



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 Enhancement of Lives through
Infrastructure Improvement Project (HELP)



ENVIRONMENTAL AND SOCIAL SCREENING REPORT

Of the Sub-project:

Building construction for Fire Service and Civil Defence (FSCD) at Cox's Bazar.
Under Package No. FSCD/BD-1

Component Name: Building construction for Fire Service and Civil Defence (FSCD) at Cox's Bazar

Municipality Area: Cox's Bazar Municipality; **Upazila:** Cox's Bazar Sadar

District: Cox's Bazar

Funded by:



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ACRONYMS

BCCP	Bangladesh Center for Communication Programs
BNBC	Bangladesh National Building Code
BOQ	Bill of Quantities
CiC	Camp in Charge
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
FSCD	Fire service Civil Defense
FDMN	Forcibly Displaced Myanmar National
FGD	Focus Group Discussion
FSM	Faecal Sludge Management
GBV	Gender Based violence
GPS	Government Primary School
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
MoDMR	Ministry of Disaster Management and Relief
MPSC	Multi-purpose Community and Service Center
NDRCC	National Disaster Response Coordination Center
OHS	Occupational Health and Safety
PIU	Project Implementation Unit
PMU	Project Management Unit
PPE	Personal Protective Equipment
PSC	Project Steering Committee
SMC	School Management 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

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 fire service under the project

Fire Service and Civil Defence is a service oriented first responding government organization of the People's Republic of Bangladesh under the Ministry of Home Affairs, with a mission to protect and save lives and property for a safe and secured Bangladesh. In every aspect of development, safety and security is an essential segment and therefore, planning ahead is key to sustainability and utilizing resources as such is the way to move forward. Increase in number of DRP and internal posting of local population in the district from the last wave of migration in 2017 has brought increased demand for space and services. Allotting assets towards safety is a high priority given the circumstances of high population in Bangladesh since it increases the degree of vulnerability. One of the notable hazards without a doubt is fire which have claimed hundreds of lives in the past decade. Fire incidents across the country rose by 22.5 percent to 24,074 in the year 2019, compared to 19,642 in 2018, causing a loss of Tk 330.41 crore¹. In Chittagong division alone, 147 number of incidents were reported as per NDRCC². There is no doubt that this hazard is responsible for damages in no trivial amount. Upon all these affairs, high number of human settlers in Cox's Bazar are creating a case where this incident casualty is increasing every year; several ravages of fire

¹ The Daily Star; Front Page (February 10, 2020)

² Nirapad: Monthly Hazard Incident Report (April, 2021)

incidents have been recorded in last two years in different DRP camps with huge losses of assets and properties. Adding more people, especially DRPs, to the existing population of resource-constrained Cox’s Bazar district increases hazard risk (e.g., fire, land sliding, etc.) in the areas; while the existing resources and capacity of FSCD is very limited in terms of operating rescue and recovery operations.

On the other hand, Cox’s Bazar is an important tourist city in Bangladesh. There are around 500 hotels and motels in the area. Every day, hundreds of thousands of tourists from home and abroad visit this destination. As it hosts the longest sea beach in the world, accidents occur frequently. Currently, the Fire Service and Civil Defence building is in a highly risky and dilapidated condition, and it has already been declared abandoned. To ensure the quick protection of tourists and the general public from accidents, the construction of a modern Fire Service and Civil Defence building is essential.

Thus realizing the challenges that FSCD faces in Cox’s Bazar and need for capacity enhancement, the Government of Bangladesh has taken different capacity enhancement activities of FSCD, through this HELP project, and building construction for FSCD in Cox’s Bazar is among the target initiatives. The decades-old existing building will be demolished and the new building will replace the same, which will enhance the capacity of FSCD to cater the services as well as reduce the potential hazards stemming from dilapidated building structure. Moreover, the site is government owned having a very good accessibility from every corner of the district and the nearby upazilas of Ukhiya and Teknaf.

In fact, with a target to improve the accessibility to emergency services, such facilities are to be developed in the district where in plight, actions can be taken and efforts can be organized to reduce loss from such fire incidents.

1.3 Background of the Sub-project

HELP 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.

A Fire Service and Civil Defence Building will be constructed under the municipality area of Cox’s Bazar Sadar Upazila in Cox’s Bazar district, under the package no. FSCD/BD-1. The catchment area of the subproject comprises the surrounding area of the municipality. Relevant significant features of the sub-project area and the proposed fire service building features & facilities have been tabulated in Table 1.3.1 and 1.3.2.

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

Name of the sub project	Fire Service Center
District	Cox’s Bazar
Upazila	Cox’s Bazar Sadar
Union	Municipality

Owner of land	Government
Land Available (sq. ft.)	19,602
Structural Design Option	Rectangular Shape G+5 Story with Mezzanine Floor of new FSCD Building (Dimension: Length 30.30m X Wide 24.70m)
Catchment area	Cox's Bazar Municipality
Tribal people	No tribal people found in the catchment area of the Sub-project
Connecting road	Bazarghata Main Road
Land acquisition	Not required
Current land condition	An old fire service station/building is found on the target location with capacity of service

[Field survey, 2021]

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

Fire Service & Civil Defence Building in Cox's Bazar Municipality		
Floor Type	Major Architectural Features	Quantity
General Assemblage for all Floor	Total Floor Area (m ²)	748.41 square meter
	Drinking Water Facility	Yes
	Stair	Yes
	Lift	Yes
Ground Floor	Generator Room	1
	Parking Area	1
	Sr. Station Officer Room	1
	Station Officer Room	1
	Service Room	2
	Toilet	1
Mezzanine Floor	Office Room	2
	Service Room	2
	Toilet	1
1 st Floor	Emergency Operation Center	1
	Office Room	2
	Service Room	2
	Toilet	1
2 nd Floor	Barrack	2
	Assembly Space (Open to Sky)	1
	Veranda	2
	Recreation Zone	1
	Prayer Space	1
	Dining Room	1
	Service Room	2
	Toilet	1
3 rd Floor	Office Room	10
	Lounge	2

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	Meeting Room	1
	Void Space	1
	DAD Office	1
	M. Toilet	1
	Service Room	2
	Toilet	1
4 th Floor	Rentable Office Floor	2
	Void Space	1
	Green Terrace (Open to Sky)	1
	Store Room	1
	M. Toilet	1
	Service Room	2
	Toilet	1
5 th Floor	Veranda	4
	Bed Room	12
	Toilet	12
	Green Terrace (Open to Sky)	1
	Dining Room	1
	Service Room	2
	Kitchen	1
Roof Top	Green Terrace (Open to Sky)	1
	Water Tank	2
	Fire Hydrant	1
	Service Room	2
	Store Room	1

The purpose of this Environmental and Social Screening Report is to assess the existing environmental and social conditions of the proposed training centre construction site under the HELP project, supported by the World Bank. The report aims to identify potential environmental and social impacts both beneficial and adverse and to suggest suitable mitigation, enhancement, and management measures. This screening process ensures that the planned interventions comply with national environmental regulations and the World Bank's Environmental and Social Framework (ESF), while supporting environmentally responsible and socially inclusive development in the project area.

1.4 Location of Sub-Project

The Sub-project is located in the municipality area of Cox's Bazar District. The site location is relatively a plain land and accessible through vehicles through 12ft wide broken BC road is present near the site which connects 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 Fire service center shown in Figure 1.4.1 and 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	21.443206°N and 91.977734°E
Distance from Upazila HQ	3.82 km
Nearby major road	West Bazar Ghata Main Road
Nearby river/canal	No mentionable feature

[Sources of data: Field survey, 2021]

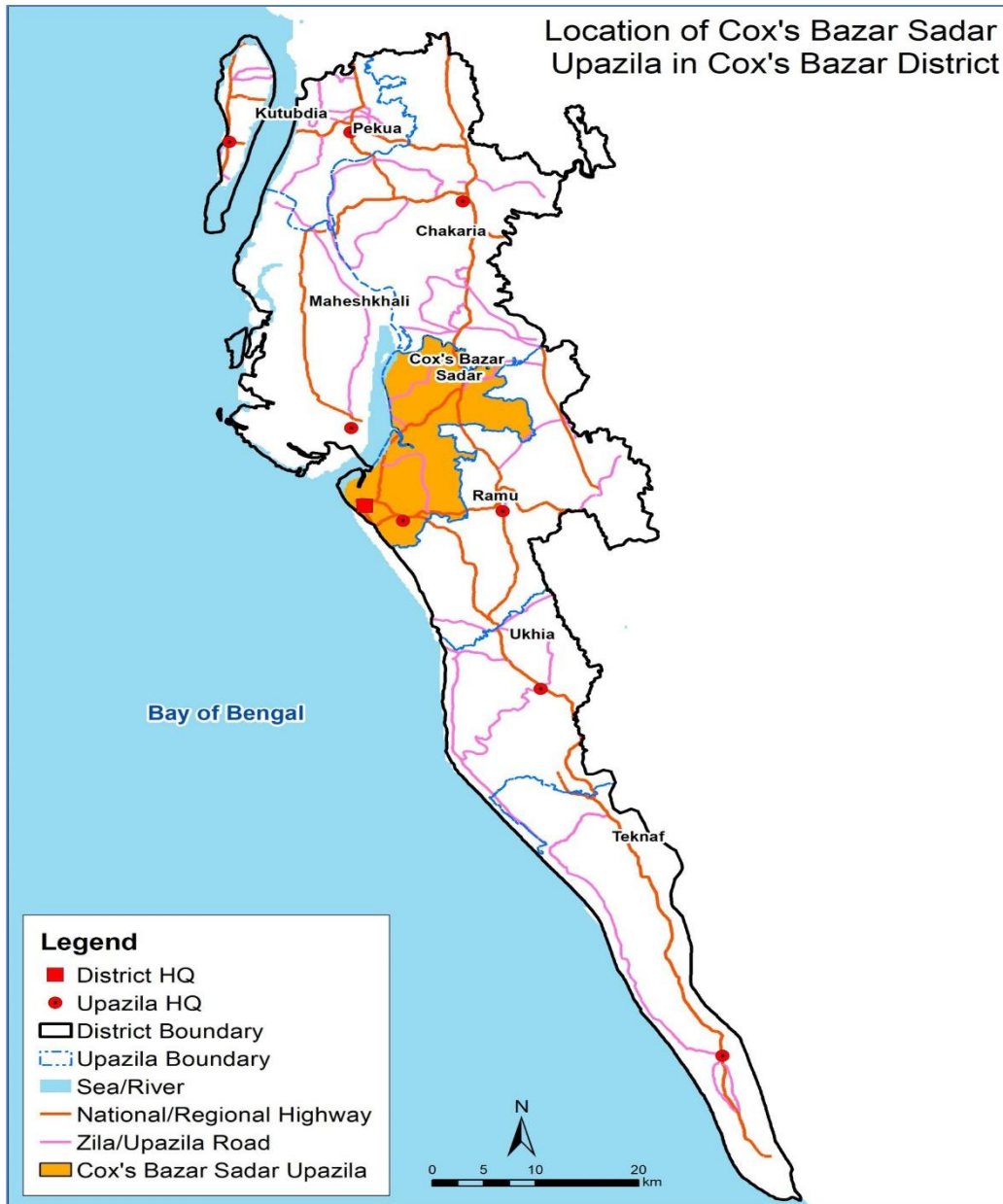


Figure 1.4.1: District Map with project location

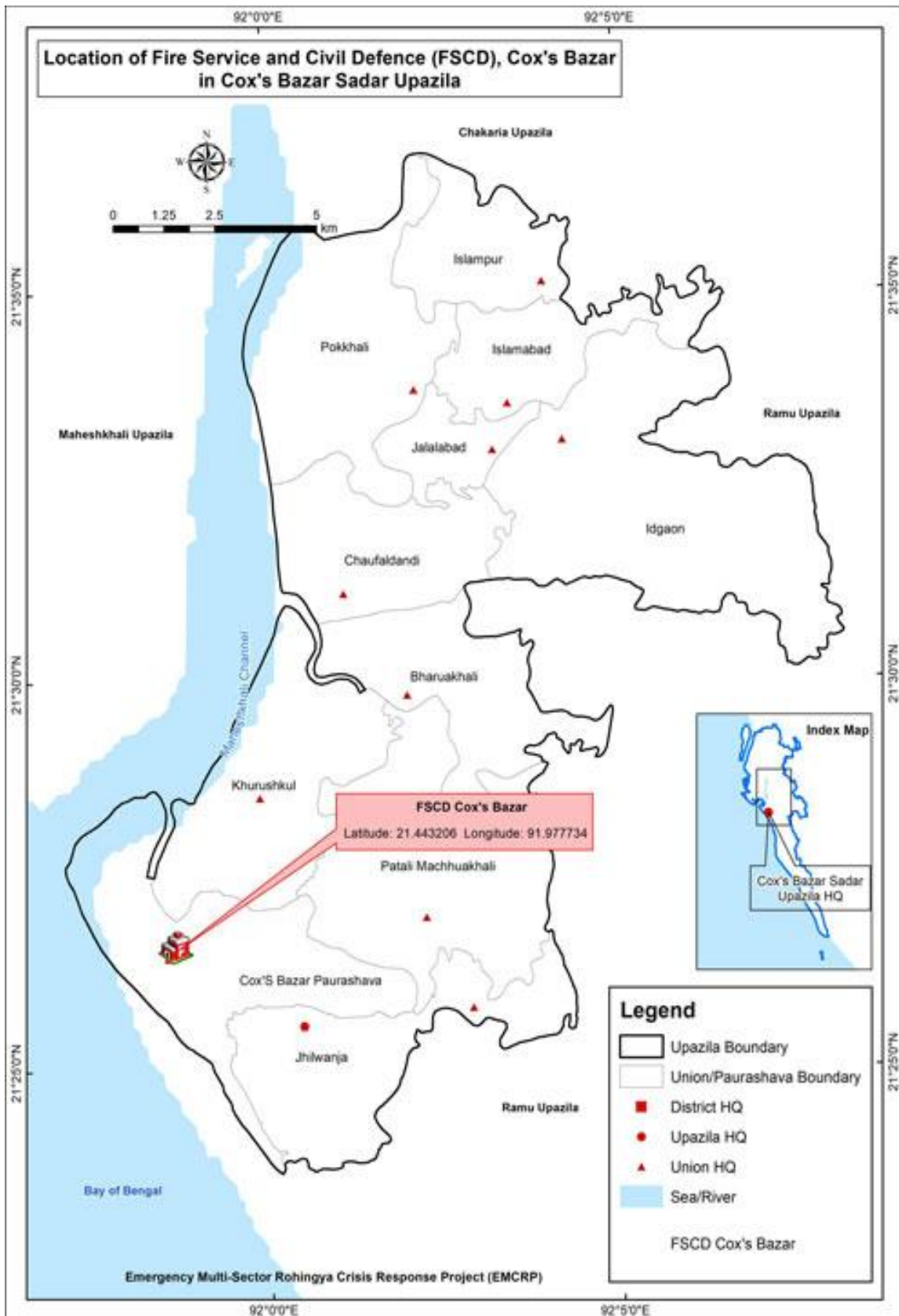


Figure 1.4.2: Location map of Fire Service & Civil Defence Office

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 have been 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	Municipality hawker market (10m), Ummedia Jame Mosque (400m)
South side	Zila Sadar Hospital (42 m), Khalka Jame Mosque (400m), Cox’s Bazar Boys High School (500m), Municipality Preparatory High School (500m), Bir sreshtho Ruhul Amin Stadium (480m)
East side	Fire Service Jame Mosque (10m), Boro Bazar Jame Mosque (50m), Bazarghata Pond (450m)
West side	Laldighir Jame Mosque (450m), kalibari Mondir (500m), Laldighi Pond (480m), Pan Bazar Road Medicine Market (30m), Community Clinic and Eye Hospital (50m)

[Sources of data: D&SC Field survey, 2021]



Figure 1.5.1: Present condition of the Sub-project site



Figure 1.5.2: Proposed location of Fire service Civil Defence building construction

2. PUBLIC CONSULTATION AND PARTICIPATION

2.1 Methodology

Public participation and community consultation has 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 18 persons, and they were all Fire service officers and from local communities. 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 proposed intervention, also for the safeguard screening, since all of the items are selected in side camp locations. The planning and adjustment which may be needed during, prior and post construction phases are to be moderated/ coordinated by the Fire Service and Civil Defence office only. This location, in particular, has no major complications and is in sheer relevance to the authority currently.

Refer to Figure 2.1.1 and Appendix-4 for selected photographs of the participatory public consultation held at site of the Fire Service and Civil Defence office in Cox's Bazar Municipality and the list of attendees in that public consultation meeting, respectively. In addition, several walk-through informal group consultations were also held. A questionnaire was kept ready and responses were elicited. During these consultations, the communities were explained about the project, facilities for the specific sub-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 perform their duties better and more effectively in case of an emergency and have access to updated gears.
- One of their concerns was the access road; the current road is not wide enough to respond to fire hazards in time.
- Lack of adequate spaces for providing training to their officers/staff.
- Possible dust and noise pollution during the construction works.
- Safety of children at the sites during the construction works.

2.3 Suggestions and recommendations of the participants

The participants presented the following suggestions and recommendations:

- The people attended in the meeting have considered that the selected site is suitable for the development of Fire Service & Civil Defence office from both the technical and social point of view.
- The station should have a bigger capacity to sufficiently cater the services to the municipal areas.
- The participants have expressed their greater interest for this Fire Service & Civil Defence office for their community and using this facility with highest compatibility.
- Separate male and female latrines should be present for all the best concerns.
- Public safety should be ensured by properly fencing the work sites, and workers' safety by providing necessary safety gears/first aid boxes, as required and maintaining safe working hours so that it does not come in the way of local traffic or courses.
- They also requested to keep provision for facilities in respect to sanitation, hygiene and power supply facilities, etc.
- They have also ascertained that the selected site is free from any events related to resettlement and environmental impacts.
- The adverse environmental impacts that may come in the way of air quality, noise, solid waste, occupational health & safety during the construction period, and 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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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 Fire service and civil defence building 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. The existing fire service building is structurally unsafe and has been declared abandoned; demolition will be required prior to new construction.	Construction activities may lead to localized dust, air pollution, and runoff contamination; Demolition may pose safety risks, release debris, and involve possible hazardous materials such as asbestos, requiring controlled removal and waste management. These impacts are short-term, site specific and can be effectively managed through water sprinkling, dust control, noise barriers and proper site drainage.
	The proposed site is located in a densely populated urban area within Cox's Bazar Sadar. Several sensitive features are located nearby, including Zila Sadar Hospital (42m south), multiple educational institutions (within 500m), religious establishments (mosques and temples in all directions within 10–500m), and commercial areas like the municipality hawker market (10m north) and Pan Bazar medicine market (30m west). The site has been previously occupied by an old, abandoned fire service building.	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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ESS2: Labor and Working Conditions	Local workers may be hired; labor influx is not anticipated. No child or forced labor permitted. The subproject is not expected to require a large area for labor shed or stockyard. The existing FSCD office premises have sufficient open space to accommodate a temporary labor shed (if required) and for storing construction materials. The FSCD officer-in-charge has provided verbal consent during consultation to use this space. 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. Use of the existing FSCD premises will minimize land acquisition risks and disturbance to surrounding areas. However, if a labor shed is established, there remains a need to ensure proper sanitation, waste management, and worker health and safety conditions
	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 and demolition 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.
	Grievance Redress Mechanism (GRM) for workers must be established under the Labor Management Procedures (LMP).	Lack of a functional worker GRM may result in unresolved labor disputes, reduced morale, and productivity.
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 fire service and civil defence building 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 storm water drainage is not ensured.
	Noise from piling and construction machinery.	Limited to working hours and local area, can be reduced by timing and barriers

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	<p>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.</p>	<p>Waste can be stored and disposed at designated landfill with contractor oversight</p>
	<p>The site is in a busy semi-urban and service zone; efficient use of space and materials is necessary to reduce congestion and risks.</p>	<p>Inefficient use of space or storage of materials could obstruct movement and emergency services and increase safety hazards.</p>
<p style="text-align: center;">ESS4: Community Health and Safety</p>	<p>The proposed site is located in a densely populated urban area within Cox's Bazar Sadar. Several sensitive features are located nearby, including Zila Sadar Hospital (42m south), multiple educational institutions (within 500m), religious establishments (mosques and temples in all directions within 10–500m), and commercial areas like the municipality hawker market (10m north) and Pan Bazar medicine market (30m west).</p>	<p>Proper use of signage and barricades may ensure the construction site's safety.</p>
	<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 style="text-align: center;">ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement</p>	<p>The construction of the Fire service and civil defence building is taking place within the boundary of the Fire Service & Civil Defence 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>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>The contractor will utilize empty government land—specifically, the open premises of the FSCD boundary—as the construction yard during the FSCD building 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>	

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ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	<p>No critical natural habitats within 500m. The proposed site for the FSCD building is not located within or near any ecologically sensitive or protected area, The proposed construction site is located within a fully semi-urbanized setting surrounded by built infrastructure including roads, markets, hospitals, mosques, and schools. There are no significant natural habitats, critical biodiversity features, or aquatic ecosystems in the immediate vicinity of the site.</p> <p>No removal of large trees or clearing of vegetation is anticipated, as the site is on previously developed land within FSCD premises.</p>	<p>There is minimal risk of direct impact on biodiversity; however, indirect impacts such as improper disposal of construction waste and drainage congestion could affect nearby urban ponds (e.g., Laldighi and Bazarghata) that may support limited aquatic life. 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>
ESS7: Indigenous Peoples/Sub- Saharan African Historically Underserved Traditional Local Communities	No Indigenous or Small Ethnic Communities found in project influence area.	Not applicable.
ESS8: Cultural Heritage	No known cultural or archaeological sites identified within project site.	Not applicable.
ESS9: Financial Intermediaries	Not applicable as project does not involve financial intermediaries.	Not applicable.
ESS10: Stakeholder Engagement and Information Disclosure	A Focus Group Discussion (FGD) was conducted on 07 February 2021 with relevant stakeholders, including FSCD officials, nearby businesspersons, and local community members. Both formal and informal consultations were carried out. Local LGED officials of Cox's Bazar supported the screening survey team during the process. 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 practices.

3.3 Climate Change Impact Screening

3.3.1 General Overview of the district

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 Bank³ 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.

In addition to the above-mentioned hazardous situation, again due to the sudden extraction of a large volume of groundwater, the availability of potable water from shallow tube wells that pump water up to about 150 feet has already reached 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 planation 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.

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, and the impact could only be assumed in an overarching manner.

The impact of cyclone and precipitation has higher impact in this district, Intensity of precipitation has increased according to the participants and number of cyclones has been seen to have increased in the past few years. Salinity has not been found in the vicinity of the subproject. Cyclonic storm surge has medium impact in different parts of the district. Temperature has increased and thus may have medium impact on the area and thunder storm has been seen to have increased and is found to have highest impact in the area. Water stagnation has not been found.

³ <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 fire service facility. This building will have the ground floor with a height of 1.5 feet from the ground level which will accommodate only fire service vehicles and instruments, and there will be a mezzanine floor having the height of 12.5 feet from the GL, which is safe enough from any potential storm surge in the area. The highest wind speed among the cyclones hit Cox's Bazar was 210 km/hr (e.g., recent events in 1994 and 1995), whereas the proposed building has set the highest wind speed in design to withstand is 288km/hr and the entire construction works will follow the due qualitative specifications set in the Bangladesh National Building Code (BNBC) 2020.

Lift for physically challenged people and maintaining easiness to access to the building for all, separate toilets for male and female, provision of green terraces are also suggested to be incorporated in the design and to be implemented as part of the construction works of this FSCD Building. As well as tree plantation is suggested to subside the effect of precipitation anomaly along the school premises.

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 Fire Service & Civil Defence office building will be constructed on a plain land, and as the old office will be demolished, a temporary FSCD office will be constructed beside the site for continuing with the day-to-day office works and services which will be dismantled and removed once the proposed construction works are over. There is some matured vegetation found within the periphery of the site. Due to the construction activities of this Sub-project, 10 nos. of trees (medium sized) will need cutting and as a mitigation measure, 50 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 for eventual management. Further construction related activities which may result in adverse impacts in the surrounding environment of the sub project, especially the noise and vibration impacts, 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. As the site is located in a busy part of the city, traffic management issue may appear to be critical and needs special care (with employing personnel for guiding traffic at the entrance) throughout the construction period. 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. 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 people living in the municipality.

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.

4.2 Cost of Environmental & Social Enhancement Works in BOQ

In consideration to the above-mentioned environmental impacts and their mitigation measures along with monitoring options for this sub-project component, a set of items are included in the BOQ of this sub-project. Provision for engaging a Safeguard Personnel responsible for ensuring Environmental and Social Management works for the Work Package FSCD/BD-1 has also been added in the BOQ. An allocation for some environmental and social enhancement and mitigation works such as tree plantation and dust Suppression is included in the ESMP budget. Moreover, in order to ensure health safety and sanitary measures of workers by providing labor shed, PPEs, First Aid Box, drinking water facility, temporary but separate latrine for male and female workers as well as waste disposal systems necessary budgetary allocation is provisioned. As the workforce at site need to be sensitized on environmental and social performance issues, motivational training on environmental and social considerations 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 FSCD premises/boundary 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-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 meter)	Tentative Per day labor (No)	Days	Total active working days
01	FSCD/BD-1	Fire Service and Civil Defense (FSCD) Building	1821	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 FSCD building construction 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 FSCD building at Cox's Bazar Sadar 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 life, safety & protection against fire and other man-made hazards, and ensuring social safety and security will be achieved once the scheme is in operation.

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

- The communities and the area will receive more advanced services in relation to fighting fire-related hazards, emergency rescue and rehabilitation during any disaster period and so on.
- The FSCD officials and workers will have sufficient spaces for office and barrack, and for other services. Residential, storage and service capacity of the FSCD unit at Cox's Bazar Sadar Upazila will be increased significantly with the construction of the proposed building, which will consequently strengthen the professional capacity of the department to fight disaster and emergency situation more effectively.

- The short-term negative impacts that may come by the way of air quality, noise, solid waste, occupational health & safety that 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, and green terraces in upper floors of the building 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.

Implementation of this Sub-project will have large positive impacts to the communities in terms of ensuring safety and security from natural/man-made disasters and emergency situations, which would eventually retain the socio-economic condition of the people living in the catchment areas. Direct economic benefits from the engagement in different capacities during the construction period will also put some positive effects to the nearby community people. 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

Sub-Project Description Form:

Name of Sub-Project: Fire Service and Civil Defence (FSCD) Building (FSCD/BD-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, Cox's Bazar Municipality, Cox's Bazar.

Description of proposed sub-project activities (incl. type of activities, footprint area, natural resources required, etc.): Rectangular Shape G+5 Story with Mezzanine Floor of new FSCD Building (Dimension: Length 30.30m X Wide 24.70m) will be constructed within the target location.

Estimated footprint / land area for this sub-project is 19,602 sq. feet

Brief description of sub-project site: (e.g. present land use, Important Environmental Features (IEFs) near site, etc.): Proposed Fire Service Center Steel Frame Building will be constructed within an identified location in the Sadar (town) area. To the north Municipality hawker market (10m), Ummedia Jame Mosque (400m); to the south Zila Sadar Hospital (45 yard), Khalka Jame Mosque (400m), Cox's Bazar Boys High School (500m), Municipality Preparatory High School (500m), Bir sreshtho Ruhul Amin Stadium (480m); to the east side Fire Service Jame Mosque (10m), Boro Bazar Jame Mosque (50m), Bazarghata Pond (450m); to the west Laldighir Jame Mosque (450m), kalibari Mondir(500m), Laldighi Pond (480m), Pan Bazar Road Medicine Market (30m), Community Clinic and Eye Hospital (50m) are located. Being within the municipality means that the surrounding area is mostly inhabited by host community and local establishments of Cox's Bazar.

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

During 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, concrete, iron, plastic etc. Negligible amount of plastic and human wastes might be generated if labor camp is established. During the operation phase, kitchen waste will be produced from the residential part of the establishment, and human waste will find its way to septic tanks.

Completed environmental and social screening forms are given below.

Section A: Sub-Project Overview

Description of sub-project/component interventions:

Fire Service & Civil Defence (FSCD) building will be constructed within the boundary of an existing Fire Service & Civil Defence office area at Cox's Bazar Sadar, which will typically be used as a multipurpose (office-storage-service cum residential) structure having all the required facilities and service areas ingrained. Usually, this option follows the construction of a G+5- story building with mezzanine floor being open for parking entrance. Safe water supply will be ensured, and all selected rooms will be provided with furniture and other essential tools/equipment. Floors will have mosaic finish and bathrooms have tiles for easy maintenance and cleaning. A walkway will be constructed

from the camp entrance to the proposed building for the ease and safe movement during the rainy season. However, the existing structure in the same place will be demolished as part of the construction responsibility and a temporary shed for office and vehicles along with equipment/storage will be provided for the construction period.

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 21.443206° N and 91.977734° E. The distance from the Upazila headquarter is about 3.82 km. Nearby major road is Bazarghata main road.

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 have a pre-existing fire service station, but influence area should consider nearly half a kilometer radius around the proposed site.

To the north Municipality hawker market (10m), Ummedia Jame Mosque (400m); to the south Zila Sadar Hospital (45 yard), Khalka Jame Mosque (400m), Cox's Bazar Boys High School (500m), Municipality Preparatory High School (500m), Bir sreshto Ruhul Amin Stadium (480m); to the east side Fire Service Jame Mosque (10m), Boro Bazar Jame Mosque (50m), Bazarghata Pond (450m); to the west Laldighir Jame Mosque (450m), kalibari Mondir (500m), Laldighi Pond (480m), Pan Bazar Road Medicine Market (30m), Community Clinic and Eye Hospital (50m) are located. However, there is very less likely chance of disturbance during this construction activity due to the adoption of best practice construction management in the field and stringent monitoring of the activities.

Few trees will be affected by this construction activity. 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 local IUCN representative).

Section B: Environmental Screening

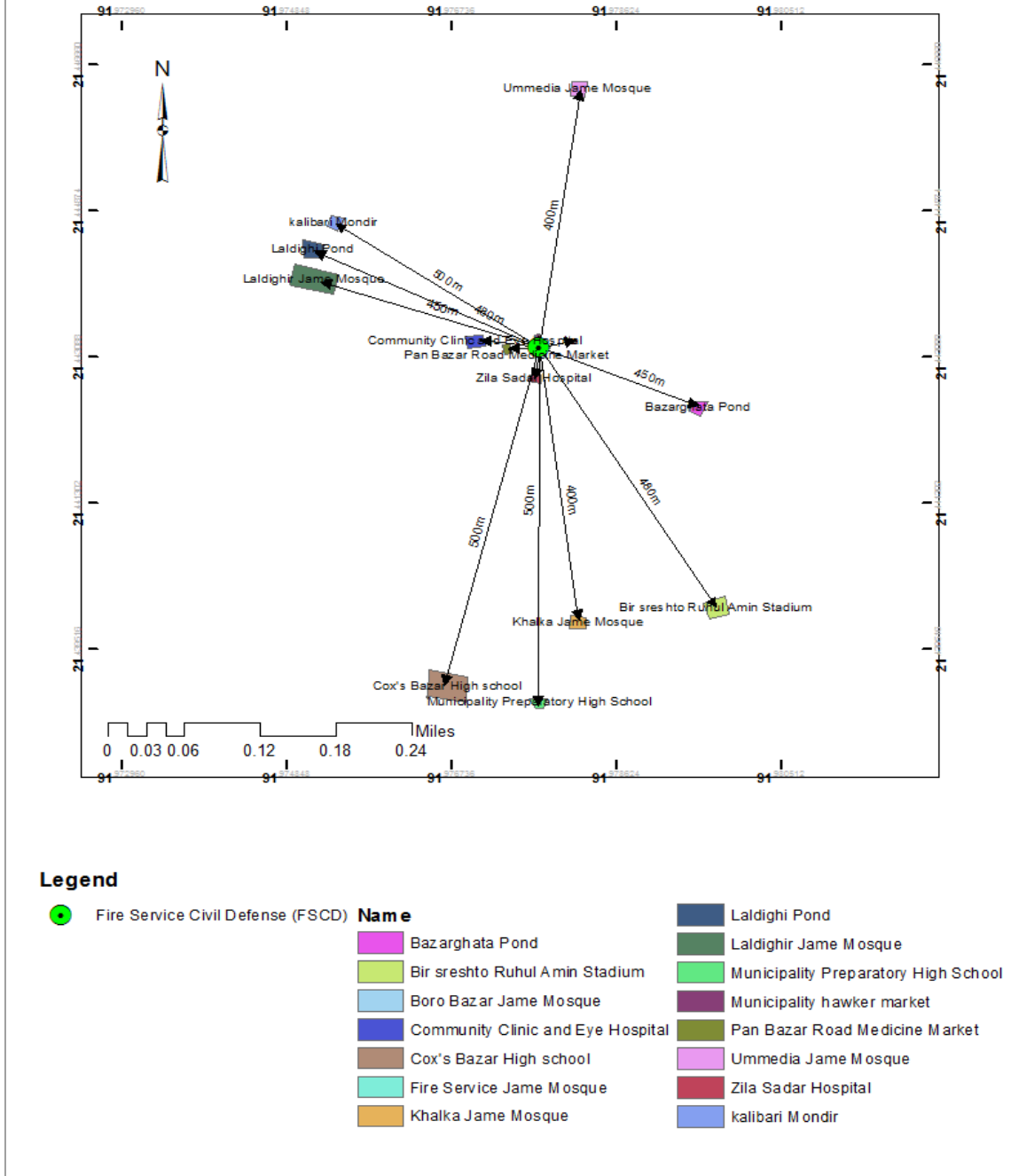
B.1: Environmental feature of sub-project location

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

Among the sensitive cultural, environmental, or religious sites in the areas, Ummedia Jame Mosque (400m) in the north; to the south side Khalka Jame Mosque (400m), to the east side Fire Service Jame Mosque (10m), Boro Bazar Jame Mosque (50m), Bazarghata Pond (450m), to the west side Laldighir Jame Mosque (450m), kalibari Mondir (500m), and Laldighi Pond (480m), are located.

There are no further sensitive environmental, cultural, or religious sites exists within the catchment area of this sub-project.

Building construction for Fire Service Civil Defense (FSCD) at Cox's Bazar



Location of environmentally important and sensitive areas:

There are no environmentally important or sensitive areas found in the areas, except some matured vegetation around the site and ponds around this location. Several mosques, markets and human settlement were found during the survey. Other than some trees found to be cut, all these will not 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

<p>N/A (This activity will be ensured in host community and within existing FSCD office boundary)</p> <p>(2) Other issues: No more mentionable issues raised.</p>
<p>Baseline air quality and noise levels:</p> <p>Dust: Ambient air quality data was not readily available, but quality is apparently dusty due to the appearance of municipal settings around. Dust is generated through movement of vehicles such as motor cycle, tempo, trolley, tractor around the area.</p> <p>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/ preventable by mitigation measures.</p> <p>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, motorcycle, bus, track, rickshaw, trailer, etc. move around the sub-project location throughout the day generate noise but within tolerable limit in most cases.</p>
<p>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.</p> <p>Landslide potential (high/medium/low, with explanation): N/A (the sub-project will be constructed on a plain land and within an identified FSCD office boundary)</p>
<p>Baseline surface water and groundwater quality (FE, TDS, fecal coliform, pH): Groundwater is the main source of potable water around the Sub-project area. The deep tube well depth is 800 feet. In the sub-project area, deep groundwater is fresh and potable and arsenic free. Deep groundwater table (drinkable) varies from 600-800ft (Field survey, 2021). Local people usually use deep tube-well water for drinking and other domestic purposes. There should be deep tube well which pump water from the confined aquifer.</p> <p>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 (IWM Study Report, 2019)</p>
<p>Status of wildlife movement: N/A (None of the information was found about the wildlife movement in or across the area)</p>
<p>State of forestation: Patches of vegetation containing large and matured trees are located in the proposed subproject area since there is already an established fire service station present with its amenities.</p>
<p>Summary of water balance analysis (For water supply scheme only): N/A</p>

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 Bazarghata main road is passing on the north 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 are already at hand with capacity of service and can ensure facility to the workforce. If separate facilities i.e., washroom is needed, contractor in the vicinity of the construction will provide. Moreover, electric connection is established here and FSCD authority can aid in connectivity realizing the priority points with the contractor team under the supervision of the Engineer in charge.

Possible location of labor camps:

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 fire service authority, with the supervision of the Engineer in charge.

Requirement and type of raw materials (e.g. sand, stone, wood, etc.):

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.

Identification of access road for transportation (Yes/No):

A BC road named Bazarghata main road is passing on the north side of the sub-project. It is possible to carry the construction materials on this road to the construction site.

Location identification for raw material storage:

Best option for raw material storage is any sufficiently available space within the existing fire service office boundary would be a good option. Material storage area must be well fenced and materials will be covered with tarpaulins.

Possible composition and quantities of wastes (Solids wastes, demolition materials, sludge from old latrines, etc.):

Earth/ mud, plastics, brick chips, dust from bricks during construction of project components will be produced. Also, sludge will not be a matter of concern since labor camp or supporting latrines are not considered or kitchen waste composing organic matters (fiber, starch, carbohydrates and proteins) is not a possibility. However, plastics or non-biodegradables can be said to be a major amount of the total waste. Solid waste may amount to 10 kg daily and sludge may amount to 2 kg per day.

Demolition wastes from the existing building will be heterogeneous mixtures of building materials such as aggregate, concrete, wood, paper, metal, insulation, and glass that are usually contaminated with paints, fasteners, adhesives, wall coverings, insulation, and dirt, and these wastes will be removed from the site before the construction work begins.

B.3: Construction Phase

<p>Type and quantity of waste generated (e.g. Solids wastes, liquid wastes, etc.): Residual waste from the labor camps will not 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 more likely to generate liquid waste. Waste from civil works will also add to the quantity of solid wastes, and the overall quantity will be nearly 100 kg.</p>
<p>Type and quantity of raw materials used (wood, bricks, cement, water, etc.): Type: i) Brick, ii) Sand, iii) cement, iv) aggregates, v) water, vi) iron rods are the most common type of raw materials to be used in the construction period. 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: Around 19,602 sq. feet land is required for the sub-project establishment.</p> <p>There is reasonable vegetation around the sub-project area. The vegetation will be affected by construction work. The area inside the existing fire station boundary is clearly enough to 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) 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 for carrying out 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) No pre-existing drainage channel is found. Though ponds are found outside of the construction area, but will not be affected because of having a fair distance from the construction site and the adoption of proper construction site management practices.</p>
<p>Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description) 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: 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>

N/A

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

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.

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)

B.4: Operation Phase

Activities leading to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles:

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 intensity. So, causing any health hazards and interference of plant growth is not very likely to happen by such activities for quite a short duration.

Chance of long-term or semi-permanent destruction of soils: (High/Medium/Low with description)

There is no chance of activities during the operation period, which can lead to any long-term or semi-permanent destruction of soils.

Possibility of odor and water, soil quality impacts from SWM and FSM disposal system: (High/Medium/Low with description)

Low. The proposed fire service center will be equipped with full facilities for conducting emergency services to targeted people, including separate toilets (sanitary) for male and female persons, 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 collected and transferred by the agency responsible for waste management services in the municipality. Therefore, no odor, water and soil quality impacts are generated.

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 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 Fire Service & Civil Defence office will improve the social safety condition of the local community of the catchment area by providing better rescue services, short-term employment opportunities, etc. which would eventually ensure development in both personal and societal level and improve the living condition. Further, this facility will have improved capacity to serve the community and will play a strong pivotal role in preserving fire/disaster security and ultimately help them gain better social life which certainly will have a huge positive impact.

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.

<p>Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)</p> <p>There is no protected area in or around the project sites, and no known areas of ecological interest.</p>
<p>Activities leading to landslides, slumps, slips and other mass movements in road cuts:</p> <p>The entire sub-project component area is nearly flat; thus, no such type of impacts is anticipated.</p>
<p>Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with explanation)</p> <p>N/A</p>
<p>Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:</p> <p>The proposed site is located inside the established Fire Service compound. A BC road connects the sites. The roads are used for pedestrian access and vehicles like bicycles, motorbike, three wheelers, truck, cars etc. therefore, during 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 due to the bad condition of the access road and unsafe driving through it.</p>
<p>Type and Chance of hazards affecting Sub-project and labor camp location (e.g., flooding, landslides, cyclones, etc.) (High/Medium/Low with description)</p> <p>Low. The site is located on a relatively flat land area, and the area is devoid of any unstable masses of soil which can trigger landslide or mass movement during the operation phase.</p>
<p>Accessibility to the closest disaster shelter (Easy/Difficult with description)</p> <p>Cox's Bazar Government High School and Cox's Bazar Government Girls' High School are located within 500m distance from the site of FSCD building, which are easy location for taking shelter during the disaster period. Moreover, FSCD building itself may provide temporary shelter in its premises during the emergency period.</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)

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</p>

	<p>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> <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: All workforces to be hired from the local area and they do not have required for accommodation inside the construction site. The contactor can make temporary shed for keeping construction materials in the side of sub-project area. The size of temporary shed in the camp will depend on the construction materials. 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>
Is the project located in a	<p>✓ What is the size of local population in the project area?</p>

<p>rural or remote area?</p>	<p>Answer: The local population within the catchment area consists entirely of host community members. The proposed Fire Station will provide full coverage from West Bazar Ghata to the surrounding localities. Therefore, specific population data is not applicable for this subproject.</p> <p>✓ What is the size of the host Rohingya community? Answer: N/A</p> <p>✓ Is the project located / being carried out in an area that is not usually frequented by outsiders? Answer: The project site is located within the Fire Service and Civil Defence (FSCD) office premises, which is not typically accessed by the general public. Local residents are generally not allowed to enter the area unless they require emergency services or assistance from the fire service. As such, the area is considered semi-restricted and is visited only for official purposes.</p> <p>✓ What is the frequency and extent of contact between the local community and outsiders? 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? 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 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</p>	<p>✓ Is it likely that the incoming workers and the local community come from a shared socio-economic, cultural,</p>

<p>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 style="text-align: center;">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> <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,
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	<p>particularly if labor camps are not properly managed.</p> <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 services?		✓		People's access to communal facilities and 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		✓		No

restricted?				
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 • Fire service station authority, Civil Defense Officers • Host communities • 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.
- The involvement of outsider labor and technicians presents a potential risk for gender-based violence (GBV), including issues such as eve-teasing or harassment. These risks are being proactively addressed through the integration of GBV awareness and prevention measures in project activities. The Social Safeguards (SS) team and Grievance Redress Committee (GRC), under the guidance of the established Grievance Redress Mechanism (GRM), will conduct community consultations and awareness sessions to prevent such occurrences and support victims.
- There is also a risk of physical accidents occurring during construction. Proper safety measures, awareness training, and use of protective gear will be essential to mitigate this risk.

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 several consultation meetings with Fire Service and Civil Defence (FSCD) officials and local stakeholders. During the site selection process, LGED officials held discussions with FSCD representatives, local government authorities, community leaders, and residents to ensure the suitability and acceptance of the proposed FSCD building construction.

During the environmental and social screening, the safeguard Consultant, along with LGED, organized additional consultation sessions to inform stakeholders about the project's objectives, potential environmental and social impacts, and safeguard compliance requirements under the World Bank Environmental and Social Framework (ESF). Community members and officials actively participated in these discussions and provided constructive feedback.

Key points raised during the consultations included:

- Support for the New Building: Stakeholders expressed strong support for constructing the new FSCD building, emphasizing that it will improve infrastructure for storing firefighting equipment, emergency tools, and administrative functions.
- Improved Emergency Services: Participants highlighted the need for improved access to fire protection, emergency medical assistance and public safety services for the growing local population of Cox's Bazar.
- Enhanced Capacity: It was suggested that the new station be designed with sufficient capacity to serve the entire Cox's Bazar Municipality effectively.
- Safety Measures: Community members emphasized the importance of ensuring public and worker safety during construction. They recommended proper fencing of the worksite, provision of safety gear and first-aid kits for workers, and scheduling construction activities in a way that minimizes disruption to local traffic and public movement.

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 a Fire Service & Civil Defence office (degradation of air, water and soil quality, and local hydrology)	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 run-off. 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. 	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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		<ul style="list-style-type: none"> 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. 			
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. A mosque is nearby the FSCD boundary, so construction material storage needs to be stockpiled in such a location that the mosque is not disturbed in any way. 	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 	Contractor, Environmental specialist of D&SC	List of selected sites; Identified sources and storage place of materials.	During Design Stage

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		<p>be safe from access by students, children, animals, etc.</p> <ul style="list-style-type: none"> 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. 			
Demolishing of an existing structure	Under the sub-project intervention, the overall score is High	<ul style="list-style-type: none"> Water spraying at the demolition site Fencing / Installing barriers should be shield from dust and aggregates Avoid usage of machines/equipment with extra noise; Do not accumulate and burn waste at the site Carry out demolition activities in stages, give adequate notice and information of activities to the adjoining stakeholders It needs to Identify proper location to dispose solid waste from demolition and other activities in consultation with respective bodies Make mandatory the use of safety gears (helmets, safety belts, masks, gloves and boot) by workers depending on nature of work. Further guidance on demolition works and wastes management is given in the appendix 2, below the ESMP table, to be followed by the contractor. 	Contractor, Environmental specialist of D&SC	List of selected sites; Identified sources of materials.	During Design Stage
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	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. 	Contractor, Environmental specialist of D&SC	Complaints from community; Regular inspection of waste management activity; Waste disposal	Prior to the start of Construction works

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drinking water)		<ul style="list-style-type: none"> • 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. 		record.	
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 grievances	Ensure regular supervision and Monitoring based 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 	PIU consultant, PSC and D&SC	Labor wages payroll. Interview with	Monthly basis

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		the time of labor recruitment.		labor. Frequent visit by D&SC and PIU personnel	
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 FSCD boundary	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 FSCD boundary 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. • 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 school time & at night. 	Contractor, Environmental specialist of D&SC	Number of complaints from stakeholders, Use of silencers in noise producing equipment and sound barriers, Noise Level following decibel meter (dB)	Weekly

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		<ul style="list-style-type: none"> • Ear protection devices for the workers & site staffs should be available in site during construction period. 			
<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 receptors	Monthly
<p>Worker's health and safety</p>	Under the sub-project	<ul style="list-style-type: none"> • Prevent excessive noise; • Construction staff are to make use of the 	Contractor, Environmental	Numbers of complaints from	Monthly

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	intervention, the overall score is low.	<p>facilities provided for them (e.g., fires for cooking);</p> <ul style="list-style-type: none"> • 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. 	specialist D&SC	of sensitive receptors; Number of walkways signage, and metal sheets placed at project location;	
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
Fire Hazards/Fire Safety	Under the sub-project intervention, the overall score is low.	<ul style="list-style-type: none"> • Contractor will be encouraged to use of inflammable material for the construction of labor housing / site office. • Provide appropriate type of firefighting equipment suitable for the construction camps • Display emergency contact numbers clearly and prominently at strategic places in camps. • Communicate the roles and responsibilities of 	Contractor, Environmental specialist of D&SC	Numbers of complaints from workers, Number of fire extinguishers, posters containing emergency	Monthly and as required during the construction period.

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		laborers in case of emergency in the monthly meetings with contractors		contact numbers. ;	
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 Consultant and PMU	Complaints from communities	Site inspection daily / weekly 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 and PMU	Worksite is restored to original conditions	Over the completion of Works

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* 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.

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

ESMP for Fire Service & Civil Defence Building (FSCD/BD-1)

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 (Fire Service 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 Preparation: Soil Erosion; Alteration of natural drainage	<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 or 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. 	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
		<ul style="list-style-type: none"> The contractor shall ensure that site preparation activities do not lead to disruption of activities of the local residents. 		
Pre-Construction Stage	Transportation and Storage of Construction materials (disturbance to traffic system and pedestrians, potential accidents to workers/ local people, generating dust and noise)	<ul style="list-style-type: none"> Transportation of construction materials to the site will be carried out by covering the materials as a whole, or covering the end part of iron-bar with plastic caps/ clothes/ sacks or drenching the sand while transporting. Store the materials in designated places, with proper fencing and coverings. 	Contractor	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Sanitation and water supply	<ul style="list-style-type: none"> Sanitation facilities (male and female toilets, wash-basins, etc.) for workers and constructor's officials/employees will be provided in a separate place or in the same place where the temporary office/dwellings of FSCD officials/workers will be provided or constructed, within the periphery of the FSCD. Potable water supply will be ensured for every workers/employees in the site. Water sample will be checked at local DPHE laboratory to ensure the portability, and further filtered through appropriate filtering system, before supplying to the consumers. 	Contractor	Environmental Consultant of PIU, PSC
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. 	Contractor	Environmental Consultant of PIU, PSC

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Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • 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. 		
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. • 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. • Fire Service officials must be consulted before any construction work starts. 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction	Increase in road accidents	<ul style="list-style-type: none"> • Maintain safety measures during the movement and 	Contractor	Environmental

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Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Activity		<p>operation of heavy machineries and equipment.</p> <ul style="list-style-type: none"> • Local community will be trained up about traffic management and awareness. 		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 should be disposed of at waste disposal areas and/ or at the site. • Hazardous waste viz. waste oil etc. will be collected and 	Contractor	Environmental Consultant of PIU, PSC

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Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		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 staffs 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. 	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
		<ul style="list-style-type: none"> • 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 can do the works. • 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. 		
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. 	Fire Service and Civil Defence	UNO, Upazila Chairman of Upazila Parishad

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Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> Provision to take necessary lighting, caution for the works and necessary maintenance should be done in day light. 		
Operation & Maintenance	Odors and pollution caused by leaking latrines and faecal sludge impacting surrounding water bodies, flora and fauna.	<ul style="list-style-type: none"> Maintenance of septic tank and soak well should be carried out periodically. Preventative maintenance schedule for drainage system should be followed. 	Fire and Civil Defense	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. 	Fire and Civil Defense	UNO, Upazila Chairman of Upazila Parishad
Decommissioning during the project implementation period (including site clearance after the construction)	<p>The impacts are similar to those listed in construction stage:</p> <ul style="list-style-type: none"> Pollution from waste materials Health & Safety risks to workers and local community. 	<ul style="list-style-type: none"> Provision to proper measure of mitigation and monitoring to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. Third party monitoring of air quality as well as on receiving land and water bodies, may be undertaken, if the condition of those compartments seems to be significantly getting worsen. 	Contractor	Environmental Consultant of PIU/D&SC, XEN, Cox's Bazar, PSC.

Demolition and Waste Management Plan:

Demolition Plan:

The purpose of this Demolition Plan is to ensure the safe, environmentally sound, and socially responsible removal of the existing old Fire Service Station building prior to the construction of the proposed G+5 storey Fire Service and Civil Defence (FSCD) building with mezzanine floor at Cox's Bazar Municipality under Package No. FSCD/BD-1. The demolition plan aims to protect workers, nearby communities, and surrounding establishments, including Zila Sadar Hospital, nearby markets, mosques, schools, and roadside businesses, while minimizing dust, noise, and traffic disruption along Bazarghata Main Road. The scope of demolition works includes dismantling of the existing fire service station building, removal of roof slabs, beams, columns, walls, floors, foundations (as required), segregation of reinforcement steel, and removal of debris from the project site. All demolition activities will be confined within the existing project footprint on government land and conducted in accordance with national regulations and World Bank Environmental and Social Framework (ESF) requirements.

Pre-Demolition phase	Structural Assessment & Method Statement	<ul style="list-style-type: none"> • Conduct a detailed structural assessment of the existing fire service station building. • Identify weak structural components, damaged columns, beams, slabs, and wall conditions. • Determine the safe dismantling sequence and demolition methodology. • Prepare and approve a detailed demolition method statement before commencing work.
	Site Preparation	<ul style="list-style-type: none"> • Demarcate and barricade the demolition zone within the project boundary. • Install signboards, warning signs, and safety instructions in Bangla. • Install protective fencing and temporary debris nets around the site. • Ensure safe pedestrian movement along nearby roads and market areas. • Coordinate with municipal authorities to manage movement around the site.
	Utility and Service Disconnection	<ul style="list-style-type: none"> • Identify existing utilities such as electricity lines, water supply, drainage, and telecommunication cables. • Disconnect electricity and water connections before demolition. • Protect or reroute nearby utilities if necessary.
	Worker Safety Orientation	<ul style="list-style-type: none"> • Conduct safety induction training and toolbox meetings before starting demolition activities. • Provide Personal Protective Equipment (PPE), including helmets, gloves, safety boots, goggles, masks, and safety harnesses. • Assign trained personnel for demolition operations and supervision.

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Demolition phase	Demolition Technique	<ul style="list-style-type: none"> • Removal of doors, windows, and interior fixtures manually. • Dismantling of roof structures and upper floor slabs. • Sequential breaking of RCC slabs and beams using hydraulic breakers. • Cutting reinforcement bars using gas cutters. • Gradual dismantling of columns and load-bearing structural components. • Demolition of foundation elements if required. • Collection and segregation of demolition debris and reusable materials.
	Vibration & Noise Control	<ul style="list-style-type: none"> • Use low-vibration hydraulic breakers and controlled demolition equipment. • Restrict demolition activities to daytime working hours. • Avoid demolition during prayer times and peak hospital activity periods where possible. • Install temporary noise barriers if required near sensitive receptors.
	Dust Control Measures	<ul style="list-style-type: none"> • Apply regular water spraying during demolition activities. • Cover debris piles with tarpaulin sheets. • Install temporary dust screens around the demolition area.
Environmental Compliance	Dust & Air Quality Control	<ul style="list-style-type: none"> • Implement regular water spraying to reduce dust generation. • Cover demolition debris during transport. • Avoid open burning of waste materials. • Maintain proper housekeeping at the demolition site. • Prevent dust dispersion to nearby hospital, schools, markets, and residential areas.
	Oil, Fuel, Hazardous Material, and Waste Management	<p>Demolition waste may include:</p> <ul style="list-style-type: none"> • Concrete debris • Reinforcement steel • Brick and masonry materials • Electrical wiring and fixtures • Packaging waste <p>Waste Handling Measures include:</p>

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		<ul style="list-style-type: none"> • Segregate demolition waste at source. • Store recyclable materials separately. • Reuse suitable concrete debris for site leveling or sub-base material where feasible. • Transfer recyclable metals to authorized recycling vendors. • Store oils and lubricants in sealed containers with secondary containment. • Provide spill kits for emergency response. • Prohibit refueling and oil changes outside designated areas.
	Water Quality Protection	<ul style="list-style-type: none"> • Prevent concrete slurry, dust, oil, or debris from entering nearby drainage systems. • Avoid washing equipment directly near drains or water bodies. • Collect wastewater in temporary settling pits before discharge.
Occupational Health & Safety (OHS)	Worker Health and Safety	<ul style="list-style-type: none"> • Provide appropriate PPE including helmets, gloves, safety boots, masks, and harnesses. • Ensure trained operators handle demolition equipment and cutting tools. • Conduct daily toolbox safety meetings prior to starting work. • Maintain first-aid kits and emergency response arrangements on site. • Ensure compliance with national labor laws and World Bank labor standards.
Traffic and Community Management	Traffic Diversion	<ul style="list-style-type: none"> • Coordinate with municipal authorities to manage traffic movement along Bazarghata Main Road. • Install traffic signage and warning signals around the project site. • Restrict movement of debris trucks during peak traffic hours. • Assign trained personnel to guide vehicle movement.
	Community Safety Measures	<ul style="list-style-type: none"> • Inform nearby institutions, market authorities, and residents 3–5 days prior to demolition activities. • Restrict unauthorized access into the demolition zone. • Install barricades and warning signs around the site. • Ensure pedestrian safety along adjacent roads.
Demolition Completion and Site Clearance		<ul style="list-style-type: none"> • Remove all demolition debris from the project site. • Transport waste materials to approved disposal sites. • Level the ground and prepare the site for the new FSCD building foundation works. • Restore surrounding access roads and drainage systems if disturbed.

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		<ul style="list-style-type: none"> • Conduct final environmental cleanup and safety inspection before starting construction works.
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Waste Management Plan:

The Waste Segregation and Reuse Plan aims to ensure environmentally sound management of construction and demolition waste generated during the dismantling of the existing fire service building and the construction of the proposed FSCD building. The plan promotes waste minimization, recycling, and safe disposal, while preventing soil, water, and air pollution and ensuring compliance with relevant environmental regulations.

Waste Type	Source of Waste	Potential Impacts / Concerns	Management, Segregation & Reuse Measures	Institutional Responsibility	Supervision & Monitoring
Concrete debris and rubble	Demolition of existing fire service building	Visual nuisance, dust pollution, obstruction of drainage	Segregate at source; reuse for site leveling, sub-base, or filling material where feasible	Contractor	LGED PIU & D&SC Consultant
Steel reinforcement and metal scraps	Dismantling of structural elements	Injury risk; improper disposal	Store separately and sell to authorized recyclers or scrap dealers	Contractor	LGED PIU & D&SC Consultant
Brick and masonry waste	Demolition of walls and partitions	Dust generation and site clutter	Reuse where possible for backfilling or dispose at approved disposal sites	Contractor	D&SC Consultant
Excavated soil and spoil	Foundation excavation for new building	Soil erosion, sedimentation	Reuse for site grading or landscaping; excess disposed at approved sites	Contractor	LGED PIU & D&SC Consultant
Packaging materials (cement bags, plastics, timber)	Construction material handling	Littering and environmental pollution	Segregate and collect separately; reuse or recycle where possible	Contractor	LGED PIU & D&SC Consultant
Domestic solid waste	Labor camps and work areas	Health hazards, vector breeding	Provide covered bins; daily collection and disposal at municipal approved sites	Contractor	PIU, D&SC Consultant & Local Authority

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Used oil, grease, and lubricants	Equipment maintenance	Soil and water contamination	Store in sealed containers; hand over to licensed recyclers	Contractor	LGED PIU & D&SC Consultant
Oil-contaminated rags and containers	Machinery operation	Hazardous waste pollution	Collect in labeled containers and dispose through approved hazardous waste handlers	Contractor	D&SC Consultant
Mixed non-recyclable waste	Construction activities	Environmental pollution	Dispose at DoE / Municipality approved landfill sites and maintain disposal records	Contractor	LGED PIU & D&SC Consultant

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Appendix-3: Environmental and Social Management Plan (ESMP) of this Sub project (site specific)

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 and maintaining a safe and healthful working environment at workplace, including	50 nos.	@ Tk. 1700.66	85033.00

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Sl no.	Description of item	Quantity	Unit price	Total amount
	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 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.			
7.	<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. Total 25 nos. of trees need to be replanted around the periphery of the proposed site.	50 nos.	@ Tk. 1000 for each tree.	50,000
8.	<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.	2 nos.	@12883.78 per toilet	25767.56
9.	<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.	2 nos.	@12883.78 each	25767.56
10.	<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 satisfaction and direction of the Engineer-in-charge.	1 nos.	LS @ Tk. 60,000	60,000

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SI no.	Description of item	Quantity	Unit price	Total amount
11.	<p><u>Water Test (Drinking Water samples)</u></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) 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</p>	1 no.	@50,000	50,000

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SI no.	Description of item	Quantity	Unit price	Total amount
	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
16.	Supplying of Best Quality Safety hand gloves for construction work of	100 nos.	@306.76	30676.00

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SI no.	Description of item	Quantity	Unit price	Total amount
	Flexible/durable/excellent puncture resistance working gloves with PVC palm and T/C drill back, pasted cuff, palm liner. all complete in all respect as per approved specification and direction of the Engineer-in-charge.			
Subtotal Bill:				1320355.05

Package Number : EMCRP/AF/W8

Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP)

স্বকীয় ভিত্তিতে রেহিন্দা সংকেট মোকাবেলায় মানসিক সেবায় প্রকল্প

Local Government Engineering Department (LGED)

Public Consultation Participants List

Focus Group Discussion

সময়: ০৪:৩০ PM

তারিখ: ০৭/০২/২০২১

উপ-প্রকল্প/কম্পোনেন্ট এর নাম: Building Construction for fire service civil defense (FSCD)

যত্ব নিমিত্ত স্থান: Adjacent to Bazar Ghata road

at Cox's Bazar

ইউনিয়ন: Cox's Bazar প্যারাম্বল নং: ০৩ ডাকঘর: Cox's Bazar উপজেলা: Cox's Bazar জেলা: কক্সবাজার
Municipality ৭৭০০ Schar

সব প্রকল্প নং: EMCRP/AF/W8

অংশগ্রহণকারীদের তালিকা (পরিচয় ও বয়স)

ক্রম নং	নাম	বয়স	পুরুষ/মহিলা	পেশা	হাফের / টিপসই
০১	আব্দুল রহমান	৩৪	পুরুষ	সুইচ ব্র্যান্ডিং	আব্দুল
০২	আবুল কায়েস	৫০	u	পাইপ ব্র্যান্ডিং	আবুল
০৩	মোহাম্মদ আলী	৩৭	u	ফেব্রিক ব্র্যান্ডিং	মোহাম্মদ আলী
০৪	আঃ আবু বক্কর	৩৩	u	ফান ব্র্যান্ডিং	বাক্কর
০৫	মৈয়ূদ আলী	২৬	u	ফার্ন ব্র্যান্ডিং	মৈয়ূদ
০৬	মোঃ আলোয়ার	২৮	u	পাই (দাকামা)	আলোয়ার
০৭	মোঃ জামাল	৩৪	u	সুইচ ব্র্যান্ডিং	সুইচ
০৮	কালু মিয়া	৩৩	u	সুইচ ব্র্যান্ডিং	কালু
০৯	মোহাম্মদ নেওয়াজ	৩০	u	ফেব্রিক ব্র্যান্ডিং	মোঃ নেওয়াজ
১০	মোঃ মহিবুল	২৭	u	ফেব্রিক ব্র্যান্ডিং	মহিবুল
১১	মোঃ কাশেম	৩৭	u	সুইচ ব্র্যান্ডিং	কাশেম
১২	মোঃ অরিয়ান ইসলাম	৪০	u	সুইচ ব্র্যান্ডিং	অরিয়ান
১৩	মোঃ আব্দুলক্বাদির	৩২	u	ফেব্রিক ব্র্যান্ডিং	আব্দুলক্বাদির

Public consultation participants' list