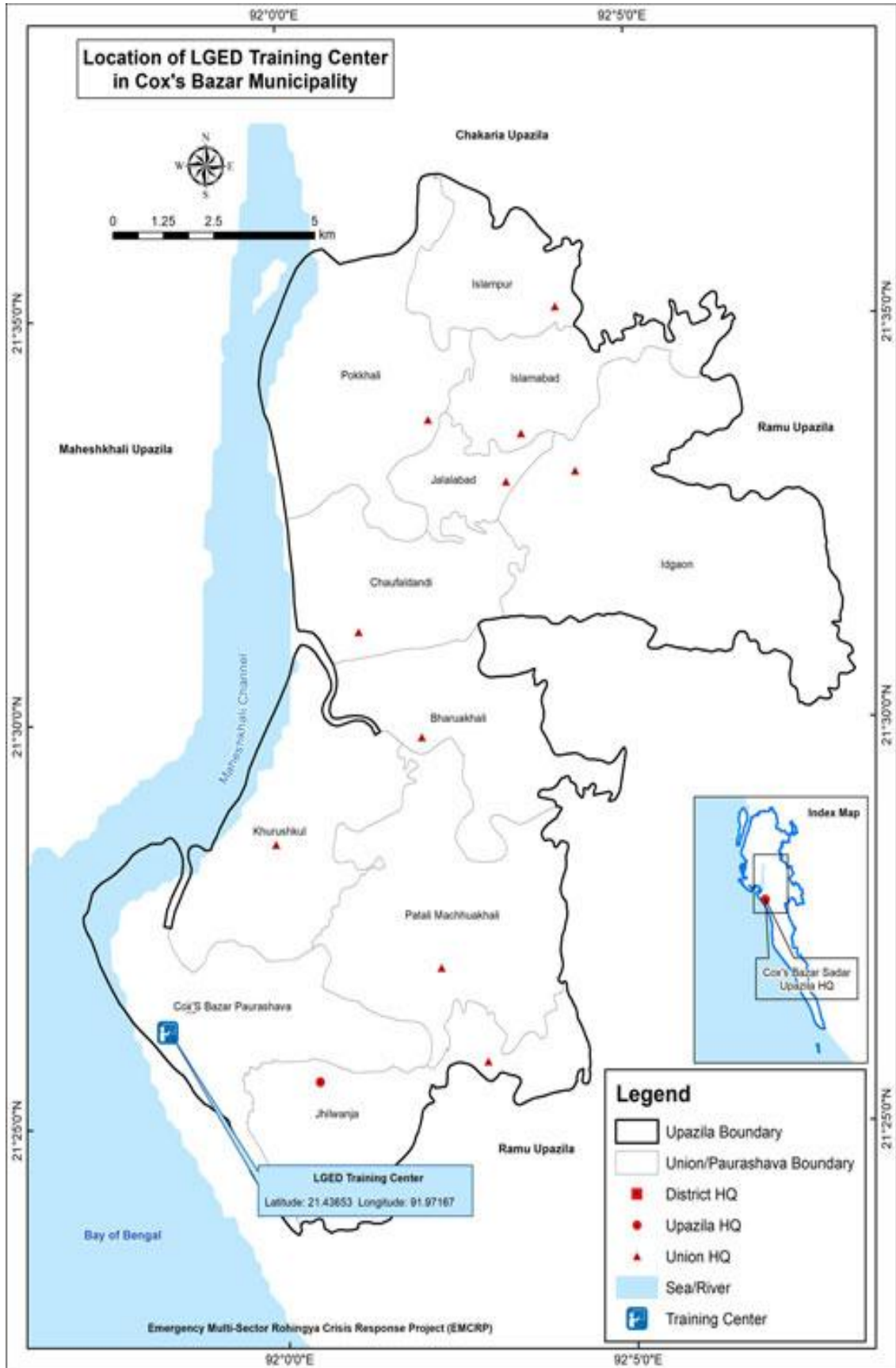


Figure 1.4.2: Location map of LGED Training Center

1.5 Boundary of the Sub-Project Site

The important features or establishments around the Sub-project site, mostly within half a km radial distance from the site which might face direct/indirect impacts from the construction works, have been summarized in Table 1.5.1. Photographs showing present condition of the Sub-project area and location of construction area are shown in Figure 1.5.1 and 1.5.2 respectively.

Table 1.5.1: Important features/establishments around the Sub-project site

Direction	Important features/ establishment (approx. distance from the proposed site)
North side	Motsho Bhaban (50m), Water Development Board Mosque (200m), Wabda Mosque (200m)
South side	UNHCR Office (50m)
East side	Households (50m), Roundabout Mosque (500m)
West side	Hotel Shoibal (30m)

[Sources of data: Field survey, 2021]



Figure 1.5.1: Present condition of the Sub-project area



Figure 1.5.2: Proposed location of LGED Training Center construction

2. PUBLIC CONSULTATION AND PARTICIPATION

2.1 Methodology

Public participation and community consultation have been taken up as an integral part of environmental and social assessment process of the project. Field visit has been carried out on 07

February 2021 in and around the Sub-project site. As part of the impact assessment, participatory public consultation was conducted in that area by the field level staffs, and consultants from PIU and D&SC. The consultation meeting was attended by 12 persons, and they were all LGED officials. Therefore, the meeting was organized in an informed, expressive and unbiased manner, wherefrom different views and concerns came across which will be properly taken care of during the design and construction phases. Their concerns and comments were very critical for this intervention, and for the safeguard screening as well, since all of the items are selected for implementation within the LGED premises. The planning and adjustment which may be needed during, prior and post construction phases are to be moderated by the LGED only. This location, in particular, has no major complications and is in relevance with the current authority.

Refer to Figure 2.1.1 and Appendix-4 for selected photographs of the participatory public consultation held at site of the LGED Training facility of Cox's Bazar Municipality and list of attendees in that public consultation meeting, respectively. In addition, several walk-through informal group consultations were also held in the vicinity. A questionnaire was kept ready and responses were elicited. During these consultations, the communities were explained about the project, its benefits, and associated social and environmental aspects and possible mitigation measures.



Figure 2.1.1: Public Consultation in the Proposed Sub-project Site

As such, public consultation is a living process as the types of problems/ difficulties, involved parties or stakeholders and mode of settlement or resolution processes are more likely to differ with time. Thus, consultation with different parties or stakeholders will be continued throughout the sub-project implementation period and records of resolutions, whatsoever and wherever possible, will be kept in writing at the site and made available on any enquiries or requests by all parties concerned.

2.2 Issues Raised by the Participants

The issues raised by the participants were as follows:

- They are very much in need of a better facility, so that they can ensure proper training to their officials and field level staff.

- Lack of adequate spaces for conducting and organizing training, which has been realized critically after taking a good many projects in Chattogram region and in the district.
- Possible dust and noise pollution during the construction works.
- Safety of children at the sites during construction works.
- Action plan for the residing households, and executive engineer of Cox's bazar ensured that all these people found on the selected location stay there on a temporary basis. The location is basically used as a scrap yard.
- Few numbers of trees will need cutting for the construction.
- There are spaces abutting used for pedestrian pathway, which will be disturbed during the construction period.

2.3 Suggestions and recommendations of the participants

The participants presented the following suggestions and recommendations:

- The participants in the meeting have considered that the selected site is suitable for the development of Training center from both the technical and social point of view.
- The participants have expressed their greater interest for this training center for their capacity development and using this facility with highest compatibility.
- Separate male and female toilets should be present for all the best concerns.
- Internal access road must be disability inclusive. Footpaths/walkways of the internal roads must be designed in a way that wheelchairs can move smoothly.
- Public safety should be ensured by properly fencing the work sites, and workers' safety by providing necessary safety gears/first aid boxes, as required.
- They also requested to keep provision for facilities in respect to sanitation, hygiene and power supply facilities, etc., for the construction manpower.
- They have also ascertained that the selected site is free from any events related to resettlement and any significant environmental impacts.
- Adjoining pathways for pedestrian should be separated with brick wall fencing (and has been confirmed by the district Executive Engineer), and Safety practices are to be ensured so that no accident may come forth.
- The adverse environmental impacts that may come in the way of air quality, noise, solid waste, occupational health & safety during the construction period, and will persist for a short duration, yet proper management/conservative options should be adopted.

3. ENVIRONMENTAL AND SOCIAL SCREENING

3.1 General

This section outlines the potential environmental and social impacts that may arise due to the proposed sub-project interventions within a half-kilometer radial distance around the project sites. The Environmental and Social Screening has been conducted in accordance with the requirements of the World Bank's Environmental and Social Framework (ESF), particularly focusing on the relevant Environmental and Social Standards (ESSs).

The primary purpose of this screening is to identify potential risks and impacts associated with the sub-projects, assess their significance, and propose appropriate mitigation and management measures to ensure compliance with the ESF. The screening process also considers the cumulative

and residual impacts of the intervention within the context of the local physical, biological, and socio-economic environment.

In order to realize the exact physical, biological and socio-economic environment of the proposed sub-project site and the influence area in regards to the implementation measures, an extensive field visit was carried out on 07 February 2021 in the Sub-project area. The screening data and information for this Sub-project and details screening summary have been formulated and shown in Appendix-1.

3.2 Major Findings

The Environmental and Social Screening has revealed an integrated overview of site-specific environmental and social conditions of the proposed sub-project. These findings offer valuable insight into the interaction between the sub-project component and its surrounding biophysical and socio-economic settings. While many sub-projects are found to be aligned with the characteristics of their respective locations, the nature, magnitude, and extent of impacts vary based on topography, ecological sensitivity, surrounding land use, and community dependency.

The screening has also identified both direct and indirect risks that may arise if not appropriately mitigated. Findings indicate that with suitable mitigation measures as proposed in the ESMF and site-specific Environmental and Social Management Plans (ESMPs) most risks are manageable under ESS1 (Assessment and Management of Environmental and Social Risks and Impacts), and relevant associated standards such as ESS4 (Community Health and Safety), ESS2 (Labor and Working Conditions), and ESS10 (Stakeholder Engagement and Information Disclosure).

A summary of the significant environmental and social issues identified during the screening process, along with associated potential impacts, is presented in **Table 3.2.1**. These findings provide critical input for developing context-specific mitigation strategies and highlight areas requiring enhanced monitoring and community engagement during project implementation.

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Improvement Project (HELP)
Local Government Engineering Department (LGED)**

Table 3.2.1: Concerning environmental and social issues relating to each proposed subproject and influence area

	Key Environmental & Social Findings	Anticipated Impacts / Concerns
ESS1: Assessment and Management of Environmental and Social Risks and Impacts	The proposed Training Center will be constructed on a designated site that is not located within any environmentally sensitive area.	Will not cause any severe negative effects to the area's environmental settings, nor to important environmental features.
	Environmental and social screening conducted; moderate risks identified.	Manageable with appropriate mitigation measures.
	Construction activities may cause air, noise, and water pollution.	Construction activities may lead to localized dust, air pollution, and runoff contamination; these impacts are short-term, site specific and can be effectively managed through water sprinkling, dust control, noise barriers and proper site drainage.
	Surrounding features within 1 km include government and non-government institutions and sensitive receptors like mosques, hotel, households, and UN offices.	Will not cause any severe negative effects to the environmental settings of the area nor important environmental features. Air and noise pollution may occur during the construction period due to construction activities and the transportation of materials. In some cases, accidents may happen due to unauthorized entry into the construction site. These impacts are short-term, site-specific, and within a small scale and manageable by mitigation measures.
	Construction activities and the establishment of labor camps, along with associated facilities and services, may lead to adverse environmental and social impacts if not properly managed.	Noise pollution from piling or drilling, air pollution caused by dust or gaseous emissions from vehicle movement, running of motorized equipment and land clearing, odors and soil pollution from leaking of latrines and fecal sludge (in labor camp), will more likely to take place.
	Earth excavation work will be involved during the piling.	Consequently, air, noise and dust pollution will be occurred within a small-scale during the construction period only.
	Chemical spills or improper disposal of construction waste materials due to lack of workers' training and misconduct of contractor's safety initiatives. Kitchen and labor camp waste may be generated during construction period.	Soil and water can be further eroded and polluted.
	Vibration effects generated from piling, drilling, or other construction works	May trigger harmful disturbances to local faunal species.
	A functional Grievance Redress Mechanism (GRM) must be in place to ensure community feedback, transparency, and accountability in managing environmental and social risks during project implementation.	Lack of an effective GRM may lead to unresolved community complaints, misinformation, reduced stakeholder trust, and potential conflict or resistance during project implementation. However, the project's three-level GRM structure—comprising Local, Project, and Ministry-level committees—offers a systematic approach to resolve such issues in a timely, transparent, and inclusive manner.

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Local Government Engineering Department (LGED)**

ESS2: Labor and Working Conditions	Local workers may be hired; labor influx is not anticipated. No child or forced labor permitted. During the consultation, the Executive Engineer (XEN) agreed to store construction materials within the LGED office premises to ensure security and safeguard LGED's interests. Non-technical laborers are readily available in the local area, while some technical workers can be sourced from Cox's Bazar District town. Only a few specialized technical laborers may need to be hired from outside if necessary.	Low risk of labor-community tension or burden on local infrastructure; reduced potential for social conflict.
	OHS risks during pile-driving and construction works.	Injury risk for laborers.
	Safe working conditions, personal protective equipment (PPE), and sanitation facilities must be ensured at site.	Risk of injury or health hazards if workers lack PPE or safety supervision. Potential spread of illness if hygiene and sanitation facilities are inadequate.
	Risk of accidents during pile-driving and construction phase; proper training and labor code compliance are required.	Risk of falls, tool-related injuries, or exposure to noise and dust without safety training. Possibility of non-compliance with national labor standards or World Bank EHS guidelines.
	Labor camps must comply with EHS guidelines. Inadequate ventilation, poor lighting, and overcrowded conditions can disrupt normal living standards, increase the risk of disease transmission, and negatively impact workers' health and well-being.	Risk of poor living conditions, waste mismanagement, health and hygiene issues, or community tension if camps are not properly managed.
ESS3: Resource Efficiency and Pollution Prevention and Management	Dust from earthwork, vehicle movement, and material handling during the construction period may cause air pollution.	Site specific, short-term, can be controlled by regular sprinkling and covered transport
	Construction of the Training Center will involve moderate use of natural resources, such as water, cement, aggregates, and fuel. Cementitious materials like Ordinary Portland Cement, and possibly fly ash or slag will be used. Earth excavation will generate spoil materials. Lubricants and fuels (e.g., diesel, engine oil, hydraulic oil) will be used for construction machinery.	Air pollution from dust and machinery emissions. Noise pollution affecting nearby receptors. Risk of runoff carrying cement, oil, or other chemicals to nearby drains or water bodies if not properly managed. Improper disposal of construction waste may lead to local environmental degradation. Increased water consumption could affect local availability. Temporary waterlogging if stormwater drainage is not ensured.
	Noise from piling and construction machinery.	Limited to working hours and local area, can be reduced by timing and barriers
	Construction waste, such as concrete debris, plastic packaging, and metal scraps, will be generated. Waste from labor camps, must be handled with designated waste management plan. No hazardous waste is expected from the sub-project activities.	Waste can be stored and disposed at designated landfill with contractor oversight
ESS4: Community Health and Safety	The construction site is adjacent to several sensitive features such as households (50m), mosques (200–500m), a hotel (30m), and offices (within 50m). Construction activities will involve movement of vehicles, equipment, and materials, which could temporarily increase safety risks.	Proper use of signage and barricades may ensure the construction site's safety.

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	<p>Use of heavy machinery during construction may result in significant dust and noise emissions. No open access to the general public is expected during construction if proper fencing and signage are ensured. Dust, noise, and vibration may cause nuisance to surrounding communities. No high-risk materials or explosive works are expected.</p>	<p>Temporary disruption to local communities due to noise, dust, and construction traffic. Increased risk of accidents or injuries to nearby pedestrians and community members if access control and safety measures are not enforced. Health risks from air and noise pollution, especially for vulnerable groups (e.g., elderly, children, patients in nearby hotel or offices). Traffic congestion or hazards around the site, particularly during material transport and machinery movement. These impacts are short-term, site-specific and within a small area and manageable by mitigation measure.</p>
<p>ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement</p>	<p>The construction of the LGED training Center is taking place in an open space within the premises of the LGED Executive Engineer's (XEN) office. The land is government-owned, and therefore, no land acquisition or relocation of people or assets is required for the implementation of this sub-project. No land acquisition required; construction is within the existing right of way.</p> <p>The contractor will utilize empty government land—specifically, the open premises of the LGED office—as the construction yard during the training Center's construction. If additional space is required and no suitable government land is available, the contractor may rent land from private landowners for a fixed duration, subject to proper documentation and verification.</p>	<p>Temporary access disruptions during construction can be mitigated by providing alternative access during construction. Vehicles. A Memorandum of Understanding (MoU) should be signed with the landowner in cases where private or community land is temporarily required for storing construction materials or setting up labor camps.</p>
<p>ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>	<p>No critical natural habitats within 500m. The proposed site for the Training Center is not located within or near any ecologically sensitive or protected area. The construction site is adjacent to several sensitive features such as households (50m), mosques (200–500m), a hotel (30m), and offices (within 50m). The site is within a developed urban/semi-urban setting and has already been allocated for infrastructure development. There are no significant natural habitats, critical biodiversity features, or aquatic ecosystems in the immediate vicinity of the site.</p>	<p>Some features are located near the proposed sites, where dust and noise pollution may cause impacts. These impacts are expected to be negative but short-term, site-specific, and reversible with appropriate mitigation measures. Other features are situated at relatively greater distances, where significant disturbance is not anticipated. To minimize any potential impacts, strict construction site management practices should be enforced, including limiting work to daytime hours, applying water-sprinkling at least twice daily around the site, installing proper fencing around the working area, and ensuring safe storage of construction materials.</p>
<p>ESS7: Indigenous Peoples/Sub- Saharan African Historically Underserved Traditional Local Communities</p>	<p>No Indigenous or Small Ethnic Communities found in project influence area.</p>	<p>Not applicable.</p>
<p>ESS8: Cultural Heritage</p>	<p>No known cultural or archaeological sites identified within project site.</p>	<p>Not applicable.</p>

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ESS9: Financial Intermediaries	Not applicable as project does not involve financial intermediaries.	Not applicable.
ESS10: Stakeholder Engagement and Information Disclosure	A field visit and participatory public consultation were conducted on 07 February 2021 at and around the proposed Training Center site. The consultation was carried out by field-level staff and consultants from the PIU and D&SC as part of the environmental and social impact assessment. A total of 12 participants, all of whom were LGED officials, attended the consultation meeting. The participants discussed potential environmental and social issues and expressed support for the sub-project.	Participants anticipated support for the project and emphasized the importance of safety features and pollution control. The feedback collected underscores the need for continued stakeholder engagement during implementation, including maintaining a functional grievance redress mechanism (GRM), accessible communication channels, and a transparent complaint registry to ensure inclusive and responsive project delivery.

In order to offset the loss or attenuating the environmental degradation, a set of mitigation measures will be adopted, on top of general practice of standard construction procedure or following the relevant codes of practice.

3.3 Climate Change Impact Screening

3.3.1 General Overview of the area

Cox's Bazar is one of the coastal districts of Bangladesh and is prone to the effects of climate change due to its geomorphological siting and climate induced effects. The hilly tracts of Cox's Bazar could foster further environmental crisis brought on by indiscriminate deforestation and diminishing groundwater reservoirs, which have been taken place in recent months as the Rohingya crisis evolved. A recent study conducted by World Bank¹ has found that Cox's Bazar will be the worst-hit district in South Asia as average temperatures rise and rainfall patterns become disruptive, by 2050, if greenhouse gas emissions continue unabated.

The hilly region of the country, especially the part in Cox's Bazar is characteristically of muddy soil structure, not of any rocky formation and the stability comes from the roots of the trees. Also, rainfall, proximity to the sea, elevation, and land cover are very important factors for analyzing the risk of cyclone. Denudation of trees from hilltops in order for the huge settlement of Rohingya people has already increased the vulnerability to the risk of hill collapse by destabilizing the terrain. Also, deforestation at a rapid speed uncovers the land and raise the risk of occurrence of cyclones, as forests protect land from high wind and storm surges where demolishing the trees would make the area vulnerable.

Together with the above-mentioned hazardous situation, again due to sudden extraction of huge amount of groundwater, availability of potable water from shallow tube wells that pump water up from about 150 feet has already reached to a critical level. Averting the problem requires new tube wells to be plumbing deeper into the poorly mapped aquifer, but going deeper than 700 feet in some places may cause salt water to contaminate freshwater resources.

Considering the general climate change effects in Cox's Bazar area and offsetting the aggravating environmental situation due to the mass arrival of Rohingya communities, several specific measures including tree plantation in sub-project areas, rainwater harvesting from every disaster shelter, construction of drainage facilities along the road length and installing thunder arrester across the areas, have been suggested and will be implemented (though not in particular within this site).

3.3.2 Site Specific Screening and outcome

Climate Change impact on a particular subproject is tough to deduce as the highest resolution of climate model simulation done over Bangladesh is 50km. Depending on the simulation ensemble of Cox's Bazar district, the temperature and precipitation are likely to increase with time.

The impact of cyclone and precipitation has higher impact in this area, Intensity of precipitation has increased according to the participants and number of cyclones has been seen to have increased in the past few years. The area is free from any flash flood events and water logging is not a notable phenomenon here. Salinity has not been found in the vicinity of the subproject. Cyclonic storm surge has medium impact in the area. Temperature has increased and thus has medium impact on the area and Thunder storm has been seen to have increase and is found to have highest impact in the area. Water stagnation has not been found. Drainage channel has not been found in the area.

¹ <https://openknowledge.worldbank.org/bitstream/handle/10986/28723/9781464811555.pdf>

As compared to the entire district area or a 50km resolution for model simulation, the sub-project site is a very tiny point for impact generation, so tiny is its footprint in respect to climate change effects. Yet, to avoid the devastation caused by the growing thunderstorm events, conventional lightning protection system (copper rod to be used as a lightning arrester) will be employed to the proposed training center. Provision of green spaces in different floors for visual and ambient soothing, separate toilets for male and female, building water tank for water supply, solar power as energy sources are suggested to be incorporated in the design and to be implemented as part of the construction works of the training center. As there is very low impact of cyclonic storm surge in the area the mitigation measures for flooding potential are not provided here. As well as tree plantation is suggested to subside the effect of precipitation anomaly in the areas.

4. ENVIRONMENTAL AND SOCIAL PROTECTION/SAFEGUARDS

4.1 Mitigation and Management Measures

Considering the environmental settings of the sub-project area, it can be assumed that possible impacts would be largely construction-related, and could be addressed through adoption of good engineering practices; good housekeeping; better *in-situ* construction materials management; and observance of health and safety protocols during the implementation period.

The proposed Training Center will be constructed on a plain land where some matured vegetation is found. Due to the construction activities of this Sub-project, 05 nos. of trees (medium sized) will be cut down and as a mitigation measure, 25 nos. of trees should be planted in the target location. Further, some settlements around the sub-project location might get affected during the construction period with the generated debris and dust, though for the time being. Contractor must adhere to the best practice debris management procedure and regular adoption of dust control measures (spraying of water at least twice a day) to minimize the effect to the least level. Human and construction waste and debris should be stored in designated areas or dustbins, and be transported outside by the waste collection and management services provided by the municipality for eventual management. Further construction related activities which may result in adverse impacts in the surrounding environment of the sub project must be kept under close consideration and appropriate mitigation and management measures will be taken with due care and vigilance. In order to minimize the risks of fire hazards or small fire incidents during the construction period, appropriate type of fire extinguishers shall be kept at site. Contractor's staffs and workers will be given training on good practice construction works, health safety, fire/hazard safety and efficient camp management, and relevant awareness building sessions will also be conducted, and records of all those training and awareness building sessions will be kept on-site as part of effective management and monitoring of safeguard works. Any accidental leakage of chemicals or wastes to water bodies or soil may require some remediation methods which cannot be found readily available in Bangladesh and also costly to adopt; therefore, strong vigilance to working procedure and emphasis on best engineering practices (e.g., stockpiling of chemicals on impervious bunded areas, etc.) shall be adopted by the contractor. Hence, contractor shall engage an Environment & Social/Safeguard Personnel on its own part, for the entire duration of the contract. With all the required efforts, once the overall effects for this proposed construction works are minimized to its least level and controlled efficiently, it will turn into a welcoming and beneficial project for the Institution.

The subproject specific environmental management plan has been outlined in **Appendix-2**. The mitigation measures as well as monitoring program of ESMP have also been incorporated in the management plan.

Environmental and social quality enhancement: In order to make the building visually soothing with passage of cleaner air around the compound, provision of wide green spaces in the terraces/open spaces on the 2nd floor and 4th floor has been suggested and adopted in architectural design of the building.

4.2 Cost of Environmental & Social Enhancement Works in BOQ

In consideration to the above-mentioned environmental and social impacts and their mitigation measures for this sub-project component, a set of items are included in the BOQ of this sub-project. Due expenditure for employing an Environment & Social/ Safeguard Personnel for ensuring proper implementation of Environmental and Social Management Works under the Package (HELP-CEMCRP-1) has also been added into the BOQ. The total costing and estimation have included enhancement works, such as Tree plantation initiatives, Dust Suppression mechanisms, etc. On the other hand, in order to ensure health safety and sanitation of workers PPE, First Aid Box, Labor shed, drinking water facility with water tests, Temporary latrine for male and female as well as waste disposal systems has been accounted for. Ensuring sustainable labor performance in regards to environmental and social considerations motivational training has been taken into account. An overview of the estimation is given in **Appendix-3**.

5. CONTRACTOR AND LABOR MANAGEMENT

Most of the workers for this project will come from the local community, who share a common socio-economic, cultural, religious, and demographic background. Based on consultations with local stakeholders, it is anticipated that only a small portion of skilled labor may need to be hired from outside the project area, depending on availability. Therefore, the likelihood of internal conflicts among workers is expected to be minimal. It is estimated that approximately 20 laborers will be engaged during the construction phase, comprising 4 skilled (25%) and 16 unskilled (75%) workers, generating around 10,800 active working man-days (as detailed in Table- 5.1).

Although female participation in rural construction work is traditionally low, higher involvement of women is expected in this sub-project. Nonetheless, if female participation remains limited, the contractor must still conduct mandatory GBV (Gender-Based Violence) awareness training for all workers prior to the commencement of construction to mitigate risks of harassment, discrimination, or hostile behavior at the worksite.

The contractor's area will include the working zone surrounding the construction site, materials stacking and storage area, labor shed, and office space ideally located within or adjacent to the LGED premises for better coordination and monitoring. Contractors will be strictly instructed to maintain cleanliness at the worksite by ensuring waste, debris, and dust are regularly cleared and that all bulk construction materials such as sand, stone chips, and steel are stored properly and covered with plastic sheets to prevent environmental degradation.

Experiences from ongoing LGED projects in Cox's Bazar indicate a shortage of skilled labor, which has contributed to delays in some cases. In this sub-project, LGED anticipates that general and non-

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technical labor will be sufficiently available locally, with only specific technical expertise needing to be sourced from outside if required. It is expected that the scale of labor influx will remain manageable and will not pose significant risks of social tension or GBV during the construction period.

Table 5.1: Subproject-wise number of labor and total active working days

Sl no	Package Number	Name of Subproject	Total Space of Training Facility Construction (Square Feet)	Tentative Per day labor (No)	Days	Total active working days
01	HELP-CEMCRP-1	Training Facility Construction for LGED at Cox's Bazar Sadar Upazila, District: Cox's Bazar	8032.17 sq. ft.	20	540	10,800
Grand Total =				20	540	10,800

6. Grievance Redress Mechanism (GRM)

In accordance with the Environmental and Social Management Framework (ESMF) of the HELP project, a robust and accessible Grievance Redress Mechanism (GRM) has been established to address project-related grievances from host communities, workers, and other stakeholders. As this subproject—construction of the LGED Training Center was carried forward from the EMCRP project. A structured and inclusive Grievance Mechanism (GM) has been established to ensure timely and effective resolution of complaints arising from project activities in the host communities. Since LGED is the Implementing Agency (IA), the grievance redress structure has been designed to operate across three levels local (Upazila), Project Implementation Unit (PIU), and Project Steering Committee (PSC) to address concerns efficiently and equitably.

Local Level GRC

At the local level, a Grievance Redress Committee (GRC) is formed in each Upazila where LGED has subproject activities. The GRC is chaired by the Upazila Engineer from LGED (or a nominated official by the Project Director if required), serving as the Convener. The Environmental Specialist and/or Social Specialist from the PIU, depending on the nature of the complaint, act as the Member-Secretary and remain common across all local GRCs under LGED. The committee also includes an Environmental and/or Social Specialist from the Supervision Firm appointed by LGED, a representative from the respective Union Parishad (preferably female if the complainant is female), and a community representative such as a teacher, NGO staff member, or a local individual nominated by the complainant. Specialists for these roles are expected to be hired within 3 to 6 months of project effectiveness. All grievances at the local level must be heard and resolved within 10 working days of receipt. Complaints related to LGED activities will be received at the office of the respective Upazila Engineer.

PIU-level GRC

If a complaint cannot be resolved at the local level, it is escalated to the PIU-level GRC. This committee is chaired by the Project Director of LGED and includes the Social and Environmental Specialists from the PIU as Member-Secretaries. It also includes a local government representative—

either the same individual from the local level hearing or another as appropriate (must be female if the complainant is female) and a community representative, preferably the same individual who participated at the local level. The PIU-level GRC is responsible for reviewing unresolved grievances and delivering a decision within 15 working days. In addition, the Social or Environmental Specialist at the PIU, with assistance from the local GRC's Member-Secretary, will conduct regular visits to subproject sites to engage with communities and affected persons, and to document any new concerns, suggestions, or complaints in the GRM register.

PSC-level GRC

For grievances that remain unresolved at the PIU level, the matter is further referred to the PSC-level GRC, which represents the final tier of grievance resolution. This committee is led by a representative of the Secretary from the relevant ministry, serving as the Convener, with the Project Director of LGED acting as the Member-Secretary. The PSC-level GRC is required to make a final decision on such grievances within a maximum of four weeks. Any resolution reached at any level of the grievance process that is agreed upon by the aggrieved party is considered binding on LGED and will be implemented accordingly.

This multi-tiered GM structure under LGED ensures that all grievances from host community members are addressed in a fair, inclusive, and transparent manner. It fosters accountability and trust in project implementation while upholding the World Bank's Environmental and Social Standard 10 (ESS10) on stakeholder engagement and information disclosure.

7. MONITORING MECHANISM FOR ESMP IMPLEMENTATION

Monitoring is a critical component under the Host and FDMN/DRPs Enhancement of Lives through Infrastructure Improvement Project (HELP) to ensure that environmental and social mitigation and enhancement measures outlined in the Environmental and Social Management Plan (ESMP) are effectively implemented and that their intended benefits are realized over time. The Environmental and Social Management Framework (ESMF) of the HELP Project provides a detailed monitoring mechanism, assigning responsibilities to all relevant parties directly involved in or overseeing the construction and implementation of sub-projects.

Several tiers of monitoring responsibilities have been established under the HELP Project. At the implementation level, contractors are required to ensure that environmental and social risks are effectively minimized throughout the construction period. This includes implementing adequate Occupational Health and Safety (OHS) measures for both workers and surrounding host communities. Contractors must assign site managers and safeguard supervisors (or equivalent personnel) to supervise daily implementation of the ESMP. These personnel are responsible for ensuring environmental protection both on and off site, and for preventing damage or nuisance to individuals, public and private property, and surrounding features or institutions. Pollution, noise, and other detrimental effects arising from construction operations must be strictly controlled. In addition to implementing the ESMP, contractors are also responsible for preparing and executing specific management plans, such as drainage management, traffic management, and emergency preparedness and response, where required. Proper implementation of these plans, along with timely site decommissioning and restoration, must be ensured.

The first tier of supervision is led by the Design and Supervision Consultant (D&SC) firm. Once the contractors are mobilized, safeguard consultants from the D&SC and the Resident Engineer are

tasked with ensuring contractor compliance with the ESMP and with the application of good engineering practices at the site. This includes strict enforcement of OHS measures. The D&SC is responsible for preparing regular monitoring reports based on field-level supervision and findings.

At the second tier, the Project Implementation Unit (PIU) will play a key role in overall monitoring. The PIU will have dedicated environmental and social safeguard specialists who will conduct frequent field visits to assess ESMP implementation. These specialists, in coordination with the Executive Engineer's Office and Upazila Engineers' Office in Cox's Bazar Sadar, will ensure strong site-level oversight. The PIU safeguard team will also ensure that all contractor staff and other relevant personnel receive adequate initial and ongoing training on environmental and social safeguards. Moreover, the PIU will verify proper site cleaning and reclamation upon completion of construction and recommend necessary corrective or punitive measures if any non-compliance is observed.

At the highest tier, the Ministerial Project Steering Committee (PSC), chaired by the Senior Secretary/Secretary of the Local Government Division (LGD), Ministry of LGRD&C, will provide strategic oversight of monitoring activities. In collaboration with the PIU, the PSC will ensure that environmental and social safeguard training is provided to all relevant project staff and that implementation at the field level aligns with national policies and the World Bank's Environmental and Social Framework (ESF). This structured multi-tiered monitoring approach under HELP will help ensure that the construction of the training facility at Cox's Bazar LGED premises is environmentally and socially responsible, and aligned with sustainable development objectives.

8 CONCLUSIONS AND RECOMMENDATIONS

The overall conclusion is that if the mitigation, compensation and enhancement measures are implemented in full, there will be no significant negative environmental and social impacts in regards to the selection of location, design, construction, and/or operation procedure of the proposed Sub-project. There will in fact be tremendous benefits from recommended mitigation and enhancement measures and major improvements in quality of office environment, opportunities for the officials/staff in getting trained up, and enhancement in ensuring quality works and project management, will be achieved once the scheme is in operation.

The conclusions of the Screening study can be summarized as follows:

- The LGED officials (local and regional) will receive large benefits through improving office and training facilities and improved infrastructural facilities, etc.
- The short-term negative impacts that may come by the way of air quality, noise, solid waste, occupational health & safety need to be minimized through the management plan.
- The project will create employment for those who live in the vicinity of the construction site and will provide them a short-term economic gain.
- The green belt development, if necessary, with large-growing trees at the periphery of the site will give the places a more natural and pleasing appearance.
- A comprehensive Environmental and Social Management Plan (ESMP) has been prepared to mitigate and reduce the adverse impacts that will come out from the Subproject activities.

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Implementation of this Sub-project will have large positive impacts to both the LGED and project Officials, and surrounding communities in terms of opportunities to learn and career development, and enhancement of personal, professional and economic gain from the sub-project as per scoping differentiation. This sub-project will contribute greatly in enhancing LGED's capacity to managing projects in both efficient and economically viable way, in regional context as well as in national paradigm. So, strong recommendation should be put in place to implement the sub-project within shortest possible period of time, and with great care and efficiency.

Appendix-1: Environmental and Social Screening Form for examining the sub-project

Environmental Screening Form

Sub-Project Description Form: (HELP-CEMCRP-1)

Name of Sub-Project: Training Facility Construction for LGED at Cox's Bazar Sadar Upazila, District: Cox's Bazar (HELP-CEMCRP-1)

Implementing Agency/Agencies: Local Government Engineering Department (LGED)

Estimated construction period duration: 2 Years

Estimated Operation and Maintenance period (life of sub-project): 15 years

District: Cox's Bazar **Sub-District:** Cox's Bazar Sadar **Union:** Cox's Bazar Municipality

Name of Community/Local Area: Bazarghata, Municipality, Cox's Bazar

Description of proposed sub-project activities (incl. type of activities, footprint area, natural resources required, etc.): One LGED Training Facility of 5-storey building with single Basement area will be constructed within the identified location.

Estimated footprint / land area for this sub-project is 12,987 sq. feet

Brief description of sub-project site: (e.g. present land use, Important Environmental Features (IEFs) near site, etc.:

Proposed LGED Training Center will be constructed within an identified location in the Sadar (town) area. To the north Motsho Bhaban (50m), Water Development Board Mosque (200m), Wabda Mosque (200m); to the south UNHCR Office (50m); To the east side Households (50m), Round about Mosque (500m); to the west Hotel Shoibal (30m) are located. Surrounding areas in the municipality of Cox's Bazar is mostly inhabited by host communities and local establishments.

Types of waste to be generated during construction and operation phase:

During the construction period solid waste will be generated due to construction of this building on the selected location. The types of wastes are gravel, stones, rock, wood, copper wires, iron, plastic etc. Negligible amount of plastic and human wastes might be generated in labor camps.

Completed environmental and social screening forms are given below

Section A: Sub-Project Overview

Description of sub-project/component interventions:

A LGED Training Facility Building of Rectangular shape 5-storey building with single Basement area will be constructed within the boundary of an existing Xen office area. Safe water supply will be ensured, wash facilities and green spaces will be provided. The class rooms, waiting areas, office rooms, guest rooms will be provided with furniture and other teaching tools. Floors will have mosaic finish and bathrooms have tiles for easy maintenance and cleaning. A walkway will be constructed from the entrance to the proposed building for the ease and safe passage during the rainy season.

Sub-project Location:

The sub-project area is situated in Cox's Bazar municipality under Cox's Bazar district. The sub-project area is located at 21.43653° N and 91.97167° E. The distance from the Upazila headquarter is

about 5.53 K m. Nearby major road is Motel Road, Cox's Bazar.

Land ownership

Land is owned by the Government.

Expected construction period: 2 Years

Description of project intervention area and project influence area with schematic diagram (where relevant, indicate distance to sensitive environmental areas such as elephant corridors, water bodies, etc. and historical or socio-cultural assets): Please also explain any analysis on alternative location was conducted:

Project intervention area is found to be a scrap yard, but influence area should consider nearly half a kilometer radius around the proposed site.

To the north Motsho Bhaban (50m), Water Development Board Mosque (200m), Wabda Mosque (200m); to the south UNHCR Office (50m); To the east side Households (50m), Roundabout Mosque (500m); to the west Hotel Shoibal (30m) are located. However, there is no chance of causing significant disturbances during this construction activity. Few trees will be affected by this construction activity. No mentionable eco concerned establishment, neither any socio-cultural site is located nearby.

Within the influence area of the subproject no historical sites were identified. Currently, there is no evidence of presence of elephants in the subproject influence area (checked with IUCN representative).

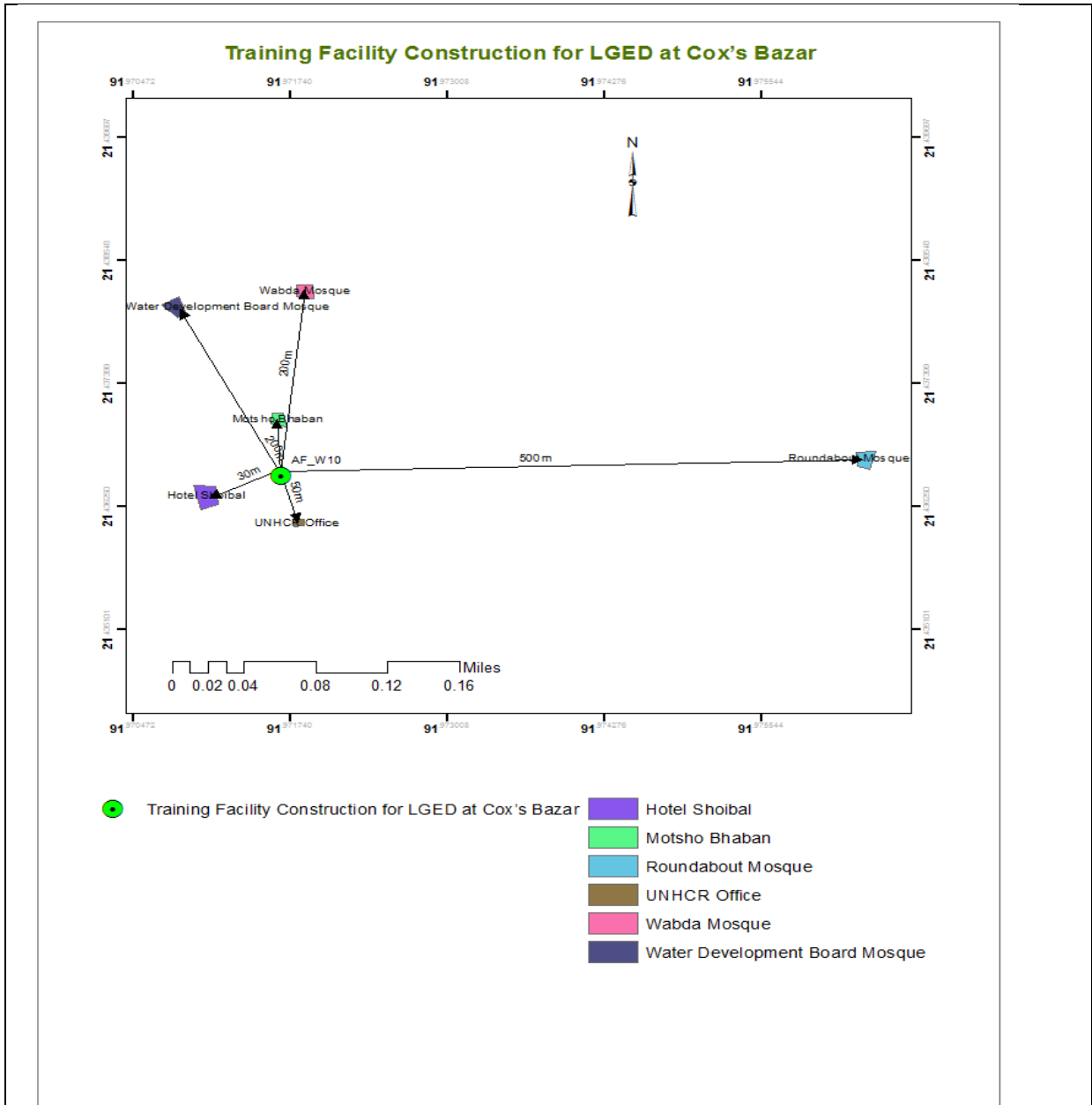
Section B: Environmental Screening

B.1: Environmental feature of sub-project location

Description of cultural properties (if applicable, including distance from site):

To the north Motsho Bhaban (50m), Water Development Board Mosque (200m), Wabda Mosque (200m); to the south UNHCR Office (50m); to the east side Households (50m), Roundabout Mosque (500m); to the west Hotel Shoibal (30m) are located. There are no sensitive environmental, cultural, archaeological sites exists within the catchment area of this sub-project.

A diagram showing the major features around and apparent distances (in parentheses) from the proposed construction site is given below:



Location of environmentally important and sensitive areas:

There are no environmentally important or sensitive areas found in the areas, except some matured vegetation around this location. Several mosques, markets and human settlement were found during the survey. Not more than five trees will be affected by the construction works, as the activities will be carried out within the existing selected boundary, and necessary preventive and mitigation measures will be followed during the entire construction period.

(1) Potential impacts on remaining forests in/around camps Yes/No

N/A (This activity will be ensured in host community and within existing LGED Xen office boundary)

(2) Other issues:

No more mentionable issues raised.

Baseline air quality and noise levels:

Ascertaining distinctively the baseline air and noise quality level in respect to any sites at different parts of Cox's Bazar district is nearly impossible because of the huge burden of physical developmental works including roads, bridges, culverts, building structures, markets, jetties, etc.

being carried out simultaneously across the areas. Therefore, the apparent baseline of the pre-development period can only be anticipated and results of visual observation are worth to be presented here.

Dust:

Ambient air quality data was not readily available, but quality is apparently good due to the appearance of vegetative settings around. Dust is slightly generated through movement of pedestrians. Natural air action over the road surface is very prevailing in the area which causes dust circulation.

Noise:

Noise in the Sub-project area is not a major concern because noise level is within the tolerance limit. Vehicles such as tempo, auto rickshaw, motorbikes, cars, trailer, etc. moving on roads adjacent to sub-project throughout the day and night generate noise but within tolerable limit in most cases.

Baseline soil quality:

The Sub-project area is located mainly on red, alluvial soil. The soil developing from the weathered sandstones tend to be sandy to clay loams. Presence of Organic matter content in the soil is moderate.

Landslide potential (high/medium/low, with explanation):

N/A (the sub-project will be constructed in a plain land and within an identified LGED Xen office boundary)

Baseline surface water and groundwater quality (FE, TDS, fecal coliform, pH):

Groundwater is the main source of potable water in the Sub-project area. The shallow depth is about 100 feet and deep tubewell depth is 600 feet. In the sub-project area, deep groundwater is salt and arsenic free. Shallower aquifers having depth around 100 feet surrounding the Sub-project area are full of iron. Deep groundwater table (drinkable) varies from 600-800ft (Field survey, 2021). Groundwater quality: pH-5.17 to 8.51, DO-2.26 to 8.14mg/l, TDS-23.40 to 320 mg/l, EC -25.7 to 681µs/cm, Fe-0.5 to 7.0 mg/l and As-Nil (Information collected from local DPHE office during the field Survey, 2021)

Status of wildlife movement:

N/A (None of the information was found about the wildlife movement in or across the area)

State of forestation:

Few large trees are located on the proposed site.

Summary of water balance analysis (For water supply scheme only):

N/A

B.2: Pre construction Phase

Information on Ancillary Facilities (e.g., status of access road or any other facility required for sub-project to be viable):

A BC road named Motel Road is passing by the west side of the sub-project. It is possible to carry the construction materials on this road to the construction site.

Requirement of accommodation or service amenities (toilet, water supply, electricity) to support the workforce during construction:

Toilet and water supply facilities will be ensured by the contractor in the vicinity of the construction area for all the components of the sub-project, electric connection will be established with the

accommodation facility due for the workforce.
<p>Possible location of labor camps:</p> <p>Labor camp is not needed since local labor force will participate in the works. However, if needed this will have to be done with the consent of LGED authority, and with the supervision of the Engineer in charge.</p>
<p>Requirement and type of raw materials (e.g. sand, stone, wood, etc.):</p> <p>i) Bricks, ii) Sand iii) cement iv) aggregates v) metals vi) water, vii) Bamboo & wood from mobilized materials and other electro-mechanical equipment and viii) clay are the most common type of building material used in construction.</p>
<p>Identification of access road for transportation (Yes/No):</p> <p>A BC road named Motel Road is passing by the west side of the sub-project. It is possible to carry the construction materials on this road to the construction site.</p>
<p>Location identification for raw material storage:</p> <p>Best option for raw material storage is any sufficiently available space next to the labor camp or the site office and away from steep slopes. However, this will need to arrange an open field and should be consulted with LGED authority. Considering the criteria, within the LGED Xen office boundary would be a good option. Material storage area must be well fenced and materials will be covered with tarpaulins.</p>
<p>Possible composition and quantities of wastes (Solids wastes, demolition materials, sludge from old latrines, etc.):</p> <p>Earth/ mud, plastics, brick chips, dust from bricks during construction of project components will be produce. Also, sludge will be produced from labor camp latrines and kitchen waste mostly composing of organic matters as fiber, starch, carbohydrates and proteins. 10% of the kitchen waste may be classified as plastics or non-biodegradables. Solid waste may amount to 10 kg daily and sludge may amount to 3 kg per day.</p>

B.3: Construction Phase

<p>Type and quantity of waste generated (e.g. Solids wastes, liquid wastes, etc.):</p> <p>Residual waste from the labor camps will be generated. Equipment maintenance/vehicles on-site and scrap material will occur during construction work which is mostly solid wastes. Leftover oils or spills from machinery can have a high probability of generating liquid waste. Waste from civil works may be produced as much as 80 kg a day.</p>
<p>Type and quantity of raw materials used (wood, bricks, cement, water, etc.):</p> <p>Type: i) Bricks, ii) Sand, iii) cement, iv) aggregates, v) water, vi) Bitumen are the most common type of raw materials to be used in construction period.</p> <p>Quantity: Anticipating the quantity of raw materials to be used needs detail calculation as per design, which is beyond the scope of this report, but presented in engineering design/estimates of the sub-project.</p>
<p>Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:</p> <p>Around 12,987 sq. feet land is required for the sub-project establishment.</p> <p>There is reasonable vegetation around the sup-project area. The vegetation will be affected by construction work. The open area inside the LGED Xen office boundary is clearly enough to</p>

<p>accommodate stack/equipment yards, temporary waste dumping sites, as well as the target construction plots.</p>
<p>Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)</p> <p>Low: No borrow pit or quarries will be required to dig out during the construction period in or around/ adjacent to the sub-project area. During construction period one or two water reservoir may be constructed due to construction activities. But all those will completely be demolished and cleared out, once the construction period is over.</p>
<p>Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description)</p> <p>No pre-existing drainage channel is found. There are no water bodies which will be affected. Nonetheless proper construction site management practices will be required.</p>
<p>Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)</p> <p>Low: The site is free from any aquatic ecosystems or habitats of endangered species. There are some terrestrial flora species around the project site, which will not be affected by the works. Life cycle or movement of some terrestrial living species (fauna) (i.e. Insects - ant, bees, earthworm, reptiles, birds etc.) might be disturbed for the time being, but with very less impact indeed. So, overall potential effect is very low or absent for this specific sub project.</p>
<p>Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:</p> <p>The soil in the proposed site is already compacted and developed and the area is largely flat, so there is almost no chance to trigger the landslide or any type of mass movement of soil for the said construction works.</p>
<p>Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with description)</p> <p>N/A</p>
<p>Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:</p> <p>No traffic movement impact on light is anticipated, but low effects of noise and air pollution may appear resulting from the movement of vehicles carrying construction materials.</p> <p>High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)</p>
<p>B.4: Operation Phase</p>
<p>Activities leading to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles:</p> <p>During the operation phase of this subproject, small amount of dust and exhaust gas might be produced by the vehicles bound to emergency cases and while passing over the adjacent road which will be low in frequency. So, causing any health hazards and interference of plant growth is not very likely to happen by such activities for quite a short duration.</p>
<p>Chance of long-term or semi-permanent destruction of soils: (High/Medium/Low with description)</p> <p>There is no chance of activities during the operation period, which can lead to any long-term or semi-permanent destruction of soils.</p>
<p>Possibility of odor and water, soil quality impacts from SWM and FSM disposal system: (High/Medium/Low with description)</p>

Low. The proposed training center will be equipped with full facilities for conducting training services to LGED staffs which will include separate toilets (sanitary) for male and female, water supply and filtration, storage and other facilities. No fecal sludge will be produced for transferring to any disposal system during the operation period. Very little amount of solid waste consisting of mainly paper, plastic, polythene, and organic stuffs is likely to be produced in a typical day. All these wastes will be stored in covered plastic bins temporarily and later will be disposed off in a designated place away from the building site and any water bodies in a periodic manner so that no odor, water and soil quality impacts are generated. Plastic, polythene and other non-biodegradable wastes must be separated from the organic/ biodegradable wastes before disposing and Cox's Bazar LGED authority should be made aware of this separation and disposal procedure.

Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)

There is no possibility of creating new stagnant water bodies that can encourage mosquito breeding and other disease vectors, during the operation phase.

Likely direct and indirect impacts on economic development in the project areas by the sub-project:

During the operation phase, this training center will improve the capacity of the working staffs of the institution by providing training and skill development workshops or so, and prepare them with field level knowledge and risk analysis/project management training. Further, this facility will have improved capacity to serve the institution for better and developed services for the local area improvement. Having this structure will also invite new jobs for local people to make a living.

Extent of disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description)

No existing drainage channels or surface water bodies are present within the sub-project boundary area, and no extent of disturbance or modification during the operation period is anticipated.

Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)

There is no protected area in or around the project sites, and no known areas of ecological interest.

Activities leading to landslides, slumps, slips and other mass movements in road cuts:

The entire sub-project component area is nearly flat; thus, no such type of impacts is anticipated.

Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with explanation)

N/A

Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

The proposed site is located inside the LGED Xen office compound. A BC road connects the sites with main road. The roads are used for pedestrian access and vehicles like bicycles, motorbike, three wheelers, truck, cars etc. Therefore, during the operation period traffic congestion is expected. If not properly maintained and supervised, low effects of noise and air pollution will be occurred, primarily because of the noise and emission from vehicular movement and dust being dispersed around during the dry weather, and accidents may occur on the nearby road due to the bad condition of the access road and unsafe driving through it.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

Section C: Social Screening

C.1 General Labor Influx Screening

Key Screening questions	Aspects to Consider
<p>Will the project potentially involve an influx of workers to the project location, and will the influx be considered significant for the local community?</p>	<p>✓ How many foreign and local workers will be needed for the remaining period of the project, with what skill set?</p> <p>Answer: The project will not require any foreign workers for the construction period. The contractors will hire all skilled and unskilled labor locally. For the training center construction, the project will need about 4 skilled workers and 16 unskilled workers. Skilled workers, such as masons, carpenters, and steel fixers, will come from nearby areas based on the technical needs of the building construction.</p> <p>Since the proposed subproject will be constructed within a host community area, and local skilled and unskilled labor is willingly available, the project will prioritize hiring from the local community. This approach will not only support local livelihoods but also promote stronger community ownership of the project.</p> <p>✓ Can the project hire workers from the local workforce?</p> <p>Answer: Yes, the project can hire workers from the local workforce. Both skilled and unskilled laborers will be recruited from nearby communities. The availability of local workers is sufficient to meet the project’s labor demands.</p> <p>✓ What is the size and skill level of the existing local workforce?</p> <p>Answer: For the remaining period of the project, In the based on FGD approximately 20 skilled and unskilled workforces are expected to be required for the construction work. Among them 04 will be skilled and 16 will be unskilled workforces.</p> <p>✓ If the skill level of the local workforce does not match the needs of the project, can they be trained within a reasonable timeframe to meet project requirements?</p> <p>Answer: Unskilled labor is readily available in the project area. If the skill level of the local workforce does not fully meet project requirements, the contractors can provide on-the-job training to upgrade their skills within a reasonable timeframe. This approach will enable the project to utilize local labor effectively while enhancing their technical capacity for building construction activities.</p>

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	<p>✓ How will the workers be accommodated? Will they commute or reside on site or outside of the camp? If so, what size of camp will be required?</p> <p>Answer: It is expected that the majority of workers will be hired from the local community; therefore, there will be no requirement for them to reside within the construction site. Skilled workers, however, will be accommodated by the contractor at the sub-project site. A labor shed of approximately 600 square feet can be constructed to house around 20 skilled and unskilled workers. Additionally, the contractor may construct temporary sheds for the storage of construction materials. The size of these sheds will depend on the volume and type of materials to be stored.</p>
<p>Is the project located in a rural or remote area?</p>	<p>✓ What is the size of local population in the project area?</p> <p>Answer: No local populations living in the project area. Except some LGED officials.</p> <p>✓ What is the size of the host Rohingya community?</p> <p>Answer: N/A</p> <p>✓ Is the project located / being carried out in an area that is not usually frequented by outsiders?</p> <p>Answer: Visitors not allowed unnecessary or specific necessity due to Government office.</p> <p>✓ What is the frequency and extent of contact between the local community and outsiders?</p> <p>Answer: The frequency and extent of contact, communicate between the local community and outsiders are obviously limited and controlled by the respective Government rules and regulations.</p> <p>✓ Are there sensitive environmental conditions that need to be considered?</p> <p>Answer: Yes, there are sensitive environmental conditions that need to be carefully considered during the implementation of the project. In addition to general construction activities, may also generate significant dust, noise, debris, and vibrations, which could impact nearby households, office staff, pedestrians, and other sensitive establishments located within close vicinity to the site.</p> <p>To minimize these impacts, the construction site must be properly fenced to contain dust dispersion and reduce noise pollution, thereby safeguarding local residents, official staff and pedestrians. Dust suppression measures, such as water spraying at least twice daily, must be implemented throughout the construction period. High-noise activities should be considered</p>

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	<p>during less sensitive hours to minimize disturbance to nearby communities. Furthermore, all machinery and equipment should be properly maintained to control noise levels. Careful debris management during the construction period will also be essential to prevent contamination of surrounding people and nearby water bodies.</p>
<p>Based on the socioeconomic, cultural, religious and demographic qualities of the local community, Rohingya population and the incoming workers, is there a possibility that their presence or interaction with the local community could create adverse impacts?</p>	<p>✓ Is it likely that the incoming workers and the local community come from a shared socio-economic, cultural, religious or demographic background?</p> <p>Answer: Most of the workforce is expected to come from the local host community. A small percentage of skilled workers may be hired from outside the project area if required. The local workforce and the incoming workers generally share a common socio-economic, cultural, religious, and demographic background, which is expected to support smooth integration at the work sites.</p> <p>Since this subproject is located in the host community area and will not involve Rohingya workers, the risk of conflict due to cultural or social differences is considered low. However, contractors must still take precautionary measures, such as awareness training on social behavior, code of conduct enforcement, and community engagement, to prevent misunderstandings and ensure a harmonious working environment.</p> <p>✓ What is the level of existing resources, and will the incoming workers use or create competition for these resources?</p> <p>Answer: The existing local resources, such as water supply, food, basic health services, and transportation facilities, are limited compared to the size of the local population. Although workers will be hired from the local community, a small number of incoming skilled workers from outside may create additional pressure on local resources. This could lead to a temporary increase in the demand for basic commodities and may cause price hikes in local markets during the construction period.</p> <p>✓ What is the expected duration of the incoming workers' presence in the community?</p> <p>Answer: Two years but it may be extended.</p> <p>✓ Given the characteristics of the local community, are there any specific adverse impacts that may be anticipated?</p>

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	<p>Answer: Yes, considering the characteristics of the local community, some specific adverse impacts may be anticipated during the construction phase. These include:</p> <ul style="list-style-type: none"> • Temporary price hikes in local markets due to increased demand for goods and services from workers. • Pressure on water supply and sanitation facilities, particularly if labor camps are not properly managed. <p>However, no significant religious or cultural barriers are anticipated, as both the local community and the incoming workforce largely share a similar socio-cultural background.</p>
<p>Consultation with Community People</p>	<p>✓ Has the project authority and contractors conducted any consultation meetings with the community people and Rohingya population?</p> <p>Answer: The project authority has already conducted several consultation meetings with the local community during the environmental and social screening stage. Community opinions, concerns, and suggestions were received with great respect and consideration.</p> <p>After the finalization of the contractor, additional consultation meetings will be organized by the contractor in coordination with the project authority to ensure continued community engagement and address any new concerns during the construction phase.</p> <p>✓ Are local people aware about the labors?</p> <p>Answer: Local community members are well aware of the engagement of local laborers in the project activities. However, they currently have limited knowledge regarding the potential involvement of outside skilled workers.</p> <p>✓ Has the project authority involved the local community with the project?</p> <p>Answer: Yes, local communities are closely involved in this project. A number of informal interactions with the local community have been effectively conducted.</p>

Involuntary restrictions on land use or on access to legally designated parks and protected areas

Effects	Yes	No	Not Known	Remarks
10. Will people lose access to natural resources, communal facilities and		√		People's access to communal facilities and

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services?				services will not be affected by the project.
11. If land use is changed, will it have an adverse impact on social and economic activities?		√		No scope to change site location.
12. Will access to land and resources owned communally or by the state be restricted?		√		No
Information on Displaced Persons:				
Any estimate of the likely number of persons that will be displaced by the Project? [V] No [] Yes If yes, approximately how many? N/A				
Are any of them poor, female-heads of households, or vulnerable to poverty risks? [V] No [] Yes				
Are any displaced persons from indigenous or ethnic minority groups? [V] No [] Yes				
During Screening, project authority will conduct consultation with the primary and secondary stakeholders and provide their observations in the following sections (13 to 18)				
13: Who are the stakeholders of the project? Answer: The key stakeholders from safeguards point of view include: Main stakeholders are LGED officials, Contractors and <ul style="list-style-type: none"> • Implementing agencies and their field staffs - People/communities directly involved by project activities • People/communities/organizations within the project influence area indirectly benefited by project activities • Local elected representatives (Union and Upazila levels) • Local community members • Workers and laborers engaged in project construction activities 				
14: What social and cultural factors affect the ability of stakeholders to participate or benefit from the proposed policy or project? Answer: The ability of stakeholders to participate in or benefit from the proposed project is not expected to be hindered by any social or cultural factors. Moreover, the project area has a socially and culturally supportive environment, which will facilitate inclusive participation. As a result, stakeholders are likely to benefit from the project, with equal opportunities for engagement and involvement.				
15: Are project objectives consistent with their needs, interests and capacity? Answer: Yes, the project objectives are highly consistent with the needs, interests, and capacities of the stakeholders. Community consultations and FGD during field visits clearly indicated strong local support for the project.				
16: What will be the impact of the project or sub-project on the various stakeholders, especially women and vulnerable groups?				

Answer: During the construction phase, short-term employment opportunities may be created, prioritizing the inclusion of local unskilled laborers, including women and youth. Once operational, the training center will serve as a valuable resource for skill development and capacity building, especially targeting women, youth, and other disadvantaged groups. This will enhance their employability and socio-economic resilience. Special provisions, such as separate sanitation facilities and gender-sensitive training modules, will further ensure accessibility and participation of women and vulnerable groups.

17: What social risks might affect project or sub-project success?

Answer: Several social risks could potentially affect the success of the sub-projects if not properly managed. These risks include:

- **Minor conflicts** may arise between local community members and incoming skilled laborers, particularly if there are differences in behaviour or competition over local resources.
- **Temporary price hikes** of essential commodities in local markets (hat-bazar) due to increased demand from workers.
- **Risk of engagement in anti-social activities** by a few incoming workers, which could challenge local social norms and community harmony.
- **Noise and dust pollution** may be generated during construction activities, which may disturb schoolchildren, elderly residents, and other vulnerable groups living close to the project sites.

18: Has the project authority or any other organizations conducted any consultations with the affected community or people? If yes. Please provide a summary.

Answer: Yes, the project authority has conducted consultations with the primary and secondary stakeholders regarding the sub-project. Since the construction site is located within the premises of the LGED district office in Cox's Bazar, the primary stakeholders include LGED officials. Secondary stakeholders include construction contractors, local government representatives, community members, and representatives from other government and non-government organizations who regularly visit the office for official purposes. During focus group discussions (FGDs), stakeholders expressed their views on the proposed sub-project. The consultations revealed that the sub-project is generally well-accepted and is not expected to cause any significant adverse social impacts, except for temporary disturbances such as noise and dust during the construction phase.

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Section D: Environmental and Social Screening Summary

Main Environmental Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
				Indicators	Frequency
Sub-project Interventions					
Construction of LGED Training Center (degradation of air, water and soil quality, and local hydrology and vegetation)	Under the sub-project intervention, the overall score is low	<ul style="list-style-type: none"> • Limiting earthworks; • Watering of dry exposed surfaces and stockpiles of aggregates at least twice daily, as necessary; • Precautions might be taken when rainstorms are likely, when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms. • The earthwork sites where exposed land surface is vulnerable to runoff shall be consolidated and/or covered. • The material stockpile sites shall be far away from surface water bodies and areas prone to surface runoff. Loose materials shall be bagged and covered. • Channels, earth bunds, netting, tarpaulin and or sand bag barriers shall be used on site to manage surface water runoff and minimize erosion. • The overall slope of the work areas and stack yards shall be kept to a minimum to reduce the erosive potential of surface water flows elsewhere. • All precautions to store chemicals/oil/fuel properly so that no chance of spill. • Workers must specify waste dump locations to avoid littering which in turn might negatively affect surface and ground water. • Monitor water quality according to the environmental management plan. 	Contractor, Environmental specialist of D&SC	Visual monitoring result of air quality condition, Results of water test parameters, blockage of water flow with soil, debris or stack materials at site.	Throughout the time during the construction period.

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Main Environmental Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
				Indicators	Frequency
		<ul style="list-style-type: none"> 5 nos. of trees falling on the path of this improvement works during site preparation, which will be compensated through plantation of 25 nos. of trees. 			
Pre-construction Phase					
Site planning (i.e. Labor camp, construction of material storage area etc.)	Under the sub-project intervention, the overall score is low.	<ul style="list-style-type: none"> The construction area is on a plain land. The entire construction area within the selected boundary needs to be well fenced so that children, people and others could be protected from any accidental events/injuries. Construction camp and material storage area should be located at the site & approved by the Environmental Specialist of D&SC. 	Contractor, Environmental specialist of D&SC	Location of stockpiles and labor shed	Prior to the start of Construction works.
Material storage area for construction (Creating dust/ air pollution, Spillage of liquid/ hazardous substances i.e. oil, paint, chemicals, bitumen etc., Risk of crime, Access of students, children, animals, etc.)	Under the sub-project intervention, the overall score is low.	<ul style="list-style-type: none"> The contractor shall submit a method statement and plans for the storage of hazardous materials (fuels, oils, and chemicals) and emergency procedures. Proper procedure for stockpiling/ storage of construction materials at the site will be proposed by the contractor & approved by the Environmental Specialist of D&SC. Proper covering of dust producing materials with polythene sheet, Proper fencing around the storage area in order to be secure, to minimize the risk of crime and to be safe from access by students, children, animals, etc. Spills/ hazardous substances should be disposed of at the site proposed by the contractor & approved by the Environmental Specialist of D&SC to avoid soil/ water contamination. 	Contractor, Environmental specialist of D&SC	List of selected sites; Identified sources and storage place of materials.	During Design Stage

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Main Environmental Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
				Indicators	Frequency
Setting up of labor camp (Generation of sewage waste; solid Waste; Water, soil, air & dust pollution/ environmental pollution; health hazard of workers due to poor quality drinking water)	Under the sub-project intervention, the overall score is low.	<ul style="list-style-type: none"> • Construction camp should be located at a site favorable for the workers and proposed by the contractor & approved by the Environmental Specialist of D&SC. • No trees, shrubs will be removed or vegetation stripped without the prior permission of the Environmental Specialist. • Under no circumstances may open areas or the surrounding bushes be used as a toilet facility. • Construction of sanitary latrine with septic tank for both male and female workers and staffs. • Construction of the first tube well for drinking water and providing water filters for further ensuring access to the safe drinking water. • Provision of waste bins/ cans, where appropriate, • Litter is to be collected daily. • Bins and/ or skips should be emptied regularly and waste/ debris should be disposed of at waste disposal areas and/ or at the site pre-approved by Environmental Specialist of D&SC. • Camp and working areas are to be kept clean and tidy at all times. 	Contractor, Environmental specialist of D&SC	Complaints from community; Regular inspection of waste management activity; Waste disposal record.	Prior to the start of Construction works
Loss of land/and other physical assets	No adverse impact will be generated	<ul style="list-style-type: none"> • No Land, Other physical assets & Households will be affected by this sub-project. If found any grievance from the neighboring household/government/non-Government office need to consult on emergency basis in order to solve the problem by project GRC. 	PIU consultant, PSC and D&SC	Number of Complaints Check Grievance Register. Resolutions against the	Ensure regular supervision and Monitoring based

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Main Environmental Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
				Indicators	Frequency
				grievances	on compliance.
Loss of livelihood	No impact may be generated	<ul style="list-style-type: none"> No significant impact will be generated by the subproject. Local people particularly woman labor should get priority with equal payment at the time of labor recruitment. 	PIU consultant, PSC and D&SC	Labor wages payroll. Interview with labor. Frequent visit by D&SC and PIU personnel	Monthly basis
Accidents	Under the sub-project intervention, the overall score is Medium.	<ul style="list-style-type: none"> Provision of standard safety protocol. Providing training on Environmental health and safety to the labors and associated field staffs is the responsibility of Upazila Engineer & Contractors. Training should be scheduled twice, once before starting the construction & another in the middle of construction period. Safety & protection gears, first aid box etc. should be available in the site during construction period. 	Contractor, Environmental specialist of D&SC	Complaints from community; Regular inspection of materials transport vehicles.	Before and during construction phase
Construction Phase					
Temporary partition between the construction site and LGED office	Low impact may be generated	<ul style="list-style-type: none"> Contractor will make the temporary divider/partition between construction area and other parts of LGED office areas under BOQ budget. 	Construction Contractor	Visiting the subproject Site. Picture of divider/ partition	Monthly basis
Noise Impacts	Under the sub-project intervention, the overall score is low.	<ul style="list-style-type: none"> Avoid high noise making activities during active hours. One very effective method is to discuss with the authority and settle for a time for heavy machinery usage. 	Contractor, Environmental specialist of D&SC	Number of complaints from stakeholders, Use of silencers	Weekly

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Main Environmental Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
				Indicators	Frequency
		<ul style="list-style-type: none"> Involve the community in planning the work program so that any particularly noisy or otherwise invasive activities can be scheduled to avoid sensitive times. Avoid using of construction equipment producing excessive noise at office time & at night. Ear protection devices for the workers & site staffs should be available in site during construction period. 		in noise-producing equipment and sound barriers, Noise Level following decibel meter (dB)	
<p>Air Quality Conducting works at dry season and moving large quantity of materials may create dusts and increase in concentration of vehicle related pollutants which will affect people who live and work near the sites. The impacts are negative but short-term, site-specific within a relatively small area and reversible by mitigation measures.</p>	Under the sub-project intervention, the overall score is low.	<ul style="list-style-type: none"> Damp down exposed soil and any sand stockpiled on site by spraying with water during dry weather. Use tarpaulins to cover soils, sand and other loose material when transported by trucks. Unpaved surfaces used for haulage of materials within settlements shall be maintained dust-free. Arrangements to control dust through provision of water sprinklers and dust extraction systems shall be provided at all stone crushers (if these establishments are being setup exclusively for the subproject). Limiting speed of construction vehicles in work sites to maximum of 20 km/h. Regular monitoring of air quality. 	Contractor, Environmental specialist of D&SC	Location of stockpiles, Covering of trucks, Records of air quality inspection, Numbers of complaints from sensitive receptors, Heavy equipment and pollution control devices, Maintain records	Monthly
<p>Biodiversity (There are no protected areas in or around subproject sites, and no known areas of ecological interest.)</p>	Under the sub-project intervention, the overall score is low.	<ul style="list-style-type: none"> Prohibit employees from cutting of trees for firewood. If during detailed design cutting of trees is required, compensatory plantation for trees lost at a rate of 5 trees for every tree cut. Prevent workers or any other person from removing and damaging any flora (plant/vegetation) and fauna. 	Contractor, Environmental specialist of D&SC	If tree cutting required, to be determined during Design stage, numbers of complaints from sensitive	Monthly

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Main Environmental Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
				Indicators	Frequency
				receptors	
Workers health and safety	Under the sub-project intervention, the overall score is low.	<ul style="list-style-type: none"> Prevent excessive noise; Construction staff are to make use of the facilities provided for them (e.g., fires for cooking); No fires permitted on site except if needed for the construction works; Staff must be trained up for operating equipment, Availability and access to first-aid equipment and medical supplies. Ensure the presence and use of safety gear at site: Ear protection devices, Goggles, Illuminating jackets, Masks, Gloves, Helmets, Uniforms etc., Ensure adequate supply of drinking water. Sanitation facilities for male & female workers separately. 	Contractor, Environmental specialist of D&SC	Numbers of complaints from sensitive receptors; Number of walkways signage, and metal sheets placed at project location;	Monthly
Drinking water and sanitation facility for male and female workers	Low impact may be generated	<ul style="list-style-type: none"> Construction camps should have adequate drinking water facility by ensuring water filter, water sealed latrines, urinals and appropriate bathing facilities. 	Construction Contractor and Monitored by Consultant of PIU and D&SC	Check tube well. Water quality test randomly. Check sanitation facilities. Check bathing places	Weekly basis
Accidents	During the sub-project intervention period, the overall score is Medium.	<ul style="list-style-type: none"> Providing on-site training on health and safety to the labors and associated field staffs for the specific scope of works in the construction site by the Field Supervisor and Field Residential Engineer. Training should be scheduled twice, once before starting the construction & another in the middle of 	Contractor, Environmental specialist of D&SC	Complaints from community; Regular inspection of materials transport	Before and during construction phase

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Main Environmental Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
				Indicators	Frequency
		<p>construction period.</p> <ul style="list-style-type: none"> The construction being for a high storied building, height works will be predominant at the site and ensuring safety during this works is more crucial. To do so, body harness to be used by the workers during such scheduled work and training should focus on the significance and application of the gear. In order to prevent falling from height and accident at height, provide stable access, safety nets and harnesses, install edge protection, and use prefabricated components as far as possible. 		vehicles.	
Post-Construction Phase					
Construction clean-up (Damage due to debris, spoils, excess construction materials)	Under the sub-project intervention, the overall score is low.	<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 affected structures rehabilitated/compensated; The area that previously housed the construction camp is to be checked for spills of substances such as oil, paint, etc. and these shall be cleaned up; All imported materials are to be removed and the area shall be re-vegetated as per specification that forms part of this document; The contractor must arrange the cancellation of all temporary services; 	Contractor	Worksite is restored to original conditions; worksite cleanup is satisfactory; camp has been restored to pre project conditions.	After the completion of Works
Odor& waste disposal	Under the issue the overall score is low.	<ul style="list-style-type: none"> Use bin covers and/or tarpaulins during transport of wastes. 	Contractor; Monitored by	Complaints from communities	Site inspection daily / weekly

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Main Environmental Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
				Indicators	Frequency
			Consultant of D&SC and PIU		basis.
Vegetation	Under the issue the overall score is low.	<ul style="list-style-type: none"> After construction work, all structures need to be removed and the area shall be top soiled and re-grassed using the guidelines set out in the re-vegetation specification that forms part of the bidding document. 	Contractor; Monitored by Consultant of D&SC and PIU	Worksite is restored to original conditions;	Over the completion of Works

* Overall Impact Score: High = Likely to cause long-term E&S impacts; Medium = Likely to cause temporary impacts; Low = Likely to cause little, short-term impacts

**Post-construction phase denotes the time period contractor use to clear and clean up the sites after the construction work is ended, perform tree plantation, grass turfing, and minor rectification till the official handing over the site to LGED, or owner of the site.

Recommendation for further environmental and social assessment and/or site specific environmental and social management plan: Yes

**If yes, please specify what assessments/plans would be required. Mention some recommendation on E&S assessment ESMP*

If site specific environmental and social management plan (ESMP) is followed the impacts can be mitigated and monitored. ESMP is attached.

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Appendix-2: Environmental and Social Management Plan (ESMP) of this Sub project (site specific)

ESMP for Construction of LGED Training Facility (HELP-CEMCRP-1): Training Facility Construction for LGED at Cox's Bazar

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Loss of land / and other physical assets	<ul style="list-style-type: none"> No land acquisition is allowed within this sub-project activity so, there is no mitigation measures according to this impact. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of livelihood	<ul style="list-style-type: none"> Under this subproject, there is no scope of negative impact on livelihoods of the people of catchment area. 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Stakeholders Engagement	<ul style="list-style-type: none"> All the project stakeholders will be consulted Separate community level consultation meeting with the potentially affected HHs if necessary Consultation meeting with the authority about the project objectives and scope of works as well as officials. Officers representing stakeholder interest (LGED officials) will be involved with the GRM All the stakeholders will be informed about the GRM. 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of right to access	<ul style="list-style-type: none"> In case of unavoidable circumstances, alternative access will be provided. Access road shall be well demarcated and accessibly paved. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul style="list-style-type: none"> Selection of sub-project sites and all implementing interventions must take place outside of the elephant corridor/influence area. 	PIU	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage, clearing vegetation.	<ul style="list-style-type: none"> Selected site will be far away from any water bodies or natural flow path to avoid the flash flood or any kind of surface runoff. Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. The existing slope and natural drainage pattern on the site should not be significantly altered. The contractor shall ensure that site preparation activities do not 	PIU & Contractor	Environmental Consultant of PIU, PSC

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Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>lead to disruption of activities of the local residents.</p> <ul style="list-style-type: none"> 5 nos. of trees will need clearing for the preparation of site for the improvement works and to compensate, 25 nos. of trees shall be replanted in the sub-project area by the contractor. 		
Construction Activity	Noise from construction works	<ul style="list-style-type: none"> Construction activities will be finished at day time within 05 PM. Proper measures will be taken to avoid any disturbances. All Personal Protective Equipment (PPE) will be available in site before starting any kind of construction works. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Dust	<ul style="list-style-type: none"> Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM2.5, PM 10) and Hydrocarbons. Provision of using water sprinklers to dust control. Construction materials should be covered properly while carrying in vehicles to the site. Vehicle movement will be controlled on haul roads/access roads for limiting dust generation. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Safety Issues	<ul style="list-style-type: none"> Unauthorized entry to the site area is completely prohibited and the site will be properly fenced with a single entry, for this purpose. It will be ensured that proper training and guidance are provided on general and occupational health and safety to Contractors' personnel and labors forces, and records of training sessions are to be kept on site. All kinds of Child labor will be completely prohibited. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Traffic Management	<ul style="list-style-type: none"> Contractors will discuss with traffic management authorities and take site specific traffic management measures to avoid traffic jam and any unwanted incidents or accidents. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken. 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC

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		<ul style="list-style-type: none"> • If ground water is withdrawn, adequate approvals from the appropriate department need to be undertaken before setting up bore wells. • Any type of consent letter or agreement for withdrawing water from either surface or underground sources will be kept on site. • LGED officials must be consulted before any construction work starts. 		
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> • Maintain safety measures during the movement and operation of heavy machineries and equipment. • Local community will be trained up about traffic management and awareness. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Labor Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> • Awareness building session will be undertaken about prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade. Written records of this awareness building session shall be kept on site. • Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and wood cutting. • Adequate facilities ensuring sanitation for labor camps will be put in place. • Treated water will be made available at site for drinking purpose. • Adequate accommodation arrangements for labor forces. • Labor code of conduct is to be disclosed through consultation. 	Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction Activity	Waste Management: Improper management and handling of hazardous and non-hazardous waste during construction.	<p>Preparation of a waste management plan covering the following aspects:</p> <ul style="list-style-type: none"> • Ring slab septic tank will be installed before starting construction works in order to provide a better sanitation facility to the workers and staffs. • Working areas are kept clean and tidy at all times. • Construction site is to be checked for spills of substances i.e., chemical, oil, paint, etc. • Bins and/ or skips should be emptied regularly and waste/ debris 	Contractor	Environmental Consultant of PIU, PSC

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Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>should be disposed of at waste disposal areas and/ or at the site.</p> <ul style="list-style-type: none"> • Hazardous waste viz. waste oil etc. will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers. 		
Construction Activity	<p>Health & Safety Risks:</p> <ul style="list-style-type: none"> • The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks. • Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis. 	<ul style="list-style-type: none"> • All construction equipment will be properly inspected timely. • The risk assessment will be prepared time to time for all types of work activities on site. • Proper walkways will be prepared for office staff in existing boundary. • Proper Signpost at any slippery areas will be ensured in construction site. • Fire extinguishers will be located at identified fire points around the site. The extinguishers must be appropriate to the nature of the potential fire. • This sub project has Proper communicative emergency response plan (ERP) with all parties, the ERP to consider such things as specific foreseeable emergency situations, organizational roles and authorities' responsibilities and expertise, emergency response and evacuation procedure and personnel will be trained and drilled to test and ensure the coherence with the plan. • All people of construction site will be concerned about the safety and maintenance of Electrical equipment; works will be carried out on live systems. • Provision to first aid box in sub-project areas will be ensured. • Proper Emergency evacuation response plan will exist in sub-project area. • All safety equipment will be available in sub-project site (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), the lowest vibration tools will be provided that are suitable and 	PIU & Contractor	Environmental Consultant as well as Social Development and Gender Specialists of PIU, PSC

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Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>can do the works.</p> <ul style="list-style-type: none"> • Awareness training will be given to all personnel involved during the construction phase in order to highlight/make aware of the heat related illnesses of working in hot conditions such as heat cramps, heat exhaustion, heat stroke, and dehydration. • Adequate quantities of drinking water will be available at all Sites, on different locations within the site. • Provision to maintain proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities. • Provision to ensure all workers exposed to a risk are aware of the possible dangers and also given thorough training on how to protect themselves and there should be effective supervision to ensure that the correct methods are being used. For this instance, the construction will deal with a high storied building, height works will be predominant at the site and ensuring safety during this works is more crucial. In order to prevent falling from height and accident at height, providing stable access, safety nets and harnesses, installing edge protection, and using prefabricated components as far as possible are some of the key measures that have to be adopted by the contractor. 		
Construction Activity	Pollution of water bodies	<ul style="list-style-type: none"> • Contractor will ensure monitoring of nearby surface and underground water bodies for signs of contamination. Parameter include: pH, TDS, TSS, Coliforms, Pb, Cd and Hg. Test results are to be compared with Bangladesh Environmental Quality Standards of DoE. 	Contractor	Environmental Consultant of PIU/D&SC, PSC
Operation & Maintenance	Noise disturbances to fauna	<ul style="list-style-type: none"> • Provision to maintain noise from the operation and maintenance of machinery and equipment by proper monitoring and measures. • Provision to take necessary lighting, caution for the works and 	PIU	UNO, Upazila Chairman of Upazila Parishad

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Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		necessary maintenance should be done in day light.		
Operation & Maintenance	Odours and pollution caused by leaking latrines and faecal sludge impacting surrounding water bodies, flora and fauna	<ul style="list-style-type: none"> Preventative maintenance schedule should be followed. 	PIU	UNO, Upazila Chairman of Upazila Parishad
Operation & Maintenance	Maintenance of assets, properties and equipment	<ul style="list-style-type: none"> Periodic maintenance of building structures, plumbing, water filtering and electric equipment has to be carried out. Periodic cleaning and maintenance of solar panel, watering to the storage batteries and maintenance/replacing of associated equipment is to be ensured. Water tanks should be cleaned properly at least once in a quarter. 	PIU	UNO, Upazila Chairman of Upazila Parishad

Demobilization and Waste Management Plan:

The Contractor shall develop a waste management plan for various specific waste streams prior to commencing of construction and submit to LGED for approval. The plans must include following principles or series of actions, which will be carried out/followed by the contractor and supervised by the Field level Environmental Specialist and Social Development Specialist.

For demobilization:

- After the construction works completed, temporary establishments for that work site as labor camp, latrines and waste disposal facility are to be demobilized. While doing so, separation of joined or coupled items should be considered so that during replacements, no unwanted overhead accidents or any damage comes its way.
- Before toilets are taken care of, enveloping septic tanks must be ensured otherwise odor and chances of vector borne diseases may be induced. Moreover, inorganic chemicals as chlorine powder or bleaching agents should be applied on the surrounding facility to ensure further health safety.
- Kitchen space disassembling must be treated with same level of accuracy and caution.
- It is imperative to ensure all the moving parts should be in manageable portions with the aim that transporting vehicles can house the items safely and overhead workers do not need to take overloads.
- Vehicles should be within a close proximity so that overhead can be minimized as much as possible.

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- Waste generated during demobilization should be tackled with the waste management practices preferred by this document in aspects of waste collection, separation and storing.

For wastes generated from construction and demobilization debris:

- The quantity of waste materials shall be minimized by 3R (Reduce, Recycle and Reuse) approach, and wastes shall be segregated accordingly, wherever practical; and stored in designated places/facilities in the site.
- Construction site shall be maintained in a cleaner, tidy and safe condition and appropriate facilities shall be provided and maintained as temporary storage of all wastes before transportation and final disposal.
- Hazardous waste viz. waste oil etc. will be collected and stored in a paved and bounded area with separate container which cannot be carbonized under high temperature or incidents of fire and subsequently sold to authorized recyclers.
- The scrap material generated from the erection of structures and related construction activities will be collected and stored separately in the stack yard and sold to local recyclers. Parts of construction debris (Brick, concrete and masonry) can be recycled as filling materials for low grounds if found near the site or be sold for using as sub-base material or driveway bedding.
- All wastes generated during construction shall be disposed of in an environmentally acceptable manner. This will include consideration of the nature and location of disposal site, so as to cause less environmental impact.
- Proper waste management chain should be maintained, in case of collected waste and debris from demobilization or construction site, separation in accordance with the type of waste must be maintained. After which all remains shall be kept in a separate location designated for the purpose of segregation and storing until transported to disposal sites allocated by the administration.
- Organic wastes produced in the camp site during the construction period shall be collected and transported in vehicles covered with tarps or nets to prevent spilling waste along the route to the designated disposal site;
- Burning of any type of wastes in the construction site shall be prohibited completely.

Prepared by: Md. Saiful Islam, Environmental Specialist (Individual consultant, PIU), +8801913442006

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Appendix-3: Proposed Cost of Environmental and Social management plan of Training Center Construction for LGED at Cox's Bazar

In consideration to the environmental and social impact's mitigation and healthy safety measures for this sub-project, the following items and cost are proposed to include in BOQ.

Cost of Environmental and Social management Works in BOQ

SI no.	Description of item	Quantity	Unit price	Total amount
1.	Supplying of first aid box for construction site, office, team travel used with emergency medical first aid kit in hand held pp tool box packing, all complete in all respect as per approved specification and direction of the Engineer-in-charge.	2 nos.	@3968.21 Tk. Per box	7936.42
2.	<u>Dust suppression measures</u> Dust suppression measures like water sprinkling on aggregates/ unpaved roads, in and around the work site and as per direction of the E.I.C.	Each	Lump sum @ 40,000 BDT	40,000
3.	<u>Health safety warning sign & Project Signboard</u> Health safety warning sign and as per direction of the E.I.C.	2 nos.	Lump sum @ 16825.93	36344.01
4.	<u>Motivation training</u> Motivation training (twice: before and after construction start) of the Upazila Engineer 'sand Contractor's representatives on safety practice and as per direction of the E.I.C.	20 persons	Approx. @ Tk. 1000.per person (twice: before and after construction start)	20,000
5.	<u>Site Cleaning and preparation</u> Site Cleaning and preparation including providing necessary protective fencing and safety measures with sign board and removal and disposal at a safe distance etc. all complete as per direction of E.I.C.	Each	Lump sum @ 770400	770400.00
6.	<u>Personal Protection Equipment for Workers</u> Providing and maintaining appropriate (safe design, fit and comfort) personal protection equipment (PPE) to ensure the highest possible protection for employees in establishing	50 nos.	@ Tk. 1700.66	85033.00

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Sl no.	Description of item	Quantity	Unit price	Total amount
	<p>and maintaining a safe and healthful working environment at workplace, including demonstrating, providing training on proper understanding and development of skill in the use of PPE, including supplying (i) best quality safety jacket, (ii) suitable hand protection gloves, (iii) appropriate foot protection shoes, (iv) best quality safety helmets, face shields, ear muffs etc. (v) suitable eye protection goggles</p> <p>Providing Safety gear package like hand gloves, eye protection glasses, helmets, rubber shoes, light reflecting dress etc. for 20 sets as per direction of E.I.C.</p>			
7.	<p><u>Tree plantation</u> Tree plantation around the building including maintenance for 2 years as per direction of E.I.C. (Coconut, Mango, Jackfruit etc. to be planted. The payment is to be made only when trees are fully grown) and as per direction of E.I.C.</p> <p>Total 25 nos. of trees need to be replanted around the periphery of the proposed site.</p>	50 nos.	@ Tk. 1000 for each tree.	50,000
8.	<p><u>Temporary Sanitary Latrine</u> Temporary Sanitary Latrine/ Septic Tank/ Portable Toilet: 2 nos. (1 no of Toilet for female and 1 no of Toilet for male) and as per direction of E.I.C.</p>	2 nos.	@12883.78 per toilet	25767.56
9.	<p><u>Waste disposal</u> Temporary camp site waste disposal facility improvement 2 nos. (1 no of organic waste and 1 no of inorganic waste disposal facility) and as per direction of E.I.C.</p>	2 nos.	@12883.78 each	25767.56
10.	<p><u>Drinking Water Facilities</u> Providing continuous adequate drinking water supply at worksite and site office as well by installing necessary tube-well/s where applicable or any other means depending on local situation, also providing essential arrangement for storing drinking water by supplying portable best quality water tank equivalent to Gazi/Padma of adequate capacity depending on the number of users, including supplying 1 (one) no. best quality water filter of minimum capacity 30 liters with necessary kits, etc. all complete as per</p>	1 nos.	LS @ Tk. 60,000	60,000

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Sl no.	Description of item	Quantity	Unit price	Total amount
	satisfaction and direction of the Engineer-in-charge.			
11.	<p>Water Test (Drinking Water samples)</p> <p>Water samples are to be collected periodically (half yearly) from the tube well at labor shed area for laboratory analysis of different parameters such as pH, arsenic, iron, chloride, hardness, total dissolved solids, nitrate, nitrite, coliform, electrical conductivity etc. all complete as per direction of E.I.C. (including the cost of actual fees for testing from reputed laboratory and report) as desired by E.I.C.</p> <p>The water test is advised two (02) times to be conducted during the whole construction period (before starting the construction & after) @Tk. 6,500.00 each set of tests (Lump Sum)</p>	2 nos.	@ Tk. 6,500	13,000
12.	<p>Supplying of Best Quality Safety Helmate of ABS shell, tough, lightweight, durable. Available with four-point or six-point adjustable suspension for shock-absorbing and rain through prevents water from dropping down to the neck, reinforced ribs on top provides the perfect impact protection. Slotted sides to accommodate accessories, such as face shields, ear muffs. Chin Strap not induded. all complete in all respect as per approved specification and direction of the Engineer-in-charge.</p>	50 nos.	@708.61	35430.50
13.	<p>Control of Water Pollution: Providing necessary arrangement to prevent entrance, or accidental spillage, solid matter, contaminants, debris, garbage, cement, concrete, sanitary waste, oil, other petroleum products, pollutants and wastewaters from aggregate processing, concrete batching, or other construction operations into streams, flowing or dry watercourses, lakes, and underground water sources for ensuring water quality, including monitoring pH value, dissolved oxygen (DO), biochemical oxygen demand (BOD), chemical oxygen demand (COD), total dissolved solids (TDS), etc, induding concerned tests to be carried out three times (before, during and end of physical work)</p>	1 no.	@50,000	50,000

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SI no.	Description of item	Quantity	Unit price	Total amount
	from any laboratories approved by PM, all complete as per requirement and full satisfaction of Engineer-in-charge. Payment will be made after 100% completion of the contract successfully.			
14.	Control of Air Pollution (Dust Suppression): Maintaining, carrying out proper and efficient measures wherever and as often as necessary to reduce dust nuisance, and to prevent dust which has originated from contractor's activities/ operations at the worksite and site office, including sprinkling water on aggregates/unpaved roads at least three times a day or more depending on the atmospheric conditions, including keeping necessary covering/protection on stockpiled fine aggregates to reduce dust nuisance during natural air blowing, all complete like emission of dust into the atmosphere shall be strictly controlled during manufacture, handling, storage of concrete, road aggregates, and to be used such methods and equipment as are necessary for collection and disposal, or prevention, of dust during these operations means of eliminating atmospheric discharges of dust as per requirement and carrying out air quality test as PM10, PM25, SPM, NOx, Sox as per instruction of Engineer-in-charge. Payment will be made after 100% completion of the contract successfully.	1 no.	@50000	50,000
15.	Control of Soil Pollution: Providing appropriate controlling measures to prevent entrance, or accidental spillage, solid matter, contaminants, debris, garbage, cement, concrete, sanitary waste, oil, other petroleum products and wastes into soil to avoid soil pollution at worksite and to evade emission of high concentration of sediments into wetlands, swampy areas and other particular sensitive areas, all complete as per requirement and full satisfaction of Engineer-in-charge. Payment will be made after 100% completion of the contract	1 no.	@20,000	20,000

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SI no.	Description of item	Quantity	Unit price	Total amount
	Subtotal Bill: Environmental facilities for Training Facility Building Construction			1,289,679.05

Appendix 4: List of attendees in the consultation meeting

Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP)
 লক্ষী জিলায় জাতিসংঘ সচিবালয় সচিবালয় সচিবালয়
 Local Government Engineering Department (LGED)
 Public Consultation Participants List
Focus Group Discussion

সময়: 10:30 am তারিখ: 07/02/21

ঠান: AF- LGED Training Building

সহ পরিচালক: LGED উত্তরা (Ex-EN Room)

সভাপতি: মোঃ মাসুদ সভার নং: ১১ সংস্করণ: ১ তারিখ: ০৭/০২/২১

সংশ্লিষ্ট কর্মসূচীর পরিচয় (নামিত ও অনামিত)

ক্রম নং	নাম	বয়স	পুংস্ব/মহিলা	স্বাক্ষর	স্বাক্ষর / তারিখ
০১.	শ্রী. মনিরুল ইসলাম, সিএ	৫০	পুংস্ব	-	[স্বাক্ষর]
০২.	সহকারী সচিব	৫২	পুংস্ব	-	Alhadi
০৩.	শ্রী: হাফিজুল্লাহ সিএ	৫৬	পুংস্ব	-	[স্বাক্ষর]
০৪.	শ্রী: হানি আলিম হানি	৬৩	পুংস্ব	-	[স্বাক্ষর]
০৫.	শ্রী: মোঃ মাসুদ	৪৪	পুংস্ব	-	[স্বাক্ষর]
০৬.	শ্রী: মোঃ মাসুদ	৬৪	পুংস্ব	-	[স্বাক্ষর]
০৭.	শ্রী: মোঃ মাসুদ	৫৬	পুংস্ব	-	[স্বাক্ষর]
০৮.	শ্রী: মোঃ মাসুদ	৪৪	পুংস্ব	-	[স্বাক্ষর]
০৯.	শ্রী: মোঃ মাসুদ	৬০	"	-	মাসুদ
১০.	শ্রী: মোঃ মাসুদ	৫০	পুংস্ব	-	[স্বাক্ষর]
১১.	শ্রী: মোঃ মাসুদ	৫৫	পুংস্ব	(সংশ্লিষ্ট কর্মসূচীর পরিচয়)	[স্বাক্ষর] 07.02.21
১২.	শ্রী: মোঃ মাসুদ	২৫	পুংস্ব	-	[স্বাক্ষর] 07.02.21

Public consultation participants' list