



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
Construction of Non-Piped Deep Tara Tubewell including O&M



Emergency Multi-Sector Rohingya Crisis Response Project (GoB-WB)
Location: Camp_19, Sub-project(Package No.): EMCRP/WD-07A



Department of Public Health Engineering (DPHE)

Abbreviation and Acronyms:

ACF	Action Against Hunger
BBS	Bangladesh Bureau of Statistics
BD	Bangladesh
BMD	Bangladesh Meteorological Department
CIC	Camp in Charge
DC	Deputy Commissioner
DO	Dissolved Oxygen
DoF	Department of Forest
DPD	Deputy Project Director
DPHE	Department of Public Health Engineering
DRP	Displaced Rohingya Population
EC	Electrical Conductivity
EMCRP	Emergency Multi-sector Rohingya Crisis Response Project
ERP	Emergency Response Plan
ESMF	Environmental & Social Management Framework
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
GBV	Gender-Based Violence
GoB	Government of The People's Republic of Bangladesh
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
GPS	Global Positioning System
GW	Ground Water
HDPE	High Density Polyethylene
IEF	Important Environmental Feature
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



EMCRP Environmental and Social Screen Report (DPHE)

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

Sub-Project Description Form

Introduction: EMCRP (DPHE components) will construct 400 nos. of non-piped deep Tara tubewell at different locations of DRP camps. This screening report is prepared for the sites of 85 nos. deep Tara tubewells at different blocks of Camp_19.

Name of Sub-project: Construction of camp based non-piped Deep Tara Tube well Scheme including Defects & Liabilities period under Cont. no. WD-07A for the Displaced Rohingya Population (DRP) at Ukhiya Upazila, Cox's Bazar.

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

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

Estimated construction period duration: 06 (Six) months.

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

Defects & Liabilities period of non-piped water options is 12 (Twelve) months but the design life of each tubewell is in between 10 (Ten) to 15 (Fifteen) years.

District: Cox's Bazar

Sub-District: Ukhiya

Union: Palongkhali

Name of Community/Local Area: Camp_19 and Block: A_01, A_02, A_03, A_06, A_07, A_09, A_11, A_13, A_15, A_16, A_17, B_05, B_06, B_08, B_09, B_13, B_15, B_16, C_01, C_04, C_05, C_06, C_07, C_08, D_01, D_05, D_06, D_10, D_11 and D_12.

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 Tube well Schemes activities the following interventions would be taken place:

- Installation of 85 nos. Deep Tara Tube well
- 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 Tube well. Maximum 20 family or 100 people shall use each deep tube well.

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

Camp based Deep Tara Tube well is located at Camp_19 and Block: A_01, A_02, A_03, A_06, A_07, A_09, A_11, A_13, A_15, A_16, A_17, B_05, B_06, B_08, B_09, B_13, B_15, B_16, C_01, C_04, C_05, C_06, C_07, C_08, D_01, D_05, D_06, D_10, D_11 and D_12. There are



EMCRP Environmental and Social Screen Report (DPHE)

eighty-five (85) Deep Tara Tube well will be constructed in this camp. Government owns the proposed land and no trees, structures and community properties will be affected. The buildup infrastructures in and around the subproject site are mainly DRP houses, earthen drain, low land, hills, health post, drains, etc. The selected land is near about 30ft to 40ft below the nearest hilltop. Some sites are selected at high land. No road close to the sub project area only footpath exists. DPHE maintains minimum distance of 30 feet from nearest toilet during site selection for non-pipe Tara tubewells. It seems that expected impacts on surrounding features would be minimum.

Sl. No	Deep Tubewell ID	Camp	Block	Lat	Long
1	EMCRP_WD_07A_DTTW_19.1	Camp_19	A-01	21.184358	92.147852
2	EMCRP_WD_07A_DTTW_19.2		A-01	21.179345	92.147457
3	EMCRP_WD_07A_DTTW_19.3		A-01	21.184357	92.147852
4	EMCRP_WD_07A_DTTW_19.4		A-02	21.184879	92.139862
5	EMCRP_WD_07A_DTTW_19.5		A-02	21.185492	92.137149
6	EMCRP_WD_07A_DTTW_19.6		A-02	21.185069	92.138611
7	EMCRP_WD_07A_DTTW_19.7		A-03	21.185558	92.136388
8	EMCRP_WD_07A_DTTW_19.8		A-06	21.187133	92.137597
9	EMCRP_WD_07A_DTTW_19.9		A-06	21.187253	92.138188
10	EMCRP_WD_07A_DTTW_19.10		A-06	21.187324	92.137899
11	EMCRP_WD_07A_DTTW_19.11		A-06	21.187054	92.13728
12	EMCRP_WD_07A_DTTW_19.12		A-06	21.186807	92.136947
13	EMCRP_WD_07A_DTTW_19.13		A-06	21.186973	92.136721
14	EMCRP_WD_07A_DTTW_19.14		A-07	21.187438	92.136626
15	EMCRP_WD_07A_DTTW_19.15		A-07	21.186122	92.136425
16	EMCRP_WD_07A_DTTW_19.16		A-09	21.186422	92.136944
17	EMCRP_WD_07A_DTTW_19.17		A-11	21.184532	92.138395
18	EMCRP_WD_07A_DTTW_19.18		A-13	21.184794	92.138056
19	EMCRP_WD_07A_DTTW_19.19		A-13	21.178451	92.148579
20	EMCRP_WD_07A_DTTW_19.20		A-15	21.178455	92.148578
21	EMCRP_WD_07A_DTTW_19.21		A-15	21.18445	92.138966
22	EMCRP_WD_07A_DTTW_19.22		A-15	21.184508	92.139215
23	EMCRP_WD_07A_DTTW_19.23		A-16	21.18358	92.140773
24	EMCRP_WD_07A_DTTW_19.24		A-17	21.183761	92.14098
25	EMCRP_WD_07A_DTTW_19.25		A-17	21.185633	92.138496
26	EMCRP_WD_07A_DTTW_19.26		B-05	21.183024	92.142292
27	EMCRP_WD_07A_DTTW_19.27		B-06	21.183283	92.142688
28	EMCRP_WD_07A_DTTW_19.28		B-08	21.182245	92.144588
29	EMCRP_WD_07A_DTTW_19.29		B-08	21.182705	92.141188
30	EMCRP_WD_07A_DTTW_19.30		B-08	21.184618	92.143105
31	EMCRP_WD_07A_DTTW_19.31		B-09	21.18592	92.142468
32	EMCRP_WD_07A_DTTW_19.32		B-09	21.184933	92.143254
33	EMCRP_WD_07A_DTTW_19.33		B-13	21.183146	92.143829
34	EMCRP_WD_07A_DTTW_19.34		B-15	21.183932	92.141056
35	EMCRP_WD_07A_DTTW_19.35		B-15	21.182784	92.1414
36	EMCRP_WD_07A_DTTW_19.36		B-15	21.18505	92.142362
37	EMCRP_WD_07A_DTTW_19.37		B-15	21.185176	92.14206
38	EMCRP_WD_07A_DTTW_19.38		B-15	21.185823	92.142714
39	EMCRP_WD_07A_DTTW_19.39		B-15	21.185771	92.140897



EMCRP Environmental and Social Screen Report (DPHE)

Sl. No	Deep Tubewell ID	Camp	Block	Lat	Long
40	EMCRP_WD_07A_DTTW_19.40		B-15	21.186224	92.142321
41	EMCRP_WD_07A_DTTW_19.41		B-16	21.18283	92.141552
42	EMCRP_WD_07A_DTTW_19.42		B-16	21.182483	92.141625
43	EMCRP_WD_07A_DTTW_19.43		B-16	21.181937	92.141587
44	EMCRP_WD_07A_DTTW_19.44		B-16	21.182113	92.141353
45	EMCRP_WD_07A_DTTW_19.45		B-16	21.183373	92.141019
46	EMCRP_WD_07A_DTTW_19.46		B-16	21.183138	92.14113
47	EMCRP_WD_07A_DTTW_19.47		C-01	21.184674	92.144037
48	EMCRP_WD_07A_DTTW_19.48		C-04	21.178791	92.146485
49	EMCRP_WD_07A_DTTW_19.49		C-05	21.182951	92.143879
50	EMCRP_WD_07A_DTTW_19.50		C-06	21.181934	92.14618
51	EMCRP_WD_07A_DTTW_19.51		C-06	21.182558	92.145516
52	EMCRP_WD_07A_DTTW_19.52		C-06	21.183187	92.146115
53	EMCRP_WD_07A_DTTW_19.53		C-06	21.184241	92.146456
54	EMCRP_WD_07A_DTTW_19.54		C-06	21.182085	92.146035
55	EMCRP_WD_07A_DTTW_19.55		C-07	21.183352	92.144808
56	EMCRP_WD_07A_DTTW_19.56		C-07	21.184242	92.147376
57	EMCRP_WD_07A_DTTW_19.57		C-08	21.182661	92.14662
58	EMCRP_WD_07A_DTTW_19.58		C-08	21.184338	92.142105
59	EMCRP_WD_07A_DTTW_19.59		C-08	21.186393	92.137237
60	EMCRP_WD_07A_DTTW_19.60		D-01	21.178852	92.145835
61	EMCRP_WD_07A_DTTW_19.61		D-01	21.178798	92.145614
62	EMCRP_WD_07A_DTTW_19.62		D-01	21.178865	92.14574
63	EMCRP_WD_07A_DTTW_19.63		D-01	21.179258	92.145108
64	EMCRP_WD_07A_DTTW_19.64		D-05	21.178543	92.14786
65	EMCRP_WD_07A_DTTW_19.65		D-05	21.181638	92.147042
66	EMCRP_WD_07A_DTTW_19.66		D-05	21.186393	92.137237
67	EMCRP_WD_07A_DTTW_19.67		D-06	21.181321	92.144721
68	EMCRP_WD_07A_DTTW_19.68		D-10	21.178804	92.14733
69	EMCRP_WD_07A_DTTW_19.69		D-10	21.178746	92.147748
70	EMCRP_WD_07A_DTTW_19.70		D-10	21.180012	92.147057
71	EMCRP_WD_07A_DTTW_19.71		D-11	21.177221	92.148025
72	EMCRP_WD_07A_DTTW_19.72		D-11	21.177518	92.148221
73	EMCRP_WD_07A_DTTW_19.73		D-11	21.17723	92.148018
74	EMCRP_WD_07A_DTTW_19.74		D-11	21.17806	92.148024
75	EMCRP_WD_07A_DTTW_19.75		D-11	21.17762	92.148036
76	EMCRP_WD_07A_DTTW_19.76		D-11	21.177604	92.147948
77	EMCRP_WD_07A_DTTW_19.77		D-11	21.177266	92.148368
78	EMCRP_WD_07A_DTTW_19.78		D-11	21.178149	92.148115
79	EMCRP_WD_07A_DTTW_19.79		D-11	21.178674	92.147764
80	EMCRP_WD_07A_DTTW_19.80		D-11	21.181838	92.146845
81	EMCRP_WD_07A_DTTW_19.81		D-11	21.177036	92.147763
82	EMCRP_WD_07A_DTTW_19.82		D-12	21.178245	92.147822
83	EMCRP_WD_07A_DTTW_19.83		D-12	21.178729	92.14723
84	EMCRP_WD_07A_DTTW_19.84		D-12	21.17753	92.147919
85	EMCRP_WD_07A_DTTW_19.85		D-12	21.178361	92.147874



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. DPHE, along with IWM Environmental & Social safeguard team, PMU Social & Environmental Consultant, has conducted nine (09) consultation meeting with DRP communities and their community representative, CiC, Camp WASH area focal, Camp area focal, SAE & Mechanic, and relevant stakeholders. 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 constructing the proposed Deep Tara Tubewell. They also requested to involve the local community and DRP community during the construction 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 forest 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 schemes 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_19) 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 locations.

OXFAM is acting as WASH camp focal agency, IMO is acting area focal agency and DPHE is implementing the project with the financial assistance of World Bank and Government Republic of Bangladesh. After establishing the proposed per Deep Tara tubewell schemes in the area about 100 people (20 HH) per Tubewell 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 Tubewell areas health post, Mosque, food distribution center, learning center CIC office and information center is identified. However, none is going to be affected due to project intervention. No significant environmental or social disturbance is anticipated due to construction activities. In this scheme area, no elephant migration routes exist (ref. IUCN). Elephant migration routes are approximately 1.00 km away from this scheme area.



1. **Block-B_08.** ID:
EMCRP_WD_07A_DTTW_19.29



2. **Block-B_15.** ID:
EMCRP_WD_07A_DTTW_19.39



3. **Block-B_09**
ID:EMCRP_WD_07A_DTTW_19.31



4. **Block-B_16**
ID:EMCRP_WD_07A_DTTW_19.41

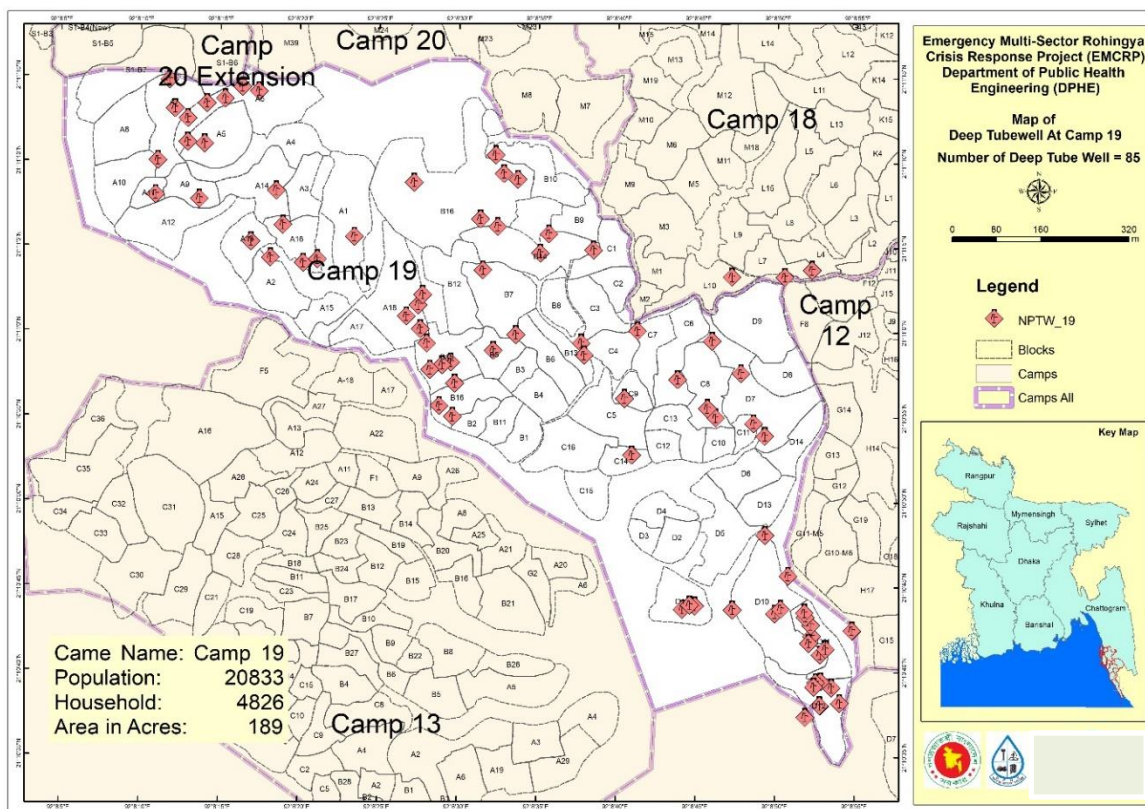


5. **Block-B_19**
ID:EMCRP_WD_07A_DTTW_19.33

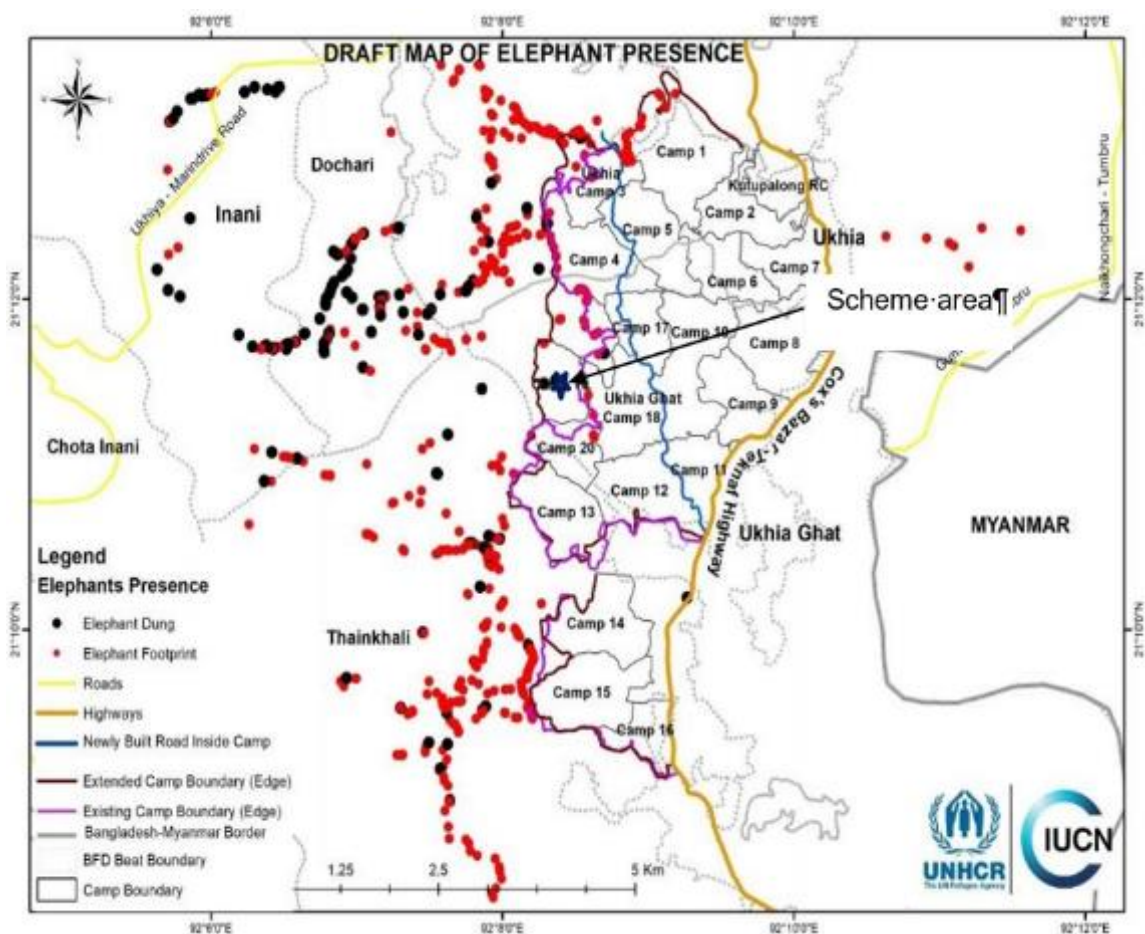


6. **Block-D_01**
ID: EMCRP_WD_07A_DTTW_19.62

Figure-1: Proposed Deep Tara Tube well sites at Camp_19



Map-1: Site selected for Deep Tara Tube well at Camp_19



Map-2: Map of Elephant Presence in Camp area



EMCRP (DPHE part)

Environmental and Social Screening Form

Work Package: WD-07A Installation of 85 nos. Deep Tara Tube well.

Section A: Sub-project overview

Description of sub-project/component interventions:

- I. Installation of 85nos. Deep Tara Tubewell
- II. Well development by 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_19 and Block: A_01, A_02, A_03, A_06, A_07, A_09, A_11, A_13, A_15, A_16, A_17, B_05, B_06, B_08, B_09, B_13, B_15, B_16, C_01, C_04, C_05, C_06, C_07, C_08, D_01, D_05, D_06, D_10, D_11 and D_12 at Palongkhali Union under Ukhiya Upazila of Cox's Bazar District. There are eighty-five (85) Deep Tara Tube well will be constructed in this camp. Most of the sites are hilly land and near about 30ft to 40ft below the nearest hilltop. Some sites are selected at high land. No road close to the sub project area only footpath 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):

- i) Adjacent of the scheme site under the sub-project intervention area: Camp_19 and Block: A_01, A_02, A_03, A_06, A_07, A_09, A_11, A_13, A_15, A_16, A_17, B_05, B_06, B_08, B_09, B_13, B_15, B_16, C_01, C_04, C_05, C_06, C_07, C_08, D_01, D_05, D_06, D_10, D_11 and D_12.
- ii) Impacted area: Approx. 3.00 square meter per Deep Tara Tubewell
- iii) No structures, trees and livelihood will be affected.
- iv) DRP shelter relocation is not required.
- v) Influence area: The influence area is within the scheme area of 150 square meter per Deep Tara Tube well (According to Layout diagram)
- vi) 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).
- vii) Every selected Deep Tara Tube well locations have a one alternative location and 10 meters to 15 meters away from the final selected location. Alternative locations are narrow, congested, low land 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 health post, mosque, food distribution center, learning center, CIC office and information center. Apart from this structure, there are no other sensitive cultural, archaeological, religious sites.

Location of environmentally important and sensitive areas:

These locations used to be environmentally important and sensitive for protected forest area but now these locations have no forest. 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. Due to deforestation and settlement of DRP, now there is no existence of Elephant corridor/ route now according to elephant migration route map established by UNHCR/IUCN.

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



No. There are no original forests in this area now. 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).

Noise:

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

Baseline soil quality:

Soil types are alluvial reddish brown, muddy & sandy soil and Dupitila formation. The soils developing from the weathered sandstones tend to be sandy to clay loams. Presence of organic matter content in the soil is moderate.

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

Low. Potential erosion/land slide may occur when moderately to highly sloping terrains are disturbed for the construction of Deep Tara Tubewell. The impacts are negative but very small scale, site-specific within a relatively small area and minimized by mitigation measures.

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

Surface water quality:

No surface water.

Groundwater quality:

Groundwater is the main source of potable water in the Sub-project area. The shallow depth is about 100 feet and deep tube well depth is 500ft to 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.

pH_7.50 to 8.50, DO_2.20 to 8.50mg/l, TDS_25.50 to 350 mg/l, EC_25 to 375 μ s/cm, Fe_0.50 to 1.0 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.) Many shallow tube wells have been installed in the camp area. This has resulted in excessive withdrawals of water from the shallow aquifer and a drying up of some of the wells.

***Data source: Secondary data and field survey**



Status of wildlife movement :

As per UNHCR map elephant footprint was found within camp 19. At present, due to deforestation and settlement of DRP, wildlife movement is no longer there.

State of forestation:

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

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

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 Tubewell schemes in the area about 100 people (20 HH) will be benefitted per tube well 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 Tube well schemes area under this sub-project the main camp connecting roads (newly developed brick made herring bone) is there but the specific approach road / lane is not available over there. Only foot path exists in the sub- project area. However, 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 tube well etc.) to the construction site.

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

Toilet and water supply available but 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 foot path/ narrow earthen road about 5 feet wide is the main way for transportation of the materials by head load from unloading point to sub-project location.
Location identification for raw material storage: Adjacent to the Deep Tara Tubewell location and very close to the construction sites and away from steep slopes.
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 pre-construction waste produced on a Deep Tara Tubewell construction site. However, 100 kg of waste may be produced per Deep Tara Tubewell construction site.
Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards: No valuable vegetation presence in proposed sub-project construction sites (approx. 3.00 square meter land per Deep Tara Tube well).
Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation): None.
Disturbance or modification of existing drainage channels(rivers, canals) or surface water bodies(wetlands, marshes): (High/Medium/Low with description): Low. There is no natural drainage system. But within 30 feet, there are manmade drains. But during pre-construction phase impact is very low if construction materials will not store over the drain.
Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description): None.
Activities that can lead to landslides, slumps, slips and other mass movements in road cuts: None
Describe possible traffic movement impacts on (unwanted) light, noise and air pollution: No traffic movement impacts on light but low effects of noise and air pollution.

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



B.3: Construction Phase

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

Solid waste: i) Bricks, ii) Sand iii) uPVC pipes vi) earth or mud. It is difficult to give exact figures of construction waste produced on a Deep Tara Tube well construction site. However, 250 kg of waste may be produced per Deep Tara Tube well 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 Tube well 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 Tube well construction site. However, 500 kg of raw materials may be required per Deep Tara Tube well construction

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

No valuable vegetation presence in 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 reservoir for tube well drilling will 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 development 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. There is no natural drainage system. Within 5 to 30 feet, there are road side manmade drains. 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 is no natural drainage system. Within 30 feet, there are manmade drains. Outfall of those drains are connected with different natural canal. Drain connected water bodies can be contaminated if generated waste of scheme sites get 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, 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

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

Low. There are 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.

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



Safe drinking water supply will be helpful reduce water scarcity crisis of the DRP and improve their health condition.
Extent of disturbance or modification of existing drainage channels(rivers, canals)or surface water bodies(wetlands, marshes): (High/Medium/Low with description): No impact. Because only gray water will be produced from tube wells platform.
Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description): None.
Activities leading to landslides, slumps, slips and other mass movements in road cuts: N/A
Erosion of lands below the road bed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with explanation): Low: Low possibility to erosion of land because pipe drains will be provided from tube well platform to nearest drain.
Describe possible traffic movement impacts on (unwanted) light, noise and air pollution: 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.

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
Will the project potentially involve an influx of workers to the project location, and will the influx be considered significant for the local community?	The number of total skilled Labor is 1-2 and unskilled labor 2-5 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 120 square feet.
Is the project located in a rural or remote area?	The project area is in a camp area demarcated by the Government and belongs to Camp_19 in a remote specialized area. The total camp population is 20,833. 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 Tube well scheme in the area about 100 people (20 HH) will be benefitted from every Tube wells through meeting their water requirements.
Based on the socioeconomic, cultural, religious and demographic qualities of the local community, Rohingya population and the incoming workers, is there a possibility that their presence or interaction with the local community could create adverse impacts?	No. It is not expected that the presence of the skilled (local) and unskilled labor (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.
Consultation with DRP Community People and relevant stakeholders (SH)	During screening and site identification DPHE has conducted consultation meetings with primary and secondary stakeholders. The stakeholders include RRRC, WASH Sector, Site Management Committee representatives, Contractor team and DRP Community. In addition to the above-mentioned meetings, the local DPHE has undertaken many consultations with male and female members of the DRP. 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.



C.2 Land acquisition and stakeholder screening

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land/ Land Donation/ Land Taking				
1. Will there be any land acquisition?		√		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.
4. 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_19 area under EMCRP.
5. Will there be loss of DRP tent, agricultural carps, trees, and other productive or fixed assets due to project intervention?		√		No DRP shelters will be affected. However, during construction if any shelters require to shift, mitigation measures will be taken according to RPF. Consultations will be conducted with stakeholders, camp and block focal persons, and site management. During construction, if any shelters are affected, contractors are responsible to mitigate the impacts following the RPF as well.
6. Will there be loss of businesses or enterprises due to project intervention?		√		No
7. Will there be loss of income sources and means of livelihoods due to project intervention?		√		No
Involuntary restrictions on land use or on access to legally designated parks and protected areas				
8. Will people lose access to natural resources, communal facilities and services?		√		No
Information on Displaced Persons:				
9. Any estimate of the likely number of persons that will be displaced by the Project? If yes, approximately how many?				[√] No [] Yes
10. Are any of them poor, female-heads of households, or vulnerable to poverty risks?				[√] No [] Yes
11. Are any displaced persons from indigenous or ethnic minority groups?				[√] No [] Yes
During Screening, project authority will conduct consultation with the primary and secondary stakeholders and provide their observations in the following sections (12 to 16)				



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

The key stakeholders of this sub-projects are 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.

In order to preparing the Environmental and Social Screening as well as identification of sites five numbers of participatory community consultation (with DRP community) were conducted at subproject sites (Annex 2). 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 interviews. The DPHE Engineer, IWM Environmental & Social safeguard team, ES and SS, GIS Specialist of PMU, local individuals (DRP peoples) as well as representative of union Parishad participants participated. For better understanding the socio-economic and environmental condition Community consultation have been conducted in the subproject study area where male and female both the participants were presented. Some one 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 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 consultations have been recorded and are to be considered in the design of ESMF.

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 DTTWs 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 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
- Most of the participants expressed that the number of Tara Tube well that have been selected for at Camp_19 is not adequate in term of population density and inadequacy of water supply over the year for the DRPs.
- They emphasized for the construction of the Tara Tube well 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 to confirm who will take responsibilities operation and maintenance.
- They also expressed their concern about employment opportunities. They said that, if possible non skilled worker should engage from DRP community so that they can manage their livelihood.
- Vulnerable group like pregnant women, elderly, persons with disabilities, etc. requested to install tube well within household areas. Maximum tara deep tube well sites are 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 are 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 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.
- For development work of this subproject anywhere in camp area, project proponent need to be taken approval from RRRC with the recommendation of camp based concern authority;
- Intervention sites should not located 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;
- After confirmation of site for schemes with the assistance of CiC and other related organization, site should be confined to avoid the neighboring disturbance
- Engage the DRP/Local community to implement the sub-project

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 well will ensure pollution free potable water for DRPs. About 100 people will be benefited from each tube well.

Negative Impact:

Due to operation of Tara Tube well, 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.



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 (ie. 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, DPHE, DC LGED, MoDR, DRP CIC	Mr. Mahbubul Alam Talukder, RRRC Commissioner, CXB, Email rrccox@yahoo.com Engr. Ritthick Chowdhury, DPHE , Executive Engineer, CXB, Email. chowritthick@gmail.com Md. Kamal Hossain dccoxsbazar@mopa.gov.bd Mr Micon Tonchongha Camp-in-Charge, Camp-19, Deputy Secretary Camp19@rrrc.gov.bd	Overall Coordination of GOB dept, Dev partners , NGO, INGIO , 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.
UN Agencies /INGOs	WSC IOM, UNICEF , WFP , FAO , UNHCR UNFPA	Damian Seal WASH Sector Coordinator IMO Ashfaqur Rahman (Sojib) marahman@iom.int Hasan Habib WASH Information Management Officer, OXFAM hhabib@oxfam.org	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.



EMCRP Environmental and Social Screen Report (DPHE)

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



Section	Main Environmental and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	Soil	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> • Precautions might be taken when rainstorms are likely, when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms shall be developed by the Contractor. • The earthwork sites where exposed land surface is vulnerable to runoff shall be consolidated and/or covered. • Channels, earth bunds, netting, tarpaulin and or sand bag barriers shall be used on site to manage surface water runoff and minimize erosion. • The overall slope of the works areas and construction yards shall be kept to a minimum to reduce the erosive potential of surface water flows elsewhere. • More details provided in ESMP 	Construction Contractor monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> • No visible degradation to nearby drainages, • Khals or water bodies due to soil erosion. 	Weekly, especially after rain events
	Hydrology (surface and groundwater)	Under the sub-project intervention, the overall score is Medium .	<ul style="list-style-type: none"> • All precautions to store chemicals/oil/fuel properly so that no chance of spill. • Proper disposal of excess bleaching power and care should be taken to follow the appropriate procedure for chlorination. • Monitor water quality according to the environmental management plan. 	Construction Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> • Areas for stockpiles, storage of fuels and lubricants and waste materials; • Records of water quality inspection; Water Quality Test 	Water quality test (SW & GW) once in construction period and Operation period. Training records



Section	Main Environmental and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			<ul style="list-style-type: none"> • 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. • More details provided in ESMP 		(National Drinking Water Quality Standard Parameters); <ul style="list-style-type: none"> • No visible degradation to nearby drainages, khals or water bodies due to construction activities. • For surface water quality parameters: pH, DO, BOD, COD, TC, FC • For groundwater quality parameters: pH, Chloride, As, Fe, TC, FC • Training records 	reviewed quarterly



Section	Main Environmental and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
2: Pre-construction Phase	Sanitation, water supply	Under the sub-project intervention the overall score is low .	<ul style="list-style-type: none"> • Provide suitable housing, adequate supplies of potable water, and toilet and bathing facilities within the housing area for the assigned laborer. • 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. • More details provided in ESMP 	Construction Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> • Site-specific H & S Plan; • Records of supply of uncontaminated water; • Record of Health & Safety orientation trainings; • Condition of sanitation facilities for workers 	Visual inspection by PMU and supervision consultants on monthly basis
	Storage of construction materials	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> • Obviously orient to the concerned person, team assigned for the construction work. • More details provided in ESMP 	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> • List of materials and sources of materials; • 	Weekly
	Impact on Existing drainage: drain may block, due to storage of construction materials on or next to the drain.	Under the sub-project intervention, the overall score is low	<ul style="list-style-type: none"> • The Contractor will not be allowed to store construction materials beside drains • Regular monitoring is essential • If any materials fall within the drain, contractor will clean the drain immediately. 	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> • List of materials and sources of materials; • Storage site away from the drain 	Weekly



Section	Main Environmental and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	Transportation	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> All vehicle movement to be done during the day time Speed needs to be limited to 20kmph Contractor's responsibility to verify the suitability carrying, loading and unloading of materials by trucks or others transport and head load arrangement. More details provided in ESMP 	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> Check the vehicle pool. Record of regular inspection. Record of accidents/incidents 	Monthly monitoring.
3: Construction Phase	Wastes (earth, mud)	Under the sub-project intervention, the overall score is medium .	<ul style="list-style-type: none"> Prepare and implement drilling mud and water runoff management plan approved by PMU. Wastes must be placed in the designated bins which must be regularly emptied. All waste must be removed from the site and transported to a disposal site. More details provided in ESMP 	Construction Contractor foreman and monitored by Consultant and PMU	<ul style="list-style-type: none"> Complaints from community; Regular inspection of waste management activity; Waste disposal record. 	As work progresses weekly
	Water Stagnant Impact	Under the sub-project intervention, the overall score is medium .	<ul style="list-style-type: none"> Water stagnant area should be fenced with marking tape The top soils in the sub-project are sandy and the water should drain away quickly After construction of tube well, backfilling & compaction of water storage (which is used during drilling) pit is essential 		Water stagnant beside tube well area	Daily during construction



Section	Main Environmental and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			<ul style="list-style-type: none"> Contractor should arrange proper water pumping facilities (pump, etc.) Proper PPEs are essential during construction work. 			
	Impact on Drain & Aquatic Environment by discharging solid & liquid wastes from construction site & labor camp into nearby drain & through the drain those wastes can fall into canal water	Under the sub-project intervention, the overall score is Low	<ul style="list-style-type: none"> Generated waste and construction debris shall be properly disposed in accordance with the approved designated disposal site(s); Acceptable quality of excavated soil shall be mostly reused for the backfilling, with the surplus portion, if any, disposed in the approved designated disposal site(s). Separate waste collection bins, for organic and inorganic wastes, shall be provided throughout the construction and camp sites, whereby all waste collection bins shall be regularly emptied and cleaned; Contractor will be responsible to control the workers from discharging of construction waste into adjacent water bodies. 	Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> Frequency of emptying waste bin Existence of waste bin 	Monthly basis during implementation phase.
	Land Erosion Issue	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> During construction work (especially for earth excavation) proper slope protection is essential. During backfilling work proper compaction is essential (as per specification) Avoid earthwork during monsoon Proper PPEs are essential during 	Construction Contractor foreman and monitored by Consultant and PMU	<ul style="list-style-type: none"> No visible degradation to nearby drainages or water bodies due to soil erosion at/near sub-project site. 	Daily during earth excavation work & work below GL



Section	Main Environmental and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			construction work.			
	Noise pollution	Under the subproject intervention the overall score is low .	<ul style="list-style-type: none"> • Consultation with affected people; not to operate noisy equipment during working and operations time (22:00 – 06:00); • Sound suppression for equipment; • Ear protection for workers. • Conduct noise quality monitoring as per EMP. 	Construction Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> • Number of complaints from stakeholders; Use of silencers in noise-producing equipment and sound barriers; • Noise Level following decibel meter (dB) 	Inspection by PMU and supervision consultants on monthly basis;
	Air pollution	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> • Water spraying from other source for dust control; • Construction materials with potential for significant dust generation shall be covered; no smoke emitting equipment; and limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph. • More details provided in ESMP 	Construction Contractor and monitored by Environmental Consultant and PMU	<ul style="list-style-type: none"> • Location of stockpiles; • Number of complaints from stakeholders; • Records of air quality inspection; Air quality test report. 	Visual inspection by PMU and supervision consultants on monthly basis
4: Operational Phase	Water Stagnant Impact	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> • Pipe drain (where required) should provide from tube well platform to nearest drain. 	• Camp WASH • NGO staff • DPHE XEN	Accidents register	Monthly



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



Social Screening Summary:

Under the Construction of Non Piped Deep Tara Tube well (DTTW) including O&M (WD_07A) 85 DTTW will be installed at Blocks of : A_01, A_02, A_03, A_06, A_07, A_09, A_11, A_13, A_15, A_16, A_17, B_05, B_06, B_08, B_09, B_13, B_15, B_16, C_01, C_04, C_05, C_06, C_07, C_08, D_01, D_05, D_06, D_10, D_11 and D_12. in camp_19 . Overall finding of the Social Screening summary is given bellow:

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. Provision is available to utilize existing land within this Camp_19 for Deep Tara Tubewell scheme sites. The sub-project location was found by the support of RRRC, CIC, SMC and local DPHE. Consultation meeting also conducted 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 that the screening report has been prepared. 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.

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 Tube well 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 (more than 3 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_19, 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.

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.



GBV issues:

The GBV risk for the project is assessed as high. The proposed project activities will involve major civil works through skilled (from the host community) and unskilled (from the DRP community) labor. Although a strict labor code of conduct will be enforced, a key concern is the potential exposure to sexual exploitation and abuse (SEA), sexual harassment (SHA) and GBV for females in the area. During construction of the Deep Tara tubewells many women and vulnerable groups in the project location may be exposed to male laborers, which may lead to sexual harassment of varying degrees. A GRM will be established to deal with related issues. The team will conduct consultation meetings with the DRP & Host communities, contractors and labor to address GBV. In this meeting, another topic of discussion will be the 'do's and don'ts' during implementation of the sub-project intervention to mitigate all the cross-cutting issues. The expected impact of the sub-project on the various stakeholders, women and vulnerable groups is expected to be positive and will create a friendly socioeconomic climate to implement the intervention. It has been determined that Camp WASH Focal, DRP communities and their community leader have no objection to install Non Piped Deep Tara Tubewell in the proposed site of Camp_19. If any odd situations arise, the GRC will attempt to mitigate any issues according to the ESMF GRM guideline. On the other hand, if any private land/land leases issues arise, the team will conduct a consultation meeting with the owner and relevant stakeholders according to the ESMF & resettlement guideline.

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 and will 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". In the event any issues on GBV arise, they will be well communicated with UNFPA through appropriate channels to resolve the issue following proper processes.

In this project, 16 new WFS will be established and 2 existing WFS will be fully operationalized, providing comprehensive GBV case management services such as lifesaving information, community and outreach initiatives, community-based psycho-social support, community engagement in GBV prevention activities through SASA, community engagement in safety audit, and strengthening of community-based support mechanism for women and girls through women support groups and adolescence support groups. The staff's capacity will be developed to adequately handle GBV case management, coaching, mentoring, supervision, GBVIMS and GBVIMS+ to ensure comprehensive case management services through proper supervision. Capacity development will also focus on inclusion of people with disability into response and prevention work for GBV. Various tools will be developed/adapted to facilitate GBV services, MHPSS services and engaging men and boys into GBV prevention work. Along with the GBV case management services mentioned above, GBV and labor code of conduct awareness programs will be implemented, where all stakeholders including the host and DRP communities, labor engaged for the project, site management, the WB and project clients such as DPHE and LGD can participate. Mukti will procure WFS strengthening materials and awareness raising materials. They will also implement the preparedness/ contingency plans for any and upcoming disasters. Finally, strict monitoring and supervision initiatives will be in place to ensure any arising issues are averted and to facilitate smooth project processes.

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), hydrogeologist 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 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 (Latrine installation) is one of their priority needs for secured and better livelihoods aspects.

Thus, future consultations during the lifetime of the project is 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 handwashing facilities, until such time as the supplies are available
- Training medical staff on the latest WHO advice and recommendations on the specifics of COVID-19
- Conducting enhanced cleaning arrangements, including thorough cleaning (using adequate disinfectant) of catering facilities/canteens/food/drink facilities, latrines/latrines/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.

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



B. ENTRY/EXIT TO THE WORK SITE AND CHECKS ON COMMENCEMENT OF WORK

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

C. Land Acquisition and Involuntary Resettlement:

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

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



- Manage migrant labor for COVID related risks
- Invest in living conditions in relocation settlements.

D. Community Health and Safety: PMU and contractors are responsible to implement the following

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

Stakeholders and Citizen and Grievance Mechanism:

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

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

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

Yes. If site specific environmental and social management plan (ESMP) is followed, 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 eighty-five Non Piped Deep Tara Tube well Camp_19 and Block: A_01, A_02, A_03, A_06, A_07, A_09, A_11, A_13, A_15, A_16, A_17, B_05, B_06, B_08, B_09, B_13, B_15, B_16, C_01, C_04, C_05, C_06, C_07, C_08, D_01, D_05, D_06, D_10, D_11 and D_12.

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



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
				Consultant of PMU
Pre-Construction Stage	Stakeholders Engagement	<ul style="list-style-type: none"> All the project stakeholders will be engaged in consultation process Individual/Separate community level consultation meeting will be held with the potential affected HHs Consultation meeting with Rohingya male and female about the project safeguard documents will be disclosed to the stakeholders DRP camp people will be involved with the GRM, formed GRC Consultation meeting with will be held contractors and labors about safe guard issues. 	PMU, IWM & Contractor	Social Development & Hygiene Promotion Consultant of PMU
Pre-Construction Stage	Loss of Access rights	<ul style="list-style-type: none"> Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. In case of unavoidable circumstances, alternative access will be provided. 	PMU, IWM	Social Development & Hygiene Promotion Consultant of PMU
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul style="list-style-type: none"> Selection of sub-project sites will be outside of the elephant route/corridor/influenced area. Before finalized the location of sub-project must be contact with camp wash focal 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 arisen. 	PMU, IWM	Environmental Consultant of PMU
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> Selected site will be far away from any water bodies or natural water flow path to avoid the flash flood or any kind or surface runoff. For deep tubewell sinking a minimum 10 meters distance from latrines' 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 latrine. 	PMU, IWM & Contractor	Environmental Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. Always try to avoid any disruption of socially sensitive areas with regard to human and biodiversity. The existing slope and natural drainage pattern on the site should not be significantly altered. 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. The contractors shall ensure that site preparation activities not lead to disruption of activities for the local residents and biodiversity. 		
Construction Activity	Construction Induced Impacts	<ul style="list-style-type: none"> Any construction induced impacts must be mitigated following the guidelines of RPF and ESMF 	Contractors	PMU, IWM and DPHE
Construction Activity	Noise from construction works	<ul style="list-style-type: none"> 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 hours schedule like deep tubewell drilling, development & testing. Contractor will confirm proper measures for avoiding any disturbance of residents as well as biodiversity. Personal Protective Equipment (PPE) will be ensured in sub-project site before starting any kind of construction activities. 	Contractor	Environmental Consultant of PMU, IWM and DPHE
Construction Activity	Dust	<ul style="list-style-type: none"> Construction machinery shall be properly maintained to minimize exhaust emissions of CO₂, particulate matter (SPM, PM_{2.5} and PM₁₀) and Hydrocarbons. Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers. 	Contractor	Environmental Consultant of PMU, IWM and DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> Dust generation due to vehicle movement on haul roads/access roads shall be controlled through regular water sprinkling. 		
Construction Activity	Safety Issues	<ul style="list-style-type: none"> Unauthorized entry to the site area is completely prohibited and the site will be properly fenced with a single entry, for this purpose Properly maintained and control store house, storages instruments as well as hazardous materials on the site Health and safety training will be arranged for the Rohingya or other community's labours before project intervention started. Labour will bring their proper IDs and wear when they will entry in the camp area. Child labours will not allowed for any kind of activities Site shall be secured by fencing and maintained at entry points. 	Contractor	Environmental Consultant of PMU, IWM and DPHE
Construction Activity	Traffic Management	<ul style="list-style-type: none"> Contractors to provide traffic management plans to be approved by relevant authorities. If need adequate alternative arrangements will be made to minimize impact on motorist and pedestrians. Adequate road signs to be planted on access roads to limit vehicular speeds For access roads, speed ramps will be construct by proper design. Traffic signs will be made both in Bangla and Rohingya language. 	Contractor	Environmental Consultant of PMU, IWM and DPHE
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken. If ground water is withdrawn, adequate approvals essential from the appropriate department/authorities before setting up bore wells. Local community must be consulted before any 	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
		construction works started		
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> The movement of heavy machinery and equipment will be restricted to defined routes. Proper signage to be displayed at major junctions. Road diversions and closures to be informed well in advance to the local community. The vehicular movement will be controlled near sensitive locations viz. schools, colleges, hospitals, mosques, learning center & DRP camps identified along designated vehicular transportation routes. Local community will be trained up about traffic management and awareness. 	Contractor	Environmental Consultant of PMU, IWM and DPHE
Construction Activity	Labor Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> An alternate arrangement for fuel wood, heating and cooking required to meet fuel requirement of the labor camps . Alternating cooking arrangement for the HHs living in the camp 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. Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. Adequate facilities ensuring sanitation for labor camps. Safe drinking water will be made available at site for labour drinking purpose. Adequate accommodation arrangements for labour. Labor code of conduct to be disclosed through consultation and FGD. 	Contractor	Social Development & Hygiene Promotion Consultant of PMU, IWM and DPHE
Construction Activity	Waste Management: Improper management and handling of	<p>Preparation of a waste management plan covering the following aspects:</p> <ul style="list-style-type: none"> Residual waste from the temporary accommodation 	Contractor	Environmental Consultant, Social Development &



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
	hazardous and non-hazardous waste during construction.	<ul style="list-style-type: none"> facilities for labor. Working areas are kept clean and tidy at all times. Construction site is to be checked for spills of substances i.e. chemical, oil, paint, etc. Bins and/ or skips should be emptied regularly and waste/ debris should be disposed off at waste disposal areas and/ or at the site. Waste from equipment maintenance/vehicles on-site 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. Hazardous waste viz. waste, oil, Mobil etc. will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers. Waste from civil works will be properly collected Hazardous Waste Management Rules should be applied. 		Hygiene Promotion Consultant of PMU, IWM, and DPHE
Construction Activity	<p>Health & Safety Risks:</p> <ul style="list-style-type: none"> The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks. Exposure to health events during 	<ul style="list-style-type: none"> All construction equipment will be properly inspected timely. The risk assessment will be prepared time to time for all types of work activities on site. Proper walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. Proper signpost any slippery areas will be ensured in construction site. Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, 	Contractor	Environmental Consultant, 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
	construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis.	<p>warning and fighting fire.</p> <ul style="list-style-type: none"> A system to alert for workers will be setup on site. This may be temporary or permanent mains operated fire alarm. Fire extinguishers will be located at identified fire points around the site. The extinguishers will be appropriated to the nature of the potential fire. This sub project has Proper communicative emergency response plan (ERP) with all parties, the ERP to consider such things as specific foreseeable emergency situations, organizational roles and authorities, responsibilities and expertise, emergency response and evacuation procedure, in addition to training for personnel and drills to test the plan. Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems. Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability) 		



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>etc.), provide the lowest vibration tools that are suitable and can do the works.</p> <ul style="list-style-type: none"> • All safety equipment will be available in sub-project site (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), the lowest vibration tools will be provided that are suitable and can do the works. • Regulated noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary. • Contractor will provide Awareness training to all personnel involved during the construction phase in order to highlight the heat related illnesses of working in hot conditions such as heat cramps, heat exhaustion, heat stroke, and dehydration. • Adequate quantities of drinking water will be available at different locations within the sub-project area. • Provision to maintain proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities. • Provision to ensure all workers exposed to a risk are aware of the possible dangers and also given thorough training in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used. 		
Operation & Maintenance	Noise disturbances to fauna	<ul style="list-style-type: none"> • Provision to maintain noise from the operation & maintenance of machinery and equipment by noise dampeners • Provision to take necessary lighting, caution for the works and most of the time contractor will avoid the night time construction works. • Contractors will be ensure the device to determine the of noise level in this sub-project area. • Regularly third-party will be monitored the noise level in this sub-project area. 	<p>Contractor: up to contractor's liability period</p> <p>Long-term responsibility to be determined by CIC/DPHE</p>	<p>Environmental Consultant of PMU,</p> <p>Long-term responsibility to be determined by CIC/DPHE</p>



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
Operation & Maintenance	Draw down of deep tubewell groundwater due to excessive withdrawals	<ul style="list-style-type: none"> Coordination with other development agencies for groundwater extraction rates will be monitoring. Regular third-party will be monitoring of groundwater levels 	<p>Contractor: up to contractor's liability period</p> <p>Long-term responsibility to be determined by CIC/DPHE</p>	<p>Environmental Consultant of PMU,</p> <p>Long-term responsibility to be determined by CIC/DPHE</p>
Decommissioning	<p>The impacts are similar to those listed in construction stage:</p> <ul style="list-style-type: none"> Pollution from waste materials Health & Safety risks to workers and local community/DRPs 	<ul style="list-style-type: none"> Provision to proper measure of mitigation and monitoring to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. Third-party monitoring of air quality as well as on receiving land and water bodies, may be undertaken, if the condition of those compartments seems to be significantly worse. 	<p>Contractor: up to contractor's liability period</p> <p>Long-term responsibility to be determined by CIC/DPHE</p>	<p>Environmental Consultant of PMU</p> <p>Long-term responsibility to be determined by CIC/DPHE</p>



Appendix-02: Community Consultation Meeting with DRP at different blocks Camp_19



Block-A



Block-B



Block-C



Block-D



Appendix 03: List of the Participants

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. 19 Block No. C Sub-Project No. WD-7A Name of Site DTTN Date: 02

Sl. No.	Name	Sex		Designation	Mobile number	Signature	Remarks
		M	F				
1	Md. Kanker Hossain	✓		Head Majhee	01637028871	<i>[Signature]</i>	
2	Rashed Ullah	✓		DRP	-	<i>[Signature]</i>	
3	Md. Mostafa	✓		"	-	<i>Mostafa</i>	
4	Abdul Munir	✓		"	-	<i>[Signature]</i>	
5	Mia Hossain	✓		"	-	<i>[Signature]</i>	
6	Enayet Ullah	✓		Sub Majhee	01864654953	<i>[Signature]</i>	
7	Md. Salim	✓		Sub Majhee	01860117447	<i>[Signature]</i>	
8	Abdul Mojib	✓		Sub Majhee	01821552028	<i>[Signature]</i>	
9	Md. Ayub	✓		Sub Majhee	01885089395	<i>[Signature]</i>	
10	Abdur Rahman	✓		DRP	01871779481	<i>[Signature]</i>	
11	Abdur Sakur	✓		Sub Majhee	01875906435	<i>[Signature]</i>	
21	Md. Arif	✓		DRP	-	<i>[Signature]</i>	
13	Nasir Hossain	✓		"	-	<i>[Signature]</i>	
14	Kamal Uddin	✓		DRP	01844802231	<i>[Signature]</i>	
15	SM Rahman	✓		SDS, IWM	0171196488	<i>[Signature]</i>	
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Prepared by:

[Signature]
Md. Mostamsirur Rahman
Social Development Specialist
Pky. No. SD-14, IWM, EMCRP, DPHE



EMCRP Environmental and Social Screen Report (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. 19 Block No. D Sub-Project No. DSD-6 Name of Site DTTW 7A Date: 2.9.2020

Sl. No.	Name	Sex		Designation	Mobile number	Signature	Remarks
		M	F				
1	Anayetuna	✓		Head mozi	01877232690		
2	Anamullah	✓		sub mozi	01632700053		
3	Hir shamullah	✓		D.R.P	01865576217		
4	md Rafik	✓		4	01826829569		
5	kolo	✓		4			
6	md Rafik	✓		4	01889840676		
7	soyed kolum	✓		4	-		
8	kolum miya-	✓		4	-		
9	soyedullah	✓		4	0186431538		
10	Rohim Ullah	✓		4	-		
11	Zahat Hassanin	✓		4	01866014846		
21	Abdu Rohiman	✓		4	-		
13	Gil mohammed	✓		4	-		
14	Roke muhan	✓		4	-		
15	Rohimullah	✓		4	-		
16	Abul Kasiim	✓		4	-		
17	mus da Ahamed	✓		4	-		
18	mosax Ali	✓		4	-		
19	Zafar Ahamed	✓		4	-		
20	Eliyas	✓		4	-		
21	Abdu Amin	✓		4	-		
22	Hassan Ahamed	✓		4	-		
23	soyed Ullah	✓		4	-		
24	md Fayaz	✓		4	-		
25	SM Rahman	✓		SPS, IWM	0171969885		

Prepared by:

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



EMCRP Environmental and Social Screen Report (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. 19 Block No. 3 Sub-Project No. WD-7A Name of Site DTTW Date: 02.9.20

Sl. No.	Name	Sex		Designation	Mobile number	Signature	Remarks
		M	F				
1	Md. Hossin	✓		B-8 Mazee	01638354142		
2	Roshi dullah	"		B-1	01871065361		
3	Takir	"		B-12	01816793299		
4	Solim	"		B-16	01855844488		
5	Goyamiya	"		B-3	01868066548		
6	Ramzet Ulla	"		B-10	01826990598		
7	Zoufor Ullah	"		B-1	01828536129		
8	Abo sidik	"		B-2	-		
9	Abdu matik	"		B-1	-		
10	Abdu lok	"		B-9	-		
11	md. Amin	"		B-1	01848464202		
21	shobirAhamed	"		B-7	018178072576		
13	md. Finos	"		B-4	01870076731		
14	md. Hossin	"		B-1	01894885127		
15	Nor islam	"		B-16	01885325798		
16	md. zakir	"		B-2	-		
17	Holil Ullahman	"		B-3	01857377257		
18	SM Rahman	✓		SDS, IWM	01711964885		
19							
20							
21							
22							
23							
24							
25							

Prepared by :

Md. Mostamsirur 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. 19 Block No. 3 Sub-Project No. WD-7A Name of Site DTTW Date: 02.9.20

Sl. No.	Name	Sex		Designation	Mobile number	Signature	Remarks
		M	F				
1	Md. Hossin	✓		B-8 Mazee	01638354142		
2	Roshi dullah	"		B-1	01871065361		
3	Takir	"		B-12	01816793299		
4	Solim	"		B-16	01855844488		
5	Goyamiya	"		B-3	01868066548		
6	Ramzit Ulla	"		B-10	01826990598		
7	Zoufor Ullah	"		B-1	01828536129		
8	Abo sidik	"		B-2	-		
9	Abdu matik	"		B-1	-		
10	Abdu lok	"		B-9	-		
11	md. Amin	"		B-1	01848464202		
21	shobir Ahamed	"		B-7	018178072576		
13	md. Finos	"		B-4	01870076731		
14	md. Hossin	"		B-1	01894885127		
15	Nor islam	"		B-16	01885325798		
16	md. zakir	"		B-2	-		
17	Holil Ullahman	"		B-3	01857377257		
18	SM Rahman	✓		SDS, IWM	01711964885		
19							
20							
21							
22							
23							
24							
25							

Prepared by:

Md. Mostamsirur 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. 19 Block No. A Sub-Project No. WD-7A Name of Site DTTW Date: 02.09.20

Sl. No.	Name	Sex		Designation	Mobile number	Signature	Remarks
		M	F				
1	Md Sadek	L		Head Majhi	01860500602	[Signature]	
2	Osman Soni	L		DRP	NO	[Signature]	
3	Md. Yacines	L		"	01894671935	[Signature]	
4	Md Elias	L		"	01899687426	[Signature]	
5	Kobir Ahmad	L		"	NO	[Signature]	
6	Abdullah	L		"	01893006259	[Signature]	
7	Jabotahaman	L		"	NO	[Signature]	
8	Md Yacines	L		volunteer	NO	[Signature]	
9	Shamshe Alam	L		DRP	NO	[Signature]	
10	Abul Kalam	L		"	NO	[Signature]	
11	Zow miruddin	L		"	NO	[Signature]	
21	Anowarsadek	L		Majhi	01844802153	[Signature]	
13	Shahab Ara	L		Majhi	01879084401	[Signature]	
14	Mdhuson	L		shop kepar		[Signature]	
15	Nojul Hok	L		DRP	NO	[Signature]	
16	Abul Faraz	L		"	NO	[Signature]	
17	Sayed Hason	L		"		[Signature]	
18	Shonaraia	L		"		[Signature]	
19	Md Rojik	L		"	01866959610	[Signature]	
20	Amanullah	L		"	018457977	[Signature]	
21	Abdur Rohim	L		shop kepar	01878050464	[Signature]	
22	SM Rehman	L		SDS, IWM	01711964885	[Signature]	
23							
24							
25							

Prepared by :

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



EMCRP Environmental and Social Screen Report (DPHE)

Prepared by:

Environmental and Social Safeguard Team, Contract Package No. SD-14, IWM, EMCRP,

DPHE Reviewed by:

(Md. Ahsanul Kabir)

SD & HP Consultant, EMCRP (DPHE Part),

Email: makabirbd68@gmail.com

(Mahbubul Alam)

Environmental & Hydrogeologist Consultant, EMCRP (DPHE Part),

Email: alam.mahbubgeo@gmail.com

(Rebeka Ahsan)

Deputy Project Director, EMCRP (DPHE Part),

Email: dpherebeka@gmail.com

(Md. Muktadir Harun)

Social Development Officer, EMCRP, DPHE, Dhaka.

Email: mh.dphe@gmail.com

Approved by:

(Mohammad Abdul Kaium)

Project Director, EMCRP (DPHE Part),

Email: pddphe.emcrp@gmail.com