



**Government of the People's Republic of Bangladesh
Ministry of Local Government, Rural Development and Co-operatives
(Local Government Division)**

**Environmental and Social (E&S) Screening Report
On
Construction of Household Single Toilet Scheme at Host Community**



Emergency Multi-Sector Rohingya Crisis Response Project (GoB-WB)

Location: Kutubdia, Cox's Bazar, Sub-project (Pk. No.): EMCRP/AF/WD-33
[Vol-01, Total 395 HH Toilet: Unions: DakhkhinDhurang, Uttar Dhurang&Lemsikhali]



Department of Public Health Engineering (DPHE)



Abbreviation and Acronyms

AF	Additional Financing
BS	Bangladesh Bureau of Statistics
BD	Bangladesh
BMD	Bangladesh Meteorological Department
CIC	Camp in Charge
DC	Deputy Commissioner
DO	Dissolved Oxygen
DoF	Department of Forest
DPD	Deputy Project Director
DPHE	Department of Public Health Engineering
DRP	Displaced Rohingya Population
EC	Electrical Conductivity
EMCRP	Emergency Multi-sector Rohingya Crisis Response Project
ERP	Emergency Response Plan
ESMF	Environmental & Social Management Framework
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
GBV	Gender-Based Violence
GoB	Government of The People's Republic of Bangladesh
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
GPS	Global Positioning System
GW	Ground Water
HC	Host Community
HDPE	High Density Polyethylene
HH	Household
IEF	Important Environmental Feature
IOM	International Organization for Migration
ISCG	Inter Sector Coordination Group
IUCN	International Union for Conservation of Nature
KII	Key Informant Interview
NGO	Non-Government Organization
LGED	Local Government Engineering Department
PCC	ParticipatoryCommunity Consultations



EMCRP Environmental and Social Screening Report (DPHE)

PD	Project Director
PIU	Project Implementation Unit
PM	Particulate Matter
PMU	Project Management Unit
PPE	Personal Protective Equipment
PSC	Project Steering Committee
PTW	Production Tube well
PVC	Polyvinyl Chloride
ROW	Right of Way
RRRC	Refugee Relief and Repatriation Commission
SAE	Sub-Assistant Engineer
SMC	School Management Committee
SW	Surface water
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
TTW	Test Tube Well
UP	Union Parishad
UN	United Nations
UNFPA	United Nations Fund for Population Activities
UNHCR	United Nations High Commissioner for Refugees
uPVC	Un plasticized Polyvinyl Chloride
VfM	Value for Money
WASH	Water, Sanitation and Hygiene
WB	World Bank
WDZ	Water Distribution Zone
WFP	World Food Programme
WSC	Women's Studies Center



EMCRP (DPHE part) Environmental and Social Screening Form

Sub-Project Description Form

Introduction: Under additional financing (AF) of Emergency Multi Sector Rohingya Crisis Response Project (EMCRP) 8800 household toilets will be constructed at different locations of host communities at 8 upazilas in Cox's Bazar district. In Kutubdia upazila around 800 household toilet will be constructed and all of those will be covered in a single report with different volume as attachment at different time. All attachment will be considered as part of the report and will be developed sequentially (ref. volume wise) up to final counting of work package of HH toilet sub-project establishment for the proposed host communities of Kutubdia upazila.

This E&S screening report (Vol-01) is prepared for sites of 395 (Three Hundred Ninety-Five) household single toilets out of proposed tentative 800 HH toilets targeted for host community of Kutubdia Upazilla, Cox's Bazar under work package AF/WD-33 of EMCRP (DPHE Part). The site selection has been accomplished following existing criteria of site selection process of the (DPHE) Government. Obviously the vulnerable are selected for the household toilet sub-project.

Noted that, representative of mass people (irrespective of religion, income level, education, profession, caste etc.) Union parishad, concerned WATSAN committee members etc. participated in the process along with technical support of local DPHE. The socio-economic condition of the proposed targeted households have revealed poor and vulnerable. At present the households members are using unimproved and unhygienic toilets over there (existing toilet pictures are attached).

The wild life existence and their movement (like Birds, Turtle habitat, Elephant movement corridors etc.) were observed and found neither any negative impact on normal and natural livelihoods nor any social cohesiveness for implementation of the sub project.

Name of Sub-project: Construction of host community-based household single toilets under Contract no. AF/WD-33 at Kutubdia upazila, Cox's Bazar district.

Implementing Agency/Agencies: Department of Public Health Engineering (DPHE)

Estimated total cost per household toilet (in Taka): Approximate 60,000 Taka (on average)

Estimated construction period duration: 12 (twelve) months.

Estimated Operation and Maintenance period (life of sub-project): Defects & Liabilities period of household toilet is 12 (twelve) months but the design life of each toilet is ten years.

District: Cox's Bazar **Sub-District:** Kutubdia **Unions:** Dakhin Dhurang, Uttar Dhurang and Lemsikhali

Name of Community/Local Area: Dakhin Dhurang, Uttar Dhurang and Lemsikhali unions of Kutubdia, Cox's bazar

Description of proposed sub-project activities (incl. type of activities, footprint area, natural resources required, etc.):

Sub-project Activities:

To implement the proposed sub-project intervention following tentative activities to be performed at sub-project areas

- Community and Stakeholders Consultation, Site selection, site cleaning, earth excavation, brick work, ring pits placement, placement of long pan with 'U' trap, etc. For household toilet



2 sets of ring pits will be required, one set will be used as containment well & another is soak well. 300mm height & 1200 mm diameter sevenrings will be used for each pit. Bottom of containment well will be sealed with 100mm thick RCC casting. Same design will be used for every single toilet. Typical design of EMCGRP-AF host communities HH toilet is attached within **Appendix-5**.

- Construction of toilet superstructure with CC/ RCC (5") wall, etc.
- Environmental & Social monitoring interventions.

Estimated footprint / land area: Proposed lands for constructing the household toilets are vacant, actually vacant lands within local host community HHs are selected for HH single toilets. The proposed site -location lands are belonging to targeted beneficiaries' households' premises. It's been roughly estimated that about 10 square meter land would be required for each household toilet. Around 5 to 6 people of one hh will use each household toilet. It will be constructed on the land of individual hh who fulfill the criteria of hh selection.

Natural Resources: For implementing the proposed intervention some natural resources to be consumed by the project activities (i.e., water and sand for concreting, making mortar etc.) and site worker (i.e., Water for drinking and kitchen work). Required water would be sourced from nearby the available GW source. Beside sand would be collected from local market. Considering the sub-project natures and extent, it's predicted that approximately 100 to 130 liter/day water would be required for each site of this scheme.

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

Proposed household toilet locations are at DakshinDhurang, Uttar Dhurang and Lemsikhali unions under Kutubdia upazilla of Cox's Bazar district. The proposed site -location lands are belonging to targeted beneficiaries' household's premises. As per the consensus of household consultation meeting, they willingly provide the required space to construct the single toilets. The site for construction of toilet has been selected by the household with prior discussion among the members of their family (**Appendix -04**).

Together with the hh, the site for the toilet is being selected. During the site selection, DPHE team has ensured that it does not affect any trees, structures or any other assets. Construction of the individual toilets will not affect any community properties as well. In and around the sub-project site, there are mainly host community houses, earthen path, low land, ponds, schools, religion prayer centers, shops, etc. are existed. As selected sites for HHs toilets are within targeted host community households, so no road but only bridleway exists close to the sub project area. The proposed household toilets will be constructed within host community household areas. Each Toilet will be used by members of that single household (5-6 people). Sites have been selected considering easy accessibilities of the targeted beneficiaries, especially pregnant women, person with disability, elderly & children. DPHE maintains minimum distance of 30 feet from nearest tube well during site selection for household toilet. Shallow groundwater table of the area varies from 12 to 15 m. height of containment chamber is 2.1 m (1.8m below ground) and bottom of the containment chamber is sealed with RCC casting. Depth of pit wells within the local area varies from 05 feet to 06 feet. It has been revealed that there is no possibility to contaminate ground water from household toilets as technical point of view. It seems that expected impacts on surrounding features would be very insignificant.

Overall Summary:

Community people of the HH toilet sub-project areas are very much optimistic about the success of the project. The sub-projects will be environmentally sustainable and socially acceptable because expected environmental and social impact to be insignificant and very much site specific. Women, children, disable persons, elderly and girls continue to suffer suspiciously from inadequate sanitation, and often cannot use a toilet when and where they need because of inadequacy of household toilets in targeted host community area. Therefore, after construction of



households' toilets in the proposed host community the users will be benefitted in many ways i.e.; keeping good health, reducing inadequate sanitation led diseases, reducing risk of sexual harassment, help in keeping good environment etc. As household toilets will be constructed close to their premises so it will help women, children, disable persons, elderly and girls to use the toilet easily. It will minimize the risk of sexual violence, harassment and physical violence since women & girls are not to be forced to defecate in the open or use unsafe, dark or badly located toilets. Besides, as number of users of each households' toilet will be usually less than before, thereby keeping hygiene condition would be easier for the HC' people. In the HC area human wastes (feces) will be managed well by reducing contact of pollutants in the nearby water body, and soil. Resulting diarrhea and other health problem that are usually in connection with unhygienic sanitation system will be mitigated by the well-designed household toilets. Around 5-6 people shall be benefitted from one household toilet. **Three (03)** Community consultation meeting with primary & secondary stakeholders and several need-based discussions with targeted beneficiaries of host communities were held. More over several meetings with one-to-one community member (including vulnerable group like pregnant women, elderly, person with disability and children) are also conducted. Apart from those, several meetings were conducted with other UP- LGs, Union WATSAN Committee, Chairman & Members, SAE & Mechanic and relevant stakeholders.

As part of the E&S Screening report, preparation the suggestion/ opinion made by the participants of consultation meetings regarding potential environmental and social impact for implementing the proposed intervention were duly considered along with sensitivity of the sites location to protected area/ archeological sites/ sensitive receptor etc. Outcome of consultation meetings are described within section C2, SL no. 12.

Most of the participants requested to involve the local community during the construction work. In addition, suggestion / opinion received by the consultation meeting also considered in the design of ESMP. Local communities were found very enthusiastic in favor of the household toilet construction that may help to successful implementation of the sub-project in sustainable manner. There will be no impact on the ecosystem and biodiversity for constructing the planned intervention. No agricultural -farming land/ activities or fish farming will be disturbed, due to construction of the household toilets sub-project.

Selection process of Household toilet site:

The site selection has been accomplished following existing criteria of site selection process of the (DPHE) Government. In the E&S screening process the safeguard team has sincerely considered the female-headed households, male-headed households, and differently able households are being selected at proposed HC of Kutubdia. Noted that female headed households are identified 62 out of 395 household at proposed three unions.

Those poor households who neither have safely manage toilet nor afford to construct it by their own are considered during screening. It has been accomplishing following existing selection process of the government with involvement of union perished, WATSAN committees, local DPHE & mass people irrespective of religion, economic classes, male-female, profession, caste etc. Random crosschecking was done on site selection process following technical point of view. The site was primarily selected based on transect view, community opinion, existing structures, improved sanitation coverage etc. Initial probable E&S impact, easy access to the local community especially the children, women and old aged were also considered.

DPHE is the implementing agency of the project with the financial grant assistance of GoB- World Bank. After establishing the proposed household toilet, about 5 to 6 peoples from each will be directly benefitted through achieving their sanitation requirements. More over all people of the area will get indirect benefit through improving a safe & fresh environment.



Figure-01: Proposed locations Toilet of DakhkhinDhurang, Uttar Dhurang and Lemsikhali union areas, KutubdiaUpazila, Cox's Bazar

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

During construction phase solid and liquid waste will be generated due to construction activities. The types of wastes are uPVC pipe, excavated soil. Concrete, iron, tin, wood piece, etc. Very small quantity of the solid waste will be generated during construction phase. On the other hand, operation of household toilets will generate fecal sludge and liquid waste i.e., Urine.

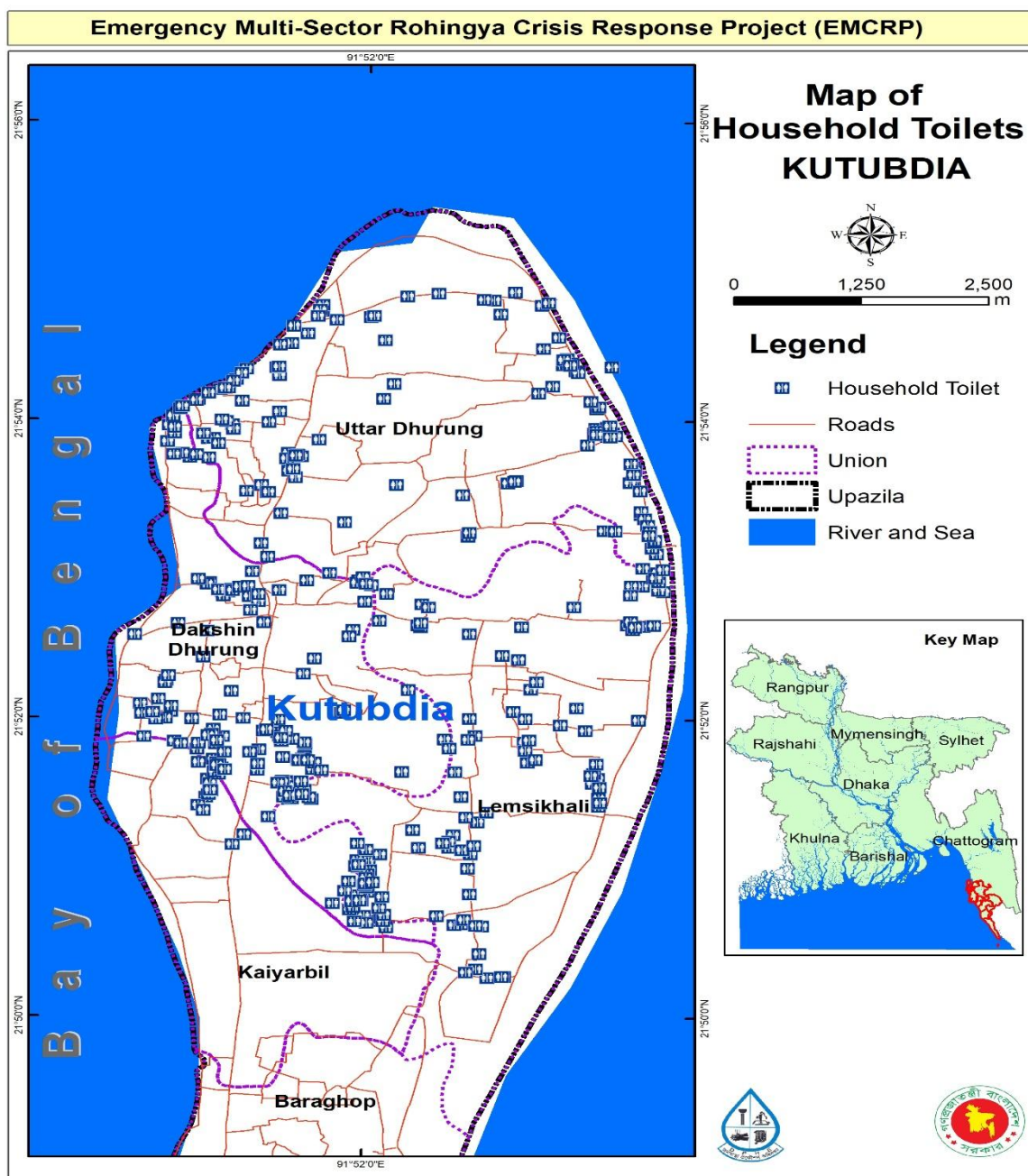
Sensitive environmental, cultural, archaeological, religious sites near (within 1km) of site including elephant migration routes and remaining forests:

Within the proposed household toilet's locations at DakhinDhurang, Uttar Dhurang and Lemsikhali unions (Kutubdia, Cox's Bazar) Cropfield, graveyards, Upazila office, Union Office, health center, local bazar, Mosque, Schools, grocery shops etc. were identified. No significant environmental or social disturbance is anticipated due to construction activities. Within the host community area there was elephant migration route as per map (IUCN map attached).

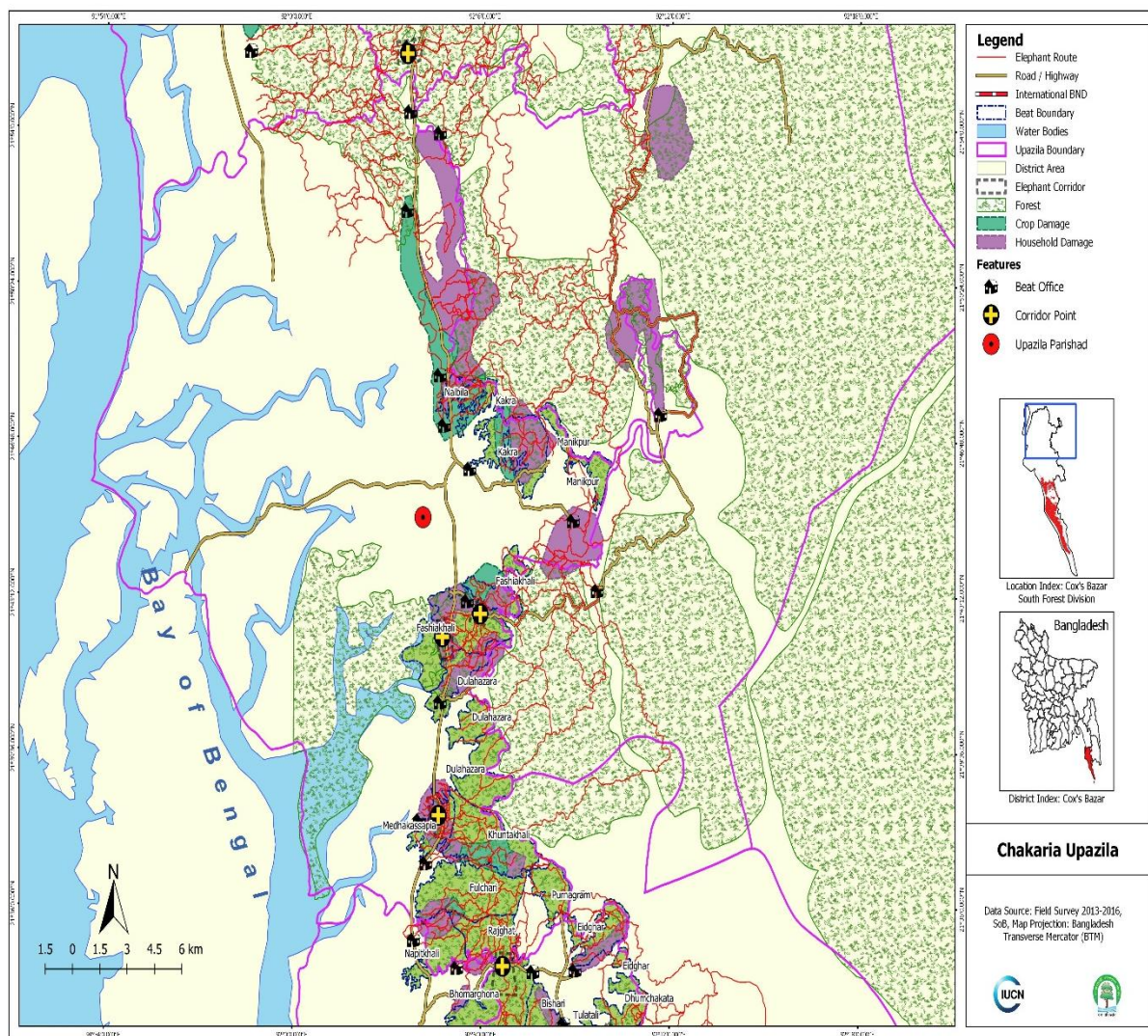


The proposed site information of (Kutubdia – Vol._01) at a glance:		
Union	Total no. of Toilets	Remarks
DakhkhinDhurang	157	The proposed sites of HH Toilet for host communities were selected as per the selection criteria of EMCRP, DPHE
Uttar Dhurang	128	
Lemsikhali	110	
Total site for HHT (Vol: 01)	395	

Note: The details of proposed HH Toilets location and E&S information illustrated at Summary Table sheets(Attached)



Map_01: Location of proposed sub-project sites at DakshinDhurang, Uttar Dhurangand Lemsikhali Union, KutubdiaUpazilla, Cox's Bazar



Map_02: Map of Elephant Migration Road/ Presence around, Kutubdia Upazila, Cox's Bazar (ref. IUCN report_2016)



Environmental and Social Screening Form

Section A: Sub-project Overview

Work Package: WD-33 Construction of household toilets (Kutubdia, Cox's Bazar)

Description of sub-project/component interventions:

In the sub-project area, there is no adequate proper sanitation/toilet facilities. Hence, sub-project areas community especially at different remote unions (DakhinDhurang, Uttar Dhurang and Lemsikhali union) have been suffering from long time for lack of proper sanitation facilities. In addition, existing improper sanitation facilities degraded the quality of surrounding environment as well due to overloaded stress and less maintenance scope. In this context, DPHE -EMCRP PMU has decided to meet up the necessity of subproject site people by constructing the household toilet under package EMCRP/ DPHE/AF/WD-33, along with ensuring following accessibility:

- ii). Construction of household toilet with ring pit & long pan (with foot raise), and RCC super structure.
- ii) Supply of water bucket, water pot, brush with long handle (for cleaning)
- iii) Post Commissioning Operation & Maintenance (O&M) work: like-changing of damaged lock, cleaning of containment chamber etc.

Sub-project Location:

Host community-based household toilet is located at DakhkhinDhurang, Uttar Dhurang and Lemsikhali Union under Kutubdia Upazila of Cox's Bazar District. The proposed site is medium high land with some sloping. Herringbone bond or earth road connecting road close to household toilet sites.

Land ownership: Lands are local community households personal land, was willingly provided for toilet establishment (as per HH written and signed consent paper attached) at **annex-04 section**. In order to get hygienic toilet instead of unhygienic toilet, the house owner has given land to build toilets. Noted that the targeted HHs presently using unimproved or unhygienic toilets. After discussing with their family members have decided places to construct toilets beside their homestead's areas.

Expected construction period: 12 (twelve) months.

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):

The proposed lands for household toilets construction are vacant currently with covering of natural grown vegetation and few shrubs and herbs. This natural grown vegetation may be disturbed by the site clearing work. The land to be required for constructing of each household toilet is approximately 10 square meters. There is no environmental sensitive location (i.e., protected area, reserve forest, etc.) within sub project influence area. There is no elephant corridor near the proposed toilet sites. There are some surface water bodies nearby some sites and within influence area few low land and natural channels are also available confirmed by the consultation of local people. There are manmade drains beside some proposed lands



of household toilets & all drains are connected with natural canals. During site visit, no archeological or historical site is recorded within influence area.



Section B: Environmental Screening

B.1: Environmental feature of household toilet location

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

Within the proposed household toilets locations - areas (Kutubdia, Cox's bazar) Cropfield, graveyards, Upazila office, Union Office, health center, local bazar, grocery shops etc. are identified. No significant environmental or social disturbance is anticipated due to construction activities

Location of environmentally important and sensitive areas:

This location used to be environmentally important and sensitive, some areas are existing as protected forest. Erosion/land slide may occur when moderately to highly sloping terrains are disturbed for the construction of household toilet. But precast toilet parts like ring pit, pit top cover, top slab of toilet with long pan, etc. will be used for household toilet construction. The impacts are negative but very small scale, site-specific within a relatively small area and adjustable by mitigation measures.

(1) Within/near Elephant Migration Routes Yes/No*:

No. within the proposed host community area (DakhinDhurang, Uttar Dhurang and Lemsikhali union) there is no elephant migration route as per UNHCR/ IUCN map.

(2) Potential impacts on remaining forests in/around camps Yes/No*:

Not Applicable. Proposed sub-project is not in camp area.

(3) Other issues:

No more mentionable issues raised.

Dust:

Ambient air quality data was not readily available, but quality is apparently good. During day time the number of vehicle movement on the road is too high. Dust is generated in through movement of vehicles such as motor cycle, mini truck, tempo, auto rickshaw, CNG, trolley, tractor etc. over the road surface which causes air pollution.

Noise:

Noise in the sub-project area is not a major concern because noise level is within the tolerance level. Vehicles such as motor cycle, mini truck, tempo, auto rickshaw, tractor, trolley, tractor etc. move on the road surface adjacent to sub-project during day and night. These vehicles generate noise adjacent to the sub-project area but tolerable limit in most cases.



Baseline soil quality:

The sub-project area is located mainly in reddish brown, muddy & sandy soil formation. The soils developing from the weathered sandstones tend to be sandy to clay loams. Presence of organic matter content in the soil is moderate.

Landslide potential:

(high/medium/low, with explanation):

Low. Potential erosion/land slide may occur when moderately to highly sloping terrains are disturbed for the construction of household toilet. But for household toilet this impact is low because maximum earth cutting depth is 1.8 m and this impact is very much site-specific, within a relatively small area and possible to easily mitigate by mitigation measures.

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

Surface water quality: No surface water.

Groundwater quality: Groundwater is the main source of potable water in the sub-project area. The shallow depth is about 100 feet and deep tube well depth is 450 ft to 880 ft. In the sub-project area, groundwater is saline and arsenic free. Shallow tube well of surrounding the sub-project area are iron concentration is little high. pH_5.50 to 8.00, Fe_0.50 to 2.05 mg/l, Mn_0.01 to 0.30 mg/l, Chloride_10 to 350 mg/l and As-_Nil to <0.001 mg/l. (Tube well depth: 750 ft. to 1000 ft.). Many shallow tube wells have been installed in the proposed union area. This has resulted in excessive withdrawals of water from the shallow aquifer and a drying up of some of the wells.

**Data source: Secondary data and field survey*

Status of wildlife movement:

Within the proposed household's toilet sub-project working areas of Kutubdia (Dakhin Dhurang, Uttar Dhurang and Lemsikhali union), Cox's Bazar, there was no significant wildlife movement and elephant migration route as per UNHCR – IUCN map.

State of forestation:

It has been observed that, at the proposed areas and surrounding locations some natural forest land exists. But man-made tree plantation is covered the targeted HC habitats presents over there.

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

N/A



B.2: Pre-construction Phase

<p>Information on Ancillary Facilities (e.g., status of access road or any other facility required for sub-project to be viable):</p> <p>Regarding ancillary facilities at the concerned household toilet scheme area under this sub-project the HC habitat connecting herringbone road is very close to the scheme area. However, the site is accessible and existing herringbone road is the most suitable way of carrying the construction materials (pipes, rig pits, pit top cover, toilet slab with long pan, cement, bricks, steel frame, sanitary materials, etc.) to the construction site.</p>
<p>Requirement of accommodation or service amenities(toilet, water supply, electricity)to support the work force during construction:</p> <p>The contractor team members have provision to access required Toilet and safe water options facility the sub-project area. If there are women labour proper lighting facilities would be arranged.</p>
<p>Possible location of labor camps:</p> <p>Within the scheme area and very close to the sub-project sites.(Local DPHE, Union Parishad or other institution premises).</p>
<p>Requirement and type of raw materials (e.g., sand, stone, wood, etc.):</p> <p>i) Bricks, ii) Sand iii) Cement iv) uPVC pipe v) Sanitary materials vi) Water vii) Iron rodviii) uPVC door, etc. are the most common type materials used in HH toilet construction.</p>
<p>Identification of access road for transportation (Yes/No):</p> <p>Yes. This selected site is close to the Herringbone bond and earth made kacha road.</p>
<p>Location identification for raw material storage:</p> <p>Material storage stockyard is located at local DPHE, Union Parishad or other institution premises.</p>
<p>Type and quantity of waste generated (e.g., Solids wastes, liquid wastes, etc.):</p> <p>None.</p>
<p>Approx. area (in square meters)of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:</p> <p>No valuable vegetation presence in proposed HH toilet sub-project construction sites (approx. 10 square meter land per household toilet).</p>
<p>Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation):</p> <p>None.</p>



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

Low. Within 20 to 150 feet, there are man-made or natural drains. But during pre-construction phase impact is very low if construction materials will not store over the drain.

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

Low. Under this scheme establishment interventions, the effect of destruction or damage of endangered species is negligible.

Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:

No

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

Because of construction materials transportation noise & air pollution may occur (negligible amount). But this impact is very low because during pre-construction stage construction materials transportation is very minimal.

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.3: Construction Phase

Type and quantity of waste generated (e.g., *Solids wastes, liquid wastes, etc.*):

Solid waste: i) Bricks, ii) Sand iii) uPVC pipes iv) Bamboo & wood v) earth or mud vi) Sanitary materials vii) Iron rod etc. It is difficult to mention the exact quantity of construction waste produced on a household toilet construction site. However, 100 kg of waste may be produced per household toilet because precast parts like ring pit, pit top & bottom slab, etc. will be used. Excavated mud will be reused for backfilling also.

Liquid waste: None.

Type and quantity of raw materials used (*wood, bricks, cement, water, etc.*):

i) Bricks, ii) Sand iii) Cement iv) uPVC pipe v) Sanitary materials including Ceramic pan vi) Iron rod vii) steel sheet etc.



<p>Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:</p> <p>No valuable vegetation presence in construction sites. So, vegetation will not be affected by construction work.</p>
<p>Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: <i>(High/Medium/Low with description):</i></p> <p>Medium. Earth excavation will be required for pit placement. Water stagnant may occurs if the place keeps open for long time after earth excavation.</p>
<p>Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): <i>(High/Medium/Low with description):</i></p> <p>Low.In some proposed places (within 20 to 150 feet), there are man-made or natural drains. But precast materials (ring pit, toilet top slab with long pan, pit top cover, etc.) will be used. Some brick work wall &RCC four columns will be constructed at site and this impact is very much site specific & time specific.</p>
<p>Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: <i>(High/Medium/Low with description):</i></p> <p>Low. In the proposed sub-project area (within 20 to 150 feet), there are manmade or natural drains. Outfalls of manmade drains are connected with different natural canal. Even most of the sites are located at plain or high area. During construction rain water may wash construction materials & can fall within natural water bodies. But precast materials (ring pit, top & bottom slab of pit, etc.) will be used. Some brick work & four RCC columns will be constructed at site. This impact is very much site specific & time specific. Waste from labor camp may fall into nearby ditch or drain. However, it would be minimal because contractor will dispose the generated waste into designated waste dump site regularly.</p>
<p>Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:</p> <p>None.</p>
<p>Erosion of lands: <i>(High/Medium/Low with description):</i></p> <p>Low.In some of the proposed areas,Potential erosion/land slide may occur when moderately sloping terrains are disturbed for the construction of household toilet. But this impact is low, because maximum earth cutting depth is 1.8 m and this impact is very much site-specific, within a relatively small area and possible to easily mitigate.</p>



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

No traffic movement impacts on light as all vehicular movement will be during day time. Some temporary, localized effects of noise and air pollution can occur due to truck movements.

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:

In operation phase of household toilet schemes, improper use of personal protective equipment (PPE) by the respective contractor team and lack of safety procedures may cause injuries.

Chance of long-term or semi-permanent destruction of soils:

(High/Medium/Low with description):

Low. Low change of long-term or semi-permanent destruction of soils for household toilet schemes area.

Possibility of odor and water, soil quality impacts from SWM and FSM disposal system:

(High/Medium/Low with description):

Medium. Sludge from household toilets will be generated. The sludge will be disposed properly following local waste management. It is expected that, it will be possible to collect fecal sludge from maximum household toilets using vacuum truck. In some cases if manual pit emptying is required then proper pit emptying guidelines will be followed. Labours should use proper PPEs like hand gloves, safety boots, face masks, eye protecting glasses, etc. Since pits of household toilets are smaller in size, it will be easier to clean.

Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors:

(High/Medium/Low with explanation):

Low. Some stagnant water may occur in/around latrine area after washing by latrine user (water spilling from "bodna").

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

Household toilet will be helpful of the host communities and to improve their health condition.



<p>Extent of disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description):</p> <p>Low. Within 20 to 150 feet, there are man-made or natural drains. Outfall of manmade drains are connected with different natural canal. This water body can be contaminated if generated waste from containment well or soak well get contact with road side drain water by runoff of precipitation. It will be possible because of containment well or soak well leakage or improper disposal of generated sewage waste from household toilets. But this chance is minimal. This impact is very much site specific & with proper management it is possible to mitigate.</p>
<p>Extent of destruction or damage of terrestrial or aquatic ecosystem so endangered species directly or by induced development: (High/Medium/Low with description):</p> <p>Low. Operation and maintenance activities of household toilet schemes will be localized and temporary in nature.</p>
<p>Activities leading to landslides, slumps, slips and other mass movements in road cuts:</p> <p>N/A.</p>
<p>Erosion of lands: (High/Medium/Low with description):</p> <p>None</p>
<p>Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:</p> <p>Temporary, localized impacts on noise and air pollution from maintenance vehicles movement can occur during household toilet maintenance work. All maintenance works will be conducted during daytime – so no light impacts expected.</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>Hazard Type(s): Cyclone, Flash Floods and the chance of natural hazards affecting HH Toilet structure.</p> <p>Low. Labor sheds is only possibility as seasonal based.</p>
<p>Accessibility to the closest disaster shelter (Easy/Difficult with description)</p> <p>In the HH Toilet using-operations phase the accessibility to the closest disaster/ cyclone shelter is almost easy for the community. Noted that three active cyclone shelters, fire service center are closer to the sub-project areas.</p>
<p><i>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)</i></p>



Section C: Social Screening

C.1 General Labor Influx Screening

Key Screening questions	Aspects to Consider
Will the project potentially involve an influx of workers to the project location, and will the influx be considered significant for the local community?	The number of total skilled meson is 1-2 and unskilled labor 2-3 perhousehold toilet. All the unskilled labor will be engaged from the host community. No additional foreign labor will be engaged. All the skilled labor will be staying at labor shed within the camp. The size of the labor shed (If there is women labor need to have separate shed and toilet) will be 225 square feet.
Is the project located in a rural or remote area?	The project area is Kutubdiaupazila area has demarcated by the Government and belongs to Union level rural, remote area. The frequency and extent of the contract, communication between the local community and outsiders are sometimes limited, and controlled by the respective authority. After establishing the proposed per household toilet schemes in the area about 5 to 6 peoples (per Toilet) will be benefitted to meet their water requirements.
Based on the socioeconomic, cultural, religious and demographic qualities of the local community, Rohingya population and the incoming workers, is there a possibility that their presence or interaction with the local community could create adverse impacts?	No. It is not expected that the presence of the skilled (local) and unskilled labor (host) may generate any adverse impacts. The project will benefit the host communities. There will be a code of conduct for the labors to follow, which will be monitored by the PMU on a regular basis. Before starting construction, work consultation will be conducted with construction labors & they will be given orientation on GBV issue. GBV, trafficking, child labor issue, labour influx, etc. will be monitored & monitoring progress will be incorporated within monthly progress report.
Consultation with Host Community People and relevant stakeholders (SH)	<p>During screening and site identification DPHE has conducted 03(three) consultation meetings with stakeholders and discussed withlocal community & with primary and secondary stakeholders. The stakeholders include UP Chairman, WATSAN committee members and female members, Contractor team and local Community. In addition to the above-mentioned meetings, the local DPHE has undertaken many consultations with male and female members of the local communities.</p> <p>Through the coordination and linkage activities of the project, the authorities have accomplished some formal exchange meetings, individual household visits, FGD, Tea Stall discussion and other consultation meetings.</p>



C.2 Land acquisition and stakeholder screening

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land/ Land Donation/ Land Taking				
1. Will there be any land acquisition?		√		Land acquisition is not needed. (Toilet site is located at host community individual HH homestead premise)
2. Is the project construction site known?	√			Yes, Site selected following written consent of respective HH members.
3. Who manages the land?	√			The lands are solely owned and managed by the individual household and currently vacant.
4. Will easement be utilized within an existing Right of Way (ROW)? CRP (Common Resource Property)	√			In the proposed HC area provision is available be utilized within an existing Right of Way (ROW) within this union under of EMCRP.
5. Will there be loss of local community tent, agricultural carps, trees, and other productive or fixed assets due to project intervention?		√		No HC habitats shelters will be affected. However, during construction if any habitats, shelters require to shift, mitigation measures will be taken according to RPF. Consultations will be conducted with stakeholders, focal persons, and LGIs.
6. Will there be loss of businesses or enterprises due to project intervention?		√		No
7. Will there be loss of income sources and means of livelihoods due to project intervention?		√		No
Involuntary restrictions on land use or on access to legally designated parks and protected areas				
8. Will people lose access to natural resources, communal facilities and services?		√		No
Information on Displaced Persons:				
9. Any estimate of the likely number of persons that will be displaced by the Project? [√] No [] Yes If yes, approximately how many?				
10. Are any of them poor, female-heads of households, or vulnerable to poverty risks? [√] No [] Yes				
11. Are any displaced persons from indigenous or ethnic minority groups? [√] No [] Yes				



12. Who are the stakeholders of the project? Please provide a summary of consultation meetings with stakeholders and the affected community.

The key stakeholders of this sub-projects are local community, Labors, communities/organizations within the project influence area indirectly affected by project activities, relevant government departments/agencies, Environment and Forest Department and Development Partners, NGOs working with local host communities.

The E&S team was conducted a very detailed consultations with different vulnerable groups of Kutubdia areas, who will be eligible to get the support (HHT) from the project. However, as it is not be possible to support all vulnerable households from the project, will inform stakeholders the selection process and GRM of the project.

The major outcomes of the consultation meetings with the selected households:

- The community of the proposed areas are very actively participated in the community consultations held at their homestead premises as cluster basis.
- Provide priority to the most vulnerable segments of the proposed HC especially the female headed hhs and differently able hhs are being selected.
- They listen the discussion issues very eagerly and interact and questions with the E&S team.
- They expressed their interest on the unique model of project provided improved and hygienic toilet with RCC wall and ceiling.
- The vulnerable community hhsrepresentative shows their interest on show their existing unimproved & unhygienic toilets at their homestead's areas.
- The participants were requested to take necessary measures for keeping the toilets clean during operation phase & they agreed to do that.
- The participants have requested for regular maintenance of household toilets.
- Also requested to engage labor from local community so that they can manage their livelihood.
- During construction work they also request to maintain proper safety measures. Since household toilets will be placed within household area, so excavated portion should not keep open for long time. Most of the participants opined that the number of toilets allocated for KutubdiaUpazila is inadequate to the demand.

Individual level consultation with project interest and influence parties (UP Chairman, WATSAN Committee Members) representative were conducted in consistence with consultation objective during sub-project selection stage to have their idea, concern, segregation about the proposed sub-project.

The consultations were conducted at two different tiers of stakeholders: Local people and different organization representative who are concern about



the sub-project. All of the proceedings and interaction of consultation have been recorded.

Consultation outcome with them is consolidated here in below:

Responds of WATSAN Committee members/ UP Chairman:

- WATSAN Committee members are ready to support DPHE, if they face any obstacle to implement the scheme;
- To keep boundary of the scheme areas and hang a signboard as soon as possible including name of executing agency, types of intervention, address of contractor, project duration, funding agency name and so on.
- Engage the Local community to implement the sub-project
- To keep temporary bin for waste collection during scheme implementation should arrange and regular disposal also need to be assured;
- Intervention sites not to be allowed in the bank of natural water body except ensuring adequate mitigation;
- Construction wastes that to be generated should be disposed regularly at designated sites.

13. What social and cultural factors affect the ability of stakeholders to participate or benefit from the proposed policy or project?

None.

14. Are project objectives consistent with their needs, interests and capacity?

Yes, the EMCRP project objectives consistent with the respective stakeholders, host community, needs, interests and capacity in the project areas

15. What will be the impact of the project or sub-project on the various stakeholders, especially women and vulnerable groups?

Positive impact:

Women and girls are to suffer more for inadequate sanitation, and often cannot use a toilet when and where they need because of unhygienic and even no toilets close to their households at host community. Therefore, after construction of toilets in the areas, will assure safety net for women and disabled person by confirming easy access into nearby household toilets with minimum risk of sexual violence, harassment and physical violence since they are not to be forced to defecate in the open places or use unsafe, dark or badly located toilets. Thereby keeping hygiene condition would be easier for the community people. At Kutubdia areas, the human waste (feces) will manage well by reducing contact of pollutants in the nearby water body, and soil. Resulting diarrhea and other health problem that are usually in connection with unhygienic sanitation system will mitigate by the well-designed household toilets. Around 5 to 6 people shall be benefited from one household toilet. Construction of the said toilet will help to keep the environment fresh & safe of the area.

Negative impact:



There will have no significant negative impact to the communities as well as in surrounding environment for constructing the household toilet. In fact, impact in connection with civil work for household toilets is minimum and very much site specific. Nevertheless, impact by the construction work is less. There will have some impact to the women during period of menstruation because that time use of water by the women for maintaining hygiene is required more than normal time but there is no provision of pipe water supply access in the toilets.

16. What social risks might affect project or sub-project success?

As per the visit findings and consultation meeting with the local community, other organizations and representatives of the scheme area, it has been revealed and perceived that the following social risks might be affected to accomplish the scheme interventions:

One of the key risks in this household toilet sub-project is that due to the limited allocation of HHT project may not be able to provide toilet to all individual hhs. So the E&S ensuring detailed consultations with all relevant stakeholders and inform them of the hh selection criteria and solicitation of complaints by project GRC under existing GRM. Also, by the E&S team to clear all concerned on the HHT sub-project allocation procedures i.e. Provide priority to the most vulnerable segments of the proposed HC especially the female headed hhs and differently able hhs are being selected.

Since the skilled labor will be engaged from the nearest local community and unskilled laborers will be engaged from the local community, there may be some conflict between the two groups. To establish the scheme tasks, additional labor from outside such as technicians will be engaged. Thus, there may be risk of some social conflict. A complete Gender action plan has already been developed and approved, a full time Gender Specialist for this project has been assigned to oversee the GBV based issues for this sub-project. The gender and GBV issues (i.e. human trafficking, eve teasing, etc.) are being addressed through mainstreaming activities. As a mitigation measure, the Social Safeguard team and grievance redress committee (GRC) has been following the respective GRM, abreast on GBV occurrences and guide the community through consultation meetings and counseling. Given the sensitivities in the local areas (social, cultural, religious, gender, disabilities, orphaned and vulnerable children, relationship with host community. Unexpected noise, dust pollution, waste materials due to scheme establishment activities, might affect general social, religious activity of the community at site area. However, by adopting the project E&S safeguard and through community consultation, the UP Chairman, Members and local DPHE representatives may determine possible ways and options to overcome and mitigate the constraints and risks during the scheme implementation.



C.3. Social Capital Format

The objective is to list various types of social institutes/bodies working in the Kutubdia host community, intended project influence areas to enlist them for the possible inclusion in the management, and monitoring of the projects. List the name of social institutes/ bodies under the given categorization along with the following information. Use separate sheet for each category of social institute/body. The information can be collected through secondary sources or different development organizations that are involved with the WASH projects, etc.

Type of Social Institutes/bodies	Name of Institution	Contact Person and Address and phone number	Primary areas of Work	Coverage areas in the camp and communities
Government Organizations	UNO	Md. Nurur Zaman Chowdhury UNO, Kutubdia unokutubdia@mopa.gov.bd	Overall Coordination of GoB dept, Dev partners, NGO, INGO, UN Agencies, Volunteers, Management of HOST Crisis in BD. Refugee Relief and Repatriation, Site management, Ensuring HC HH shelter, WASH facilities, Education, Health, Livelihoods, Social security, power sources, renewable solar energy.	Host Community, synchronizing with Host, E&S aspects, Elephant corridors, conserve NR. Establish proper road communication.
	DPHE DC, Cox's Bazar	Engr. Ritthick Chowdhury, DPHE, Executive Engineer, CXB, Email: chowritthick@gmail.com Md. Mamunur Rashid dccoxsbazar@mopa.gov.bd		
LGIs	Upazila Chairman	Adv. Faridul Islam Chow. Upazila Chairman, Kutubdia fksucc@gmail.com		
	Upazila DPHE Engineer	Md MonirujjamanDewanji Sub-Assistant Engineer, DPHE Kutubdia		
National Organizations	Not yet on boarded	the database web link: https://www.humanitarianresponse.info/en/operations/bangladesh/document/wash-sector-coxs-bazar-		



Type of Social Institutes/bodies	Name of Institution	Contact Person and Address and phone number	Primary areas of Work	Coverage areas in the camp and communities
		members-contact-list-17-october-2017		
Community based Volunteer Organizations are those, which constitute the members of the community working towards social development.	Not yet involved	N\ A. Prohibited by the GoB.	Ensuring Host Community HH shelter, WASH facilities, Education, Health, Livelihoods, Social security, power sources renewable solar energy.	



Section D: Environmental and Social Screening Summary

Environmental Screening Summary

Based on the above environmental and social screening, potential impact for implementing the proposed intervention on different parameters of environment and social with consequence mitigation measures and suggestive monitoring plan with mentioning the responsibilities parties of implementation and supervise the sub-project have been summarized as below:

Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
1: Sub-Project Interventions	Air Quality	Under the subproject 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; (spreading of crushed gravel over backfilled surfaces;Work place isolated by fencing active work sites in populated areas.Limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph.More details provided in ESMP	Construction Contractor monitored by Environmental Consultant and PMU	<ul style="list-style-type: none">Location of stockpiles;Number of complaints from stakeholders;Covering of trucks;Records of air quality inspection;	Air quality test (CO, PM) once in construction period in winter season.



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	Soil contamination and erosion	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> • Precautions might be taken when rainstorms are likely, when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms shall be developed by the Contractor. • The earthwork sites where exposed land surface is vulnerable to runoff shall be consolidated and/or 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 works areas and construction yards shall be kept to a minimum to reduce the erosive potential of surface water flows elsewhere. • More details provided in ESMP 	Construction Contractor monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> • No visible degradation to nearby drainages, • Khals or water bodies due to soil erosion. • Rain storms in construction phase. 	Weekly, especially after rain events



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
2: Pre-construction Phase	Impact on Existing drainage: drain may block, due to storage of construction materials on or next to the drain.	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> The Contractor will not be allowed to store construction materials beside drains Regular monitoring is essential If any materials fall within the drain, contractor will clean the drain immediately. 	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> List of materials and sources of materials; Storage site away from the drain 	Weekly
	Storage of construction materials can cause pollution or land slips	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> Train the concerned person, team assigned for the construction work regarding proper storage procedures: away from steep slopes, proper bonding to avoid runoff from site. More details provided in ESMP 	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> List of materials and sources of materials; Storage site away from steep slopes and has proper bonding 	Weekly
	Transportation impacts	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> All vehicle movement to be done during the day time Speed needs to be limited to 20kmph Contractor's responsibility to verify the suitability carrying, loading and unloading of materials by trucks or others transport and head load arrangement. More details provided in 	Construction Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> Check the vehicle pool. Record of regular inspection. Record of accidents/incidents 	Monthly monitoring.



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
3: Construction Phase			ESMP			
	Construction Waste (excavated soil etc.)	Under the sub-project intervention, the overall score is Medium.	<ul style="list-style-type: none"> Wastes must be placed in the designated bins which must be regularly emptied. All waste must be removed from the site and transported to a disposal site. More details provided in ESMP 	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> Complaints from community; Regular inspection of waste management activity; Waste disposal record. 	As work weekly progresses
	Stagnant water risk	Earth excavation will be required for pit placement. Water stagnant may occurs if the place keeps open for long time after earth excavation.the overall score is Medium.	<ul style="list-style-type: none"> Water stagnant area should be fenced with marking tape The top soils in the sub-project are sandy and the water should drain away quickly Contractor should arranger proper water pumping facilities (pup, etc.) Proper PPEs are essential during construction work. 	Construction Contractor foreman and monitored by Consultant and PIU	<ul style="list-style-type: none"> Water stagnant besidehousehold toilet area 	Daily during construction
	Storage of materials (Creating dust/ air pollution spillage of	Under the sub-project intervention, the overall	<ul style="list-style-type: none"> By the local WATSAN and LGIs to identify the storage site and other requirements, which will be approved by 	Contractor and monitored by Environmental Consultant and	<ul style="list-style-type: none"> List of materials and sources of materials; 	Monthly basis during implementation phase.



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	liquid/hazardous substance, Risk of crime)	score is Low .	PMU and consultants. <ul style="list-style-type: none"> More details provided in ESMP 	PMU		
	Impact on Drain & Aquatic Environment by discharging solid & liquid wastes from construction site & labor camp into nearby drain & through the drain those wastes can fall into canal water	Under the sub-project intervention, the overall score is Low .	<ul style="list-style-type: none"> Generated waste and construction debris shall be properly disposed in accordance with the approved designated disposal site(s); Acceptable quality of excavated soil shall be mostly reused for the backfilling, with the surplus portion, if any, disposed in the approved designated disposal site(s). Separate waste collection bins, for organic and inorganic wastes, shall be provided throughout the construction and camp sites, whereby all waste collection bins shall be regularly emptied and cleaned; Contractor will be responsible to control the workers from discharging of construction waste into adjacent water bodies. 	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> Frequency of emptying the waste bin Existence of waste bin 	Monthly basis during implementation phase.
	Erosion of land	Under the sub-project	<ul style="list-style-type: none"> During construction work (especially for earth 	Construction Contractor foreman	<ul style="list-style-type: none"> No visible degradation to 	Daily during earth



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
		intervention, the overall score is Low .	excavation) proper slope protection is essential. <ul style="list-style-type: none"> • During backfilling work proper compaction is essential (as per specification) • Avoid earthwork during monsoon • Proper PPEs are essential during construction work. 	and monitored by Consultant and PMU	nearby drainages or water bodies due to soil erosion at/near sub-project site.	excavation work & work below GL
	Noise pollution	Under the subproject intervention the overall score is Low .	<ul style="list-style-type: none"> • Consultation with affected people; not to operate noisy equipment during working and operations time (20:00 – 06:00); • Sound suppression for equipment; • Ear protection for workers. • Conduct noise quality monitoring as per ESMP. • Limiting speed of construction vehicles in access roads and work sites to max. of 20 kph. • Transportation of the construction materials and noisy construction work have to be carried during the scheduled times, and mainly during the day 	Construction Contractor and monitored by Consultant and PMU	<ul style="list-style-type: none"> • Number of complaints from stakeholders; Use of silencers in noise-producing equipment and sound barriers; • Noise Level following decibel meter (dB) 	Inspection by PMU and supervision consultants on monthly basis;
	Air pollution	Under the sub-	• Water spraying from other	Construction	• Location of	Air Quality:



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
		project intervention, the overall score is low .	source for dust control; <ul style="list-style-type: none"> Construction materials with potential for significant dust generation shall be covered; no smoke emitting equipment; and limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph. More details provided in ESMP 	Contractor and monitored by Environmental Consultant and PMU	stockpiles; <ul style="list-style-type: none"> Number of complaints from stakeholders; Records of air quality inspection; Air quality test report. 	PM ₁₀ PM _{2.5} , SPM and SO ₂ test once in construction period.
4: Operational Phase	Health & Safety Hazard	Site staff can be seriously hurt by accidents, the overall score is low .	<ul style="list-style-type: none"> Ensure proper training given to all staff Ensure PPE used by all staff Ensure use of vacuum tanker/pump to collect desludged material & dumping to proper dumping site. Vacuum truck with 50 m suction pipe will be used. It hope that, it will be possible to collect fecal sludge from maximum household toilets using vacuum truck. In some cases if manual pit emptying is required then proper pit emptying guidelines will be followed. Labours should use proper PPEs like hand gloves, 	DPHE- XEN	<ul style="list-style-type: none"> Accidents register 	During containment well cleaning work.



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			safety boots, face masks, eye protecting glasses, etc. Since pits of household toilets are smaller in size, it will be easier to clean			
	Destruction of soil	The operation period may be possible soil damage problems in the project areas by rainstorms and overall score is low .	<ul style="list-style-type: none"> Safeguards to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during rain storms shall be developed by the Contractor. More details provided in ESMP 	Construction Contractor weekly monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> No visible degradation to nearby drainages or water bodies due to soil damage at pipe laying area. 	Site inspection weekly/2-weekly in rain season.
	Odor & waste disposal of sludge from household toilet	Under the issue, the overall score is Medium .	<ul style="list-style-type: none"> Ensure use of vacuum tanker/pump to collect desludged material & dumping to proper dumping site. It hope that, it will be possible to collect fecal sludge or manual pit emptying is required then proper pit emptying guidelines will be followed. Labours should use proper PPEs like hand gloves, safety boots, face masks, eye protecting glasses, etc. Since pits of household toilets are smaller in size, it will be easier to clean. 	Construction Contractor up to defect liability period. Consultant and PMU Long-term responsibility to be determined by DPHE	<ul style="list-style-type: none"> Complaints from communities 	Site inspection daily/weekly basis.



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			<ul style="list-style-type: none"> • Appropriate awareness programs shall be arranged for the community members on health and hygiene issues and the impacts of improper sanitation practices; • Ensure disposal tanks, drums or containers coming to, and from, the site are in a satisfactory condition – check for damage or leaks; • Ventilation systems and facilities shall be kept in good functional in order to minimize untoward odor problems, 			
	Impact on existing drainage & Aquatic Environment	Aquatic environment may pollute by discharging fecal sludge & liquid waste to the surface water. But impact is site & time specific so overall score is low .	<ul style="list-style-type: none"> • Ensure use of vacuum tanker/pump (if possible) to collect desludged material & dumping to proper dumping site • Appropriate awareness programs shall be arranged for the community members on health and hygiene issues and the impacts of improper sanitation practices; • Ensure disposal tanks, drums or containers coming to, and from, the site are in a 	Construction Contractor up to defect liability period. Consultant and PMU	<ul style="list-style-type: none"> • Survival rate of nearby aquatic animal; • Recorded any incident on aquatic animal • Recorded complaint if any 	During containment well cleaning work.



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			satisfactory condition – check for damage or leaks;			
	Noise pollution	Under the subproject intervention the overall score is Low .	<ul style="list-style-type: none"> limiting speed of maintenance vehicles in access roads and work sites to max. of 20 kph. Transportation of the fecal sludge & other liquid waste have to be carried during the scheduled times, and mainly during the day 	Long-term responsibility to be determined by DPHE	<ul style="list-style-type: none"> Noise from maintenance vehicle 	During Maintenance work
	Air pollution	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph. More details provided in ESMP 	Construction Contractor up to defect liability period. Consultant and PMU	<ul style="list-style-type: none"> Dust due to vehicular movement 	During Maintenance vehicle movement
5: Potential Natural Hazards	Cyclone	Seasonal or weather depression and the overall score is low to medium .	<ul style="list-style-type: none"> Measures to be taken (DRR) at any time of year when cyclones are likely to happen. 	Construction Contractor for monitored by Environmental Consultant and PMU Long-term responsibility to be determined by DPHE and PMU	<ul style="list-style-type: none"> Weather Forecasting procedure/ Depression 	Site inspection weekly and monthly basis.
	Flash Flooding	May occur due to runoff from rainstorms and the overall score is low .	<ul style="list-style-type: none"> Protection to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent 	Long-term responsibility to be determined by DPHE and PMU Long-term duties to	<ul style="list-style-type: none"> Weather Forecasting procedure, Rainstorms 	Site inspection weekly and monthly basis on rainy season or during heavy



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
				be determined by DPHE and PMU		rainfall.
	Land sliding	Land slide may occur due to runoff from rainstorms and the overall score is low .	<ul style="list-style-type: none"> Protection to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms. 	Construction Contractor for first 2 years monitored by Environmental Consultant and PMU. Long-term responsibility to be determined by DPHE and PMU	<ul style="list-style-type: none"> Visible sliding prone Land (Hill or Tilla) area to nearby sites scheme area. 	Site inspection weekly and monthly basis on rainy season or during heavy rainfall.

* 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

Social Screening Summary:

To furnish the details of social screening, the ESMF has been followed focusing on major social impacts and significance of the sub-projects (Equity, labor influx, population coverage, easy access, GBV, impact mitigation measures, referral, monitoring suggestions. No land acquisition is required for



this HH toilets sub-project. Provision of utilizing existing Right of Way is available for household toilet sites within this area. The sub-project location was selected with the support of UP Chairman, WATSAN Committee and local DPHE. Consultation meeting was also conducted with local representatives who will be direct or indirectly related in the sub-project. The assigned consultants and local DPHE, UP Chairman and WATSAN committee member's team have visited the proposed site location and prepared the screening report. Initially the team surveyed the locality and primarily sorted (2-3) places to establish the scheme. It has been sorted out the exact situation on safe water provision through consultation meeting with them. The targeted HHs are poor. At present they are using unhygienic Toilets and some of them use open toilets. As per SDG -6 Bangladesh Govt is committed to ensure Safely Managed Toilet (SMT) for all within 2030. So, the Project will help Bangladesh Government in achieving the SDG through providing EMCGRP provided SMT to the areas as per the project provision.

Construction induced impact issues:

Since the household toilet will be constructed at empty place of personal homestead land and they will get direct benefit which encouraged them to provide necessary land for construct the said Latrine. As the land owner himself will use the toilet, has given consent for construction a toilet and there is no land acquisition, so there will be no arise any construction induced impacts. During construction, movements of heavy vehicles or construction materials may cause damages to the shelters or assets. If any damages are reported, DPHE will hold consultations with the site management along with contractors and LGIs points to take mitigation measures according to ESMF and RPF.

Labor issues:

Every household toilet establishment scheme will be executed by the contractor who will engage both skilled (1-2 nos.) & unskilled (2-3 nos.) labors. The unskilled labor will be engaged from the local community while the 1-2 skilled labor from the nearest local community. No foreign labor will be required to implement the sub-project activities. Since the number of external workers will be very few and working for short periods of time (more than 3 months), usually there will have no competition in using resources amongst the local and nearest communities. Thus, the sub-project will not create any influx of workers. The unskilled labors will be hired from the local community of Unions. The skilled labors will be accommodated on site in the local Community by the contractors. The contractor will make temporary labor shed for both of his male & female (if necessary) labor. Area of the shed will be around (15ftX15ft) for males and (15ftX12ft) for females. All laborers (skilled and unskilled) shall be given appropriate training and capacity development to entail a multitude of codes of conduct pertaining to conflict, GBV and other issues. "Labor's Code of Conduct" is attached in Appendix-6.

Linkage with other stakeholders:

The team has provided emphasis to keep better linkage with related stakeholders (*i.e.*, UP Chairman, Members, Host Community, WATSAN committees, INGO & Local NGO *etc.*). The team conducts several types of consultation meeting with them group/individually for any social issues.



Gender Based Violence (GBV) issues:

The proposed sub-project activities will involve very minor civil works through skilled and unskilled (from local community) labor. A strict labor code of conduct will be enforced. A GRM will be established to deal with related issues. The team will conduct consultation meetings with the local community, contractors and labor to address GBV. If any odd situations arise, the GRC will attempt to mitigate any issues according to the ESMF GRM guideline. On the other hand, if any private land/land leases issues arise, the team will conduct a consultation meeting with the owner and relevant stakeholders according to the ESMF & resettlement guideline. GBV issues will be monitored & monitoring progress will be incorporated within monthly progress report.

Beyond of these, under the UNFPA 9th Country Programme “Advanced gender equality, women’s and girls’ empowerment, and reproductive rights, including for the most vulnerable and marginalized women, adolescents and youth” will be achieved as the project is a part of Gender Component of the UNFPA 9th Country Programme. In the event any issues on GBV arise, they will be well communicated with UNFPA through appropriate channels to resolve the issue following proper processes.

Various tools will be developed/adapted to facilitate GBV services, MHPSS services and engaging men and boys into GBV prevention work. Along with the GBV case management services, GBV and labor code of conduct awareness programs will be implemented, where all stakeholders including the host communities, labor engaged for the project, the WB and project clients such as DPHE and LGD can participate.

Consultations and Future Consultations:

Under the EMCRP, the DPHE has initiated elaborate consultations with various stakeholders of this project for the House Hold Toilet Schemes site management. These include GIS specialist (initially), hydro geologist located in the scheme area, E&S consultants, local DPHE authorities, other development partners such as UP as well as the local community. These sessions covered topics such as WB introduced Social and Environmental safeguard issues, GRM, possible social environmental and economic effects, livelihoods options, discussions on minimizing the laborer conflict among local host communities and out siders, Infrastructure, WASH, hygiene, GBV, forestation, waste, sludge management. Most importantly, the benefits of toilet options through constructing the House Hold Toilet schemes were discussed. It was also determined that now there is no Elephant corridor and no scope of Elephant/Human conflict in the site area. The local community were made aware and sensitized on E&S safeguard issues, precautions, child safety, avoid resettlement, relocations of local institutions (mosques, school/ learning centers & others, any restrictions for the local community) and compensation mechanisms in the event of any objection and complaints.

As a result of these consultations, the community very much welcomed and appreciated the DPHE EMCRP initiatives on WASH sector sub projects. As per their opinion, the safe water and improved sanitation (HHT construction) is one of their priority needs for secured and better livelihoods aspects.



Thus, future consultations during the lifetime of the project are expected to ensure that negative social and environmental impacts are being mitigated with due consideration of community needs and opinions. Consultations will involve determining with the site management team whether proper signage is being used (e.g., for occupational hazard) and whether a properly GRM system is being implemented through an efficient GRC. The GRM will be set up to serve as an integral tool for engaging the various stakeholders during the project activities and its implementation. There will have a complaint book for stakeholders to register their complaint and the GRM will be institutionalized with qualified personnel having adequate training in dealing with relevant complaints. The GRM will be available for a wide array of issues such as malpractice, labor issues and GBV.

Labor and Contractors management during COVID-19:

Recommendations

For projects involving construction/civil works:

Contractors will develop specific procedures or plans so that adequate precautions are in place to prevent or minimize an outbreak of COVID-19, and what should be done if a worker gets sick:

- Assessing the characteristics of the workforce, including those with underlying health issues or who may be otherwise at risk
- Confirming workers are fit for work, to include temperature testing and refusing entry to sick workers
- Considering ways to minimize entry/exit to site or the workplace, and limiting contact between workers and the community/general public
- Training workers on hygiene and other preventative measures, and implementing a communication strategy for regular updates on COVID-19 related issues and the status of affected workers
- Treatment of workers who are or should be self-isolating and/or are displaying symptoms
- Assessing risks to continuity of supplies of medicine, water, fuel, food & PPE, taking into account international, national & local supply chains
- Reduction, storage and disposal of medical waste
- Adjustments to work practices, to reduce the number of workers and increase social distancing
- Expanding health facilities on-site compared to usual levels, developing relationships with local health care facilities and organize for the treatment of sick workers
- Building worker accommodations further apart, or having one worker accommodation in a more isolated area, which may be easily converted to quarantine and treatment facilities, if needed
- Establishing a procedure to follow if a worker becomes sick (following WHO guidelines)
- Implementing a communication strategy with the community, community leaders and local govt. in relation to COVID-19 issues on the site.
- For supporting health facilities, plans or procedures will be in place to address the following issues:
- Obtaining adequate supplies of medical PPE, including gowns, aprons, curtains; medical masks and respirators (N95 or FFP2); gloves (medical, and heavy duty for cleaners); eye protection (goggles or face screens); hand washing soap and sanitizer; and effective cleaning equipment.



Where relevant PPE cannot be obtained, the plan should consider viable alternatives, such as cloth masks, alcohol-based cleansers, hot water for cleaning and extra handwashing facilities, until such time as the supplies are available

- Training medical staff on the latest WHO advice and recommendations on the specifics of COVID-19
- Conducting enhanced cleaning arrangements, including thorough cleaning (using adequate disinfectant) of catering facilities/canteens/food/drink facilities, toilets/toilets/showers, common areas, including door handles, floors and all surfaces that are touched regularly
- Training and providing cleaning staff with adequate PPE when cleaning consultation rooms and facilities used to treat infected patients
- Implementing a communication strategy/plan to support regular communication, accessible updates and clear messaging to health workers, regarding the spread of COVID-19 in nearby locations, the latest facts and statistics, and applicable procedures.

COVID Management Guidelines during implementation:

A. Labor, Workers and Working Conditions:

Contractors are responsible to manage the labors, workers and working conditions. PIU with the support of superstition and monitoring firms will ensure implementation.

- Stop any Project Activities that may increase community exposure to COVID risks
- Communicate to communities about protective COVID risks and measures
- Monitor incidence and outbreak of communicable diseases
- Identify hotspots based on health data available
- Screen Security personnel for COVID
- Follow strict protocols in management of project interventions that may increase the COVID risk for human health (for instance in livestock and commercial farming)
- Undertake preventive measures in resettlement settlements
- Practice social distancing in meetings, workshops and consultations

B. Entry/Exit to the work site and checks on commencement of work:

Entry/exit to the work site will be controlled and documented for both workers and other parties, including support staff and suppliers. Possible measures will include:

- Controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points. Entry/exit to the site will be documented.
- Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system and any COVID -19 specific considerations.



- Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.
- Confirming that workers are fit for work before they enter the site or start work. Special attention will be paid to workers with underlying health issues or who may be otherwise at risk. Consideration will be given to demobilization of staff with underlying health issues.
- Checking and recording temperatures of workers and other people entering the site or requiring self-reporting prior to or on entering the site.
- Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.
- During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
- Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
- Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.

C. Land Acquisition and Involuntary Resettlement:

Though this sub-project will not require land acquisition and involuntary resettlement but during implementation if any involuntary resettlement issues arise, following steps will be followed:

- Identify vulnerable PAPs and Non-title holders who may have increased vulnerability due to COVID outbreak and (lockdown or loss of livelihood); particularly NTH
- Make accelerated payments for compensation and/or livelihood restoration to project affected persons, especially vulnerable households, non-titled holders to help them cope with lockdown;
- Employ local population on wage labor, make advance payments;
- Manage migrant labor for COVID related risks
- Invest in living conditions in relocation settlements

D. Community Health and Safety:

PIU and contractors are responsible to implement the following

- Stop any Project Activities that may increase community exposure to COVID risks
- Communicate to communities about protective COVID risks and measures
- Monitor incidence and outbreak of communicable diseases
- Identify hotspots based on health data available
- Screen Security personnel for COVID



- Follow strict protocols in management of project interventions that may increase the COVID risk for human health (for instance in livestock and commercial farming)
- Undertake preventive measures in resettlement settlements
- Practice social distancing in meetings, workshops and consultations

E. Stakeholders and Citizen and Grievance Mechanism:

- Disseminate COVID advisories over phones, texts, what's app groups, radio, TV, frontline workers Communication;
- Monitor existing grievance and public information mechanisms for any COVID related grievance, queries etc.;
- Widely disseminate material on those who have recovered from COVID to remove stigma
- Include Doctor or medical staff in the GRM
- Use more video conference facilities and conferences.

Recommendation for further environmental and social assessment and/or site specific environmental and social management plan: Yes/No

Yes, ESMP is required & attached within ***Appendix 1***



Appendix -01: Environmental and Social Management Plan (ESMP):

Considering the intervention wise construction activities of proposed site probable impact with consequence mitigation measures have been designed (as an ESMP) in the following table for household single toilet at DakhinDhurang, Uttar Dhurangand Lemsikhali unions, Kutubdia Upazilla, Cox's Bazar.

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Assessment of Social Impacts and Risks	<p>To meet the requirements for disadvantaged and vulnerable directive:</p> <ul style="list-style-type: none"> • Include COVID positive individuals, households and clusters as vulnerable category in Social Assessment TORs, surveys and consultations (particularly relating to social stigma); • Consult with such COVID positive households to Identify specific support mechanisms that projects could support; • Add tribal communities in self isolation under vulnerable groups who may need suitable and socially acceptable support; • Use alternative and virtual and video means for consultations and interactions. 	PMU	Social Development & Hygiene Promotion Consultant of PMU, Supervision and monitoring firms
Pre-Construction Stage	Loss/source of livelihoods	<ul style="list-style-type: none"> • Under this sub-project, there is no scope of negative impact of host community livelihoods. • Ensure engagement of local labor as unskilled worker 	Contractor	Social Development & Hygiene Promotion Consultant of PMU
Pre-Construction Stage	Stakeholders Engagement	<ul style="list-style-type: none"> • All the project stakeholders will be engaged in consultation • Individual/Separate community level consultation meeting will be held with the potential affected HHs • Consultation meeting with HC male and female about the project safeguard documents will be disclosed to the stakeholders • In this stage HHT sub-project, PMU will form and activate an effective GRM by form and evolving community and project level GRCs. This structure 	PMU & Contractor	Social Development & Hygiene Promotion Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>and WATSAN committee will actively facilitate the GRM / complaint solicitation process on time. And, the HC people will involve with the GRM, through GRC. Project will orient the GRM issues to all concerned and stakeholders following ESMP (ESMF).</p> <ul style="list-style-type: none"> • Consultation meeting with will be held contractors and labors about safe guard issues. 		
Pre-Construction Stage	Loss of Access rights	<ul style="list-style-type: none"> • Prior to start the work, contractor will inform the community people to use alternative roads; • Construction work will be completed in quick time as much as possible to reduce the hassle of community • Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. • In case of unavoidable circumstances, alternative access will be provided. • PMU will form and activate an effective GRM by form and evolving community and project level GRCs. This structure and WATSAN committee will actively facilitate the GRM / complaint solicitation process on time. 	Contractor	Social Development & Hygiene Promotion Consultant of PMU
Pre-Construction Stage	Improper site selection for proposed intervention can be a cause of HEC at subproject site.	<ul style="list-style-type: none"> • Selection of sub-project sites will be outside of the elephant route/corridor/influenced area. • Before finalized the location of sub-project must be contact with UP Chairman & SAE, DPHE. • Bangladesh Forest Department (BFD) and Border Guard Bangladesh (BGB) already fixed up the camp area and boundary. Sub-project 	PMU	Environmental Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/Indicators	Institutional Responsibilities	Supervision Responsibility
		Interventions will be also included in this area. So, no need to take any further consent for those purpose, if any circumstance arisen.		
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> Vegetation clearing work not to be done more than required area of proposed intervention; Selected site will be far away from any water bodies or natural water flow path to avoid the flash flood or any kind of surface runoff. Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. The existing slope and natural drainage pattern on the site should not be significantly altered because construction material/ equipment will be stored in selected place with sufficient earthen drainage facilities around to ensure continuous connection with nearby natural water body 	PMU & Contractor	Environmental Consultant of PMU
Construction Activity	Noise pollution will occur due to use of diesel-based construction equipment/vehicles movement	<ul style="list-style-type: none"> Construction activity will be pat daytime, not more than 5.00 pm.; Contractor will confirm proper measures for avoiding any disturbance of residents as well as biodiversity. Ensure use of the personal protective equipment's (helmet, goggles, gloves, safety boot) during cutting and welding of the reinforcement and during drilling work; Availability and access to first-aid equipment and medical supplies in case of any accidents. Contractor will confirm proper measures for avoiding any disturbance of residents as well as biodiversity. All construction activities which cause noise pollution, should be stopped during prayers. 	Contractor	Environmental Consultant of PMU and DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
Construction Activity	Air quality will degrade due to dust blowing from earthwork, transportation of waste or fine material and emission of construction vehicles.	<ul style="list-style-type: none"> Construction machinery shall be properly maintained to minimize exhaust emissions of CO₂, particulate matter (SPM, PM_{2.5} and PM₁₀) and Hydrocarbons. Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers. Dust generation due to vehicle movement on haul roads/access roads shall be controlled through regular water sprinkling. Carry the materials especially loose soil and sand with adequate cover. Ensure use of masks to construction workers if dust content is high. 	Contractor	Environmental Consultant of PMU and DPHE
Construction Activity	Safety Issues /impact may be decline if construction management not works rightly	<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 Properly maintained and control store house, storages instruments as well as hazardous materials on the site Health and safety training will be arranged for the 	Contractor	Environmental Consultant of PMU and DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>labors before project intervention started.</p> <ul style="list-style-type: none"> Labor will bring their proper IDs and wear when they will entry in the community area. Child labors will not be allowed for any kind of activities Site shall be secured by fencing and maintained at entry points. 		
Construction Activity	Traffic Management	<ul style="list-style-type: none"> Contractors to provide traffic management plans to be approved by relevant authorities. If need adequate alternative arrangements will be made to minimize impact on motorist and pedestrians. Adequate road signs to be planted on access roads to limit vehicular speeds. For access roads, speed ramps will be construct by proper design. Traffic signs will be made in Bangla language. 	Contractor	Environmental Consultant of PMU and DPHE
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> The movement of heavy machinery and equipment will be restricted to defined routes. Proper signage to be displayed at major junctions. Road diversions and closures to be informed well in advance to the local community. The vehicular movement will be controlled near sensitive locations viz. schools, colleges, hospitals, mosques, learning center &HC identified along designated vehicular transportation routes. Local community will be trained up about traffic management and awareness. 	Contractor	Environmental Consultant of PMU and DPHE
Construction Activity	Social conflict may arise between outsider workers and local	<ul style="list-style-type: none"> An alternate arrangement for fuel wood, heating & cooling required to meet fuel requirement of the labor camps. 	Contractor	Social Development & Hygiene Promotion Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
	<p>residence due to different behavior or custom of outsider worker (if any) as well as consumption of natural resource by the local worker</p>	<ul style="list-style-type: none"> Alternating cooking arrangement for the HHs living in the camp should be arrange by the contractor; Contractor will closely monitor all workers so that workers do not involve with local politics as well as sexual harassment, trafficking of women and children. Contractor will be arranged an awareness building training for the workers about nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade. Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. PMU will form and activate an effective GRM by form and evolving community and project level GRCs. This structure and WATSAN committee will actively facilitate the GRM / complaint solicitation process on time. 		
Construction Activity	<p>Waste Management: Generated wastes (earth, mud) from drill of pump may cause of degrade the quality of nearby water quality (if any) and surrounding environment -Hazardous waste i.e., waste oil, grease from</p>	<ul style="list-style-type: none"> Wastes must be placed in the designated bins which must be regularly emptied; All waste must be removed from the site and transported to a disposal site; 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.; Refueling and maintenance of equipment and vehicles should be done in selected confined area with base of impermeable layer (paved) so that 	Contractor	Environmental Consultant and Social Development & Hygiene Promotion Consultant of PMU and DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
	vehicle maintenance also can decline the nearby water quality and surrounding environment if these are not properly managed	<p>waste could not spill and get contact with nearby water body and soil. Waste oil and mobile will be collected and subsequently sold to authorized recyclers.</p> <ul style="list-style-type: none"> The scrap material generated from the erection of structures and related construction activities including generated mud will be collected and stored separately in a stack yard and regularly disposed in designated waste dump area and residue that is carried value will sold to local recyclers; Hazardous Waste Management Rules should be maintained by the responsible contractor; Informal training on handling of hazardous waste shall be done regularly by the ES of PMU and Contractor's HSE. 		
Construction Activity	<p>Health & Safety Risks may be taking place for following reason to associates worker</p> <p>The potentialfor 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.</p> <p>Exposure to health events during</p>	<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 that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. Proper signpost any slippery areas will be ensured in construction site. Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning and fighting fire. A system to alert for workers will be setup on site. This may be temporary or permanent mains operated fire alarm. 	Contractor	Environmental Consultant and Social Development & Hygiene Promotion Consultant of PMU and DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/Indicators	Institutional Responsibilities	Supervision Responsibility
	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"> • Fire extinguishers will be located at identified fire points around the site. The extinguishers will be appropriated 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, in addition to training for personnel and drills to test the plan. • Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems. • Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. • An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. • First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. • Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. • Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), provide the lowest vibration tools that are suitable and can do the works. 		



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	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. Regulated noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary. Contractor will provide Awareness training to all personnel involved during the construction phase in order to highlight 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 different locations within the sub-project area. 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 in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used. PMU will form and activate an effective GRM by form and evolving community and project level GRCs. This structure and WATSAN committee will actively facilitate the GRM / complaint solicitation process on time. 		
Operation & Maintenance	Noise disturbances	<ul style="list-style-type: none"> Provision to maintain noise from the operation & maintenance of machinery and equipment by noise dampeners 	Contractor: up to contractor's liability period	Environmental Consultant of PMU,



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> Toilet containment well cleaning work should conduct during day time. Regular third-party monitoring of noise levels. 	Long-term responsibility to be determined by DPHE	
Operation & Maintenance	Improper disposal and leakage of sewage from household toilet may degrade the surrounding environment.	<ul style="list-style-type: none"> Use bin covers and/or tarpaulins during transport of wastes and end products (compost). The soak pit will have to be cleaned in a regular interval (at least in every three months). If possible then use of vacuum tanker/pump to collect de-sludge material & dumping to proper dumping site. Appropriate awareness programs shall be arranged for the community members on health and hygiene issues and the impacts of improper sanitation practices; Ensure disposal tanks, drums or containers coming to, and from, the site is in a satisfactory condition – check for damage or leaks; Ventilation systems and facilities shall be kept in good functional order to minimize untoward odor problems 	<p>Contractor: up to contractor's liability period</p> <p>Long-term responsibility to be determined by DPHE</p>	Environmental Consultant of PMU,
Operation & Maintenance	Injuries to operation and maintenance workers	<ul style="list-style-type: none"> Ensure proper training given to all staff Ensure PPE used by all staff 	<p>Contractor: up to contractor's liability period</p> <p>Long-term duties to be determined by DPHE</p>	Environmental Consultant of PMU,
Operation & Maintenance	Erosion and land degradation due to leakage of toilets	<ul style="list-style-type: none"> Preventative maintenance to be undertaken at regular intervals by the Contractor to ensure there are no leaks causing erosion. 	<p>Contractor: up to contractor's liability period</p> <p>Long-term responsibility to be determined by DPHE</p>	Environmental Consultant of PMU,



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
Operation & Maintenance	Air pollution can happen due to bad smell of dirty toilets and improper design of vent pipe	<ul style="list-style-type: none"> To avoid bad smell regular cleaning of household toilets will be assured. Engineering designed to be followed for installing vent pipe so that odor cannot spread. Community awareness will be increased at HC area on cleanness of toilets after wash and its benefit to health. 	Contractor: up to contractor's liability period Long-term responsibility to be determined by DPHE	Environmental Consultant of PMU,
Decommissioning	<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/HOSTs 	<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 worse. 	Contractor: up to contractor's liability period Long-term responsibility to be determined by DPHE	Environmental Consultant of PMU,
Potential Natural Hazards	Cyclone	<ul style="list-style-type: none"> Seasonal or weather depression and the overall score is low to medium. 	Construction Contractor for monitored by Environmental Consultant and PMU. Long-term responsibility to be determined by DPHE and PMU.	Environmental Consultant of PMU
Potential Natural Hazards	Flash Flooding	<ul style="list-style-type: none"> May occur due to runoff from rainstorms and the overall score is low. 	Construction Contractor for monitored by Environmental Consultant and PMU. Long-term responsibility to be determined by DPHE and PMU.	Environmental Consultant of PMU
Potential Natural	Land sliding	<ul style="list-style-type: none"> Land slide may occur due to runoff from rainstorms and the overall score is low. 	Construction Contractor for monitored by	Environmental Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
Hazards			Environmental Consultant and PMU. Long-term responsibility to be determined by DPHE and PMU.	

Appendix-02: Consultation Meeting Photos with Host Community, Kutubdia, Cox's Bazar



Figure_02: Community Consultation meeting at DakhinDhurang, Uttar Dhurang and Lemsikhali union KutubdiaUpazila

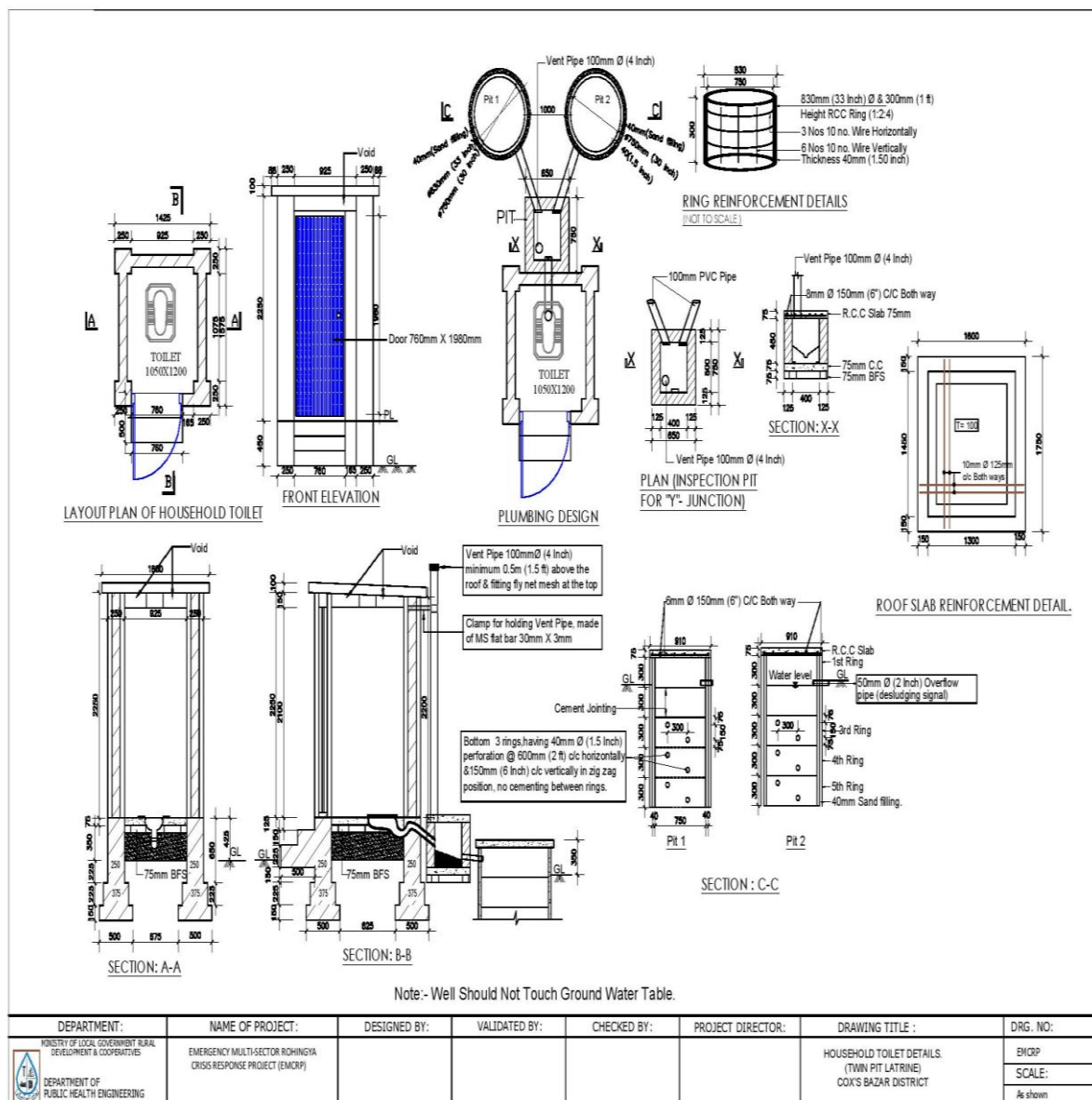
Appendix-03: Consultation Meeting with UP Chairman & WATSAN Committee Chairperson



Figure_03: Consultation Meeting with UP Chairman, DPHE & WATSAN Committee, Kutubdia



Annex- 5: Typical design of HH toilet





Appendix 06: Labor's Code of Conduct (CoC):

অঙ্গীকারপত্র

স্থান:

ঠিকাদারীপ্রতিষ্ঠান:

আমি এইমর্মে অঙ্গীকার করছি যে, কর্মরত থাকা অবস্থায় নিম্নোক্ত আদেশ, নির্দেশ ও নিষেধসমূহ সদা সর্বদা মেনে চলবো।

১. সকল জনগোষ্ঠীর সাথে সর্বদা নম্রতা, ভদ্রতা ও সন্মানের সাথে ব্যবহার বজায় রাখবো।
২. কোন অবস্থাতেই নারী, শিশুর সাথে কোন প্রকার সম্পর্ক তৈরী করবো না।
৩. জনগোষ্ঠীর ইচ্ছাকৃত বা অনিচ্ছাকৃত কোন প্রকার সাহায্য সহযোগীতানি বোনা।
৪. কোন অবস্থাতেই জনগোষ্ঠীর কোন প্রকার আশ্বাস প্রদান কিংবা অঙ্গীকার বন্ধ করবো না।
৫. কর্মক্ষেত্রে কিংবা এলাকায় জীবজন্তু, গাছপালা ও পরিবেশের কোন প্রকার অনিষ্ট করবো না।
৬. কর্মক্ষেত্রে সর্বদা নিরাপত্তা পোশাক-আশাক ও উপকরণ পরিধান ও ব্যবহার করবো।
৭. সর্বদা নিজ পরিচয়পত্র (ID Card) প্রদর্শন ও সংরক্ষণ করবো।
৮. কোন অবস্থাতেই জনগোষ্ঠী ও স্থানীয় লোকদের সাথে কোন প্রকার অসামাজিক কর্মকান্ড ও কোন প্রকার বিবাদে লিপ্ত হবো না।
৯. যেকোন জরুরী অবস্থায় সিদ্ধান্ত গ্রহণের ক্ষেত্রে সংশ্লিষ্ট কর্মকর্তার শরণাপন্ন হবো।

উপরোক্ত বিষয়সমূহের যদিকোন ব্যতিক্রম ঘটবে বা ঘটাই তাহলে এ বিষয়ে প্রশাসন আইনগত যেশান্তি বাসমাধান গ্রহণ করবে তা মেনে নিতে বাধ্য থাকবো।

স্বাক্ষর ও তারিখ

প্রজেক্টসাইটে যা যা অবশ্যই রাখতে হবে-

১. শ্রমিক ও কর্মকর্তা তালিকা
২. হাজিরা খাতা
৩. ছুটির রেজিস্টার
৪. দুর্ঘটনার বিবরণী লিপিবদ্ধ করার রেজিস্টার
৫. অভিযোগ লিপিবদ্ধ করার রেজিস্টার
৬. কাজের বিবরণী
৭. জরুরী অবস্থায় যোগাযোগের জন্য কমপক্ষে ২ জন কর্মকর্তার নাম-পদবী সহ মোবাইল নম্বর
৮. বাংলা ও ইংরেজীতে বড় বড় অক্ষরে দৃশ্যমান স্থানে প্রদর্শনের জন্য স্থাপন।
৯. নিকটস্থ হাসপাতাল,
পুলিশ স্টেশন এবং ডাক্তারের সাথে যোগাযোগের জন্য মোবাইল/টেলিফোন নম্বর বাংলা ও ইংরেজীতে বড় বড় অক্ষরে দৃশ্যমান স্থানে প্রদর্শনের জন্য স্থাপন।
১০. কাজের সাইটে পূর্ণাঙ্গ তথ্য ও কাজের পরিধি ব্যানার আকারে দৃশ্যমান স্থানে প্রদর্শনের জন্য স্থাপন।
১১. নিরাপত্তা উপকরণ ও সরঞ্জামাদি এবং প্রাথমিক চিকিৎসা ব্যবস্থা রাখা।
১২. নিরাপত্তা চিহ্ন,
সতর্কতা তথ্য ও নিরাপত্তা বেস্তনী ব্যবস্থাকরা। জরুরী অবস্থায় ব্যবহারের জন্য গাড়ি কিং বা মোটরসাইকেলের ব্যবস্থা রাখা।

(বিঃদ্রঃ রেজিস্টার খাতার উপর প্রত্যেক প্রতিষ্ঠানের নাম ও স্থান উল্লেখ করতে হবে)

পরিবেশগত সতর্কতা সমূহ:-

- ১) প্রয়োজনব্যতীত কোন প্রকার আগুন ধরানো যাবে না।
- ২) কখনোই প্রাণীর অনিষ্ট করা যাবে না।
- ৩) সকল প্রকার দূষণ পরিহার করতে হবে।
- ৪) অনুমতি ব্যতীত কোন প্রকার গাছ কাটা যাবে না।
- ৫) যথাযথ সম্পদের ব্যবহার করতে হবে।
- ৬) নবায়নযোগ্য উৎস ব্যবহারের সর্বোচ্চ চেষ্টা করতে হবে।
- ৭) কাজের শেষে পূর্বের পরিবেশ ফিরিয়ে দিতে হবে।



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