



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

**Environmental and Social Management Screening Report  
On  
Installation of Non piped Deep Tara Tubewell including O&M**



**Location: Camp\_09, Sub-project (Package No.): EMCRP/WD-07B  
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
BoQ	Bill of Quantity
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
PMU	Project Implementation Unit
PM	Particulate Matter
PMU	Project Management Unit
PPE	Personal Protective Equipment
PSC	Project Steering Committee
DTTW	Deep Tara Tubewell
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
WSC	Women's Studies Center



## EMCRP (DPHE part)

### Environmental and Social Screening Form

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#### Sub-Project Description Form

##### Introduction:

EMCRP (DPHE components) will construct 400 nos. of non-piped deep Tara Tube well at different locations DRP camps. This report is prepared for the sites of 12 nos. Deep Tara Tubewells at different Blocks of Camp\_09 (Vol-2).

##### Name of Sub-project:

Installation of camp based non piped deep tara tube well scheme including Defects & Liabilities period under Cont. no 7B Non-Piped Water Options in Camp\_09 for Displaced Rohingya Population (DRP) at Ukhiya Upazila under Cox's Bazar district of Bangladesh.

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

**Estimated total cost per Deep Tara Tubewell (in Taka):** 144,336 (Tk.) (on average)

**Estimated construction period duration:** 06 (Six) months.

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

24 (Twenty-Four) months defect liabilities period but design life more than 10 (Ten) to 15 (Fifteen) years.

**District:** Cox's Bazar

**Sub-District:** Ukhiya

**Union:** Palongkhali

**Name of Community/Local Area:** Camp\_09 and Block\_ B-09, C-14, C-18, C-20, G-27 & G-29.

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

In the proposed sub-project areas Non-Piped Deep Tara Tubewell Schemes activities, the following interventions would be taken place:

- Installation of 12 nos. Deep Tara tube well. As per BoQ, estimated depth of each tubewell was considered 875 feet, but this depth may change as per ground water level during installation.
- Well development by air compressor (minimum 1 bar) until sand free, odor and turbidity free drinking water at a satisfactory yield
- Disinfecting the well including supply of 50 gm of bleaching powder (33% strength), chlorinated water having 150 ppm available free chlorine complete as per standard specification
- Supplying, fitting & fixing of best quality materials and inspection of pump head and cylinder set should be satisfied by Crown agent
- Platform and Fixation of Stone Plate ID
- After ensuring proper well development, collect the water samples and sending the samples to the DPHE Zonal Laboratory for testing
- Environmental Mitigation Works
- Operation & Maintenance work

**Estimated footprint / land area for this per Deep Tara Tube well:** Around 3.00 square meter land required for the establishing per Deep Tara Tubewell. 15-20 family or 80-100 people shall use each deep tube well. Typical design of Deep Tara Tube well is attached in **Appendix: 04**.

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

Rohingya Camp based Deep Tara Tube well is located Camp no.09 and Blocks B-09, C-14, C-18, C-20, G-27 & G-29. There is 12 Deep Tara Tubewells will be installed in this camp. The projected land is public land without trees, structures and community properties will be affected. The accumulate infrastructures in and around the proposed site, there are mainly DRP houses as well as some host community houses also, earthen drain, low land, hills, health post, drains, etc. Some sites are selected at high land. There is herringbone bond road close to the sub project area as well as footpath also exists. DPHE maintains minimum of 30 feet from nearest toilet during selection for non-piped tara tube wells. It seems that expected impacts on surrounding features would be minimum.

Sl. No.	Deep Tubewell _ ID	Camp	Block	Lat.	Lon.
1.	EMCRP_WD_07B_DTTW_09.01	09	B-09	21.191872	92.160073
2.	EMCRP_WD_07B_DTTW_09.02	09	C-14	21.188258	92.162160
3.	EMCRP_WD_07B_DTTW_09.03	09	C-18	21.186539	92.162412
4.	EMCRP_WD_07B_DTTW_09.04	09	C-18	21.186519	92.162365
5.	EMCRP_WD_07B_DTTW_09.05	09	C-18	21.186752	92.161690
6.	EMCRP_WD_07B_DTTW_09.06	09	C-18	21.188973	92.162513
7.	EMCRP_WD_07B_DTTW_09.07	09	C-20	21.191159	92.164431
8.	EMCRP_WD_07B_DTTW_09.08	09	C-20	21.189917	92.165096
9.	EMCRP_WD_07B_DTTW_09.09	09	C-20	21.190985	92.166055
10.	EMCRP_WD_07B_DTTW_09.10	09	G-27	21.186532	92.159947
11.	EMCRP_WD_07B_DTTW_09.11	09	G-27	21.186810	92.159052
12.	EMCRP_WD_07B_DTTW_09.12	09	G-29	21.186393	92.160917

**Overall Summary:**

The DRP of the sub-project area are very much optimistic about the success of the project. The sub-project is environmentally sustainable and socially acceptable. The DPHE, along with IWM Environmental & Social safeguard Team, PMU Social & Environmental Consultant, has conducted three (04) consultation meetings with DRP community and DRP representatives, CiC, Camp Focal of WASH, Camp area focal, SAE & Mechanic, and relevant stakeholders (**Appendix: 2 and 3**). Considering the suggestion and 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 installing the proposed Deep Tara Tubewell and also requested to include both host and DRP community member during the installation work.

In terms of natural, ecological features of the area, it was observed that before establishing DRP camp, roads and other essential establishment, it was a forest area, most of the natural forests were destroyed during establishment of this Camp. No further significant impact is expected on the ecosystem and biodiversity, no agricultural land/activities or fish farming will be disturbed, due to the construction of the sub-projects. The Non-Piped Deep Tara Tube well scheme construction work is restricted to within the boundary of camp.

**Deep Tara Tube well site selection process:**

IWM Specialist, DPHE Officials along with EMCRP Consultants jointly visited the proposed DRP Camp area (Camp-09) to conduct the project screening process. The team primarily selected the site on the basis of transect view, community opinion, existing structures, improved water supply coverage. Also considered the initial probable E&S impact, easy access to the DRP, especially



the children, women and old aged. The issue of pregnant women, person with disability, elderly is also taken in consideration. So, the team finally proposed location (with GPS) among the other alternative location.

The BRAC is leading WASH activity in camp as focal agency. The IOM is performing area focal agency. The DPHE is executing the project under the financial assistance of World Bank and GoB. After establishing the proposed per Deep Tara Tube Well scheme in the area about 100 people (20 HH) will be benefitted to meet their water 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, concrete, earth and liquid drilling mud, etc.

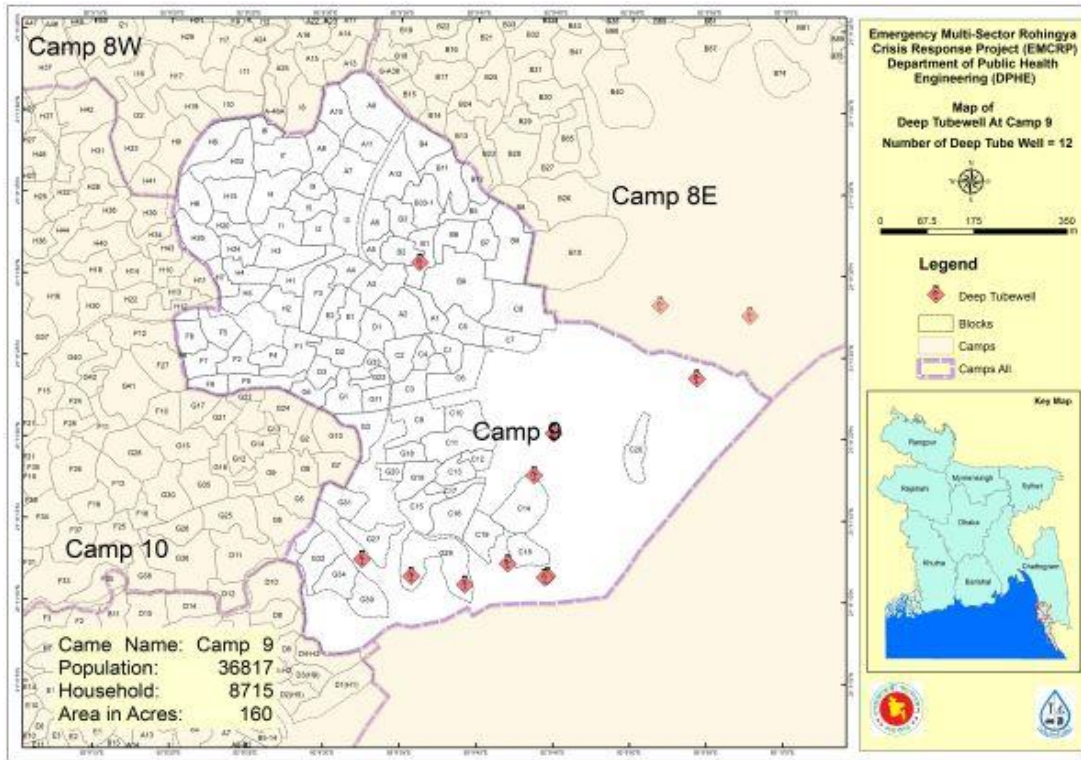
**Sensitive environmental, cultural, archaeological, religious sites near (within 1km) of site including elephant migration routes and remaining forests:**

Within the Deep Tara Tube Well areas the buildup infrastructures in and around the sub-project site include open space, 1 CiC office, 2 meal distribution points, 13 child protection facilities, 6 distribution points, 60+ learning centers, 2 graveyards, 3 age friendly spaces, 2 health facilities, 6 SMW, 5 fire points, 11 org offices, 8 community facilities etc. are identified. However, none is going to be affected due to project intervention. No significant environmental or social disturbance is anticipated due to construction activities. Affected of deep forest are causes of deforestation and settlement of DRP shrink elephant corridor/route; elephant migration routes are approximately 2.00 km away from the scheme area according by UNHCR/ IUCN's (Map-3). Afforestation works have been started and some plantation is ongoing by different organizations.

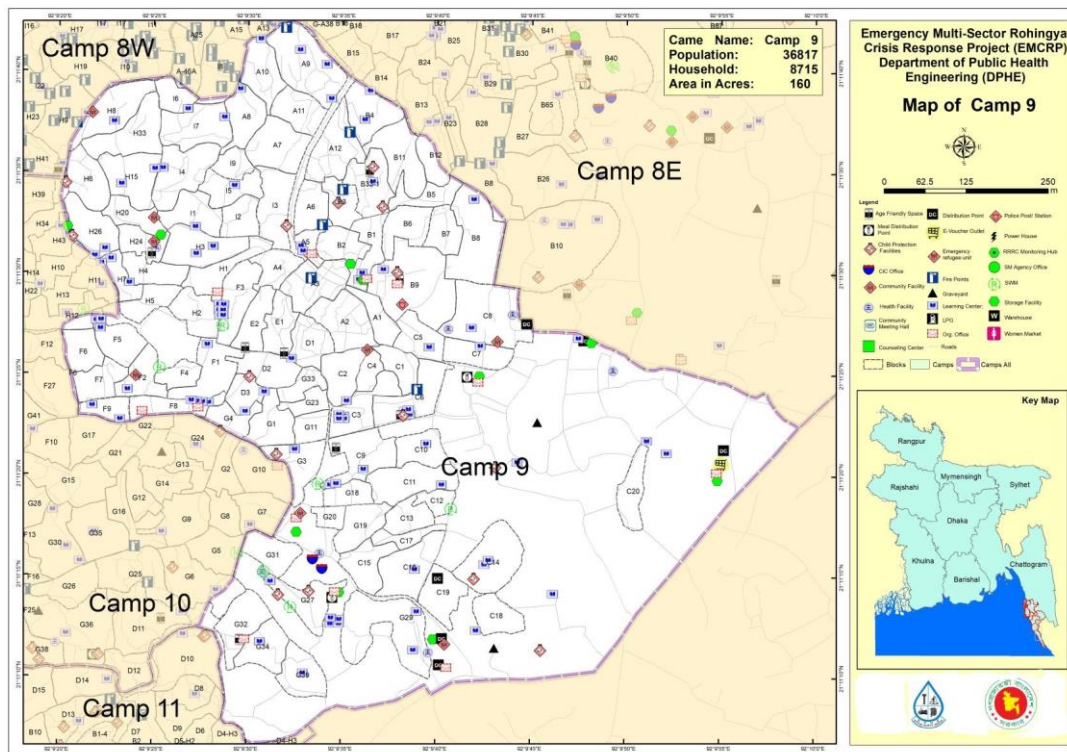




Figure-1: Proposed DTTW site, Camp\_09

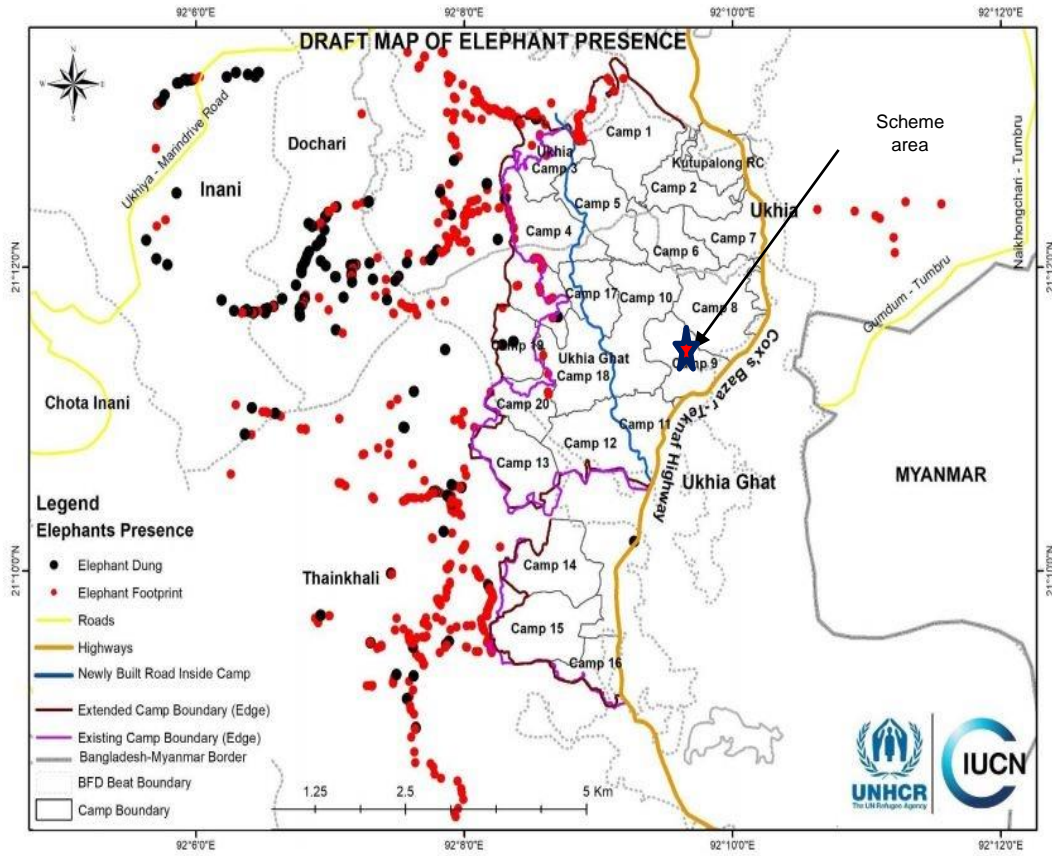


Map-1: Site Selected for DTTW at Camp 09



Map-2: Important Features in Camp-09





Map-3: Map of Elephant Presence in Camp area



## EMCRP (DPHE part)

### Environmental and Social Screening Form

#### Work Package: WD-7B Installation of 12 nos. Deep Tara Tube Well.

#### Section A: Sub-Project Overview

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

- I. Installation of 12 nos. Deep Tara Tubewell
- II. Well equipped air compressor (minimum 1 bar) until sand free, odor and turbidity free drinking water at a satisfactory yield
- III. Disinfecting the well including supply of 50 gm of bleaching powder (33% strength), chlorinated water having 150 ppm available free chlorine complete as per standard specification
- IV. Supplying, fitting & fixing of best quality materials and inspection of pump head and cylinder set should be satisfied by Crown agent
- V. Platform and Fixation of Stone Plate ID
- VI. After ensuring proper well development, collect the water samples and sending the samples to the DPHE Zonal Laboratory for testing
- VII. Environmental Mitigation Works
- VIII. Defects & Liabilities work.

##### Sub-project Location:

This sub-project area is located at Camp\_09 and Blocks: B-09, C-14, C-18, C-20, G-27 & G-29 at Palongkhali Union under Ukhiya Upazila of Cox's Bazar District. Twelve (12) Deep Tara Tube Well will install in the said camp. The proposed site is at medium high land with bit slopping. There is herringbone bond road close to the sub project area as well as footpath also exists.

**Land ownership:** Land is owned by Government of Bangladesh

**Expected construction period:** 06 (Six) 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):

Adjacent of the scheme site under the sub-project intervention area: Camp\_09 and Blocks: B-09, C-14, C-18, C-20, G-27 & G-29.

- i) Impacted area: Approx. 3.00 square meter per Deep Tara Tube Well
- ii) No structures, trees and livelihood will be affected.
- iii) DRP shelter relocation is not required.



- iv) Influence area: The influence area is within the scheme area of 150 square meter per Deep Tara Tubewell (According to Layout diagram)
- v) Environmental sensitivity: Within the influence area of the sub-project no historical sites were identified. There is no evidence of presence of elephants in the sub-project influence area (checked with local IUCN representative).
- vi) Every selected Deep Tara Tube Well location has a one alternative location from the final selected location. Alternative location is not suitable and close to the toilet.

## Section B: Environmental Screening

### B.1: Environmental feature of Deep Tara Tubewell location

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

1 (one) kilometre surrounding of scheme area include open space, 1 CiC office, 2 meal distribution points, 13 child protection facilities, 6 distribution points, 60+ learning centers, 2 graveyards, 3 age friendly spaces, 2 health facilities, 6 SMW, 5 fire points, 11 organizations offices, 8 community facilities etc. are identified. Apart from this structure, there are no other sensitive cultural, archaeological, religious sites.

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

This location used to be environmentally important and sensitive for protected forest area but now these locations have no forest due to the settlement of DRP. Erosion/land slide may occur when moderately to highly sloping terrains are disturbed for the construction of Deep Tara Tube Well. The impacts are negative but very small scale, site-specific within a relatively small area is manageable by practical mitigation measures.

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

**No.** Affected of deep forest are causes of deforestation and settlement of DRP shrink Elephant corridor/ route; according by UNHCR/IUCN's elephant migration route map.

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

**No.** It was a forest area, most of the natural forests were destroyed during establishment of this Camp. Afforestation works have been started and some plantation is ongoing by different organizations.

#### (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).



<p><b>Noise:</b></p> <p>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.</p>
<p><b>Baseline soil quality:</b></p> <p>Soil types are alluvial reddish brown, muddy &amp; 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.</p> <p><b>Landslide potential (<i>high/medium/low, with explanation</i>):</b></p> <p><b>Low.</b> Potential erosion/land slide may occur when moderately to highly sloping terrains are disturbed for the construction of Deep Tara Tube Well. The impacts are negative but very small scale, site-specific within a relatively small area and minimized by mitigation measures.</p>
<p><b>Baseline surface water and groundwater quality (<i>FE, TDS, fecal coliform, pH</i>):</b></p> <p><b>Surface water quality:</b> No surface water.</p> <p><b>Groundwater quality:</b></p> <p>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 750ft. 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.</p> <p>pH_ 7.50 to 8.50, DO_ 2.20 to 8.50mg/l, TDS_25.50 to 350 mg/l, EC_25 to 375 µs/cm, Fe_ 0.50 to1.0 mg/l, Mn_0.01 to 0.08 mg/l, Chloride_10 to 65 mg/l and As _ Nil to 0.001 mg/l. (Tubewell depth: 500 ft. to 750 ft.)</p> <p>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.</p> <p><b>*Data source: Secondary data and field survey</b></p>
<p><b>Status of wildlife movement:</b></p> <p>Wildlife movement has previously been reported in the area. At present, due to deforestation and settlement of DRP, wildlife movement is no longer there.</p>
<p><b>State of forestation:</b></p> <p>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</p>



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):**

Please consider (i) water requirements of newly forested areas for plants' total evapo-transpiration, (ii) new settlements water supply requirement for drinking water, household use, bathing and sanitation, (iii) replenishment rate from annual rainfall etc.

- i) In the sub-project area, some newly plantation has been done by different organizations.
- ii) After establishing the proposed Deep Tara Tube Well schemes in the area about 100 people (20 HH) will be benefitted per tubewell to meet their water requirements.
- iii) Average Annual rainfall in Cox's Bazaar 3,524.1mm. Average relative humidity 80%. Record temperature high 37.2°C and low temperature 7.8°C (Data source BMD & BBS)

**B.2: Pre construction Phase**

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

Regarding ancillary facilities at the concerned Deep Tara Tubewell schemes area under this sub-project the main camp connecting roads (herring bone bond) is there, as well as it is possible to reach the sites and the most feasible option is to carry the construction materials by head load (uPVC pipes, drilling materials, bamboo, breaks, cement, sand and head of tubewell etc.) to the construction site.

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

There is scarcity of toilet and water supply and no electricity supply system in the sub-project area.

**Possible location of labor camps:**

Within the scheme area and very close to the sub-project sites.

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

i) Bricks, ii) Sand iii) Cement iv) uPVC pipe vi) Gravel vii) hand pump set etc. are the most common type materials used in construction.

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

**Yes.** For unloading point of materials HBB road is the main way for transportation of the materials by pick up van or head load from unloading point to



sub-project location.
<b>Location identification for raw material storage:</b> Adjacent to the Deep Tara Tube Well location and very close to the construction sites and away from steep slopes.
<b>Type and quantity of waste generated (e.g., Solids wastes, liquid wastes, etc.):</b> <b>Solid waste:</b> i) Bricks, ii) Sand iii) uPVC pipes vi) earth or mud. It is difficult to give exact figures of pre-construction waste produced on a Deep Tara Tubewell construction site. However, 100 kg of waste may be produced per Deep Tara Tube Well construction site.
<b>Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:</b> No valuable vegetation presence in proposed sub-project construction sites (approx. 3.00 square meter land per Deep Tara Tubewell).
<b>Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation):</b> None.
<b>Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description):</b> <b>Low.</b> There are some manmade drains in this area, but this work will not have any harmful effects, rather the waste water of the DTTWs will drain out easily through the drains.
<b>Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description):</b> None.
<b>Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:</b> None.
<b>Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:</b> No traffic movement impacts on light but low effects of noise and air pollution.
<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>



### B.3: Construction Phase

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

**Solid waste:** i) Bricks, ii) Sand iii) uPVC pipes vi) earth or mud. It is difficult to give exact figures of construction waste produced on a Deep Tara Tubewell construction site. However, 250 kg of waste may be produced per Deep Tara Tubewell construction site.

**Liquid waste:** Drilling mud and drilling fluid waste water. During construction period, fecal sludge will be generated from labor camp. It is difficult to give exact figures of construction waste produced on a Deep Tara Tubewell construction site. However, 750 kg of waste may be produced.

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

**Raw Materials:** Bricks, ii) Sand iii) Cement iv) uPVC pipe vi) head pump set, v) water, vi) Pre-gravel etc. It is difficult to provide exact figures of construction materials that will be used on a Deep Tara Tubewell construction site. However, 750 kg of raw materials may be required per Deep Tara Tubewell construction.

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

At present no valuable vegetation presence in proposed sub-project construction sites. So, vegetation will not be affected by construction work.

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

**Medium.** Water tank for tube well drilling to be required. These can potentially store stagnant water for short period of time during and after rain events. The top soils in the sub-projects are sandy and the water should drain away quickly. During tube well progress work, possibility to stagnant of water.

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

**Low.** Within 20-50 feet, there are manmade or natural drains. Outfalls of manmade drains are connected with different natural canal. Those drains may block if construction waste & construction materials fall within drain. 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.** There are manmade or natural drains. Outfalls of manmade drains are connected with different natural canal. Manmade drains are within 5 to 25 feet away from road side. Outfalls of those drains are connected with different natural canal. Drain connected water bodies can be contaminated if generated waste of scheme sites gets contact with road side drain water by runoff of precipitation or disposal of waste into drain (by discharging solid



& liquid wastes from construction site & labor camp 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:**

Construction of the sub-project components can lead to low scale effects of land slide/slips. The impacts are expected to be negative, short-term, and site-specific within a relatively small area and can be minimized by mitigation measures.

**Erosion of lands below the road bed receiving concentrated outflow carried by covered or open drains:  
(High/Medium/Low with description):**

**Low.** Potential erosion may occur when moderately to highly sloping terrains are disturbed for the construction of Deep Tara Tube Wells. The impacts are expected to be negative, small scale, site-specific within a relatively small area and minimized 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 and interference of plant growth adjacent to roads by dust raised and blown by vehicles:**

N/A.

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

No chance of long-term or semi-permanent destruction of soils for Deep Tara Tubewell project area.

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

N/A





<p><b>Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors:</b> <i>(High/Medium/Low with explanation):</i></p> <p><b>Low:</b> There is very low possibilities of stagnant water deposition in operation period, because pipe drain will be provided from tubewell platform to nearest drain to pass the gray water.</p>
<p><b>Likely direct and indirect impacts on economic development in the project areas by the sub-project:</b></p> <p>Safe drinking water supply will be helpful reduce water scarcity crisis of the DRP and improve their health condition.</p>
<p><b>Extent of disturbance or modification of existing drainage channels (<i>rivers, canals</i>) or surface water bodies (<i>wetlands, marshes</i>):</b> <i>(High/Medium/Low with description):</i></p> <p>No impact. Because only gray water will be produced from tube wells platform.</p>
<p><b>Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development:</b> <i>(High/Medium/Low with description):</i></p> <p>None</p>
<p><b>Activities leading to landslides, slumps, slips and other mass movements in road cuts:</b></p> <p>N/A</p>
<p><b>Erosion of lands below the road bed receiving concentrated outflow carried by covered or open drains:</b> <i>(High/Medium/Low with explanation):</i></p> <p><b>Low.</b> Low possibility to erosion of land because pipe drains will be provided from tube well platform to nearest drain.</p>
<p><b>Describe possible traffic movement impacts on (<i>unwanted</i>) light, noise and air pollution:</b></p> <p>Temporary, localized impacts on noise and air pollution from maintenance vehicles movement can occur. All maintenance works will be conducted during daytime – so no light impacts expected.</p>

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



## Section C: Social Screening

### C.1 General Labor Influx Screening

Key Screening questions	Aspects to Consider
<p><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></p>	<p>The number of total skilled Labor is 1-2 and unskilled labor 3-5 per Deep Tara Tubewell. 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 will be 225 square feet.</p>
<p><b>Is the project located in a rural or remote area?</b></p>	<p>The project area is in a camp area demarcated by the Government and belongs to camp-09 in a remote specialized area. The population size 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 installation of the proposed Deep Tara Tubewell scheme in the area about 100 people (20 HH) will be benefitted from the Tube well through meeting their water requirements.</p>
<p><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></p>	<p><b>No.</b> 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.</p>
<p><b>Consultation with DRP Community People and relevant stakeholders (SH)</b></p>	<p>During screening and site identification DPHE conducted different consultation with primary and secondary stakeholders RRRC, WASH Sector, Site Management Committee representatives, Contractor team and DRP Community. The local DPHE has undertaken one consultation meeting with the people 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?		√		No, land acquisition is not for this subproject Deep Tara Tube wells at the DRP camp site.
2. Is the project construction site known?	√			The land is selected with the recommendation of CiC, SMC & Local DPHE and assigned UN agencies
3. Who manage the land?	√			The ownership of the land is government and lands are currently empty.
1. Will easement be utilized within an existing Right of Way (ROW)? CRP (Common Resource Property)	√			In the camp area Provision is available be utilized within an existing Right of Way (ROW) within this Camp-09 area under EMCRP.
2. 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 shifting, 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.
3. 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? If yes, approximately how many?</b>	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
<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>During Screening, project authority will conduct consultation with the primary and secondary stakeholders and provide their observations in the following sections (12 to 16)</b>		
<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, Dept. of Environment and Forest Department, Development Partners (WASH Cluster, UNHCR, WFP, IOM) and Local and international NGOs working with local host communities/DRP.</p> <p>In order to preparing the Environmental and Social Screening as well as identification of one participatory community consultation was conducted at subproject sites (<b>Appendix-2</b>). Several numbers one to one consultation have been also done with relevant stakeholders to have clear understating of their interest, concern and recommendation on proposed subproject. The approach involved a mix of conventional participatory, Community consultation and one-to one interview. The DPHE Engineer, IWM Environmental &amp; Social safeguard team, ES and SS, GIS Specialist of PMU, local individuals (DRP peoples) as well as representative of Union Parishad participated. For better understanding the socio-economic and environmental condition Community consultation have been conducted in the subproject study area where male participants were present. Someone to one interview with vulnerable group like pregnant women, elderly, persons with disabilities, etc. were also conducted. The Community consultation 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 DRP 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 ESS Team also emphasized/motivated the community to wear Mask, hand washing/sanitizer etc. for Covid-19 issue. 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 community consultation has been recorded (<b>Appendix: 2, 3 and 4</b>) and are to be considered in the design of ESMF.</p>		



### Feedback, Suggestions, and Recommendations of the Participants Community Consultation

The participants' feedback, suggestions, and recommendations listed below:

- During consultation DRP community expressed their pleasure to get DTTW at the nearest places of their houses. They opined that it will reduce their time to collect water and bring pleasure for them. Now they are using less water as per their need and this is a mental pain for them. Old and pregnant women cannot collect water from the tops of the hills and they fail to get assistance from others very often. The DRP is very much happy with EMCRP project
- They emphasized for the installation of the Deep Tara Tubewell with provision of CC platform so that at tube well location and its surrounding area remain dry and safe for women and child;
- Participants showed highly anxious about its operation and maintenance. In this regard, they suggested confirming who will take responsibilities operation and maintenance.
- They also expressed their concern about employment opportunities. They said that, non-skilled worker should engage from DRP community so that they can manage their livelihood. As well as they mentioned some skill workers are in DRP community; if possible, they should also be engaged.
- Vulnerable group like pregnant women, elderly, persons with disabilities, etc. requested to install tube well within household areas. This tara deep tube well site is selected within DRPs household areas.

Individual level consultation with project interest and influence parties (CiC, Site Management Committee (SMC)/Camp Wash focal team, RRRC, UNHCR) representative were conducted in consistence with consultation objective during subproject selection stage to have their idea, concern, segregation about the proposed subproject. Because of COVID\_19, virtual meeting was conducted with UNHCR. Consultation outcome with them is consolidated here in below:

- Site Management and WASH focal representatives agreed on selection of proposed sites. By the persuasion of local DPHE the CiC approved the sites. All meeting participants opined that DRP will have access to safe water from the DTWs at door step. The CiC welcomed and committed to support EMCRP implementation at DRP camps;
- Development work of the subproject in camp area, project proponent needs to be taken approval of RRRC with the recommendation of camp administration;
- Intervention sites should not locate in the elephant migration corridor. Hence, elephant migration road map set by the IUCN/UNCHR should follow during site selection;
- Provision of temporary bin for waste collection during scheme implementation should arrange and regular disposal also need to be assured stated by wash focal;
- Finalizing of schemes with the assistance of CiC and other respected organization, site should be confined to avoid the neighboring disturbance; Engaging DRP/Local community to implement the sub-project properly.



**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?**

Stakeholders are in favor of the projects and believe that overall project impacts will be positive. The influx is straining existing infrastructure and degrading an already resource-constrained social service delivery system and the environment at DRP camps. Access to improved water quality and quantity is a priority. In environmental aspects, the settlement of DRP in Cox's Bazar's South Forest Division, including the Teknaf and Ukhiya Ranges, the Teknaf Wildlife Sanctuary, and other Reserved Forest areas has added unprecedented pressure on the area's natural resources. Regarding Social Protection, it has been revealed that, at least 80 percent of the DRP are dependent on life-saving external assistance. The remaining 20 percent only partially meet their needs through coping strategies, which will quickly deteriorate as coping capacities such as savings are exhausted. The high influx of DRP has placed formidable pressures on an already inadequately resourced social service delivery system.

**Positive Impact:**

After construction of Deep Tara Tube well, camp area people will get sufficient water provision near by the houses for drinking & other domestic uses, which will reduce their suffering of collecting water to meet up the basic needs. These tube wells will ensure pollution free potable water for DRPs.

**Negative Impact:**

Due to operation of Tara Tubewell, expected adverse impact would be minimal. Except chance of muddy surface nearby the tube well location during carrying of water and limited interference for ablutions where tube well is adjacent to the site, there will have no significant impact. Beside there will have medium level of negative impact, from waste (mud, liquid waste) that to be generated by constructing the tube well. However, anticipated impact will be short term and negative and localized. Further, if construction site is not fenced properly and is located nearby the learning center then learning center going children may face accident. During construction COVID 19 issue may hamper the construction work.



#### **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 appear risk of some social conflict. A complete Gender action plan has already been developed and approved; a full time Gender Specialist for this project has been assigned to oversee the GBV based issues for this 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 RRC/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
Government Organizations	RRRC	Mr. Shah Rezwon Hayat, RRRC Commissioner, Cox's Bazar, Email: <a href="mailto:rrrc@rrrc.gov.bd">rrrc@rrrc.gov.bd</a> Tel: 0341-63513 .....	Overall Coordination of GoB, dept., Dev. partners, NGO, INGO, UN Agencies, Volunteers, 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 sources, renewable solar energy.	DRP Camps, Blocks, synchronizing with Host, E&S aspects, Elephant corridors, conserve NR. Establish proper road communication.
	DPHE	Engr. Ritthick Chowdhury, CXB, DPHE, Executive Engineer Email: <a href="mailto:chowritthick@gmail.com">chowritthick@gmail.com</a> .....		
	DC	Mr. Md. Mamunur Rashid Cell: 01213-160093 <a href="mailto:dccoxsbazar@mopa.gov.bd">dccoxsbazar@mopa.gov.bd</a> .....		
	LGED, MoDR, DRP CIC	Mr. Abu Saleh Mohammad Obaidullah Camp-in-Charge, Camp-9 (Deputy Secretary) Email: <a href="mailto:camp9@rrrc.gov.bd">camp9@rrrc.gov.bd</a> Cell: 01813-359953		
UN Agencies /INGOs	WSC IOM, UNICEF, WFP, FAO, UNHCR	Mr. Ashfaqur Rahman Area Focal Agency IOM, Cell: 01753964135 <a href="mailto:marahman@iom.int">marahman@iom.int</a>	Management of DRP Crisis in BD. Refugee Relief and Repatriation, Site management,  Ensuring DRP HH shelter , F/NFIs ,	DRP Camps, Blocks, synchronizing with Host, E&S aspects, Elephant corridors, conserve NR. Establish





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
	UNFPA	Engr. Maruf Hossian Camp Focal Person, BRAC Focal Person, Cell: 01632201972 Email: <a href="mailto:mh77.bd@gmail.com">mh77.bd@gmail.com</a>	WASH facilities , Education , Health , Livelihoods , Social security , power sources , renewable solar energy .	proper road communication.
National Organizations	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-12-october-2012">https://www.humanitarianresponse.info/en/operations/bangladesh/document/wash-sector-coxs-bazar-members-contact-list-12-october-2012</a>		
Community Based Volunteer Organizations are those, which constitute the members of the community working towards social development.	Not yet involved	Yet to develop the database	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

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>	Construction Contractor monitored by Environmental Consultant and PMU	<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>	Air quality test (CO, PM) once in construction period in winter season.



Section	Main Environmental and Social Impacts	Impact Significance *	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	<b>Soil</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>	Construction Contractor monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> <li>• No visible degradation to nearby drainages,</li> <li>• Khals or water bodies due to soil erosion.</li> </ul>	Weekly, especially after rain events
	<b>Hydrology (surface and groundwater)</b>	Under the sub-project intervention, the overall	<ul style="list-style-type: none"> <li>• All precautions to store chemicals oil/fuel properly so that no chance of spill.</li> </ul>	Construction Contractor and monitored by Environmental	<ul style="list-style-type: none"> <li>• Areas for stockpiles, storage of fuels and lubricants and</li> </ul>	Water quality test (SW & GW) once in construction



Section	Main Environmental and Social Impacts	Impact Significance *	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
		score is <b>Medium.</b>	<ul style="list-style-type: none"> <li>• Proper disposal of excess bleaching power and care should be taken to follow the appropriate procedure for chlorination.</li> <li>• Monitor water quality according to the environmental management plan.</li> <li>• Ensure drilling equipment is cleaned well and will be free of contaminants such as grease, and chemicals, prior to drilling; and properly dispose of spoils and wastes at the end of each day's work.</li> <li>• More details provided in ESMP</li> </ul>	Consultant and PMU	waste materials; <ul style="list-style-type: none"> <li>• Records of water quality inspection; Water Quality Test (National Drinking Water Quality Standard Parameters);</li> <li>• No visible degradation to nearby drainages, khals or water bodies due to construction activities.</li> <li>• For surface water quality parameters: pH, DO, BOD, COD, TC, FC</li> <li>• For groundwater quality parameters: pH, Chloride, As, Fe, TC, FC</li> <li>• Training records</li> </ul>	period and Operation period. Training records reviewed quarterly



Section	Main Environmental and Social Impacts	Impact Significance *	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
<b>2: Pre-construction Phase</b>	<b>Sanitation, water supply</b>	Under the sub-project intervention, the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>• Provide suitable housing, adequate supplies of potable water, and toilet and bathing facilities within the housing area for the assigned laborer.</li> <li>• Provide means for disposing of wastewater from toilets, baths and food preparation areas either through a septic tank and soak away, or holding tank with removal by vacuum truck.</li> <li>• More details provided in ESMP</li> </ul>	Construction Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> <li>• Site-specific H &amp; S Plan;</li> <li>• Records of supply of uncontaminated water;</li> <li>• Record of Health &amp; Safety orientation trainings;</li> <li>• Condition of sanitation facilities for workers</li> </ul>	Visual inspection by PMU and supervision consultants on monthly basis
	<b>Storage of construction materials</b>	Under the sub-project intervention, the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>• Obviously orient to the concerned person, team assigned for the construction work.</li> <li>• More details provided in ESMP</li> </ul>	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> <li>• List of materials and sources of materials;</li> </ul>	Weekly
	<b>Impact on Existing drainage: drain may block, due to storage of construction materials on or</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 drain, contractor will clean the</li> </ul>	Contractor and monitored by Environmental Consultant and PMU	<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
	next to the drain.		drain immediately.			
	<b>Transportation</b>	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>	Construction Contractor and monitored by Environmental Consultant and PMU	<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 Phase</b>	<b>Wastes (earth, mud)</b>	Under the sub-project intervention, the overall score is <b>Medium</b> .	<ul style="list-style-type: none"> <li>Prepare and implement drilling mud and water runoff management plan approved by PMU.</li> <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> </ul>	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> <li>Complaints from community;</li> <li>Regular inspection of waste management activity;</li> <li>Waste disposal record.</li> </ul>	As work progresses weekly



Section	Main Environmental and Social Impacts	Impact Significance *	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			<ul style="list-style-type: none"> <li>• More details provided in ESMP</li> </ul>			
	<b>Water Stagnant Impact</b>	Under the sub-project intervention, the overall score is <b>Medium.</b>	<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>• After construction of tube well, backfilling &amp; compaction of water storage (which is used during drilling) pit is essential</li> <li>• Contractor should arrange proper water pumping facilities (pump, etc.)</li> <li>• Proper PPEs are essential during construction work.</li> </ul>	Construction Contractor foreman and monitored by Consultant and PMU	<ul style="list-style-type: none"> <li>• Water stagnant beside tube well area</li> </ul>	Daily during construction



Section	Main Environmental and Social Impacts	Impact Significance *	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	<p><b>Impact on Drain &amp; Aquatic Environment</b> by discharging solid &amp; liquid wastes from construction site &amp; labor camp into nearby drain &amp; through the drain those wastes can fall into canal water</p>	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 bodies.</li> </ul>	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> <li>Frequency of emptying of the waste bin</li> <li>Existence of waste bin</li> </ul>	Monthly basis during implementation phase.
	<b>Land Erosion Issue</b>	Under the sub-project intervention,	<ul style="list-style-type: none"> <li>During construction work (especially for earth excavation) proper slope protection is</li> </ul>	Construction Contractor foreman and	<ul style="list-style-type: none"> <li>No visible degradation to nearby drainages or</li> </ul>	Daily during earth excavation





Section	Main Environmental and Social Impacts	Impact Significance *	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
		the overall score is <b>low</b> .	<p>essential.</p> <ul style="list-style-type: none"> <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>	monitored by Consultant and PMU	water bodies due to soil erosion at/near sub-project site.	work & work below GL
	<b>Noise pollution</b>	Under the sub-project 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 EMP.</li> </ul>	Construction Contractor and monitored by Environmental Consultant and PMU	<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> <li>•</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
	<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>	Construction Contractor and monitored by Environmental Consultant and PMU	<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> <li>•</li> </ul>	Air Quality: PM <sub>10</sub> PM <sub>2.5</sub> , SPM and SO <sub>2</sub> test once in construction period.
<b>4: Operational Phase</b>	<b>Water Stagnant Impact</b>	Under the sub-project intervention, the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>• Pipe drain should provide from tube well platform to nearest drain.</li> </ul>	<ul style="list-style-type: none"> <li>• Camp WASH NGO staff DPHE XEN</li> </ul>	Accidents register	Monthly



Section	Main Environmental and Social Impacts	Impact Significance *	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	<b>Erosion of land</b>	Under the sub-project intervention, the overall score is <b>low</b> .	Pipe drain should provide from tube well platform to nearest drain.	<ul style="list-style-type: none"> <li>• Camp WASH NGO staff</li> <li>• DPHE XEN</li> </ul>	Accidents register	Monthly
	<b>Injuries to operation and maintenance workers</b>	Under the sub-project intervention, the overall score is <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> </ul>	<ul style="list-style-type: none"> <li>• Camp WASH NGO staff</li> <li>• DPHE XEN</li> </ul>	• Accidents register	Monthly
	<b>Air Pollution and Noise from Traffic Movement</b>	Under the sub-project intervention, the overall score is <b>low</b> .	<ul style="list-style-type: none"> <li>• Properly maintained vehicles to be used.</li> <li>• Limit speed to 20kmph at/near work sites</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance Contractor</li> <li>• DPHE XEN</li> </ul>	• Complaints by nearby DRPs	During maintenance works

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



## Social Screening Summary:

Under the Construction of Non-Piped Deep Tara Tube well including O&M (WD-7B) for DRP at Camp\_09 and Blocks B-09, C-14, C-18, C-20, G-27 & G-29 has been illustrating the overall 'Social screening summary is given below:

To furnish the details of social screening, have followed the ESMF, focusing the sub-projects major social impacts its significance (Equity, labor influx, population coverage, easy access, GBV, impact mitigation measures, referral, and monitoring suggestions. For this purpose, no land acquisition is required for this sub-project. Provision is available be utilized within an existing Right of Way within this camp-09 of Deep Tara Tubewell scheme sites. The sub-project location was found by the support of RRRC, CiC, SMC and local DPHE. Consultation meeting 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 safe water provision through consultation meeting with them. The foot of hill, natural drain or canal, toilet and others environmental obstructions not very close to the site.

### Construction induced impact issues:

Since the Non piped Deep Tara Tubewell Schemes is being implemented in an empty government-owned land, no land acquisition will be required which will prevent 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 RPF.

### Labor issues:

Every Deep Tara Tubewell Scheme executing contractor will engage skill & unskilled labors. The number of unskilled labor will be 3-5 who will be engaged from the camp while only 1-2 skilled laborers will be engaged from the local/host community/other places of Bangladesh. No foreign labors will be needed to install Deep Tara Tube Well. Since the number of external workers will be very few and working for short periods of time (about two months), usually there should be 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 prepare labor shed for both male (15ftX15ft) and females (15ftX12ft) for females if necessary. All laborers (skilled and unskilled) shall be provided 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-5**.

### Linkage with other stakeholders:

The team has provided emphasis to keep better linkage with related stakeholders (*i.e.*, RRRC, 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.



## Gender Based Violence (GBV) issues:

Gender Based Violence (GBV) is one of human rights violations that are exacerbated during emergencies. GBV is generally defined as an umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed (i.e., gender) differences between males and females. It includes acts that inflict physical, sexual or mental harm or suffering, threats of such acts, coercion, and other deprivations of liberty. The GBV relevance of risk of the project is assumed neither less factor.

Major construction of ongoing project activities engaged skilled labor of host community meanwhile unskilled from DRP community labor. Strict labor code of conduct might be followed as laws. Major concerns are potential exposure to sexual exploitation and abuse (SEA), sexual harassment (SHA) and GBV for females in the area is adherence. Women and vulnerable groups in the proposed location might expose by male laborers while the installation works will do. It seems to hidden lead to sexual harassment of varying degrees.

A GRM establish to deal with related right base issues and working team may conduct consultation meetings with the DRP & host communities, contractors and labor to aware the issues of GBV. Some other topics would discuss in the meeting like code & conducts, working instructions (do's and don'ts) in implementing phase. It helps to mitigate cross-cutting issues of the project matrix.

The predictable outcome of the sub-project with various stakeholders, women and vulnerable groups expected to positive and create responsive socioeconomic heaven. The climate adoption is integrated with project interventions. The Camp WASH Focal, DRP communities and community leader have no complaint to installation Non-Piped Deep Tara Tubewell in Camp-09 The GRC will mitigate any uncomfortable issues if arise worst-situation, according to the ESMF GRM guideline.

UNFPA is being hired as a specialized organization to deal with the GBV activities. This project is a part of the Gender Component of the UNFPA 9th Country Programme contribute to achieve the CP outcome 3 "advanced gender equality, women's and girls' empowerment, and reproductive rights, including for the most vulnerable and marginalized women, adolescents and youth." Any issues on GBV may arise; they will communicate with UNFPA through appropriate channels and resolve the issue as follows.

16 new WFS will establish and 2 existing WFS is fully functioning. Here is providing comprehensive GBV and case management services. It engaged to provide common information, community and outreach initiatives, community-based psycho-social support (PSS) and protection of GBV through community engagement. The other works inclusion and safety audit, strengthening of community-based support mechanism for women and girls by engaging women support groups and adolescence support groups.

The adequate capacity development of staff on GBV, handle GBV case management, coaching, mentoring, supervision, GBVIMS and GBVIMS+ to ensure comprehensive case management services with monitoring and supervision by project personnel. Capacity development also focuses on inclusion of people with disability (PWD) to prevent GBV. Different tools may develop to measure and facilitate GBV, MHPSS services.



As part of the GBV case management services, GBV and labor awareness programs will be implemented including all stakeholders. The project site management team, the WB and project clients such as DPHE and LGD encompass all sorts of supporting. MUKTI will support procure WFS strengthening materials and awareness raising materials. And also implement preparedness/ contingency plans for any disasters.

Finally, strict monitoring and supervision initiatives will be incorporated to ensure arising issues are averted. Facilitate smooth project processes in terms of gender friendly initiatives.

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

Under the EMCRP, the DPHE has initiated elaborate consultations with various stakeholders of this project for the Non-Piped Deep Tara Tubewell 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. Most importantly, the benefits of safe drinking water options through installing the Non piped Deep Tara Tubewell schemes were discussed. It was also determined that now there is no Elephant corridor and no scope of Elephant/Human conflict in the site area. The 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 (DTTW installation) is one of their priority needs for secured and better livelihoods aspects.

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



## Labor and Contractors management during COVID-19:

### Recommendations

#### **For projects involving construction/civil works,**

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

- Assessing the characteristics of the workforce, including those with underlying health issues or who may be otherwise at risk
- Confirming workers are fit for work, to include temperature testing and refusing entry to sick workers
- Considering ways to minimize entry/exit to site or the workplace, and limiting contact between workers and the community/general public
- Training workers on hygiene and other preventative measures, and implementing a communication strategy for regular updates on COVID-19 related issues and the status of affected workers
- Treatment of workers who are or should be self-isolating and/or are displaying symptoms
- Assessing risks to continuity of supplies of medicine, water, fuel, food 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/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. PMU with the support of superstition and monitoring firms will ensure implementation.

- i. Stop any Project Activities that may increase community exposure to COVID risks
- ii. Communicate to communities about protective COVID risks and measures
- iii. Monitor incidence and outbreak of communicable diseases
- iv. Identify hotspots based on health data available
- v. Screen Security personnel for COVID
- vi. Follow strict protocols in management of project interventions that may increase the COVID risk for human health (for instance in livestock and commercial farming)
- vii. Undertake preventive measures in resettlement settlements
- viii. 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:

- i. Identify vulnerable PAPs and Non-title holders who may have increased vulnerability due to COVID outbreak and (lockdown or loss of livelihood); particularly NTH
- ii. 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;
- iii. Employ local population on wage labor, make advance payments;
- iv. Manage migrant labor for COVID related risks
- v. Invest in living conditions in relocation settlements

**D. Community Health and Safety:**

PMU and contractors are responsible to implement the following:

- i. Stop any Project Activities that may increase community exposure to COVID risks
- ii. Communicate to communities about protective COVID risks and measures
- iii. Monitor incidence and outbreak of communicable diseases
- iv. Identify hotspots based on health data available
- v. Screen Security personnel for COVID
- vi. Follow strict protocols in management of project interventions that may increase the COVID risk for human health (for instance in livestock and commercial farming)



- vii. Undertake preventive measures in resettlement settlements
- viii. Practice social distancing in meetings, workshops and consultations

**E. Stakeholders and Citizen and Grievance Mechanism:**

- i. Disseminate COVID advisories over phones, texts, what's app groups, radio, TV, frontline workers Communication;
- ii. Monitor existing grievance and public information mechanisms for any COVID related grievance, queries etc.;
- iii. Widely disseminate material on those who have recovered from COVID to remove stigma
- iv. Include Doctor or medical staff in the GRM
- v. 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, any negative impacts can be mitigated and monitored. ESMP is attached in **Appendix-01**.



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

Considering the intervention wise construction activities of proposed sites potential impact with consequence mitigation measures have been designed (as a ESMP) in the following table for twelve Non Piped Deep Tara Tubewell Camp\_09 Blocks: B-09, C-14, C-18, C-20, G-27 & G-29.

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 of land/and other physical assets	<ul style="list-style-type: none"> <li>• No land acquisition will be allowed inside the DRP camp.</li> </ul> <p>As, there were no any mitigation measures according to this impact.</p>	PMU, IWM	Social Development & Hygiene Promotion Consultant of PMU
<b>Pre-Construction Stage</b>	Loss of livelihoods	<ul style="list-style-type: none"> <li>• Under this sub-project, there is no scope of negative impact of DRP livelihoods.</li> </ul>	PMU, IWM & Contractor	Social Development & Hygiene Promotion Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	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 DRP 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 with will be held contractors and labors about safe guard issues.</li> </ul>	PMU, IWM & Contractor	Social Development & Hygiene Promotion Consultant of PMU
Pre-Construction Stage	Loss of Access rights	<ul style="list-style-type: none"> <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>	PMU, IWM	Social Development & Hygiene Promotion Consultant of PMU
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<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>Department of Forest (DoF) and 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 arise.</li> </ul>	PMU, IWM	Environmental Consultant of PMU
Pre-	Site Preparation: Soil	<ul style="list-style-type: none"> <li>Selected site will be far away from any water bodies or</li> </ul>	PMU, IWM &	Environmental



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
<b>Construction Stage</b>	Erosion; Alteration of natural drainage	<p>natural water flow path to avoid the flash flood or any kind or surface runoff.</p> <ul style="list-style-type: none"> <li>• For deep tubewell sinking a minimum 10 meters' distance from Toilets' soak well to be maintained. If the different number of thick clay layer is found on the upper part of the borelog, there is no problem even if it is near the Toilet.</li> <li>• Minimize cut &amp; fill operations, the site clearing and grubbing operations should be limited to specific locations only.</li> <li>• Always try to avoid any disruption of socially sensitive areas with regard to human and biodiversity.</li> <li>• The existing slope and natural drainage pattern on the site should not be significantly altered.</li> <li>• If trees on private lands are damaged during construction operations, compensation shall be paid to the owner as determined by the DoF or appropriate authority.</li> <li>• The contractors shall ensure that site preparation activities not lead to disruption of activities for the local residents and biodiversity.</li> </ul>	Contractor	Consultant of PMU
<b>Construction Activity</b>	Construction Induced Impacts	<ul style="list-style-type: none"> <li>• Any construction induced impacts must be mitigated following the guidelines of RPF and ESMF</li> </ul>	Contractors	PMU, IWM and DPHE
<b>Construction Activity</b>	Noise from construction works	<ul style="list-style-type: none"> <li>• Construction activity will be finished at daytime with in 4.00 pm. Proper measures will be taken to avoid any disturbances. But some works will be continuing for 24</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>hours schedule like deep tubewell drilling, development &amp; testing.</p> <ul style="list-style-type: none"> <li>Contractor will confirm proper measures for avoiding any disturbance of residents as well as biodiversity.</li> <li>Personal Protective Equipment (PPE) will be ensured in sub-project site before starting any kind of construction activities.</li> </ul>		
<b>Construction Activity</b>	Dust	<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> </ul>	Contractor	Environmental Consultant of PMU IWM and DPHE
<b>Construction Activity</b>	Safety Issues	<ul style="list-style-type: none"> <li>Unauthorized entry to the site area is completely prohibited and the site will be properly fenced with a single entry, for this purpose</li> <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 community's labours before project intervention started.</li> <li>Labour will bring their proper IDs and wear when they</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>will entry in the camp area.</p> <ul style="list-style-type: none"> <li>• Child labours will not allowed for any kind of activities</li> <li>• Site shall be secured by fencing and maintained at entry points.</li> </ul>		
<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 construct 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 Activity</b>	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> <li>• A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken.</li> <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>	Contractor	Environmental Consultant and Social Development & Hygiene Promotion Consultant of PMU, IWM and DPHE
<b>Construction</b>	Increase in road	<ul style="list-style-type: none"> <li>• The movement of heavy machinery and equipment will</li> </ul>	Contractor	Environmental



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
<b>Activity</b>	accidents	<p>be restricted to defined routes.</p> <ul style="list-style-type: none"> <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>		Consultant of PMU, IWM and DPHE
<b>Construction Activity</b>	Labor Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> <li>• An alternate arrangement for fuel wood, heating and cooking required meeting fuel requirement of the labor camps .</li> <li>• Alternating cooking arrangement for the HHs living in the camp</li> <li>• Awareness building 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> <li>• Adequate facilities ensuring sanitation for labor camps.</li> <li>• Safe drinking water will be made available at site for</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
		<p>labour drinking purpose.</p> <ul style="list-style-type: none"> <li>• Adequate accommodation arrangements for labour.</li> <li>• Labor code of conduct to be disclosed through consultation and FGD.</li> </ul>		
<b>Construction Activity</b>	<p>Waste Management: Improper management and handling of hazardous and non-hazardous waste during construction.</p>	<p>Preparation of a waste management plan covering the following aspects:</p> <ul style="list-style-type: none"> <li>• Residual waste from the temporary accommodation facilities for labor.</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>• Bins and/ or skips should be emptied regularly and waste/ debris should be disposed off at waste disposal areas and/ or at the site.</li> <li>• Waste from equipment maintenance/vehicles on-site</li> <li>• The scrap material generated from the erection of structures and related construction activities will be collected and stored separately in a stack yard and sold to local recyclers.</li> <li>• Hazardous waste viz. waste, oil, Mobil etc. will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers.</li> <li>• Waste from civil works will be properly collected</li> <li>• Hazardous Waste Management Rules should be</li> </ul>	Contractor	<p>Environmental Consultant and Social Development &amp; Hygiene Promotion Consultant of PMU, IWM and DPHE</p>



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		applied.		
<b>Construction Activity</b>	<p>Health &amp; Safety Risks:</p> <p>The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks.</p> <p>Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis.</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 fighting fire.</li> <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</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>response and evacuation procedure, in addition to training for personnel and drills to test the plan.</p> <ul style="list-style-type: none"> <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> <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</li> </ul>		



Project Stage	Potential Environmental & Social Impacts/ Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>provided that are suitable and can do the works.</p> <ul style="list-style-type: none"> <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> <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> </ul>		
<b>Operation &amp; Maintenance</b>	Noise disturbances to fauna	<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>• Provision to take necessary lighting, caution for the works and most of the time contractor will avoid the night time construction works.</li> </ul>	<p>Contractor: up to contractor's liability period:</p> <p>Long-term responsibility to be determined by CiC/</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
		<ul style="list-style-type: none"> <li>Contractors will be ensuring the device to determine the of noise level in this sub-project area.</li> <li>Regularly third-party will be monitored the noise level in this sub-project area.</li> </ul>	DPHE.	
<b>Operation &amp; Maintenance</b>	Draw down of deep tubewell groundwater due to excessive withdrawals	<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 construction stage: Pollution from waste materials. Health & Safety risks to workers and local community/ DRPs.	<ul style="list-style-type: none"> <li>Provision to proper measure of mitigation and monitoring to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase.</li> <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>	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

**Appendix-02: Community Consultation Meeting with DRP at Camp-09**



**Block- C-18**



**Block G-27**



**Block C-18**



**Block B-9**



### Appendix 03: Attendance Sheet of Community Consultation Meetings

Consultancy Services for "Monitoring and Supervision of Water Supply and Sanitation Schemes including review, update of existing drawing and design, EIA and SIA" under Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP), DPHE.

Community Consultation Meeting Attendance Sheet

Camp No. 9 Block No. G-18 Sub-Project No. DTW Name of Site

Date: 13/7/20

Sl. No.	Name	Sex		Designation	Mobile number	Signature	Remarks
		M	F				
1	Sobor Ali	✓	✗	DRP	018 77635156		
2	Md, Robic	✓		y	-		
3	Abdur Sukur	✓		y	01575466376		
4	Hedayet	✓		y	-		
5	Akter Kamal	✓		y	0-		
6	Nour Hossein	✓		y	01884253575		
7	Bostir Akhmed	✓		Majhee	018 77012254		
8	Gura Rafiq	✓		y	-		
9	Akter Sukur	✓		y	-		
10	Esmail	✓		y	-		
11	Hossein Akhmed	✓		y	-		
21	Md, Emtah,	✓		y	-		
13	Nour Mohammed	✓		y	-		
14	Alauddin	✓		y	-		
15	Md Robic	✓		Shaktin Tekker	01888214413		
16	SM Rahmay	✓		IWM,	01711-964885		
17							
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25							

Prepared by :

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



Consultancy Services for "Monitoring and Supervision of Water Supply and Sanitation Schemes including review, update of existing drawing and design, EIA and SIA" under Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP), DPHE.

Community

Consultation Meeting Attendance Sheet

Camp No. 9 Block No. G-27 Sub-Project No. DTTW Name of Site

Date: 13/7/20

Sl. No.	Name	Sex		Designation	Mobile number	Signature	Remarks
		M	F				
1	Abdur Rahman	✓		DRP	-		
2	Oli Ahammed	✓		"	-		
3	Fazol Ahammed	✓		"	-		
4	Nazim Ali	✓		"	-		
5	Barne Mia	✓		"	-		
6	Abdulla	✓		"	-		
7	Sunzu	✓		"	0183994319		
8	Jamir	✓		"	01862688029		
9	Yasir	✓		teacher	0188502552		
10	Amanulla	✓		"	01878119984		
11	Md. Rafic	✓		"	01891579983		
21	Barar	✓		"	-		
13	Sana Ahammed	✓		Ma'jher	018483851722		
14	Md. Rafic	✓		Teacher	01888214413		
15	SM Rahman	✓		Srs, IWM	01711964885		
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Consultancy Services for "Monitoring and Supervision of Water Supply and Sanitation Schemes including review, update of existing drawing and design, EIA and SIA" under Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP), DPHE.

Community

Consultation Meeting Attendance Sheet

Camp No ..... 9 ..... Block No ..... e-18 ..... Sub-Project No ..... DTTW ..... Name of Site

Date : 13.7.20

Sl. No.	Name	Sex		Designation	Mobile number	Signature	Remarks
		M	F				
1	Md. Tubayl	✓		DRP	01575172363		
2	Roshidulka	✓		"	-		
3	Maira Begum		✓	"	-		
4	Sobica Begum		✓	"	-		
5	Ronisha Begum		✓	"	-		
6	Nour Kayas		✓	"	-		
7	Yesmin		✓	"	-		
8	Besides Begum		✓	"	-		
9	Gul Bahar		✓	"	-		
10	Rabie	✓		"	-		
11	Yesir	✓		"	-		
21	Rabie	✓		Thekader	-		
13	SM Rahman	✓		SAs, IWM	01711964885		
14							
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25							

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Consultancy Services for "Monitoring and Supervision of Water Supply and Sanitation Schemes including review, update of existing drawing and design, EIA and SIA" under Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP), DPHE.

Community Consultation Meeting Attendance Sheet

Camp No. 9 Block No. B-9 Sub-Project No. DTTW Name of Site

Date: 13.7.20

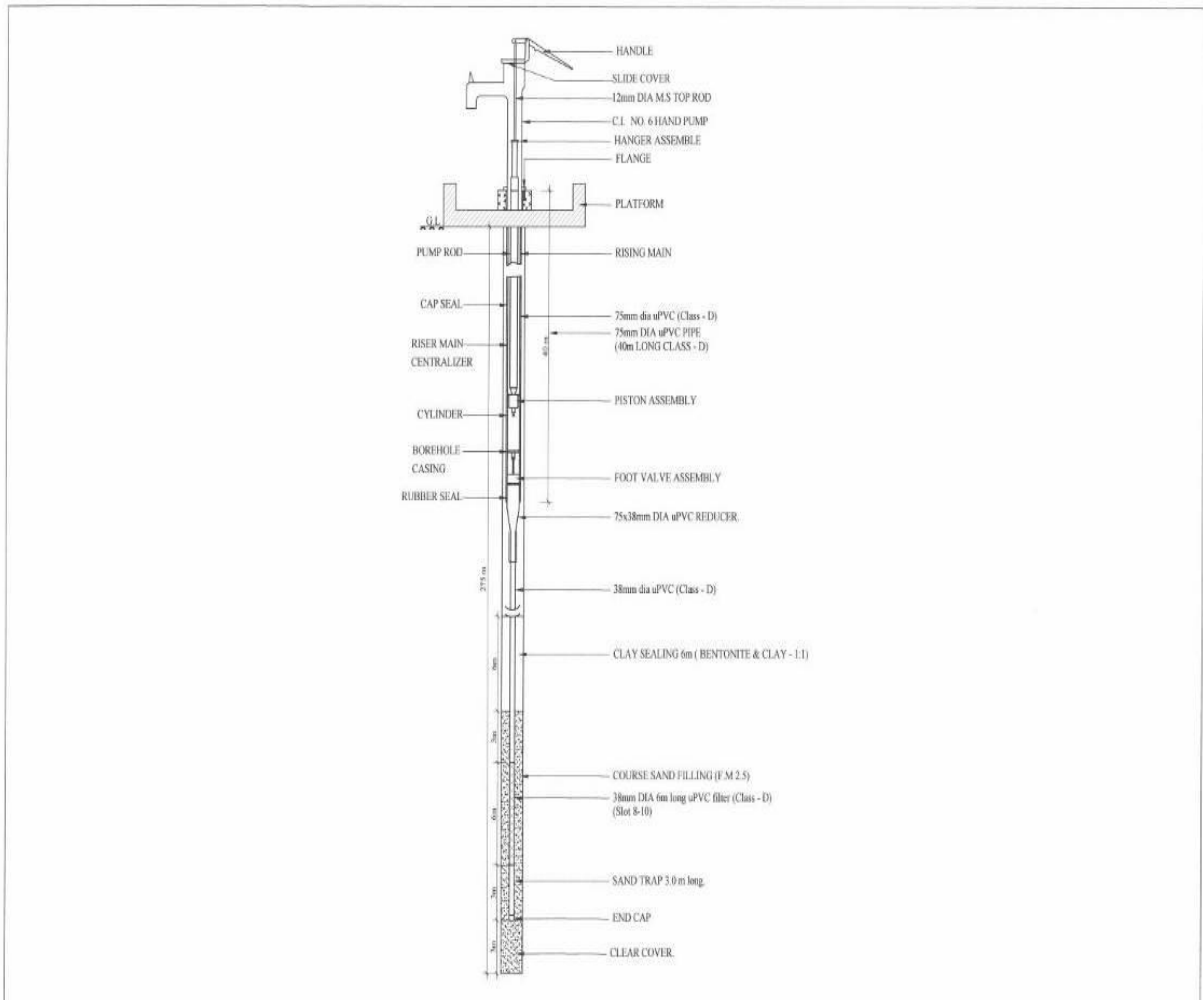
Sl. No.	Name	Sex		Designation	Mobile number	Signature	Remarks
		M	F				
1	Abdul Amin	✓		Majhee	01572856102		
2	Nurul Haque	✓		DRP	01874990910		
3	Sobirul Akbar	✓		"	-		
4	Noor Komal	✓		"	-		
5	Jayal Akbar	✓		"	-		
6	Ancor Bagum		✓	"	-		
7	Johurul Haque	✓		"	-		
8	Jijaul Haque	✓		"	-		
9	Ridwan	✓		"	-		
10	Alan Ezed Hossain	✓		"	-		
11	Rabie Alam	✓		"	01988214413		
21	SM Rahman	✓		IWM	01711964885		
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### Appendix 4: Typical design of Deep Tara Tube well.



DEPARTMENT:	NAME OF PROJECT:	DESIGNED BY:	VALIDATED BY:	CHECKED BY:	PROJECT DIRECTOR:	DRAWING TITLE :	CONSULTANTS:	DRG. NO:
 MINISTRY OF LOCAL GOVERNMENT, RURAL DEVELOPMENT & COOPERATIVES DEPARTMENT OF PUBLIC HEALTH ENGINEERING	EMERGENCY MULTI-SECTOR ROHINGYA CRISIS RESPONSE PROJECT (EMCRP)	<i>[Signature]</i>	<i>[Signature]</i> Moinwar Ali Tech. In-charge, No. 10-14 T.V.V. ENVIRO OFFICE	<i>[Signature]</i> (Md. Farhad Hossain) Water Supply Consultant Emergency Multi-Sector Rohingya Crisis Response Project, DPHE	<i>[Signature]</i> (Mohammad Abdul Kalam) Project Director Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP) DPHE, Dhaka	TYPICAL DESIGN OF DEEP TARA TUBE-WELL	 Institute of Water Modelling House - 68, Road - 10, Miranpur/Old Dhaka GPO, Durgam	ENCRP-01 SCALE: As shown



## Appendix 05: Labor's Code of Conduct:

### অঙ্গীকারপত্র

স্থান:

ঠিকাদারী প্রতিষ্ঠান:

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

১. সকল রোহিঙ্গা জনগোষ্ঠীর সাথে সর্বদা নম্রতা, ভদ্রতা ও সন্মানের 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 সহযোগীতা নিবো না।
৪. কোন অবস্থাতেই রোহিঙ্গা জনগোষ্ঠীদের কোন প্রকার আশ্বাস প্রদান কিংবা অঙ্গীকারবদ্ধ হবো না।
৫. কর্মক্ষেত্রে কিংবা রোহিঙ্গা ক্যাম্প এলাকায় জীব জন্তু, গাছপালা ও পরিবেশের কোন প্রকার অনিষ্ট করবো না।
৬. কর্মক্ষেত্রে সর্বদা নিরাপত্তা পোশাক-আশাক ও উপকরণ পরিধান ও ব্যবহার করবো।
৭. সর্বদা নিজ নিজ পরিচয়পত্র (ID Card) প্রদর্শন ও সংরক্ষণ করবো।
৮. কোন অবস্থাতেই রোহিঙ্গা জনগোষ্ঠী ও স্থানীয় লোকদের সাথে কোন প্রকার অসামাজিক কর্মকান্ড ও কোন প্রকার বিবাদে লিপ্ত হবো না।
৯. যেকোন জরুরী অবস্থায় সিদ্ধান্ত গ্রহণের ক্ষেত্রে সংশ্লিষ্ট কর্মকর্তার শরণাপন্ন হবো।

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

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স্বাক্ষর ও তারিখ



## প্রজেক্ট সাইটে যা যা অবশ্যই রাখতে হবে-

১. শ্রমিক ও কর্মকর্তা তালিকা
২. হাজিরা খাতা
৩. ছুটির রেজিস্টার
৪. দুর্ঘটনার বিবরণী লিপিবদ্ধ করার রেজিস্টার
৫. অভিযোগ লিপিবদ্ধ করার রেজিস্টার
৬. কাজের বিবরণী
৭. জরুরী অবস্থায় যোগাযোগের জন্য কমপক্ষে ২ জন কর্মকর্তার নাম-পদবী সহ মোবাইল নম্বর
৮. বাংলা ও ইংরেজীতে বড় বড় অক্ষরে দৃশ্যমান স্থানে প্রদর্শনের জন্য স্থাপন।
৯. নিকটস্থ হাসপাতাল, পুলিশ স্টেশন এবং ডাক্তারের সাথে যোগাযোগের জন্য মোবাইল/টেলিফোন
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।

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

## পরিবেশগত সতর্কতাসমূহঃ-

- 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) নবায়ন যোগ্য উৎস ব্যবহারের সর্বোচ্চ চেষ্টা করতে হবে।
- ৭) কাজের শেষে পূর্বের পরিবেশ ফিরিয়ে দিতে হবে।



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