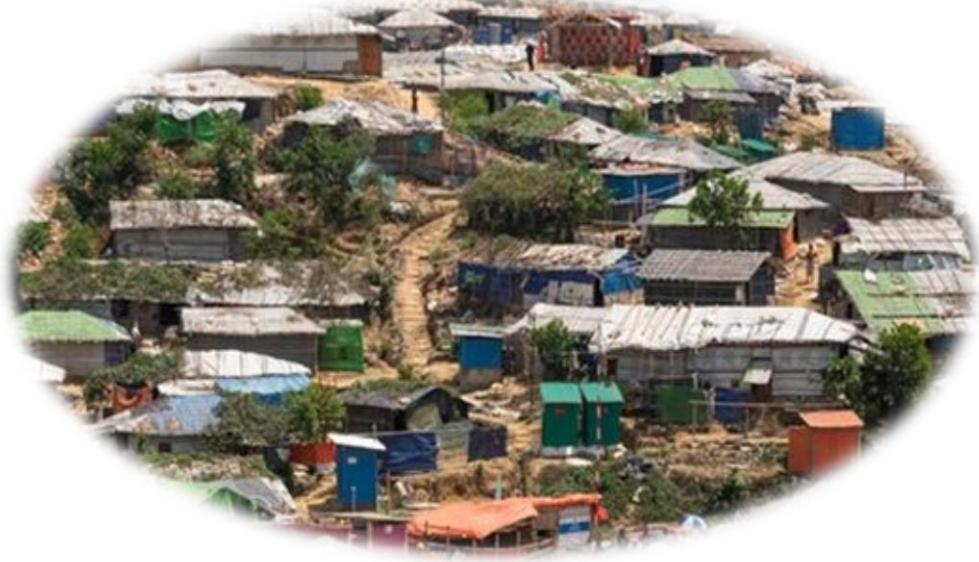




**Government of the People's Republic of Bangladesh  
Ministry of Local Government, Rural Development and Co-operatives  
(Local Government Division)**

**Environmental and Social Screening Report  
On  
Construction of Household Toilet Scheme**



**Location: DRP Camp: 09 (Vol-02), Sub-project (Package No.): EMCRP/WD-10  
Emergency Multi-Sector Rohingya Crisis Response Project (GoB-WB)**



**Department of Public Health Engineering (DPHE)**



## Abbreviation and Acronyms

ACF	Action Against Hunger
BBS	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
DTW	Deep Tubewell
DTTW	Deep Tara Tubewell
EC	Electrical Conductivity
EE	Executive Engineer
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	Community consultation
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
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



NGO	Non-Government Organization
LGED	Local Government Engineering Department
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
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

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#### Sub-Project Description Form

**Introduction:** Under the EMCRP, DPHE will construct 3000 household toilets at different locations of DRP camps. This screening report is prepared for sites of 14 (fourteen) household toilets of Camp\_09 (Vol-2).

**Name of Sub-project:** Construction of Camp based household toilet including Operation and Maintenance Scheme under WD-10 for Displaced Rohingya Population (DRP) at Ukhiya Upazila, Cox's Bazar.

**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 five years.

**District:** Cox's Bazar

**Sub-District:** Ukhiya

**Union:** Palongkhali

**Name of Community/Local Area:** Camp\_09, Blocks A-5, A-6, A-12, F-6 and I-3

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

#### Subproject Activities:

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

- 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 depth & 1200 mm diameter 7 rings 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.
- Construction of toilet superstructure with CI sheet, angle, etc.
- Supply of Bucket, water pot (mug & bodna), brush for cleaning, basket (for used toilet paper, menstrual waste, etc.), sticker on awareness to put the menstrual pad or cloths in bin not inside the toilet
- Environmental & Social monitoring Works

Typical design of HH toilet is attached in **Appendix-5**

**Estimated footprint / land area:** Proposed lands for constructing the household toilets are vacant, actually vacant lands within DRP HHs are selected for HH toilets. It's been roughly estimated that about 8-15 square meter land (8 sqm. for Option: 2 and 15 sqm. for Option: 1 & 3) would be required for each household toilet. Around 20 people (3 to-4 DRP HHS) will use each household toilet.

**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 camp 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 subproject 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 14 household toilet's locations are at Camp\_09, Blocks\_A-5, A-6, A-12, F-6 and I-3. Proposed lands are owned by the government and no trees, structures and community properties will be affected. The buildup infrastructures in and around the subproject site, there are mainly DRP houses, earthen drain, low land, hills, health post, drains, etc. Some sites are selected at high land. No road close to the sub project area only footpath exists, because selected sites for HHs toilets are within DRP households. Household toilets will be constructed within DRP household areas and sites are selected considering 3 to 4 households. Sites have been selected in such a way that DRP people can easily access there, especially pregnant women, person with disability, elderly & children and those persons do not have to go far along the road or footpath. Stapes (brick made) will be provided, so that person with disability, elderly, sick people, pregnant women and children can easily enter the toilet as well as proper solar lighting besides the roads and inside the latrine/charger light will be provided. 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. Depth of containment chamber is 2.1 m (1.8m below ground) and bottom of the containment chamber is sealed with RCC casting. Depth of tube wells within the camp area varies from 600 feet to 700 feet. So, there is no possibility to contaminate ground water from household toilets. It seems that expected impacts on surrounding features would be minimum.

**Overall Comments:**

The DRP of the 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 minimum and very much site specific for implementing the proposed intervention. 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 camps area. Therefore, after construction of households' toilets in camps area, will assure safety for Women, children, disable persons, elderly and girls, by confirming easy access into nearby household toilets. 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 household's toilet will be usually less than before, thereby keeping hygiene condition would be easier for the camps' people. Camp\_09, 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 15-20 people shall be benefited from one household toilet. DPHE, together with IWM Environmental & Social safeguard team, PMU Social & Environmental Consultant have conducted one (01) consultation with DRP communities (including vulnerable group like pregnant women, elderly, person with disability and children) & their community leader. Some consultations also conducted with CiC, Camp WASH area focal, Camp area focal, SAE & Mechanic, and relevant stakeholders.

Take into account the suggestion/ opinion made by the participants of consultation meetings, potential environmental and social impact for implementing the proposed intervention, and sensitivity of the sites location to protected area/ archeological sites/sensitive receptor, these sites have been selected for constructing the proposed household toilet. Outcome of consultation meetings are described within section C2, SL no 12.



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

**Household toilet site selection process:**

For conducting the subproject screening process, DPHE Officials along with IWM Specialists & EMCRP Consultants jointly visited the proposed DRP Camp area (Camp\_09). The team primarily selected the site on the basis of transect view, community opinion, existing structures, improved sanitation coverage. Also considered the initial probable E&S impact, easy access to the DRP, especially the children, women and old aged. So, the team finally proposed location (with GPS) among the other alternative locations.

BRAC is WASH camp focal and IMO is area focal agency of the area and DPHE is implementing agency of the project which the financial assistance of World Bank. After establishing the proposed per household toilet scheme in the area about 20 peoples will be benefitted through meeting their sanitation requirements.

**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, lubricants, 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 household toilets areas (Camp+09) 2 CiC office, 2 meal distribution points, 5 community facilities, 2 graveyards, 5 SWM, 4 SM agency office, 50+ learning center, 15 child protection facilities, 2 age friendly space, 2 Org. office, 2 health facilities, 6 fire points etc. are identified. No other sensitive cultural, archaeological or religious sites are there in the area. However, none is going to be affected due to project intervention. No significant environmental or social disturbance is anticipated due to construction activities. In this scheme area, no elephant migration routes exist (ref. IUCN). **Map-3.**



**Block: A-12, SL. No. 9**

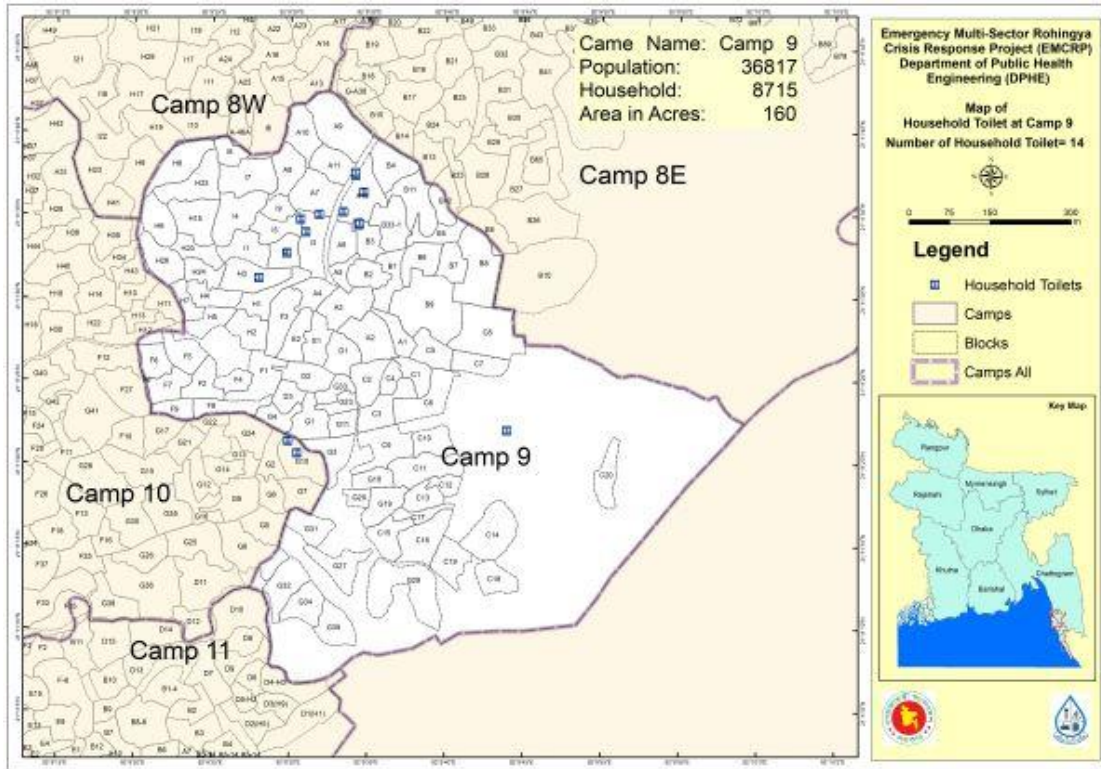


**Block: I-3, SL. No. 14**

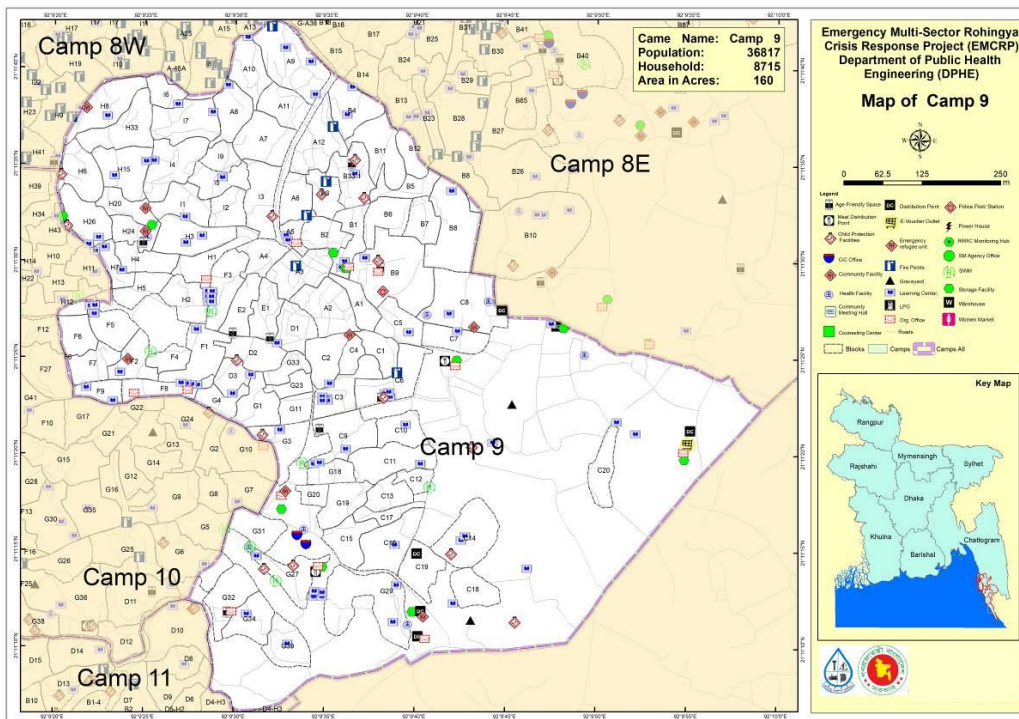




Figure-01: Proposed household toilets locations at different blocks of Camp-09

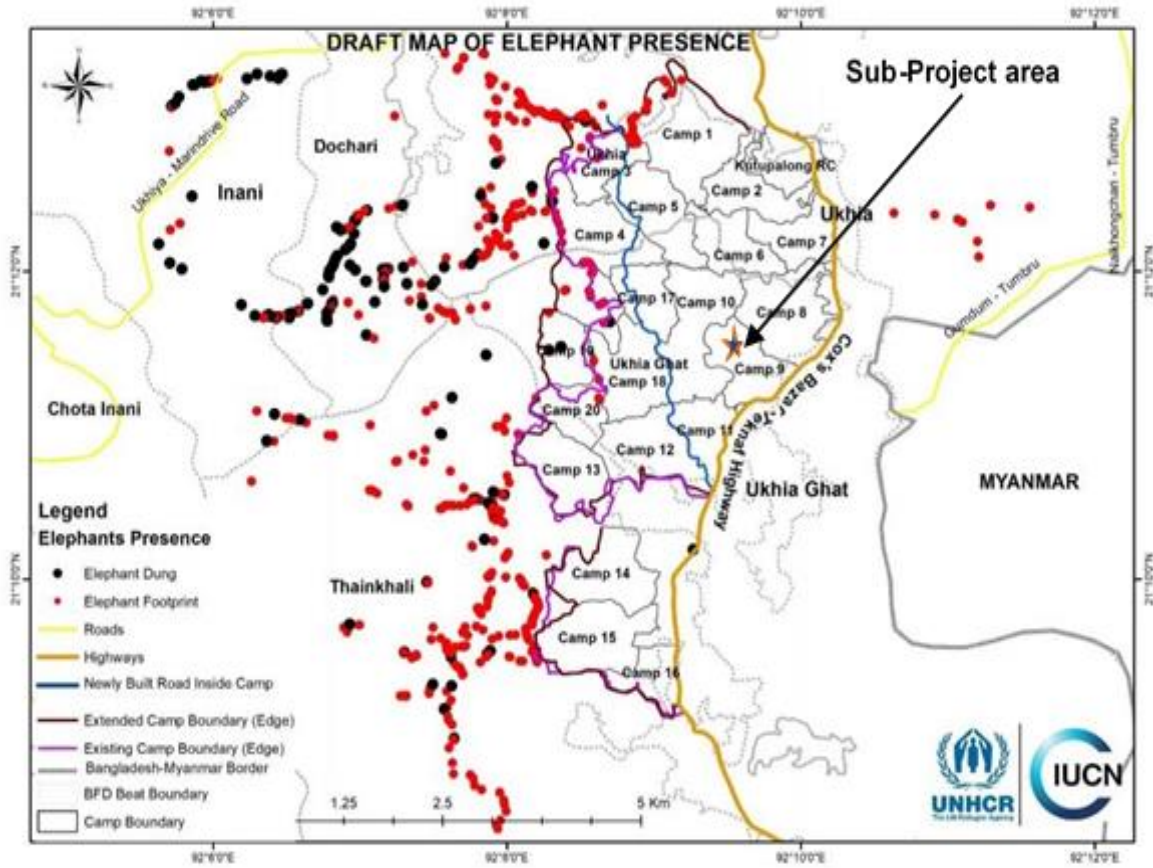


Map-01: Proposed household toilets Locations at different blocks of Camp\_09



Map-02: Important features within Camp\_09





Map-03: Draft Map of Elephant Migration Road/ Presence around the Rohingya Camp



## Environmental and Social Screening Form

### Section A: Subproject Overview

#### Work Package: WD-10\_Construction of 14 household toilet (Camp\_09).

##### Description of sub-project/component interventions:

In the sub-project area, there are no adequate proper sanitation facilities to existing toilets. Hence, subproject areas community especially at Camp 09, Blocks A-5, A-6, A-12, F-6 and I-3 have been suffering for long time for lacking of proper sanitation. 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, the local DPHE has decided to meet up the necessity of subproject site people by constructing the household toilet under package EMCRP/ DPHE/WD10, Camp\_09. with ensuring following accessibility:

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

##### Sub-project Location:

Camp based household toilet is located at Camp\_09, Blocks A-5, A-6, A-12, F-6 and I-3 at Palongkhali Union under Ukhiya Upazila of Cox's Bazar District. The proposed site is site at medium high land with bit slopping. Herringbone bond road very close to the household toilet sites.

**Land ownership:** Lands are solely owned by Government of Bangladesh

**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 8-15 square meter land (8 sqm. for Option: 2 and 15 sqm. for Option: 1 & 3. Around the subproject intervention areas covers mainly DRP settlement, recreation centers (like mosque, Madrasha, hebzokhana, etc.), HBB road, drain, vacant land, shops, etc. There is no environmental sensitive location (i.e., protected area, reserve forest, etc.) within sub project influence area as well as there is no elephant corridor within the camp. 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 cannel. 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):**

2 CiC offices, 2 meal distribution points, 5 community facilities, 2 graveyards, 5 SWM, 4 SM agency office, 50+ learning center, 15 child protection facilities, 2 age friendly space, 2 Org. office, 2 health facilities, 6 fire points etc. are identified around 1 (one) kilometre surrounding of scheme area. No other sensitive cultural, archaeological or religious sites are there in the area.

**Location of environmentally important and sensitive areas:**

This location used to be environmentally important and sensitive as protected forest but now there is no forest at all. Erosion/land slide may occur when moderately to highly sloping terrains are disturbed for the construction of household toilet. But precast (will brought from outside of the camp) 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 camp\_09 areas there was elephant migration route as per IUCN/UNNCR map, but at present there is no movement of elephant because of DRP community establishment (Map-3).

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

**(3) Other issues:** No more mentionable issues raised.

**Dust:** Ambient air quality data was not readily available. In the proposed site the existing air quality is almost dust free except for few months in the dry season (November to March).

**Noise:** Noise in the sub-project area is not a major concern based on the consultations. Noise is originating from communication among the DRP, service providers and relief distributors.

**Baseline soil quality:**

Soil types are alluvial reddish brown, muddy & sandy soil and Dupitila 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 and Medium:** 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 500ft to 900 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\_7.5 to 8.50, DO\_2.20 to 8.50mg/l, TDS\_25.50 to 320 mg/l, EC\_25 to 450  $\mu$ s/cm, Fe\_0.50 to1.5 mg/l, Mn\_0.01 to 0.08 mg/l, Chloride\_10 to 65 mg/l and As\_Nil to 0.001 mg/l. (Tube well depth: 500 ft. to 900 ft.). Many shallow tube wells have been installed in the camp 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:**

None.

**State of forestation:**

To accommodate large numbers of DRP, the hills were cleared and forest cut indiscriminately, and shelters have been set up on the hills. Steps have been cut into the slope to facilitate access to the shelters. Hill cutting loosens the soil and can result in soil erosion, sedimentation and siltation. Washing out of the valuable fertile top soil that will make the hills unsuitable for supporting any valuable vegetation cover. The eroded soil will also cause stream congestion, which might hinder stream flow, which in turn will result in habitat loss, water pollution and water scarcity. New plantations have been made by different organizations.

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

N/A





## B.2: Pre construction Phase

<p><b>Information on Ancillary Facilities (e.g., status of access road or any other facility required for sub-project to be viable):</b></p> <p>Regarding ancillary facilities at the concerned household toilet scheme area under this sub-project the main camp connecting herringbone bond road is very close to the sub-project 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, tin, Steel Color Coated Industrial Roofing Sheet, sanitary materials, etc.) to the construction site.</p>
<p><b>Requirement of accommodation or service amenities (toilet, water supply, electricity) to support the work force during construction:</b></p> <p>Toilet and water supply available but no electricity supply system in the sub-project area. If there are women labor proper lighting facilities should be arranged, by using solar light, charger light etc.</p>
<p><b>Possible location of labor camps:</b></p> <p>Within the scheme area and very close to the sub-project sites.</p>
<p><b>Requirement and type of raw materials (e.g., sand, stone, wood, etc.):</b></p> <p>i) Bricks, ii) Sand iii) Cement iv) uPVC pipe v) Gravel vi) Sanitary materials vii) Water viii) Iron flat bar ix) Roofing Sheet, etc. are the most common type materials used in construction.</p>
<p><b>Identification of access road for transportation (Yes/No):</b></p> <p><b>Yes.</b> This selected site is close to the Herringbone bond road.</p>
<p><b>Location identification for raw material storage:</b></p> <p>Material storage stockyard is located outside of camp, but the area is within 1 km from the starting point of camp.</p>
<p><b>Type and quantity of waste generated (e.g., Solids wastes, liquid wastes, etc.):</b></p> <p>None</p>
<p><b>Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:</b></p> <p>No valuable vegetation presence in proposed sub-project construction sites (approx. 8-15 square meter land (8 sqm. for Option: 2 and 15 sqm. for Option: 1 &amp; 3) per household toilet.</p>
<p><b>Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors:</b></p>



<p><b>(High/Medium/Low with explanation):</b></p> <p>None</p>
<p><b>Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes):</b>  <b>(High/Medium/Low with description):</b></p> <p><b>Low.</b> Within 50 feet, there are manmade or natural drains. But during pre-construction phase impact is very low if construction materials will not store over the drain.</p>
<p><b>Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development:</b>  <b>(High/Medium/Low with description):</b></p> <p><b>Low.</b> Under these scheme establishment interventions, the effect of destruction or damage of endangered species is negligible.</p>
<p><b>Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:</b></p> <p>No</p>
<p><b>Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:</b></p> <p>Because of construction materials transportation noise &amp; air pollution may occur. But this impact is very low because during pre-construction stage construction materials transportation is very minimal.</p>

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

**B.3: Construction Phase**

<p><b>Type and quantity of waste generated (e.g. Solids wastes, liquid wastes, etc.):</b></p> <p><b>Solid waste:</b> i) Bricks, ii) Sand iii) uPVC pipes vi) Bamboo &amp; wood and v) earth or mud vi) Sanitary materials vii) Iron flat bar viii) Steel Color Coated Industrial Roofing Sheet etc. It is difficult to give exact figures 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&amp; bottom slab, etc. will be used. Excavated mud will be reused for backfilling also.</p> <p><b>Liquid waste:</b> 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.</p>
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**Type and quantity of raw materials used (wood, bricks, cement, water, etc.):**

- i) Bricks, ii) Sand iii) Cement iv) uPVC pipe, v) Gravel vi) reinforcement vii) Sanitary materials incl. water bucket, water pot (bodna, mug), viii) Iron flat bar, Steel Color Coated Industrial Roofing Sheet etc.
- ii) The exact quantity of raw materials to be used for each toilet is shown in the BoQ (Bill of Quantities) of the Cont. Pkg. WD-10 Construction of H/H Toilets

**Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:**

No valuable vegetation presence in construction sites. So, vegetation will not be affected by construction

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

**Medium.** Earth excavation will be required for pit placement. Water stagnant may occurs if the place keeps open for long time after earth excavation.

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

**Low.** Within 50 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 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 & only four columns will be constructed at site and this impact is very much site specific & time specific. Waste from labor camp may fall into nearby drain & through the drain those wastes can fall into canal water). However, it would be minimal because contractor will dispose the generated waste into designated waste dump site regularly.

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

**Low.** Within 50 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 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 & only four columns will be constructed at site and this impact is very much site specific & time specific. Waste from labor camp may fall into nearby drain & through the drain those wastes can fall into canal water). However, it would be minimal because contractor will dispose the generated waste into designated waste dump site regularly.

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

None.



**Erosion of lands:**

**(High/Medium/Low with description):**

**Low and medium.** 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

**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) 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 in camp waste management facilities. Sludge will be collected by using vacuum truck with 50m suction pipe. It should 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):**





None.
<b>Likely direct and indirect impacts on economic development in the project areas by the sub-project:</b> Household toilet will be helpful of the DRP and improve their health condition.
<b>Extent of disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes):</b> <i>(High/Medium/Low with description)</i> <b>Low.</b> Within 50 feet, there are manmade 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 sock well gets 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.
<b>Extent of destruction or damage of terrestrial or aquatic ecosystem so endangered species directly or by induced development:</b> <i>(High/Medium/Low with description):</i> <b>Low.</b> Operation and maintenance activities of household toilet schemes will be localized and temporary in nature.
<b>Activities leading to landslides, slumps, slips and other mass movements in road cuts:</b> N/A.
<b>Erosion of lands:</b> None.
<b>Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:</b> 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.
<b>High = Likely to cause long-term impacts or over large area (&gt;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 (&lt;0.5sqkm)</b>



## Section C: Social Screening

### C.1 General Labor Influx Screening

Key Screening questions	Aspects to Consider
<b>Will the project potentially involve an influx of workers to the project location, and will the influx be considered significant for the local community?</b>	The number of total skilled meson is 1 and unskilled labor 2 per household toilet. All the unskilled labor will be engaged from the DRP 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.
<b>Is the project located in a rural or remote area?</b>	The project area is in a camp area demarcated by the Government and belongs to Camp 09 in a remote specialized area. The total camp population is 36,817. The frequency and extent of the contract, communication between the local community and outsiders are limited, and controlled by the respective authority. After establishing the proposed per household toilet schemes in the area about 20 peoples will be benefitted to meet their water requirements.
<b>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?</b>	No. It is not expected that the presence of the skilled (local) and unskilled labor (DRP) may generate any adverse impacts. The project will benefit the DRP 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, lab our influx, etc. will be monitored & monitoring progress will be incorporated within monthly progress report.
<b>Consultation with DRP Community People and relevant stakeholders (SH)</b>	<p>During screening and site identification DPHE has conducted one (01) consultation meeting DRP community &amp; with primary and secondary stakeholders. The stakeholders include CiC, WASH Sector, Site Management Committee representatives, Contractor team and DRP Community. In addition to the above-mentioned meetings, the local DPHE has undertaken many consultations with male and female members of the DRP.</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
<b>Involuntary Acquisition of Land/ Land Donation/ Land Taking</b>				
1. Will there be any land acquisition?		√		Land acquisition is not needed.
2. Is the project construction site known?	√			The land is selected based on needs of DRP community with the recommendation of CIC SMC & Local DPHE and assigned UN agencies
3. Who manages the land?	√			The lands are solely owned by the GOB and currently vacant.
4. Will easement be utilized within an existing Right of Way (ROW)/land? CRP (Common Resource Property)	√			In the camp area Provision is available be utilized within lands within this Camp_09 area under EMCRP.
5. Will there be loss of DRP tent, agricultural carps, trees, and other productive or fixed assets due to project intervention?		√		No DRP shelters will be affected. However, during construction if any shelters require to shift, mitigation measures will be taken according to RPF. Consultations will be conducted with stakeholders, camp and block focal persons, and site management. During construction, if any shelters are affected, contractors are responsible to mitigate the impacts following the RPF as well.
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
<b>Involuntary restrictions on land use or on access to legally designated parks and protected areas</b>				
8. Will people lose access to natural resources, communal facilities and services?		√		No



<b>Information on Displaced Persons:</b>	
<b>9. Any estimate of the likely number of persons that will be displaced by the Project?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
<b>If yes, approximately how many?</b>	
<b>10. Are any of them poor, female-heads of households, or vulnerable to poverty risks?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
<b>11. Are any displaced persons from indigenous or ethnic minority groups?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
<b>12. Who are the stakeholders of the project? Please provide a summary of consultation meetings with stakeholders and the affected community.</b>	
<p>The key stakeholders of this sub-projects are DRP, Labors, People/communities/organizations within the project influence area indirectly affected by project activities, relevant government departments/agencies, Environment and Forest Department, Development Partners (WASH Cluster, UNHCR, IOM, OXFAM) and Local and international NGOs working with local host communities/DRP.</p> <p>For determining the environmental and social impacts associated with subproject implementation, DPHE, PIU unit give great importance on involving primary and secondary stakeholders of the subproject area. Therefore, to collect local knowledge for baseline conditions, understand perceptions of the community regarding impact significance, and propose meaningful mitigation measures during survey of Environmental Screening, an attempt has been made to consult with relevant stakeholders and DPHE officials to obtain their views on subproject interventions.</p> <p>The Community consultation were conducted through a mix of conventional approach which involved as participatory, community consultations (FGD) and one-to one interview, during the environmental and social study of the proposed subproject in conformity with the WB's environmental guidelines. However, for better understanding the socio-economic and environmental condition one (01) consultations with DRP community have been conducted in the subproject study area (<b>Appendix-2</b>).</p> <p>The community consultations were conducted with the following objectives: (i) to intrude awareness of the stakeholders about the subproject and to collect their opinion, suggestions for planning and designing of the subproject (ii) to identify the need and concern of the DRP public, (iii) to assess cultural patterns and behavior of local communities. Stakeholder consultation was targeted at people/communities who may – directly or indirectly, positively or negatively- be affected by the outcomes of a subproject. The consultations were conducted at two different tiers of stakeholders: DRP people and different organization representative who are concern about the subproject. All of the proceedings and interaction of consultation and FGD have been recorded and are to be considered in the design of ESMF. In addition, attended list of participants of consultation meeting recorded and it's been attached in <b>Appendix-3</b>.</p> <p><b>Feedback, Suggestions, and Recommendations of the Participants FGD</b></p> <p>The participants' feedback, suggestions, and recommendations listed below:</p>	





- Most of the participants expressed that the number of toilets that have been selected for at Camp 09 are not adequate.
- During consultation ESS team request them to keep household toilets clean during operation phase & they (DRPs) have assured that they will try to keep household toilets clean during operation phase.
- Consultation was also conducted with women & girls. Women and girls are suffering because of inadequate sanitation, and often cannot use a toilet when and where they need it because of inadequacy of household toilets in camps area. After construction of household toilets these problems will be solved.
- They requested for regular maintenance of household toilets. Participants showed highly anxious about its operation and maintenance. In this regard, they suggested confirming who will take responsibilities for operation and maintenance.
- They also expressed their concern about employment opportunities. They said that, if possible, non-skilled worker should engage from DRP 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. After earth excavation contractor should place rings as quickly as possible.

Individual level consultation with project interest and influence parties (CiC, Camp Wash focal team, UNHCR) representative were conducted in consistence with consultation objective during subproject selection stage to have their idea, concern, segregation about the proposed subproject. Consultation outcome with them is consolidated here in below:

#### **CiC/Site Management**

- Always try to coordinate with related authority/group and give updates to CiC;
- CiC is ready to support DPHE, if they face any obstacle to implement the scheme;
- After confirmation of site for schemes with the assistance of CiC and other related organization, site should be confined to avoid the neighboring disturbance
- After site section then try 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 DRP/Local community to implement the sub-project

#### **Wash Focal**

- As the camp area is hilly land sometimes site/land needs to be developed to increase activities sustainability,
- Ample 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.



**UNHCR:**

- Intervention sites should not be located in the elephant migration corridor. Hence, elephant migration road map set by the IUCN/UNCHR should follow during site selection.
- They requested to inform them, if project face any elephant incident during implementation

**RRRC**

- For development work of this subproject anywhere in camp area, project proponent needs to be taken approval from RRRC with the recommendation of camp-based concern authority along with the cooperation of local DPHE officials.

**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, DRP and 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**

Women 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 camps area. Therefore, after construction of households' toilets in camps area, 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 or use unsafe, dark or badly located toilets. Besides, user of households' toilet usually less than household toilet, thereby keeping hygiene condition would be easier for the DRP camp's people. Camp 09, 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 20 people shall be benefited from one household toilet.

**Negative**

There will have no significant negative impact to the DRPs as well as in surrounding environment for constructing the household toilet. In fact, impact in connection with civil work for household toilets are also be minimum and very much site specific. Nevertheless, less impact by the construction work, 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 DRP 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:

Since the skilled labor will be engaged from the host community and unskilled laborers will be engaged from the DRP, 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 (GAP) 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 subproject. 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, is keeping abreast on GBV occurrences and will guide the community through consultation meetings and counseling. Given the sensitivities in the camps areas (social, cultural, religious, gender, disabilities, orphaned and vulnerable children, relationship with DRP and host community), if the site area will be used as the open play space for the DRP kids, it might hamper their movement and play time for the time being. Unexpected noise, dust pollution, waste materials due to scheme establishment activities, might affect general social, religious activity of the DRP community at site area. However, by adopting the project E&S safeguard and through community consultation, the CiC, community leader 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 camp, 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 such as RRRRC/UN agencies or different development organizations that are involved with the Rohingya crisis 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
<b>Government Organizations</b>	RRRC,	Mr. Shah Rezwan Hayat, Refugee Relief and Repatriation Commissioner (RRRC), CXB, Email <a href="mailto:rrccox@yahoo.com">rrccox@yahoo.com</a>	Overall Coordination of GOB dept., Dev. partners, NGO, INGIO, UN Agencies, Volunteers,	DRP Camps, Blocks, synchronizing with Host, E&S aspects, Elephant corridors, conserve NR. Establish proper road communication.
	DPHE,	Engr. Ritthick Chowdhury, DPHE, Executive Engineer, CXB, Email. <a href="mailto:chowritthick@gmail.com">chowritthick@gmail.com</a>	Management of DRP Crisis in BD. Refugee Relief and Repatriation, Site management,	
	DC	Mr. Md. Mamunur Rashid, Deputy Commissioner, Cox's Bazar <a href="mailto:dccoxsbazar@mopa.gov.bd">dccoxsbazar@mopa.gov.bd</a>	Ensuring DRP HH shelter, F/NFIs, WASH facilities, Education, Health, Livelihoods, Social security, power sources, renewable solar energy.	
	LGED, MoDR DRP CIC	Sheikh Hafizul Islam Camp-in-Charge, Camp-9, (Deputy Secretary) <a href="mailto:Camp9@rrrc.gov.bd">Camp9@rrrc.gov.bd</a>		
<b>UN Agencies /INGOs</b>	WSC IOM, UNICEF, WFP, FAO, UNHCR UNFPA	Ashfaqur Rahman (Sojib) WASH Information Management Officer, IOM <a href="mailto:marahman@iom.int">marahman@iom.int</a>  Engr. Maruf Hossain Sector Coordinator WASH, BRAC <a href="mailto:email-mh77.bd@gmail.com">email-mh77.bd@gmail.com</a>	Management of DRP Crisis in BD. Refugee Relief and Repatriation, Site management,  Ensuring DRP HH shelter, F/NFIs, WASH facilities, Education, Health, Livelihoods, Social security, power	DRP Camps, Blocks, synchronizing with Host, E&S aspects, Elephant corridors, conserve NR. Establish proper road





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
			sources, renewable solar energy.	communication.
<b>National Organizations</b>	Not yet on boarded	the database web link <a href="https://www.humanitarianresponse.info/en/operations/bangladesh/document/wash-sector-coxs-bazar-members-contact-list-17-october-2017">https://www.humanitarianresponse.info/en/operations/bangladesh/document/wash-sector-coxs-bazar-members-contact-list-17-october-2017</a>		
<b>Community based Volunteer Organizations</b> are those, which constitute the members of the community working towards social development.	Not yet involved	N\ A. Prohibited by the GoB.	Ensuring DRP HH shelter, F/NFIs, 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 subproject project have been summarized in 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 <b>low</b> .	<ul style="list-style-type: none"> <li>Limiting earthworks;</li> <li>watering of dry exposed surfaces and stockpiles of aggregates at least twice daily, as necessary; (spreading of crushed gravel over backfilled surfaces;</li> <li>Work place isolated by fencing active work sites in populated areas.</li> <li>Limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph.</li> <li>More details provided in ESMP</li> </ul>	<ul style="list-style-type: none"> <li>Construction Contractor monitored by Environmental Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>Location of stockpiles;</li> <li>Number of complaints from stakeholders;</li> <li>Covering of trucks;</li> <li>Records of air quality inspection;</li> </ul>	Regular visual Monitoring will be required.



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	<b>Soil Erosion</b>	Under the sub-project intervention, the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>• 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.</li> <li>• The earthwork sites where exposed land surface is vulnerable to runoff shall be consolidated and/or covered.</li> <li>• Channels, earth bunds, netting, tarpaulin and or sand bag barriers shall be used on site to manage surface water runoff and minimize erosion.</li> <li>• 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.</li> <li>• More details provided in ESMP</li> </ul>	<ul style="list-style-type: none"> <li>• Construction Contractor monitored by Environmental Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>• No visible degradation to nearby drainages,</li> <li>• Canals or water bodies due to soil erosion.</li> <li>• Rain storms in construction phase.</li> </ul>	Weekly, especially after rain events
<b>2: Pre-construction Phase</b>	<b>Impact on Existing drainage: drain may block, due to</b>	Under the sub-project intervention, the overall score is <b>low</b>	<ul style="list-style-type: none"> <li>• The Contractor will not be allowed to store construction materials beside drains</li> <li>• Regular monitoring is essential</li> <li>• If any materials fall within the</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor and monitored by Environmental Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>• List of materials and sources of materials;</li> <li>• Storage site away from the drain</li> </ul>	Weekly



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	storage of construction materials on or next to the drain.		drain, contractor will clean the drain immediately.			
	Storage of construction materials can cause pollution or land slips	Under the sub-project intervention, the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>• 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.</li> <li>• More details provided in ESMP</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor and monitored by Environmental Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>• List of materials and sources of materials;</li> <li>• Storage site away from steep slopes and has proper bonding</li> </ul>	Weekly
	Transportation impacts	Under the sub-project intervention, the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>• All vehicle movement to be done during the day time</li> <li>• Speed needs to be limited to 20kmph</li> <li>• Contractor's responsibility to verify the suitability carrying, loading and unloading of materials by trucks or others transport and head load arrangement.</li> <li>• More details provided in ESMP</li> </ul>	<ul style="list-style-type: none"> <li>• Construction Contractor and monitored by Environmental Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>• Check the vehicle pool.</li> <li>• Record of regular inspection.</li> <li>• Record of accidents/incidents</li> </ul>	Monthly monitoring.
<b>3: Construction</b>	<b>Construction Waste (excavated</b>	Under the sub-project intervention,	<ul style="list-style-type: none"> <li>• Wastes must be placed in the designated bins which must be regularly emptied.</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor and monitored by Environmental</li> </ul>	<ul style="list-style-type: none"> <li>• Complaints from community;</li> <li>• Regular inspection</li> </ul>	As work weekly



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
Phase	soil etc.)	the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>All waste must be removed from the site and transported to a disposal site.</li> <li>More details provided in ESMP</li> </ul>	Consultant and PMU	<ul style="list-style-type: none"> <li>of waste management activity;</li> <li>Waste disposal record.</li> </ul>	progresses
	<b>Stagnant water risk</b>	<b>Medium</b> Earth excavation will be required for pit placement. Water stagnant may occur if the place keeps open for long time after earth excavation.	<ul style="list-style-type: none"> <li>Water stagnant area should fence with marking tape</li> <li>The top soils in the sub-project are sandy and the water should drain away quickly</li> <li>Contractor should arrange proper water pumping facilities (pump, etc.)</li> <li>Proper PPEs are essential during construction work.</li> </ul>	<ul style="list-style-type: none"> <li>Construction Contractor foreman and monitored by Consultant and PIU</li> </ul>	<ul style="list-style-type: none"> <li>Water stagnant beside household toilet area</li> </ul>	Daily during construction
	<b>Storage of materials (Creating dust/ air pollution spillage of liquid/ hazardous substance i.e.</b>	Under the sub-project intervention, the overall score is <b>Low</b> .	<ul style="list-style-type: none"> <li>By the site management committee in Camp to identify the storage site and other requirements, which will be approved by PMU and consultants.</li> <li>More details provided in ESMP</li> </ul>	<ul style="list-style-type: none"> <li>Contractor and monitored by Environmental Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>List of materials and sources of materials;</li> </ul>	Monthly basis during implementation phase.





Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	oil, drilling fluid, chemicals etc., Risk of crime)					
	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 <b>Low</b>	<ul style="list-style-type: none"> <li>Generated waste and construction debris shall be properly disposed in accordance with the approved designated disposal site(s);</li> <li>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).</li> <li>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;</li> <li>Contractor will be responsible to control the workers from discharging of construction waste into adjacent water</li> </ul>	<ul style="list-style-type: none"> <li>Contractor and monitored by Environmental Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>Frequency of emptying the waste bin</li> <li>Existence of waste bin</li> </ul>	Monthly basis during implementation phase.



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			bodies.			
	<b>Erosion of land</b>	Under the sub-project intervention, the overall score is <b>Low and medium.</b>	<ul style="list-style-type: none"> <li>• During construction work (especially for earth excavation) proper slope protection is essential.</li> <li>• During backfilling work proper compaction is essential (as per specification)</li> <li>• Avoid earthwork during monsoon</li> <li>• Proper PPEs are essential during construction work.</li> </ul>	<ul style="list-style-type: none"> <li>• Construction Contractor foreman and monitored by Consultant and PIU</li> </ul>	<ul style="list-style-type: none"> <li>• No visible degradation to nearby drainages or water bodies due to soil erosion at/near sub-project site.</li> </ul>	Daily during earth excavation work & work below GL
	<b>Noise pollution</b>	Under the subproject intervention the overall score is <b>Low</b>	<ul style="list-style-type: none"> <li>• Consultation with affected people; not to operate noisy equipment during working and operations time (22:00 – 06:00);</li> <li>• Sound suppression for equipment;</li> <li>• Ear protection for workers.</li> <li>• Conduct noise quality monitoring as per ESMP.</li> <li>• Limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph.</li> <li>• Transportation of the construction materials and noisy</li> </ul>	<ul style="list-style-type: none"> <li>• Construction Contractor and monitored by Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>• Number of complaints from stakeholders; Use of silencers in noise-producing equipment and sound barriers;</li> <li>• Noise Level following decibel meter (dB)</li> </ul>	Inspection by PMU and supervision consultants on monthly basis;



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			construction work have to be carried during the scheduled times, and mainly during the day			
	<b>Air pollution</b>	Under the sub-project intervention, the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>• Water spraying from other source for dust control;</li> <li>• 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.</li> <li>• More details provided in ESMP</li> </ul>	<ul style="list-style-type: none"> <li>• Construction Contractor and monitored by Environmental Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>• Location of stockpiles;</li> <li>• Number of complaints from stakeholders;</li> <li>• Records of air quality inspection; Air quality test report.</li> </ul>	Regular visual Monitoring will be required.
<b>4: Operational Phase</b>	<b>Health &amp; Safety Hazard</b>	Site staff can be seriously hurt by accidents. <b>Low</b>	<ul style="list-style-type: none"> <li>• Ensure proper training given to all staff</li> <li>• Ensure PPE used by all staff</li> <li>• Ensure use of vacuum tanker/ pump to collect desludged material &amp; 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</li> </ul>	<ul style="list-style-type: none"> <li>• Camp WASH NGO staff</li> <li>• DPHE XEN</li> </ul>	<ul style="list-style-type: none"> <li>• Accidents register</li> </ul>	During containment well cleaning work.



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			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.			
	<b>Destruction of soil</b>	During the operation period there may be possibility of soil damage problems in the project areas by rainstorms and overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>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.</li> <li>More details provided in ESMP</li> </ul>	<ul style="list-style-type: none"> <li>Construction Contractor weekly monitored by Environmental Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>No visible degradation to nearby drainages or water bodies due to soil damage at construction area.</li> </ul>	Site inspection weekly/2-weekly in rain season.
	<b>Odor &amp; waste disposal of sludge from household toilet</b>	Under the issue the overall score is <b>Medium</b>	<ul style="list-style-type: none"> <li>Ensure use of vacuum tanker/pump to collect desludged material &amp; dumping to proper dumping site. Vacuum truck with 50 m suction pipe will be used.</li> </ul>	<ul style="list-style-type: none"> <li>Construction Contractor up to defect liability period. Consultant and</li> </ul>	<ul style="list-style-type: none"> <li>Complaints from communities</li> <li>Water stagnant beside household toilet area</li> </ul>	Site inspection daily/weekly basis. Monthly Site inspections



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			<p>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, safety boots, face masks, eye protecting glasses, etc. Since pits of household toilets are smaller in size, it will be easier to clean.</p> <ul style="list-style-type: none"> <li>• Appropriate awareness programs shall be arranged for the community members on health and hygiene issues and the impacts of improper sanitation practices;</li> <li>• Ensure disposal tanks, drums or containers coming to, and from, the site are in a satisfactory condition – check for damage or leaks;</li> <li>• Ventilation systems and facilities shall be kept in good functional</li> </ul>	<p>PMU</p> <ul style="list-style-type: none"> <li>• Long-term responsibility to be determined by CIC/DPHE</li> </ul>		





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



Section	Main Environmental and Social Impacts	Impact Significance	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	<b>Noise pollution</b>	Under the subproject intervention the overall score is <b>Low</b>	<ul style="list-style-type: none"> <li>Limiting speed of maintenance vehicles in access roads and work sites to maximum of 20 kph.</li> <li>Transportation of the fecal sludge &amp; other liquid waste have to be carried during the scheduled times, and mainly during the day</li> </ul>	<ul style="list-style-type: none"> <li>Long-term responsibility to be determined by CIC/DPHE</li> </ul>	<ul style="list-style-type: none"> <li>Noise from maintenance vehicle</li> </ul>	During Maintenance work
	<b>Air pollution</b>	Under the sub-project intervention, the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>Limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph.</li> <li>More details provided in ESMP</li> </ul>	<ul style="list-style-type: none"> <li>Construction Contractor up to defect liability period. Consultant and PMU</li> </ul>	<ul style="list-style-type: none"> <li>Dust due to vehicular movement</li> </ul>	During Maintenance vehicle movement

\* 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 sub-project. Provision of utilizing existing lands is available for household toilet sites within this Camp 09. The sub-project location was selected with the support of CiC, SMC and local DPHE. Consultation meeting was also conduct with local representatives who will be direct or indirectly related in the sub-project. The assigned consultants and local DPHE, CiC representatives, SMC and WASH focal team have visited the proposed site location and after then 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 sanitation provision through consultation meeting with them. The foot of hill, natural drain or cannel, toilet and others environmental obstructions not close to the site.

### **Construction induced impact issues:**

Since the household toilet sub-project interventions are being implemented in an empty place of Government-owned land and there is no land acquisition, so there will be 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 camp focal points to take mitigation measures according to ESMF and RAP.

### **Labor issues:**

Every household toilet establishment scheme will be executed by the contractor who will engage both skilled (1 no.) & unskilled (2 nos.) labors. The unskilled labor will be engaged from the camp while the 1-2 skilled labor from the local/host community/other places of Bangladesh. 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 (not more than 3 months), usually there will have no competition in using resources amongst the host and DRP communities. Thus, the sub-project will not create any influx of workers. The unskilled labors will be hired from the DRP community of Camp 09, who already reside in the camp. The skilled labors will be accommodated on site in the DRP camp 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-4**.

### **Linkage with other stakeholders:**

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



### **GBV issues:**

The proposed sub-project activities will involve very minor civil works through skilled (from the host community) and unskilled (from the DRP 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 DRP, 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 and DRP communities, labor engaged for the project, site management, the WB and DPHE can participate.

### **Consultations and Future Consultations:**

Under the EMCRP, the DPHE has initiated elaborate consultations with various stakeholders of this project for the household 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 UN as well as the DRP 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 DRP and local host communities, Infrastructure, WASH, hygiene, GBV, forestation, waste, sludge management. The DRP 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 DRP, 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 (toilet construction) is one of the priorities needs for them for secured and better livelihoods.

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 where all sorts of complaint will be registered. The GRM will be institutionalized with qualified personnel having adequate training in deal 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:

- DPHE has oriented the contractor and labor on Covid-19 management including OHS (Occupational Health Safety).
- 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 and PPE, taking into account international, national and 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 government 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 hand washing 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**

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

Yes. If site specific environmental and social management plan (ESMP) is followed the impacts can be mitigated and monitored. ESMP is attached in **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 a ESMP) in the following table for household toilet at Camp\_09 and Blocks A-5, A-6, A-12, F-6 and I-3.

Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
<b>Pre-Construction Stage</b>	Assessment of Social Impacts and Risks	<p>To meet the requirements for disadvantaged and vulnerable directive:</p> <ul style="list-style-type: none"> <li>• Include COVID positive individuals, households and clusters as vulnerable category in Social Assessment TORs, surveys and consultations (particularly relating to social stigma);</li> <li>• Consult with such COVID positive households to Identify specific support mechanisms that projects could support;</li> <li>• Add tribal communities in self-isolation under vulnerable groups who may need suitable and socially acceptable support;</li> <li>• Use alternative and virtual and video means for consultations and interactions.</li> </ul>	PMU	Social Development & Hygiene Promotion Consultant of PMU, Supervision and monitoring firms
<b>Pre-Construction Stage</b>	Loss/source of livelihoods	<ul style="list-style-type: none"> <li>• Under this sub-project, there is no scope of negative impact of DRP livelihoods.</li> <li>• Ensure engagement of local labor as unskilled worker</li> </ul>	Contractor	Social Development & Hygiene Promotion Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
<b>Pre-Construction Stage</b>	Stakeholders Engagement	<ul style="list-style-type: none"> <li>All the project stakeholders will be engaged in consultation process</li> <li>Individual/Separate community level consultation meeting will be held with the potential affected HHs</li> <li>Consultation meeting with Rohingya male and female about the project safeguard documents will be disclosed to the stakeholders</li> <li>DRP camp people will be involved with the GRM, formed GRC</li> <li>Consultation meeting will be held with contractors and labors about safe guard issues.</li> </ul>	PMU & Contractor	Social Development & Hygiene Promotion Consultant of PMU
<b>Pre-Construction Stage</b>	Loss of Access rights	<ul style="list-style-type: none"> <li>Prior to start the work, contractor will inform the community people to use alternative roads;</li> <li>Construction work will be completed in quick time as much as possible to reduce the hassle of community</li> <li>Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact.</li> <li>In case of unavoidable circumstances, alternative access will be provided.</li> </ul>	Contractor	Social Development & Hygiene Promotion Consultant of PMU
<b>Pre-Construction Stage</b>	Improper site selection for proposed intervention can be a cause of HEC at subproject site.	<ul style="list-style-type: none"> <li>Selection of sub-project sites will be outside of the elephant route/corridor/influenced area.</li> <li>Before finalized the location of sub-project must be contact with camp wash focal</li> <li>Bangladesh Forest Department (BFD) and</li> </ul>	PMU	Environmental Consultant of PIU, IWM,



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		Border Guard Bangladesh (BGB) already fixed up the camp area and boundary. Sub-project Interventions will be also included in this area. So, no need to take any further consent for those purpose, if any circumstance arisen.		
<b>Pre-Construction Stage</b>	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> <li>• Vegetation clearing work not to be done more than required area of proposed intervention;</li> <li>• 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.</li> <li>• Minimize cut &amp; fill operations, the site clearing and grubbing operations should be limited to specific locations only.</li> <li>• 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</li> </ul>	PMU & Contractor	Environmental Consultant of PMU, IWM
<b>Construction Activity</b>	Noise pollution will occur due to use of diesel-based construction equipment/vehicles movement	<ul style="list-style-type: none"> <li>• Construction activity will be at daytime, not more than 4.00 pm.;</li> <li>• Contractor will confirm proper measures for avoiding any disturbance of residents as well as biodiversity.</li> <li>• Ensure use of the personal protective</li> </ul>	Contractor	Environmental Consultant of PMU IWM and DPHE





Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>equipment's (helmet, goggles, gloves, safety boot) during cutting and welding of the reinforcement and during drilling work;</p> <ul style="list-style-type: none"> <li>• Availability and access to first-aid equipment and medical supplies in case of any accidents.</li> <li>• Contractor will confirm proper measures for avoiding any disturbance of residents as well as biodiversity.</li> <li>• All construction activities which cause noise pollution, should be stopped during prayers.</li> </ul>		
<b>Construction Activity</b>	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"> <li>• Construction machinery shall be properly maintained to minimize exhaust emissions of CO<sub>2</sub>, particulate matter (SPM, PM<sub>2.5</sub> and PM<sub>10</sub>) and Hydrocarbons.</li> <li>• Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers.</li> <li>• Dust generation due to vehicle movement on haul roads/access roads shall be controlled through regular water sprinkling.</li> <li>• Carry the materials especially loose soil and sand with adequate cover.</li> <li>• Ensure use of masks to construction workers if dust content is high.</li> </ul>	Contractor	Environmental Consultant of PMU, IWM and DPHE
<b>Construction</b>	Safety Issues /impact may be decline if	<ul style="list-style-type: none"> <li>• Unauthorized entry to the site area is completely prohibited and the site will be</li> </ul>	Contractor	Environmental Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
<b>Activity</b>	construction management not works rightly	<p>properly fenced with a single entry, for this purpose</p> <ul style="list-style-type: none"> <li>• Properly maintained and control store house, storages instruments as well as hazardous materials on the site</li> <li>• Health and safety training will be arranged for the Rohingya or other communities' labors before project intervention started.</li> <li>• Labor will bring their proper IDs and wear when they will entry in the camp area.</li> <li>• Child labors will not be allowed for any kind of activities</li> <li>• Site shall be secured by fencing and maintained at entry points</li> </ul>		IWM and DPHE
<b>Construction Activity</b>	Traffic Management	<ul style="list-style-type: none"> <li>• Contractors to provide traffic management plans to be approved by relevant authorities.</li> <li>• If need adequate alternative arrangements will be made to minimize impact on motorist and pedestrians.</li> <li>• Adequate road signs to be planted on access roads to limit vehicular speeds.</li> <li>• For access roads, speed ramps will be constructing by proper design.</li> <li>• Traffic signs will be made both in Bangla and Rohingya language.</li> </ul>	Contractor	Environmental Consultant of PMU IWM and DPHE
<b>Construction</b>	Conflicts with existing	<ul style="list-style-type: none"> <li>• A detailed assessment of the available</li> </ul>	Contractor	Environmental



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
<b>Activity</b>	users due to the scarcity of resource base.	<p>resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken.</p> <ul style="list-style-type: none"> <li>• If ground water is withdrawn, adequate approvals essential from the appropriate department/authorities before setting up bore wells.</li> <li>• Local community must be consulted before any construction works started</li> </ul>		Consultant and Social Development & Hygiene Promotion Consultant of PMU, IWM and DPHE
<b>Construction Activity</b>	Increase in road accidents	<ul style="list-style-type: none"> <li>• The movement of heavy machinery and equipment will be restricted to defined routes.</li> <li>• Proper signage to be displayed at major junctions.</li> <li>• Road diversions and closures to be informed well in advance to the local community.</li> <li>• The vehicular movement will be controlled near sensitive locations viz. schools, colleges, hospitals, mosques, learning center &amp; DRP camps identified along designated vehicular transportation routes.</li> <li>• Local community will be trained up about traffic management and awareness.</li> </ul>	Contractor	Environmental Consultant of PMU, IWM and DPHE
<b>Construction Activity</b>	<b>Social conflict</b> may arise between <b>camp workers and local residence</b> due to different behavior or custom of outsider worker	<ul style="list-style-type: none"> <li>• An alternate arrangement for fuel wood, heating and cooking required to meet fuel requirement of the labor camps.</li> <li>• Alternating cooking arrangement for the HHs living in the camp should be arrange by the</li> </ul>	Contractor	Social Development & Hygiene Promotion Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
	(if any) as well as consumption of natural resource by the camp worker	contractor; <ul style="list-style-type: none"> <li>• 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.</li> <li>• Contractor will be arranged a awareness building training for the camp 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.</li> <li>• Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling.</li> </ul>		
<b>Construction Activity</b>	<b>Waste Management:</b> 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 vehicle maintenance also can decline the nearby water quality and	<ul style="list-style-type: none"> <li>• Wastes must be placed in the designated bins which must be regularly emptied;</li> <li>• All waste must be removed from the site and transported to a disposal site;</li> <li>• Working areas are kept clean and tidy at all times;</li> <li>• Construction site is to be checked for spills of substances i.e. chemical, oil, paint, etc.;</li> <li>• Refueling and maintenance of equipment and vehicles should be done in selected confined area with base of impermeable layer (paved) so that waste could not spill and get contact with nearby water body and soil. Waste oil and</li> </ul>	Contractor	Environmental Consultant and Social Development & Hygiene Promotion Consultant of PMU, IWM and DPHE



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
	surrounding environment if these are not properly managed	<p>mobile will be collected and subsequently sold to authorized recyclers.</p> <ul style="list-style-type: none"> <li>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;</li> <li>Hazardous Waste Management Rules should be maintained by the responsible contractor;</li> <li>Informal training on handling of hazardous waste shall be done regularly by the ES of PIU and Contractor's HSE.</li> </ul>		
<b>Construction Activity</b>	<p><b>Health &amp; Safety Risks</b> may be take place for following reason to associates worker</p> <p>-The potential for exposure to safety risking 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>	<ul style="list-style-type: none"> <li>All construction equipment will be properly inspected timely.</li> <li>The risk assessment will be prepared time to time for all types of work activities on site.</li> <li>Proper walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting.</li> <li>Proper signpost any slippery areas will be ensured in construction site.</li> <li>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</li> </ul>	Contractor	Environmental Consultant and Social Development & Hygiene Promotion Consultant of PMU, IWM and DPHE



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
	<p>-Exposure to health hazardous events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis.</p> <p><b>-Fire safety protection</b></p>	<p>fighting fire.</p> <ul style="list-style-type: none"> <li>• A system to alert for workers will be setup on site. This may be temporary or permanent mains operated fire alarm.</li> <li>• Fire extinguishers will be located at identified fire points around the site. The extinguishers will be appropriated to the nature of the potential fire.</li> <li>• 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.</li> <li>• Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems.</li> <li>• 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.</li> <li>• An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements.</li> </ul>		



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> <li>• 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.</li> <li>• Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> </ul>		





Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> <li>Adequate quantities of drinking water will be available at different locations within the sub-project area.</li> <li>Provision to maintain proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities.</li> <li>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.</li> <li>Ensure adequate fire safety protection. Fire extinguisher (with proper training to use), water, sand etc., will be reachable in the construction sites.</li> </ul>		
<b>Operation &amp; Maintenance</b>	Noise disturbances	<ul style="list-style-type: none"> <li>Provision to maintain noise from the operation &amp; maintenance of machinery and equipment by noise dampeners</li> <li>Toilet containment well cleaning work should conduct during day time.</li> </ul>	Contractor: up to contractor's liability period  Long-term responsibility to be determined by CiC/DPHE	Environmental Consultant of PMU,  Long-term responsibility to be determined by CiC /DPHE
<b>Operation &amp; Maintenance</b>	Improper disposal and leakage of sewage from household toilet may	<ul style="list-style-type: none"> <li>Use bin covers and/or tarpaulins during transport of wastes and end products</li> </ul>	Contractor: up to contractor's liability	Environmental Consultant of PMU,



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
	degrade the surrounding environment.	<p>(compost).</p> <ul style="list-style-type: none"> <li>• The soak pit will have to be cleaned in a regular interval (at least in every three months).</li> <li>• If possible then use of vacuum tanker/pump to collect de-sludge material &amp; dumping to proper dumping site</li> <li>• Appropriate awareness programs shall be arranged for the community members on health and hygiene issues and the impacts of improper sanitation practices;</li> <li>• Ensure disposal tanks, drums or containers coming to, and from, the site are in a satisfactory condition – check for damage or leaks;</li> <li>• Ventilation systems and facilities shall be kept in good functional order to minimize untoward odor problems</li> </ul>	<p>period</p> <p>Long-term responsibility to be determined by CIC/DPHE</p>	<p>Long-term responsibility to be determined by CiC /DPHE</p>
<b>Operation &amp; Maintenance</b>	Injuries to operation and maintenance workers	<ul style="list-style-type: none"> <li>• Ensure proper training given to all staff</li> <li>• Ensure PPE used by all staff</li> <li>• Ensure use of vacuum tanker/pump to collect desludged material &amp; dumping to proper dumping site. Vacuum truck with 50 m suction pipe will be used. It should 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</li> </ul>	<p>Contractor: up to contractor's liability period</p> <p>Long-term responsibility to be determined by CIC/DPHE</p>	<p>Environmental Consultant of PMU,</p> <p>Long-term responsibility to be determined by CiC/ DPHE</p>



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		glasses, etc. Since pits of household toilets are smaller in size, it will be easier to clean.		
<b>Operation &amp; Maintenance</b>	Erosion and land degradation due to leakage of toilets	<ul style="list-style-type: none"> <li>Preventative maintenance to be undertaken at regular intervals by the Contractor to ensure there are no leaks causing erosion.</li> </ul>	Contractor: up to contractor's liability period Long-term responsibility to be determined by CIC/DPHE	Environmental Consultant of PMU, Long-term responsibility to be determined by CiC/DPHE
<b>Operation &amp; Maintenance</b>	Air pollution can happen due to bad smell of dirty toilets and improper design of vent pipe	<ul style="list-style-type: none"> <li>To avoid bad smell regular cleaning of household toilets will be assured.</li> <li>Engineering designed to be followed for installing vent pipe so that odor cannot spread.</li> <li>Community awareness will be increased at camp area on cleanness of toilets after wash and its benefit to health.</li> </ul>	Contractor: up to contractor's liability period Long-term responsibility to be determined by CIC/DPHE	Environmental Consultant of PMU, Long-term responsibility to be determined by CiC/DPHE
<b>Operation &amp; Maintenance</b>	Draw down of deep tube well groundwater due to excessive withdrawals for operation of household toilets	<ul style="list-style-type: none"> <li>Coordination with other development agencies for groundwater extraction rates will be monitoring.</li> <li>Regular third-party will be monitoring of groundwater levels</li> </ul>	Contractor: up to contractor's liability period Long-term responsibility to be determined by CIC/DPHE	Environmental Consultant of PMU, Long-term responsibility to be determined by CiC/DPHE
<b>Decommissioning</b>	The impacts are similar to those listed in	<ul style="list-style-type: none"> <li>Provision to proper measure of mitigation and monitoring to minimize or reduce the</li> </ul>	Contractor: up to contractor's liability	Environmental



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
	construction stage: <ul style="list-style-type: none"> <li>• Pollution from waste materials</li> <li>• Health &amp; Safety risks to workers and local community/DRPs</li> </ul>	environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. <ul style="list-style-type: none"> <li>• 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.</li> </ul>	period Long-term responsibility to be determined by CIC/DPHE	Consultant of PMU, Long-term responsibility to be determined by CiC/DPHE



Appendix-02: Community Consultation Meeting with DRP at Camp\_09



Figure\_02: Community consultation meeting with DPR community





Appendix 03: List of the Participants

Community Consultation Meeting of Environmental and Social Management Framework  
for Emergency Multi-Sector Rohingya Crisis Response Project  
(EMCRP), DPHE, Cox' Bazar.

List of Participants

Camp No.- 9 Block No.- A-12 Sub project H4 Toilet Date: 16.01.21 Time: 2:00  
Venue: Mosque Corridor

Sl. no.	Name	Sex		Designation	Mobile Number	Signature	Remarks
		M	F				
1	Dil Mohamad	✓		DRG	-		
2	Abul boshor	✓		,	-		
3	yakof ALi	✓		3	-		
4	Hamet huson	✓		1	-		
5	Md. Ayup	✓		1	-		
6	Hamet huson	✓		3	-		
7	Aus man	✓		6	-		
8	Abdul ALi	✓		4	-		
9	ALi huson	✓		4	-		
10	MV. Amanull	✓		4	01905698994		
11	Alan sha	✓		4	81629276871		
12	Nor huson	✓		5	-		
13	Abduraman	✓		4	-		
14	Ab delay	✓		4	-		
15	sadak	✓		4	-		
16	Abul Kasim	✓		3	01856139964		
17	MV. basar	✓		4	61812768506		
18	MV. Md ALi	✓		4	01525162184		
19	sham su Alom	✓		4	-		
20	shober A Md.	✓		4	-		
21	shideel husein	✓		4	-		
22	Nur Robin	✓		Majher	01878361989		
23							
24							
25							

Prepared by:

Md. Mostamsirur Rahman  
Social Development Specialist  
Pkg. No. SD-14, IWM, EMCRP, DPHE



## Appendix: 4- Labor Code of Conduct

### অঙ্গীকার পত্র

স্থানঃ

ঠিকাদারী প্রতিষ্ঠানঃ

আমি..... এই মর্মে অঙ্গীকার করছি যে, কর্মরত থাকা অবস্থায় নিম্নোক্ত আদেশ, নির্দেশ ও নিষেধসমূহ সর্বদা মেনে চলবো।

১. সকল রোহিঙ্গা জনগোষ্ঠীর সাথে সর্বদা নম্রতা, ভদ্রতা ও সম্মানের সাথে ব্যবহার বজায় রাখবো;
২. কোন অবস্থাতেই রোহিঙ্গা নারী, শিশুর সাথে কোন প্রকার সম্পর্ক তৈরী করবো না;
৩. রোহিঙ্গা জনগোষ্ঠীর ইচ্ছাকৃত বা অনিচ্ছাকৃত কোন প্রকার সাহায্য সহযোগিতা নিবো না;
৪. কোন অবস্থাতেই রোহিঙ্গা জনগোষ্ঠীদের কোন প্রকার আশ্বাস প্রদান কিংবা অঙ্গীকারবদ্ধ হবো না;
৫. কর্মক্ষেত্রে কিংবা রোহিঙ্গা ক্যাম্প 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 নিজ পরিচয় পত্র (ID Card) প্রদর্শন ও সংরক্ষণ করবো;
৮. কোন অবস্থাতেই রোহিঙ্গা জনগোষ্ঠী ও স্থানীয় লোকদের সাথে কোন প্রকার অসামাজিক কর্মকাণ্ড ও কোন প্রকার বিবাদে লিপ্ত হবো না;
৯. যে কোন জরুরী অবস্থায় সিদ্ধান্ত গ্রহণের ক্ষেত্রে সংশ্লিষ্ট কর্মকর্তার শরণাপন্ন হবো।

উপরোক্ত বিষয় সমূহের যদি কোন ব্যতিক্রম ঘটে বা ঘটাই তাহলে এ বিষয়ে প্রশাসন আইনগত যে শাস্তি বা সমাধান গ্রহণ করবে তা মেনে নিতে বাধ্য থাকবো।

.....  
স্বাক্ষর ও তারিখ

প্রজেক্ট সাইটে যা যা অবশ্যই রাখতে হবে :





১. শ্রমিক ও কর্মকর্তাদের 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-পদবীসহ 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;
১০. নম্বর বাংলা ও ইংরেজীতে বড় বড় অক্ষরে দৃশ্যমান স্থানে প্রদর্শনের জন্য স্থাপন;
১১. কাজের সাইটে পূর্ণাঙ্গ তথ্য ও কাজের পরিধি ব্যানার আকারে দৃশ্যমান স্থানে প্রদর্শনের জন্য স্থাপন;
১২. নিরাপত্তা চিহ্ন, সতর্কতা তথ্য ও নিরাপত্তা বেষ্টনীর ব্যবস্থা করা;
১৩. নিরাপত্তা উপকরণ ও সরঞ্জামাদি এবং প্রাথমিক চিকিৎসার ব্যবস্থা রাখা;
১৪. জরুরী অবস্থায় ব্যবহারের জন্য গাড়ি কিংবা মোটর সাইকেলের ব্যবস্থা রাখা;
১৫. কাজের ঝুঁকিপূর্ণ স্থান দিনে-রাতে সহজে সনাক্ত করা যায় এমন চিহ্ন কিংবা সেফটি লাইটের ব্যবস্থা রাখা।

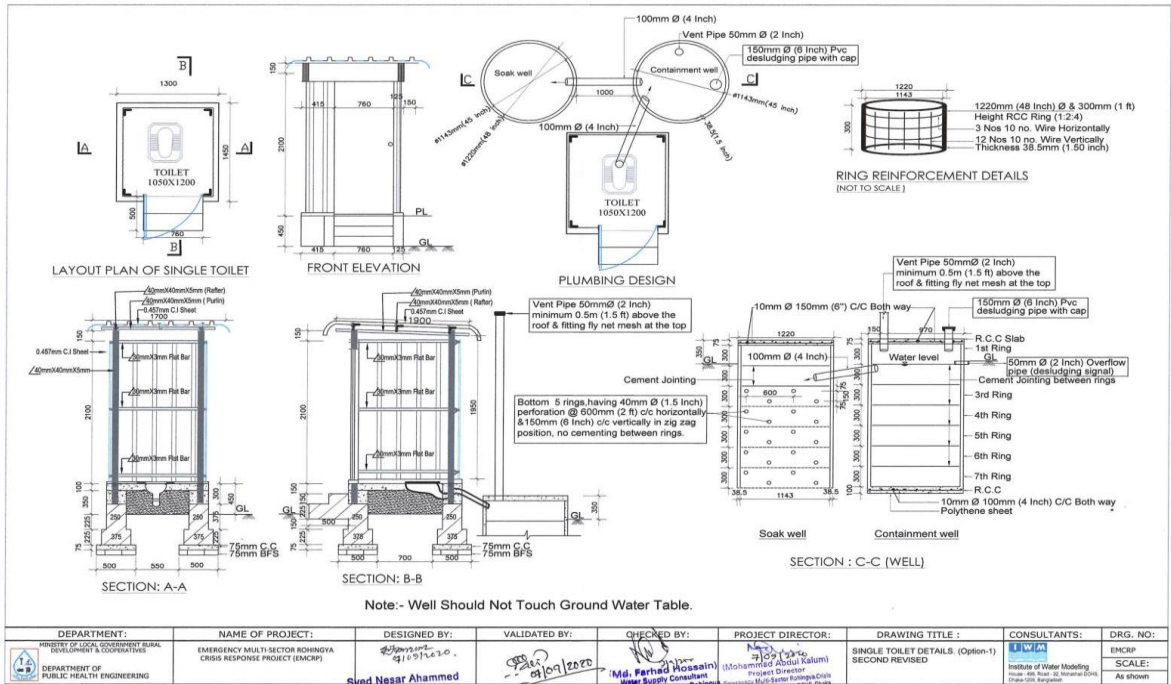
(বিঃদ্রঃ রেজিস্টার খাতার উপর প্রত্যেক প্রতিষ্ঠানের নাম ও স্থান উল্লেখ করতে হবে।)

পরিবেশগত সতর্কতা সমূহ :-

- ১) প্রয়োজন ব্যতীত 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।



Appendix- 05: Typical design of HH toilet



DEPARTMENT:	NAME OF PROJECT:	DESIGNED BY:	VALIDATED BY:	CHECKED BY:	PROJECT DIRECTOR:	DRAWING TITLE:	CONSULTANTS:	DRG. NO:
 DEPARTMENT OF PUBLIC HEALTH ENGINEERING	EMERGENCY MULTI-SECTOR RCHINGYA CRISIS RESPONSE PROJECT (EMCRP)	 Syed Nesar Ahmmed SWM Specialist, Prg. No. 20-14 IWM, EMCRR, DPHE	 Monwar Ali Team Leader, Prg. No. 20-14 IWM, EMCRR, DPHE	 Md. Farhad Hossain Water Supply Consultant Freelance Multi-Sector Rohingya Crisis Response Project, DPHE	 Mohammed Abdul Kalam Project Director Emergency Multi-Sector Rohingya Crisis Response Project, EMCRR, DPHE	SINGLE TOILET DETAILS. (Option-1) SECOND REVISED	 Institute of Water Modelling House: 48, Plot: 8, Mirpur-2/Dhaka, Dhaka-1208, Bangladesh	EMCRP SCALE: As shown



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