

Government of the People's Republic of Bangladesh



Bangladesh Water Development Board

Flood and Riverbank Erosion Risk Management Investment Program

Project 2

ADB Loan Number 4107- BAN (COL) & GoN Grant 0799-BAN (EF)

Semi-annual Environmental Monitoring Report January - June 2023

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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
BWDB	Bangladesh Water Development Board
C.C.	Cement Concrete
CEMP	Contractor's Environmental Management Plan
DoE	Department of Environment
DoF	Department of Fisheries
DPHE	Department of Public Health Engineering
EARF	Environmental Review and Assessment Framework
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMR	Environmental Monitoring Report
EP	Effected People
FGD	Focus Group Discussion
FRERMIP	Flood and Riverbank Erosion Risk Management Investment Program
GoB	Government of Bangladesh
GoN	Government of the Netherlands
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
ISPMC	Institutional Strengthening and Project Management Consultant
JLB	Jamuna Left Bank
JRB	Jamuna Right Bank
NGO	Non-Governmental Organization
PMO	Project Management Office
PLB	Padma Left Bank
PRB	Padma Right Bank
RRA	Rapid Rural Appraisal
SMO	Sub-project Management Office
SO	Section Officer/Sub-Assistant Engineer
PPTA	Project Preparatory Technical Assistance
U.P.	Union Parishad

EXECUTIVE SUMMARY

This 2nd Semi-annual Environmental Monitoring Report (EMR) for the period of January to June 2023 of “Flood and Riverbank Erosion Risk Management Investment Program” (FRERMIP Project 2) has been prepared to fulfill the safeguard policy requirement of ADB and in the loan agreement.

After the successful completion of the Tranche 1 (Project 1) of FRERMIP under the Multi Tranche Financing Facility (MFF) in June 2021, the loan agreement was signed in March 2022 and became effective in April 2022. Works of Tranche 1 was completed in the end of June 2020. The MFF of FRERMIP was anticipated to be implemented in three individual projects, with overlapping projects periods, building on each other. The overall MFF had an original duration of 9 years with each project planned with an implementation period of about 4 years. In April 2021, ADB approved the extension of MFF till 26 June 2024, and at the request of the government for the second and third tranche have been combined into a final and single tranche, which is now Project 2. The total cost for Project 2 is US\$ 212.00 million, of which ADB will finance up to US\$ 157.00 million (loan), the Government of The Netherlands up to US\$ 17.89 million (grant), and the Government of Bangladesh will finance the rest amount.

The structural measures under Project 2 consist of (i) 46.5 km of riverbank protection including proposed additional work (ii) 7.9 km of climate- resilient flood embankment; (iv) 2 regulators to improve drainage and river-floodplain connectivity; and (v) 40 km of strengthening of underwater riverbank protection works following the adaptive approach and 6 km of emergency works.

The award of contract of 8 (eight) civil work packages have been issued while the bidding process of construction of 7.9 km of embankment at Shajadpur is in progress. Out of 8 civil works packages, 5 underwater riverbank protection works, one adaption works for riverbank protection, one emergency riverbank protection and one maintenance work of tranche-1 embankment are ongoing.

Main objectives of the Project 2 are:

- sustain economic growth, poverty reduction and livelihoods of people (about 11,00,000), living in the areas threatened by riverbank erosion along the Jamuna and Padma Rivers;
- enhance resilience to flood and riverbank erosion risks through improvement of infrastructures strengthening the flood and riverbank erosion management system, including the knowledge base and concerned institutions;
- establish integrated non-structural and structural flood and riverbank erosion risk management measures (by establishing 110 community-based disaster management units (minimum of 35% women-led) and developing their capacity; (ii) training 40 disaster units (14 units out of 40 led by women) created under Project 1 to enhance sustainability; (iii) raising awareness on FRERM; and (iv) strengthening disaster preparedness and emergency response with a focus on women participation)

According to Bangladesh Environment Act (1995) and Environment Conservation Rule (1997), it was categorized as Red Category and a detail Environmental Impact Assessment (EIA) including environmental

management plan was done to fulfill the Government of Bangladesh (GoB) requirement. The project requires environmental clearance certificate (ECC) to renew every year. FRERMIP has been categorized as category-A for environment in accordance with ADB's Safeguard Policy Statement (2009).

The civil work of the different work packages started from March 2023. The month wise compliance status of EMP of the work packages are shown in the following table

Month	Package W-01	Package W-02	Package W-03	Package W-04	Package W-05	Package W-06	Package W-09	Package W-11
March	20%	Work not started	0%	0%	55%	Work not started	Work not started	Work not started
April	70%	Work not started	16%	30%	78%	Do	Do	Do
May	89%	Work not started	27%	37%	84%	Do	Do	Do
June	92%	6%	56%	44%	85%	23%		

Trainings:

Total 6 (six) numbers of orientation training on Environment, Health and safety were given to three SMO and the contractors who received contract award for riverbank protection works during February and March 2023. The details of training and capacity building of SMO and contractor is given below

Date	Package	Topics of Training
1 March	W-05	Preparation of Contractor's Environmental, Health & Safety Management Plan (C-EHSMP), details of environmentally sensitive areas of the site, Waste Management, use & disposal of hazardous material, Efficient & safe driving practices, including road & vehicle restrictions, Safe way to work & hazard awareness, Use of PPE.
3 March	W-03	Do
3 March	W-04	Do
18 March	W-01	Do
18 March	W-02	Do

Monitoring visits:

Monitoring visit and observation along with corrective action plan

Monitoring visit date	Package	Monitoring by	Observation with corrective actions instructed
2 March	W-05	Abdullah Al Arafat Junior Engineer, ISPMC	Tub wells should be constructed with Pacca floor with adequate drainage system, Sufficient hygienic sanitary toilets should be constructed for labors and visitors. Environmental Inspector to be engaged who have sufficient knowledge.
6 March	W-05	Abdullah Al Arafat Junior Engineer, ISPMC	Construction waste and domestic waste should be disposed separately.
14 March	W-05	Abdullah Al Arafat Junior Engineer, ISPMC Md. Amir Faisal Environmental Specialist, ISPMC	The spraying of water to be done on a regular basis. Warning signs and signals should be erected.
18 March	W-01	Md. Amir Faisal Environmental Specialist, ISPMC	Fuel and lubricants should be reserved on cement concrete soling. Sufficient hygienic sanitary toilets should be constructed for labors and visitors
30 March	W-01	Abdullah Al Arafat Junior Engineer, ISPMC	Cooking should be done under roof; Sufficient bins should be installed
13 April	W-03	Abdullah Al Arafat Junior Engineer, ISPMC	Labor camp should be constructed with enough sanitation and water facilities. The spraying of water should be done on a regular basis.
13 April	W-04	Abdullah Al Arafat Junior Engineer, ISPMC	Labor camp should be constructed with enough sanitation and water facilities.
15 April	W-01	Md. Amir Faisal Environmental Specialist, ISPMC	Designated area for storage of construction waste should be established. Sufficient bin to be kept at suitable places

17 April	W-01	Abdullah Al Arafat Junior Engineer, ISPMC	Warning signs and signals should be erected.
17 April	W-02	Abdullah Al Arafat Junior Engineer, ISPMC	Sufficient bins should be installed. Construction waste and domestic waste should be disposed separately.
18 April	W-03	Abdullah Al Arafat Junior Engineer, ISPMC	Contractor's Engineer should have to wear proper PPE.
18 April	W-04	Abdullah Al Arafat Junior Engineer, ISPMC	Warning signs and signals should be erected.
27 April	W-05	Abdullah Al Arafat Junior Engineer, ISPMC	Signs should be erected for drinking water tube wells.
28 April	W-05	Abdullah Al Arafat Junior Engineer, ISPMC	Regular health inspection should be done and take necessary steps to prevent accident.
21 May	W-01	Abdullah Al Arafat Junior Engineer, ISPMC.	Ambient Air quality (PM 10, PM 2.5, SPM), Surface water quality test (PH, Conductivity, Do, BOD, TDS, As etc.), Drinking water quality test (Drinking As+, Tc/Fe+), Noise quality monitoring test would be done.
21 May	W-06	Abdullah Al Arafat Junior Engineer, ISPMC	Ambient Air quality (PM 10, PM 2.5, SPM), Surface water quality test (PH, Conductivity, Do, BOD, TDS, As etc.), Drinking water quality test (Drinking As+, Tc/Fe+), Noise quality monitoring test would be done.
21 May	W-03	Abdullah Al Arafat Junior Engineer, ISPMC Md. Amir Faisal Environmental Specialist, ISPMC	Ambient Air quality (PM 10, PM 2.5, SPM), Surface water quality test (PH, Conductivity, Do, BOD, TDS, As etc.), Drinking water quality test (Drinking As+, Tc/Fe+), Noise quality monitoring test would be done. Environmental and safety inspector should be engaged
21 May	W-04	Abdullah Al Arafat Junior Engineer,	Ambient Air quality (PM 10, PM 2.5, SPM), Surface water quality test (PH, Conductivity, Do, BOD, TDS, As etc.), Drinking water quality test (Drinking As+, Tc/Fe+), Noise

		ISPMC Md. Amir Faisal Environmental Specialist, ISPMC	quality monitoring test would be done. Environmental and safety inspector should be engaged
22 May	W-05	Abdullah Al Arafat Junior Engineer, ISPMC	Ambient Air quality (PM 10, PM 2.5, SPM), Surface water quality test (PH, Conductivity, Do, BOD, TDS, As etc.), Drinking water quality test (Drinking As+, Tc/Fe+), Noise quality monitoring test would be done.
19 June	W-02	Abdullah Al Arafat Junior Engineer, ISPMC Md. Amir Faisal Environmental Specialist, ISPMC	Should take necessary step for moving in river, as the water level was increasing day by day and the river became very turbulent.
20 June	W-06	Abdullah Al Arafat Junior Engineer, ISPMC	Should take necessary step for moving in river, as the water level was increasing day by day and the river became very turbulent.
20 June	W-11	Abdullah Al Arafat Junior Engineer, ISPMC	Should take necessary step for moving in river, as the water level was increasing day by day and the river became very turbulent.
21 June	W-01	Abdullah Al Arafat Junior Engineer, ISPMC	Should take necessary step for moving in river, as the water level was increasing day by day and the river became very turbulent.

Apart from construction impacts, some potential adverse impacts are expected in the subproject operations (i.e. JRB- 1) from new embankments, such as degradation of floodplain aquatic (wetland) habitats due to reduced flooded area, depth, and flood duration; reduced hydrologic connectivity; and physiochemical/ water quality changes. This in turn will adversely affect floodplain-dependent open water fish species migration, population levels, as well as wetland biodiversity services. A biodiversity impact monitoring and fisheries study is included in Project 2 with a view to design and implement compensation activities. Project 2's EIA, prepared for ADB requirement, identified potential sites for establishing bird and dolphin sanctuaries along the bank of the Padma and the Lower Jamuna.¹ The locations of the potential sites of the said sanctuaries mentioned in the EIA need to assess for the status. The procurement

¹ <https://www.adb.org/projects/documents/ban-44167-015-eia-0>

of the consultancy package C-07 (Environmental management and Risk mitigation program) for updating potential sites of sanctuaries are included in this project. As per decision of ADB's MTR mission Package W-18 (Fish Sanctuaries) to be deleted due to delays in required pre-work activities. The consulting package (C-07) is related with work package (W-18). The consultation package (C-07) will provide site selection of fish and bird sanctuaries and their recommendation will be implemented in the follow-on project.

The possible positive and adverse impacts and their mitigation measures and enhancement are incorporated in the EIA for Project 2. At the field level, contractors are responsible to implement stipulations of the EMP of the project. To comply with the EMP at field level, health and safety commensurate with nation and international laws is included in the construction contracts. A national Environmental Specialist and a Junior Engineer (Junior Environmental Specialist) has been engaged to monitor the EMP prepared for the project under the institutional strengthening and project management consultant (ISPMC). A safeguard cell in the Project Management Office (PMO) is responsible to oversee the whole environmental monitoring and management process and verify the claims and grievances raised by community people/farmers if any and finally prepare and submit safeguard report to ADB regularly for disclosure. To meet ADB's reporting requirements, semi-annual EMRs are mandatory to submit ADB for disclosure.

The community organizations have not been formed yet. Community organizations will be formed within the coming period, and they will be strengthened through orientation on embankment management, smooth functioning of regulators, improve of the drainage system of the project, integrated water management, on farm development etc. This provision has been kept under Project 2 and with this training, awareness, active participations, dissemination, operation and maintenance of structures (i.e. embankments, regulators) will be conducted. By this, community will get the full project benefits. Training and capacity development programs conducted for preparation and understanding of EMP, awareness of environmental management and safety effectively, timely implementation of EMP and enhancing the environmental management capacity of Bangladesh Water Development Board's (BWDB) concerned officials and Contractors' representatives.

The civil works involve a large workforce including national and international experts who may be at severe health risk resulting from the COVID-19 pandemic. It is therefore necessary to remain vigilant, and take adequate precautionary measures to identify, prevent, and minimize the spread of COVID-19. This includes enhancement of awareness of workforce, training of medical staff on current advice on COVID-19 risks, establishing isolation and quarantine facilities, dealing with positive patients, transportation of sick person to local or other medical services etc.

Physical work of the Project started from March 2023, and EMP compliance monitoring is regularly being done. All contractors are required to prepare site-specific EMP in line with the EMP included in EIA of the Project 2 in order to better understand and implement the EHS compliance at field. Four contractors submitted site-specific EMP. The remaining contractors need to submit site specific EMP.

1. INTRODUCTION

1.1 FRERMIP Location and Area

1. After the successful completion of Tranche 1² FRERMIP under the MFF, financing agreement between the GoB and ADB happened in July 2014, where loan for Project 2 was approved by ADB and became effective in April 2022. The FRERMIP area encompasses the Jamuna River reach, where it starts from the Jamuna Bridge site down to Chandpur on the Lower Meghna. At the downstream side of the Jamuna Bridge, the Jamuna River course is somewhat independent of upstream river developments (see Figure 1.1).
2. The Flood and Riverbank Erosion Risk Management Investment Program Project 2 implements three subprojects (i) Jamuna right bank-1 (JRB-1) (ii) Jamuna Left Bank-2 (JLB-2) and Padma Left Bank-1 (PLB-1) and an additional subproject Jamuna left bank-1 (JLB-1). The FRERMIP area covers 9,300 km² with a total population of 10.50 million (2011 census) in 40 upazilas and 431 unions, with an average population density of nearly 1,600 persons per km² of floodplain land.

1.2 Project Interventions

3. Proposed interventions under Project 2 fall into four categories:
 - (i) riverbank protection work,
 - (ii) construction of flood embankment,
 - (iii) construction of flushing cum drainage regulators,
 - (iv) strengthening of underwater riverbank protection works.
4. The structural measures are:
 - (i) 46.50 km of riverbank protection including proposed additional work,
 - (ii) 7.9 km of climate-resilient flood embankment;
 - (iii) 2 regulators to improve drainage and river-floodplain connectivity; and
 - (iv) 40 km of strengthening of underwater riverbank protection works following the adaptive approach and 6 km of emergency works.

² Project or Tranche 1 was completed with these broad objectives (i) improve livelihood of people in the project area; (ii) enhance resilience to flood and riverbank erosion risks through improvement of infrastructure, strengthening of institutional capacity and update & expansion of the knowledge base; and (iii) establish integrated non-structural and structural risk management measures at priority subprojects and address their sustainability.

Figure 1-1 shows the locations of interventions of Project 2.

1.3 Overall Objectives

5. Main objectives of Project 2 are:

- sustain economic growth, poverty reduction and livelihoods of people (about 11,00,000), living in the areas threatened by riverbank erosion along the
- Jamuna and Padma Rivers;
- enhance resilience to flood and riverbank erosion risks through improvement of infrastructures strengthening the flood and riverbank erosion management system, including the knowledge base and concerned institutions
- establish integrated non-structural and structural flood and riverbank erosion risk management measures (by establishing 110 community-based disaster management units (minimum of 35% women-led) and developing their capacity; (ii) training 40 disaster units (14 units out of 40 led by women) created under Project 1 to enhance sustainability; (iii) raising awareness on FRERM; and (iv) strengthening disaster preparedness and emergency response with a focus on women participation)

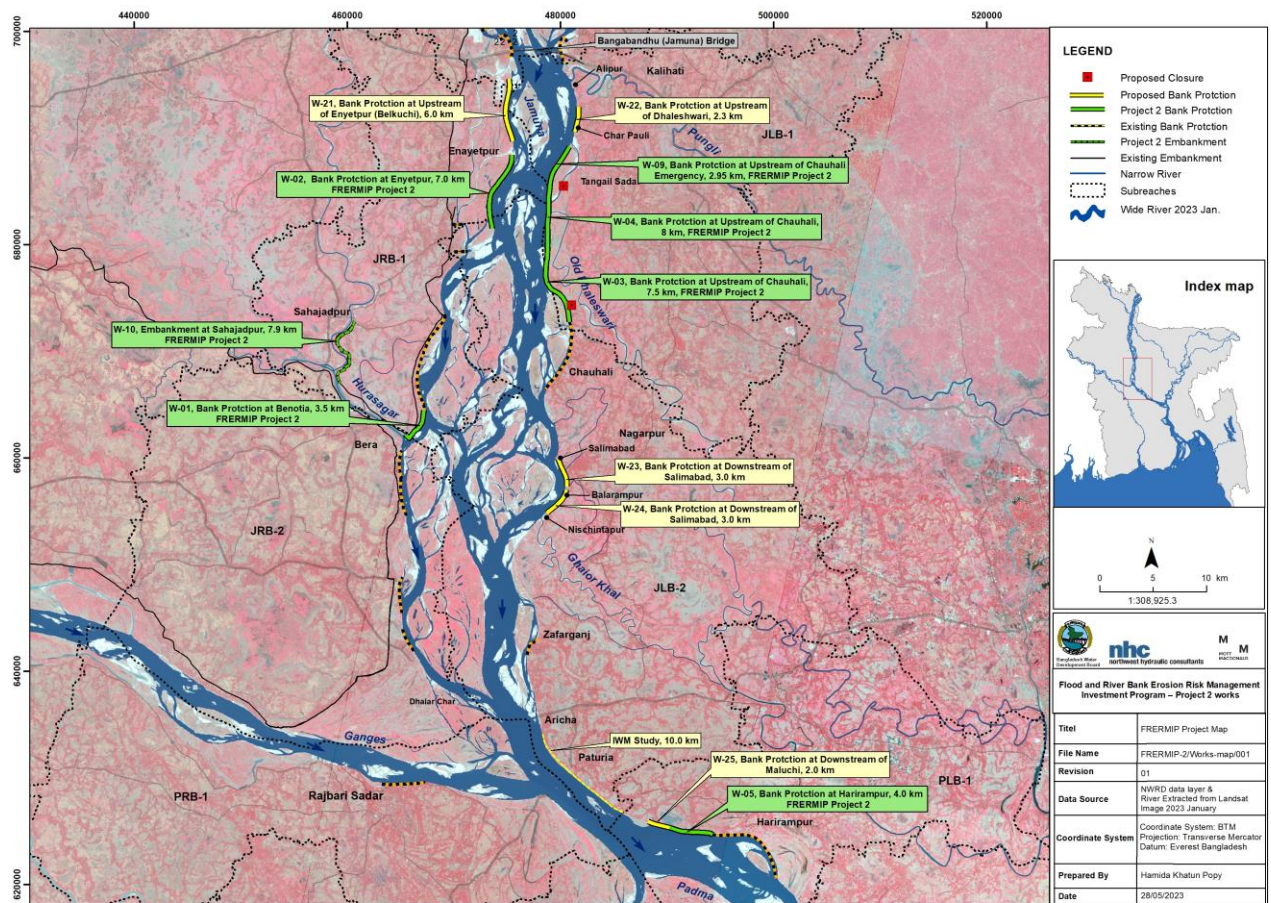


Figure 1-1: Location of Interventions of Project 2

1.4 Categorization

- Environmental Category as per ADB Safeguard Policy Statement 2009:
- The project is classified as category A in accordance with classification system of SPS of ADB. The draft EIA including an EMP was disclosed on ADB's website on 6 August 2020. The category classification is triggered as without mitigation, direct impact of Project-2 interventions on biodiversity habitat could be significant, long lasting and cumulative. Likely significant negative impacts of the project 2 interventions include (i) loss of 15 km of channel whose outer riverbank is being severely eroded (ii) damage to adjacent wetland resulting from reclamation of char land and (iii) risks on wildlife habitat due to alteration to flow pattern, reduced river and floodplain connectivity.
- Environmental Category as per National laws and Regulations: Bangladesh Environmental Conservation Rules, 1997 classified the Project as "Red". Schedule-1 of Bangladesh Environment conservation Rules, 1997 classified the Construction/reconstruction/expansion of flood control

embankment, polder, dike, etc. projects under Red category (sl. No. 66)

1.5 Project Safeguards Team

Table 1-1: List of project safeguard personnel

Name	Designation	Email Address	Contact Number
PMO			
PMO-FRERMIP, BWDB, Dhaka			
Md. Sultan Mahmud	Executive Engineer	xenfrermip.bwdb@gmail.com	01726-880044
K. M. Saki Ingil	Assistant Engineer	ae2frermip.bwdb@gmail.com	01318-235131
Sub-project Management Office (SMO)			
SMO- Tangail O&M Division, BWDB, Tangail			
Md. Shazzad Hossain	Executive Engineer	xenbwdbtang@gmail.com	01318-236118
Md. Zubair	Sub-Divisional Engineer	sde2tangail2020@gmail.com	01680-156210
SMO- Manikganj WD Division, BWDB, Manikganj			
Md. Mayen Uddin	Executive Engineer	xn.manikganj@yahoo.com	01318-236100
Mr. Md. Zahidul Islam	Sub-Divisional Engineer	-	01727-935256
SMO- Construction Division, FRERMIP, BWDB, Koitola, Bera, Pabna			
Md. Mahbubur Rahman	Executive Engineer (Addl. Charge)	xen.koitala@gmail.com	01318-235246
Md. Shaheen Reza	Sub-Divisional Engineer	-	01722-368077
ISPMC, FRERMIP			
Md. Amir Faisal	Environmental Specialist	faisal.mdamir@gmail.com	01715-315227
Abdullah Al Arafat	Junior Engineer (Jr. Environmental Specialist)	abdullahal.arafat@mottmac.com	01623-477780

Name	Designation	Email Address	Contact Number
Contractors			
Package W-01			
Mominul Islam	Environmental Inspector	-	01836697367
Reza Ahmed Hero	Safety Inspector	-	01733486884
Shafiqul Islam	Nurse	-	01886859825
Package W-02			
Asadul Galib	Safety Inspector	-	
Package W-03			
Md. Zunaed Hossain Biplob	Environmental Inspector	-	01521437455
Md. Rashed	Safety Inspector	-	01797467920
Satu Chandra Sarker	Nurse	-	01740261630
Package W-04			
Md. Mehadi Hasan	Environmental Inspector	-	01996405208
Md. Mahbubur Rahman Rony	Safety Inspector	-	01789484658
Manik Ghosh	Nurse	-	01730254814
Package W-05			
Zahin Rahman	Environmental Inspector	-	-
Pradip Biswas	Safety Inspector	-	01737281540
Fatema Perveen	Nurse	-	01642603954
Package W-06			
Mominul Islam	Environmental Inspector	-	01836697367
Reza Ahmed Hero	Safety Inspector	-	01733486884
Shafiqul Islam	Nurse	-	01886859825

1.6 Context of the Monitoring Report

9. This Semi-annual EMR has been prepared on the basis of monitoring of civil works that commenced in Project 2 of FRERMIP. The concerned staff from PMO and ISPMC monitored, supervised, and recommended the activities of EMP implementation for the works which are being implemented by the contractors under different packages.
10. As part of its responsibility, PMO is to establish and operate a Grievance Redress Mechanism (GRM) in each project site. The PMO, with the help of the ISPMC, is monitoring proper functioning of the GRM of the project.
11. The PMO is responsible for preparing and submitting monitoring report semiannually to ADB with follow-up action of the findings of the previous EMR. The monitoring requirement includes EMP monitoring, environmental awareness training, environmental health and safety compliance, loan covenant compliances, corrective action plan etc. The semiannual EMR have to be submitted every 31st of January (for July to December of previous year) and 31st of July (for January to June of the year). For this 1st EMR of Project 2, the report covers reporting period of April to December 2022. The loan for the Project 2 became effective on April 2022, when this is the start of reporting period. The preparation, submission and disclosure of semiannual EMRs will be until project completion is issued by ADB.

1.7 Overall Project and Sub-projects Progress and Status

12. BWDB under the Ministry of Water Resources (MoWR) is implementing the Tranche 2 of FRERMIP covering parts of the main rivers in Bangladesh. GoB, ADB and Government of the Netherlands (GoN) are the financial contributors to the project. The FRERMIP was planned for three individual loans (or three projects), planned to be implemented with overlapping projects periods, building on each other. In April 2021, ADB approved the extension of the MFF till 26 June 2024 (10 years) and at the request of the government the original second and third tranches have been combined into a final and single tranche (Project 2). The Project 2 includes the following activities with locations-

Table 1-2: Work Packages - location and activities

Name of Work / Package Number	Name of Contractor	Location	Working Length (km)	Type of Activities and Status
Underwater riverbank protection work with geotextile bags at Benotia (Package No. W- 01/2021-22)	Golam Rabbani Construction Ltd	Upazila- Shahjadpur Dist. Sirajganj	3.50 km	Main Contract activities are establishment and clearance of work sites and workers' camps, sand mining, transport of sand to filling areas, filling and dumping of sand filled geo-bags on/from barges; etc.
Underwater riverbank protection work with geotextile bags at Enayetpur (Package No. W- 02/2021-22)	Golam Rabbani Construction Ltd	Upazila-Belkuchi Dist. Sirajganj	7.00 km	-Do-
Underwater riverbank protection with geotextile bags at Upstream Chauhali (Package No. W- 03/ 2021-22)	KCEL- BECL - JV	Upazila- Chauhali Dist.- Sirajgonj	7.50 km	-Do-
Underwater riverbank protection at Upstream Chauhali - 8.00 km with geobags, including 1.00 km of dredging on the underwater slope (Package No. W-	MBEL - BECL JV	Upazila- Chauhali Dist.- Sirajgonj	8.00 km	Main Contract activities are establishment and clearance of work sites and workers' camps, sand mining, transport of sand to filling areas, filling and dumping of sand filled geo-bags on/from barges; dredging work, dumping of dredged materials and it's management etc.

Name of Work / Package Number	Name of Contractor	Location	Working Length (km)	Type of Activities and Status
04/ 2021-22				
Underwater riverbank protection with geotextile bags extension at Harirampur-4.00 km (Package No. W-05/ 2021-22)	JV. Md Jamil Iqbal – Sk Emdadul Haque Al Mamun	Upazila- Harirumpur Dist.- Manikganj	4.00 km	Main Contract activities are establishment and clearance of work sites and workers' camps, sand mining, transport of sand to filling areas, filling and dumping of sand filled geo-bags on/from barges; etc.
Adaptation works for riverbank protection with geotextile bags of completed work under JMREMP & FRERMIP Tranche1 Project. (Package No. W- 06/2021-22)	Golam Rabbani Construction Ltd	Upazila- Shahjadpur, Chauhali & Bera Dist. Sirajgang & Pabna	17.00 km	-Do-
Emergency works (Package No. W- 09/2021-2022)	KSA-TTSL JV	_-D0-		-Do-
Shahjadpur Embankment Construction from chainage 21,39 to 29.20 (7.9 km) W-10/2021-2022	Tender not floated	Upazila- Shahjadpur Dist. Sirajgang	7.9 Km	Main Contract activities are establishment and clearance of work sites and workers' camps. Construction of embankment by dredging. Carrying of earth for clay

Name of Work / Package Number	Name of Contractor	Location	Working Length (km)	Type of Activities and Status
				blanked. Turfing work etc. Yet to start physical work
Maintenance works for 21.30 km Tranche 1 Embankment (Package No. W- 11/2021-2022)	JV. Md. Jamil Iqbal – Sk Emdadul Al Mamun	Upazila- Shahjadpur Dist. Sirajgong	To be determined	Main Contract activities are establishment and clearance of work sites and workers' camps, earthwork, Yet to start physical work
Construction of O&M Shed (Package No. W- 16/2021-2022)	Contract award under process	Upazila- Shahjadpur Dist. Sirajgang		Main Contract activities are establishment and clearance of work sites, masonry works, etc.

1.8. Package-wise description and status of implementation (preliminary, detailed, design, on-going construction, completed and/or O&M stage)

Table 1-3: Status of project implementation

Package No.	Components/List of Work	Status of Implementation (Preliminary Design/Detailed Design/Ongoing Construction/Completed/O&M)	Contract Status if bidding or contract awarded)	% of Physical Progress	Completion date
Works:					
W-01/ 2021-22	Underwater riverbank protection work	Ongoing Construction	Contract Awarded	95%	18 Feb 2024
W-02/ 2021-22	Underwater riverbank protection work	Ongoing Construction	Contract Awarded	20%	04 March July 2024
W-03/ 2021-22	Underwater riverbank protection work	Ongoing Construction	Contract Awarded	10%	24 April 2024
W-04/ 2021-22	Underwater riverbank protection work	Ongoing Construction	Contract Awarded	10%	24 April 2024
W-05/ 2021-22	Underwater Riverbank protection work	Ongoing Construction	Contract Awarded	95%	31 March 2024
W-06/ 2021-22	Adaptation works for riverbank protection of completed work under JMREMP & FRERMIP	Ongoing Construction	Contract Awarded	37%	26 April 2024

	Tranche1.				
W-09/ 2021-2022	Emergency works	Ongoing Construction	Contract Awarded	20%	12 December 2023
W-10/ 2021-2022	Shahjadpur Embankment Construction from chainage 21,39 to 29.20 (7.9 km)	Detailed Design	Contract not awarded	-	Not yet awarded
W- 11/ 2021-2022	Maintenance works for 21.30 km Tranche 1 Embankment	Ongoing Construction	Contract Awarded	20%	11 January 2024
W- 16/2021- 2022	Construction of O&M Shed (7 Nos.)	-	Contract award under process	-	-

1.9. Status of Consultancy Packages

- Environment/biodiversity and social baseline impact monitoring and fisheries study (C-15): ADB made comments on the ToR of this consultancy service. The comments had been addressed and submitted to ADB for concurrence.
- External monitoring of environmental safeguard (C-18): Expression of interest (EoI) of this consultancy package has been received. The evaluation of the received EoI is under process.
- Individual Environmental Specialist for PMO (C-24): It was decided in last MTR mission, this consultancy package to be deleted (Table-5, draft Aide memoire of MTR mission), the mission and PMO agreed to be added this package to the ISPMC contract instead of being separate package (Para 27 of draft Aide memoire of MTR mission)

1.10. Grievance Redress Mechanism (GRM):

13. No grievance has been received either from local people or labourers as all the civil works so far implemented are riverbank protection works. No concreting work was involved as such no heavy equipment or machine was used, only filling of geo-textile bags and dumping of the bags to the river was done. However, the GRC is under process of formation.

2. COMPLIANCE STATUS WITH NATIONAL STATUTORY ENVIRONMENTAL REQUIREMENTS

Table 2-1: Compliance status with national environmental requirements

Project Name	Statutory Environmental Requirement	Status of Compliance	Validity (if obtained)	Action Required	Specific conditions that will require environmental monitoring as per Environment Clearance, Consent/Permit to Establish
Flood and Riverbank Erosion Risk Management Investment Program (Project 2)	Approval of EIA and Environmental Clearance	EIA approved and Environmental Clearance obtained	Valid up to 12.12.2022 Necessary step has been taken for taking clearance for next one year	-	n/a

3. COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

Table 3-1: Compliance status with loan covenants

Schedule No. and Paragraph No. of Loan Agreement	Covenant	Status of Compliance	Action required
Para. 7, Schedule 4	The Borrower shall ensure, or cause BWDB to ensure, that no Works contract is awarded which involves environmental impacts until: (a) The Department of Environment, under the Ministry of Environment and Forest, has granted final approval of the EIA; and (b) BWDB has incorporated the relevant provisions from the EMP into the Works contract	Done Incorporated in the works contract	
Para. 8, Schedule 4	The Borrower shall ensure, or cause BWDB to ensure, that no works contract is awarded which involves involuntary resettlement impacts until the Borrower has caused BWDB to prepare and submit to ADB the final version of the relevant RP based on the detailed design for the activities to be implemented in the relevant Subproject area, and obtained ABD's clearance of such RP	No work contract has been awarded which involves involuntary resettlement impacts. A RP was prepared and disclosed for resettlement activities in connection with the package W-10. Now, the updating of the RP and procurement process for RP INGO is going on.	Engagement of RP-INGO

Para. 13, Schedule 4	The Borrower and BWDB shall ensure that the preparation, design, construction, implementation, operation and decommissioning of all project's facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective EIA and EMP, and any corrective or preventive actions set forth in a Safeguards Monitoring Report.	Planning and design done complying these	Ensuring these during implementation
Para. 17, Schedule 4	The Borrower and BWDB shall make available the necessary budgetary and human resources to fully implement the EMPs and the RPs.	BWDB is taking- necessary steps to implement EMPs and RP	
Para. 18, Schedule 4	The Borrower shall ensure, or cause BWDB to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to:		
	(a) comply with the measures and requirements relevant to the contractor set forth in the relevant EIA, EMP and RP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;	Being complied - with the measures set forth in the safeguards documents.	
	(b) make available a budget for all such environmental and social measures;	Done	

	(c) provide BWDB with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the relevant EIA, EMP or RP;	To be complied as- and when arise	
	(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and	To be complied as- and when required	
	(e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	To be complied- when required	
Para. 19, Schedule 4	The Borrower shall, or cause BWDB to, do the following: (a) Submit semi-annual Safeguard Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission (b) If any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the relevant EIA, EMP or RP, promptly inform ADB of the concurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; (c) No later than 6 months after effectiveness, the Borrower and BWDB shall engage qualified and experience external experts or qualified NGOs under a selection process and terms of reference acceptable to ADB, to verify information produced through the Project monitoring process in respect	Reports are being submitted regularly. Will be done as and when required. The engagement is under process	

	of (i) land acquisition and involuntary resettlement, and (ii) environmental impacts (if it is determined that the Project will have significant impacts) and facilitate the carrying out of any verification activities related to (i) land acquisition and involuntary resettlement (ii) environmental impacts by such external experts. (d) Report any actual or potential breach of compliance with measures and requirements set forth in an EMP or RP promptly after becoming aware of the breach	To be Complied when arise	
Para. 21, Schedule 4	The Borrower shall ensure, or cause BWDB shall to ensure, that the core labor standards and the Borrower's applicable laws and regulations are complied with during Project implementation. The Borrower shall cause BWDB to include specific provisions in the bidding promptly and contracts finance by ADB under the Project requiring that the contractors, among other things: (a) comply with the Borrower's applicable; labour law and regulations and incorporate applicable workplace occupational safety norms; (b) do not use child labor; (c) do not discriminate workers in respect of employment and occupation; (d) do not use forced labor; (e) allow freedom of association and effectively recognize the right to collective bargaining; and (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the	Specific provisions- has been included for the awarded contracts and the other contracts will follow the same strategy.	

	local communities surrounding the Project area, particularly women.		
Para. 23, Schedule 4	The borrower shall ensure, or cause BWDB to ensure, that (a) the GAP is implemented in accordance with terms; (b) the bidding documents and the contracts include relevant provisions for contractors to comply with the measures set forth in the GAP, (c) adequate resources are allocated for implementation of the GAP and (d) process of implementation of the GAP, including progress toward achieving key gender outcome and output targets, are regularly monitored and reported to ADB	Specific provisions has been set forth in contract provision and being monitored during implementation	

4. COMPLIANCE STATUS TO ADB MISSION RECOMMENDATIONS

14. The compliance status with ADB Midterm Review Mission (21-28 May, 2023) provided in the draft Aide Memoire for Environmental safeguard are provided in the following table

Table 4-1: Compliance status of ADB MTR mission

Sl. No.	Recommended Action	Completion date	Implementation status	Remarks
1.	ADB provide comments to PMO on first of Addendum to the EIA	5 Jun 2023	Done	
2	Additional stakeholder consultation for the four additional sites	18 Jun 2023	Done	Outcome of the consultation discussed in the Addendum to the EIA
3	Discuss Addendum to the EIA with DoE	30 Jun 2023	Yet to discuss	
4	Share outcomes of DoE discussion with ADB	2 July 2023		

5	Submission of next draft of EIA addendum	5 July 2023	Next draft complete	Shared with ADB
6	Submission of semi-annual EMR	31 July 2023	Submitted	Addressing ADB's comment is on progress

5. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT PLAN

15. In addition to the environmental management specialist of the ISPMC, the focal person on environmental issues from PMO, and site officials from SMOs are supervising of site developments, and monitoring environmental measures and any issues. The ISPMC is regularly visiting sites, and submitting the reports for monitoring of EMP compliance as per direction of PMO. The bidding process of the packages is almost complete, and the physical work of Project 2 started from March 2023. The package wise implementation status are shown in the following table

Table 5-1: Package- wise Implementation Status

Package No.	Components	Design Status (Preliminary design stage/detailed design completed)	Final EIA provided to contractor/s (Yes/No)	Site-specific EMP (C-EHSMP) approved by Project Manager? (Yes/No)	Remarks
W-01/ 2021-22	i) Establishment and clearance of work sites and worker's camps ii) Sand mining, transport of sand to filling areas iii) Filling with sand and sewing the geo bags. iv) Dumping of geo bags from barge	Completed	Yes	Yes	
W-02/ 2021-22	DO	Completed	Yes	No	Contractor didn't submit C-EHSMP
W-03/ 2021-22	Do	Do	Yes	Yes	
W-04/	Do	Do	yes	yes	

Package No.	Components	Design Status (Preliminary design stage/detailed design completed)	Final EIA provided to contractor/s (Yes/No)	Site-specific EMP (C-EHSMP) approved by Project Manager? (Yes/No)	Remarks
2021-22					
W-05/ 2021-22	Do	Do	Yes	Yes	
W-06/ 2021-22	Do	Do	Yes	No	Contractor didn't submit C-EHSMP
W- 09/2021-2022	Do	Do	Yes	No	Do
W-10/2021-2022	Physical work yet to start				Contract not awarded
W-11/2021-2022	i) Establishment and clearance of work sites and worker's camps ii) filling ditch, ramp construction, ghogs-rain cut-slope repairing. iii) Repair of regulator	Do	Yes	No	Contractor didn't submit C-EHSMP
W-16/2021-2022	Physical work yet to start	Completed			Contract not awarded

Table 5-2: EMP implementation status during January-June 2023

Project Activity (List from EIA)	Potential Impact (List from EIA)	Proposed Mitigation Measures as per EIA	Actual Implementation	Compliance Status (NC/PC/ FC)	Action Required (if any)
Riverbank Protection work					
Air quality	Minor amount of dust may be generated during the works	Mitigation: Water to be sprinkled on regular intervals, as and where required	Water sprinkled where required	W-01, W-03, W-04 & W-05 = FC W-02, W-09 & W-11= PC	
Noise	Low impacts would be caused during excavation & dredging of soil, operation of mixture machine and vehicular movements	Mitigation: Working hours to be restricted to 8:00 AM to 5:00 PM only; Noise levels due to vehicular movement, excavation and dredging activities are to be kept within permissible limit; proper silencers on machinery, equipment and boat to be installed	There was no equipment working at site. The working place is in remote area. So this item is not applicable.	n/a	
Surface water quality	Surface water quality might be affected due to the disposal of waste generated from labourers into the river.	Proper waste disposal system is to be implemented	Waste disposal system and drainage maintained	W-01, W-03, W-04 & W-05 = FC W-02, W-09 & W-11= PC	
Health and safety	Unsanitary and unsafe conditions on site leading to illness and accidents	Proper sanitary facilities to be provided on site Sufficient and proper gangways to be provided on boats and landings PPE equipment available on e.b. boats	-Sanitary facilities established -Gangway provided - PPE available - COVID-19, Regular heal	W-01,W-03, W-04 ,W-05 W-02, W-09 & W-11 = FC	

Project Activity (List from EIA)	Potential Impact (List from EIA)	Proposed Mitigation Measures as per EIA	Actual Implementation	Compliance Status (NC/PC/ FC)	Action Required (if any)
	Risk of spread of coronavirus disease (COVID-19).	Prepare and implement a comprehensive COVID-19 Health and Safety Guidance following i) following national regulations and health advice, and (ii) international good practice recommendations. The guidance should include the protocols on the following: (i) Prerequisite measures before opening the worksites; (ii) Worksite entrance ; (iii) Worksite management; (iv) Camp management; (v) Worksite awareness-raising; (vi) Risk exposure assessment guidance; (vii) Engage an employee/staff to oversee health and safety issues, and (viii) Monitoring and reporting mechanism. The protocols should include requirements on wearing masks and PPE, physical distancing, hand washing, disinfection, checking body temperature, ventilation, management of waste, awareness, and morning briefings. Conduct training on worksite and prepare on-site plan as per H&S	check, Disinfection in worker camps, awareness signboard are provided		
Employment	Temporary employment will be created for labourers	Ensure employment for local people for both technical and non-technical works. If possible	More than 60% labour were recruited locally	W-01,W-03, W-04 ,W-05 W-02, W-09 & W-11 = FC	

Project Activity (List from EIA)	Potential Impact (List from EIA)	Proposed Mitigation Measures as per EIA	Actual Implementation	Compliance Status (NC/PC/ FC)	Action Required (if any)
		at least 60% labour should be recruited locally			

6. COMPLIANCE STATUS WITH HEALTH AND SAFETY

Table 6-1: Compliance status of Health and Safety

Health & Safety items	Package W-01	Package W-02	Package W-03	Package W-04	Package W-05	Package W-06	Package W-09	Package W-11
Camp site security measures (Worksite entrance & Fencing)	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Supply and implementation of PPEs	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Accident/Incident information	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
First Aid provision	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Toolbox talk (Awareness to avoid accident)	Yes	No	No	No	Yes	Yes	No	No
Covid-19 management	Yes	No	No	No	Yes	Yes	No	No
Lifebuoys (min. 2 nos. in each barge)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	n/a
Warning sign and signal at site.	Yes	No	No	No	Yes	Yes	No	No
Engagement of	Yes	No	No	No	Yes	Yes	No	No

Nurse								
Employed full time Safety Inspector	Yes	No	No	No	Yes	Yes	No	No
Employed full time Environmental Inspector	Yes	No	Yes	Yes	Yes	Yes	No	No

7. APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

16. The focal person for environmental safeguards from PMO and site officials from SMOs are regularly monitoring the environmental issues during their regular site visits. The ISPMC team have been mobilized on 22 August 2022, they are supporting PMO for monitoring on environmental safeguards since then and submitting Environmental monitoring report on monthly basis. The itinerary of the monitoring visits are provided in the following table

17. Table 7-1: Itinerary of monitoring visits at construction sites during Jan-Jun 2023

Sl. No.	Date of monitoring	Name of the Packages	Location	Conducted by
1	Mar. 30, Apr. 17, May 21, Jun 21	W-01/2021-22	Benotia, Shajatpur, Sirajgonj	Md. Shaheen Reja, SDE, SMO-Koitola Abdullah Al Arafat Junior Engineer, ISPMC
2	Mar. 18 Apr. 15	W-01/2021-22	Do	Md. Amir Faisal Environmental Specialist, ISPMC
3	Apr. 17, Jun 19	W-02/2021-22	Enayetpur Belkuchi, Sirajgonj	Abdullah Al Arafat Junior Engineer, ISPMC
4	Jun 19	W-02/2021-22	Do	Md. Amir Faisal Environmental Specialist, ISPMC
5	Apr. 13, 18 May 21	W-03/2021-22	Chauhali Sirajgonj	Md. Imdadul Hoque, SDE, SMO-Tangail. Abdullah Al Arafat

	Jun.19			Junior Engineer, ISPMC
6	May 21	W-03/2021-22	Do	Md. Amir Faisal Environmental Specialist, ISPMC
7	Apr. 13, 18 May 21	W-04/2021-22	Chauhali Sirajgonj	Abdullah Al Arafat Junior Engineer, ISPMC
8	May 21	W-04/2021-22	Do	Md. Amir Faisal Environmental Specialist, ISPMC
9	Mar. 02, 06 & 14 Apr. 27 & 28 May. 22	W-05/2021-22	Harirumpur Manikgonj	Abdullah Al Arafat Junior Engineer, ISPMC
10	Mar 14, Jun 13	W-05/2021-22	Do	K.M. Saki Ingil, AE, PMO Md. Amir Faisal Environmental Specialist, ISPMC
11	May 21, Jun 20	W-06/2021-22	Benotia, Shajatpur	Abdullah Al Arafat Junior Engineer, ISPMC
13	Jun 20	W-11/2021-22	Koijuri Shajadpur	Abdullah Al Arafat Junior Engineer, ISPMC

8. Training

18. Total 6 (six) numbers of training on Environment, Health and safety were given to three SMO and the contractors who received contract award for riverbank protection works. The cumulative no. of participants upto 30 June 2023 was 29. The following trainings were conducted by ISPMC.

Table 8-1 : Trainings

Date & Venue	Name of SMO/Contractor	Name of Recipients	Name of Trainer
13-Feb-2023 Tangail BWDB rest house	Tangail O&M Division	Md. Shazzad Hossain, EE Md. Imdadul Haque, SDE Kh. Mizanur Rahman Shelley, SDE Md. Mojidul Islam Moznu, SAE Mohammad Saidur Rahman, SAE Salaiman Bhuian, SAE	Md. Amir Faisal, Env. Specialist, ISPMC Douglas White, Construction/Quality Control Engr, ISPMC
21-Feb-2023 Sirajgonj BWDB rest House	Koitala BWDB Division	Md. Mahbubur Rahman, EE Md. Shaheen Reza, SDE Md. Shamim Al-Mamun, SAE Md. Shahinur Islam, SAE Md. Al Amin, SAE	Do
01-Mar-2023 Manikgonj BWDB rest House	Manikgonj BWDB Division	Md. Mayn Uddin, EE Md. Abul Kalam Azad, SDE Md. Moniruzzaman, SAE Shahinur Rahman, SAE Md. Helaluzzaman, SAE Md. Salamat Fakir, SAE	Do
01-Mar-2023 Manikgonj BWDB rest House	JV. Md Jamil Iqbal – Sk Emdadul Haque Al Mamun Package W-05	Md. Zahin Rahman, Field Engineer Prodip Biswas. Safety Inspector Sudipto Goon, Field Engineer Nahid Parves Lafsu, project Manager	Do
04 Mar-2023 Tangail BWDB rest house	KCEL - BECL JV Package W-03 & W-04	Engr. I.H.Siddique, Project Engineer Md. Nurul Islam, Env. Inspector Md. Sohel Rana, Surveyor A.S.M Shakil Bin Alam, Site Engr	Do
18 Mar-2023 Sirajgonj BWDB	Golam Rabbani Construction Ltd Package W-01 & 02	Md. Rajwan Uddin, Safety Inspector Ab. Momin, Env. Inspector Md. Noor-A-Alam, CM	Do

Date & Venue	Name of SMO/Contractor	Name of Recipients	Name of Trainer
rest House		Golam Rabbani, Contractor	

9. MONITORING OF ENVIRONMENTAL IMPACTS ON PROJECT SURROUNDINGS (AMBIENT AIR, WATER QUALITY AND NOISE LEVEL) FOR PROJECT 1

19. As instructed in the Bill of quantities of the contract, the contractor engaged the public university environment department for conducting the following parameters of the environment. The environment people from the university took the sample and gave the test report. The results are provided in the following tables

Table 9-1: Air Quality Results

Package No.	Date of Sampling	Site Location	Parameters (Government Standards-Air pollution control Rules, 2022)					
			PM 2.5 Mg/m3		PM 10 Mg/m3		SPM	
			Test result	Std.	Test result	Std.	Test result	Std.
W-05	23 June 2023	Harirumpur	17	35	19	50	25.67	

Table 9-2: Surface Water Quality Results

Package No.	Date of Sampling	Site Location	Parameters (Government Standards-Environmental Conservation Rules 2023)									
			pH		DO (mg/L)		BOD mg/L		TDS mg/L		As mg/L	
			Test result	Ref.	Test result	Ref.	Test result	Ref.	Test result	Ref.	Test result	Ref.
W-03	11.04.23	Chauhali	7.3	6.5-8.5	5.8	≥6	1.8	≤2	0	1000	0	0.05
W-04	11.04.23	u/s of chauhali	7.1	6.5-8.5	5.9	≥6	1.71	≤2	0	2100	0	0.05

W-05	23.06.23	Harirampur	7.4	6.5-8.5	5.4	≥6	.003	≤2	0.38	2100		

Table 9-3: Drinking Water Quality Results

Package No.	Date of testing	Site Location	Parameters (With Government Standards)									
			Fe (mg/L)		As (mg/L)		Ca mg/L		Mg mg/L		EC (mS/cm)	
			Test result	Ref.	Test result	Ref.	Test result	Ref.	Test result	Ref.	Test result	Ref.
W-03	11.04.23	Chauhali	0.947	0.30-1.00	0.022	0.05	55.35	-	24.99	-		
W-04	11.04.23	u/s of Chauhali	0.942	0.30-1.00	0.027	0.05	55.35	-	24.94	-	0	-
W-05	23.06.23	Rarirampur			0.00	0.05						

Table 9-4: Noise Quality Results

Package No.	Date of Testing	Site Location	LAeg (dBA) (Government Standard)			
			Day Time		Night Time	
			Test result	Std.	Test result	Std.
W-03	07.06.23	Chauhali	54.26	55		45
W-04	07.06.23	u/s of Chauhali	81.46	55		45
W-05	23.06.23	Harirampur	50	55		45

10. SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

20. The health and safety issues in all the sites should be considered priority. Given the ongoing heatwave conditions in Bangladesh, it is recommended that the Contractor takes additional precautions to protect the labourers from heatstroke including arranging suitable shade on the barges to take rest

during gap period, supply of drinking water with oral saline, rotation of work to reduce exposure, and conduct emergency drills to provide medical assistance in the event of a labourer falling unwell. The Environmental and Safety inspector should be engaged full time exclusively for Environmental and safety issues. It was observed that both the inspectors have other works to do. Nurse of the all the sites were not engaged, where engaged were not found attending full time during working hours. Life jackets should be kept in all speed boats/country boats .

21. Out of 08 working contractors only 03 numbers contractors submitted Contractor's Environmental, Health & Safety Management Plan (CEHSMP) to the Project Manager. As per requirements, Ambient Air quality, Surface water quality test , Drinking water quality test, Noise quality monitoring test would be done twice in a year. Two numbers of contractors conducted the above mentioned tests. As the work progressed for three months, the tests would be done at least one time during this time. So, instruction should be given to the Contractor to conduct the above tests immediately.
22. Extension of Kaijuri Embankment (7.9 km) is urgent to protect the JRB-1 from extreme flooding during monsoon. Without this rest 7.9 km of planned 29 km FRERMIP Embankment, completed 21.3 km embankment will not come in use for flood control for this sub-project area. Construction of this 7.9 km is included in Project 2.
23. Due to time constraint the floodplain & river fish sanctuaries has been dropped from Project 2, but the bidding process could be done in this Project so that the implementation of the said sanctuaries may be taken up in the follow on project. Necessary steps should be taken for the study on Environment/biodiversity and social baseline impact and fisheries (C-15)

11. RECOMMENDATION AND CONCLUSION

24. The five contractor needs to submit CEHSMP immediately so that site specific EMP could be complied in accordance with the EIA and EMP of the Project. SMO should ask the concerned contractor to submit CEHSMP immediately. Full time Environmental, Safety inspector and Nurse should be engaged in all sites. The Non-Compliance issues and corrective measures with timeline are shown in the following table

Table 11-1: Corrective Action Plan for July - December 2023

Non-Compliance Issues	Package	Recommended Corrective Measures	Timeline	Responsibility
Submission of C-EHSMP	W-02, W-06, W-09, W-11	Submit to the PM and PM to approve	07 Sept. 2023	Contractor and PM
Engagement of Nurse	W-09, W-11	Engage full time Nurse	15 Sept. 2023	Contractor
Employed full time Safety Inspector	W-02, W-03, W-04, W-09 & W-11	Employ full time Safety Inspector with adequate knowledge	15 Sept. 2023	Contractor
Employed full time Environmental	W-02, W-09 & W-11	Employ full time Environmental Inspector with adequate knowledge	15 Sept. 2023	Contractor

Non-Compliance Issues	Package	Recommended Corrective Measures	Timeline	Responsibility
Inspector				
Toolbox talk	W-02, W-03, W-04, W-09 & W-11	Conduct regular Tool box talk with proper documentation	01 Oct, 2023	Contractor
Supply and implementation of PPEs	W-09 & W-11	Supply of adequate number of PPE and practice for use of PPE	01 Oct, 2023	Contractor
Warning sign and signal at site.	W-02, W-03, W-04, W-09 & W-11	Adequate number of warning sign and signal should be erected	01 Oct, 2023	Contractor

25. As a part of mitigation measure for heatwave the Contractors to provide i) suitable shade on the barges to shelter workforce from the direct sun during dumping activities; ii) Workforce to be provided with adequate supply of drinking water along with oral saline solution iii) rotation of shift work to reduce exposure iv) Conduct emergency drills to provide medical assistance in the event of a labourer falling unwell v) Contractors to stop work during period where temperatures exceed 39°C.
26. A single GRM will ensure that the affected people's concerns and grievances on the project's environmental and social issues are receive. As Project 2 have the same area of Project 1, the GRM established in Project 1 will also work in Project 2. Formation of GRCs should be expedited. PMO, SMO and main consultant ISPMC should take about proper functioning of the GRM till the project period. A grievance collection box for the workers and local people should be kept at each working site until the end of the MFF period, which may be disclosed to the surrounding area.
27. It remains necessary to confirm that the Project remains alert and could take adequate precautionary measures to identify, prevent, and minimize the spread of COVID-19. This includes enhancement of awareness of workforce, training of medical staff on COVID- 19, establishing isolation & quarantine facilities, dealing with COVID positive patients, transportation of sick person to local or other medical services etc. The contractor should take adequate measure in labour camp shed to prevent dengue which is prevailing in worst situation all over the country
28. Training on Environmental monitoring, Environmental health and safety compliance, international law and concerned compliance to concerned safeguard personnel working in PMO and SMOs and construction contractor should be conducted frequently.

APPENDIX-1: Application to the DoE for renewal of the ECC

Received
31.07.23

বাংলাদেশ পানি উন্নয়ন বোর্ড
BANGLADESH WATER DEVELOPMENT BOARD

Project Management Office: PMO-FRERMIP
Flood and Riverbank Erosion Risk
Management Investment Program
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72 Green Road, Dhaka-1205.
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E-mail: pdjmremp@gmail.com



প্রকল্প ব্যবস্থাপনা দপ্তর :পিএমও-এফআরইআরএমআইপি
ফ্লাড এন্ড রিভার ব্যাংক ইরোশন রিস্ক ম্যানেজমেন্ট
ইনভেস্টমেন্ট প্রোগ্রাম
পানি ভবন, লেভেল-১০, ব্লক-বি এবং ডি
৭২ গ্রীন রোড, ঢাকা-১২০৫।
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ই-মেইল: pdjmremp@gmail.com

Memo No: PMO-FRERMIP/E-1/62 Date: 30 July 2023

The Director General
Department of Environment
Dhaka

Subject: Request for the Renewal of the Environment Clearance Certificate (ECC)

Ref. 1: Clearance No:22.02.0000.018.72.084.20-20
Ref 2: Online Application File no.: 110548, Date: 22.12.2022

(Attention: Director, Clearance, DoE)

Dear Sir,

With due respect, this is to inform you, that Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP)-Project 2 was approved on 25 January 2022. The project is being financed by ADB and Government of Netherlands. The environment clearance of this project was valid upto 12.12.2022. Upon expiration of the certificate, it was applied for renewal immediately on 12.12.2022 via online (Ref.: 2) with all necessary documents and applicable payments. But the renewal certificate is not issued yet from DoE.

So, I would like to request you to kindly take necessary steps for issuing of the renewal of ECC.

Enclosure:

1. Completed online application (File no.: 110548, Date: 12.12.2022)
2. Application fee treasury challan copy
3. VAT Challan Copy
4. ECC Copy and Renewal (1st) copy

Sincerely
30.07.2023

(Md. Ruhul Amin)
Project Director/
Additional Chief Engineer
FRERMIP (Project-2)

Copy:

1. Additional Director General (West Region), BWDB, Dhaka
2. Superintending Engineer, PMO-FRERMIP (Project-2), BWDB, Dhaka.
3. Country Director, BRM, ADB
4. Office Copy.

APPENDIX-2: Site photographs on safeguard monitoring activities



1. Fuel and lubricant were placed on concrete surface.



2. Nurse with emergency medicine and medical instrument



3. Hygienic toilets for office staff and visitors.



4. Toilets for labors.



5. Labor sheds.



6. Tube well with protected base.



7. Waste disposal system.



8. Topsoil preservation.



9. Toilet with sock pit.



10. Site office fencing with safety signboard.



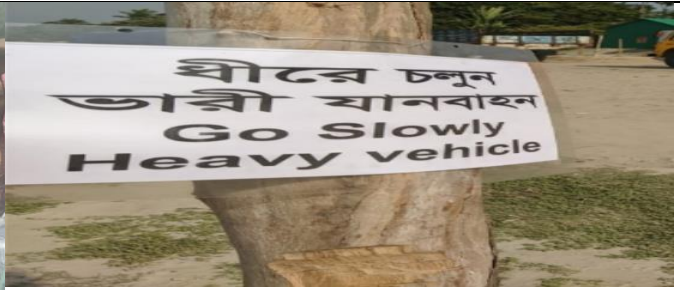
11. Toolbox Talk.



12. Spraying of water for dust suppression



13. Health inspection of the worker.



14. Traffic management signboards.



15. Distribution of medicine elements.



16. Safety signboards.

**APPENDIX-3: Sample Grievance Redress form to be used at
REREMIP-P2 sites**

Name of SMO level GRC:

Package no:

Sl. No.	Date of receive of Grievance with name of the complainer	Description of the Grievance	Resolve by GRC with date	Not resolved. Sent to PD with date	Decision of the PD	Remarks
1	2	3	4	5	6	7

**APPENDIX-4: Environmental monitoring checklist completed by
the consultants**

FRERMIP, Project-2–Monthly Monitoring of EHS Implementation

Benotia underwater riverbank protection site

Package No. W-01/2021-2022

June 2023

This monitoring form includes four parts, i.e.:

PART 1: General Project information, findings, and recommendations.

PART 2: Monitoring Contractor's Environmental, Health & Safety at Site Compliance.

PART 3: Compliance.

PART 4: Pictures taken during the monitoring visit.

This report has been prepared in combination with on the technical specification, BoQ of the contract agreement and the EIA of the project 2.

PART 1 – General Project Information, Findings and Recommendations

1-A. Location, key contacts, and report

Sub-Project	JRB-1		
Location:	Benotia	Monitoring report:	R-4
Date of visit:	During June	Date:	05-July-2023
Contract Package:	W-01/2021-2022	By:	Md. Amir Faisal Environmental Specialist, ISPMC Abdullah Al Arafat Junior Engineer, ISPMC
Contractor:	Golam Rabbani Construction Ltd.		
Contractor's contact:	Md. Noor A. Alam Khan Contractors' Manager		
BWDB's contact:	Md. Mahbubur Rahman Executive Engineer, BWDB, Kaitola.		

On-site ISPMC Consultant's contact	Al. Amin Junior Engineer.		
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1-B. Main Contract features

Current Contract	Protection of the right bank of Jamuna River over 3.50 km by dumping geobags on the riverbank at Benotia Upazila Shajadpur Dist.Sirajgonj, Contract Package No. is W-01/2021-2022. Main contract activities are establishment and clearance of work sites and worker's camps, sand mining, transport of sand to filling areas, filling, and dumping of geobags on/from barges.
Start of the works	23 March 2023
End of the works	-

1-C. Persons met during the visits –

	Party	Name	Position
1	BWDB/SMO	Shahinur Islam	SAE/SO BWDB, Kaitola.
2	Contractor	Md. Noor A. Alam Khan	Contractors' Manager.
3	Supervising Consultant	Al. Amin	Junior Engineer. ISPMC

1-D. Persons met during previous visits.

	Party	Name	Position
1	Contractor	Md. Noor A. Alam Khan	Contractors' Manager.
2	Supervising Consultant	Al. Amin	Junior Engineer. ISPMC

Contractor's EHS Staff

	Position	Name	Contact details
1	Environmental Inspector	Mominul Islam	01836697367
2	Safety Inspector	Reza Ahmed Hero	01733486884
3	Nurse	Shafiqul Islam	01886859825

1-D. Summary of observations

The Contractor submitted their EHSMP, ISPMC reviewed it and the Contractor updated EHSMP and resubmitted to the XEN for approval.

Environmental Inspector, Safety Inspector and Nurse were available in full month. Toolbox talk and regular health inspection were done on a regular basis at the site. Disinfections were done at the worker's camp. The monthly EMP report and safety report were submitted for the month of June.

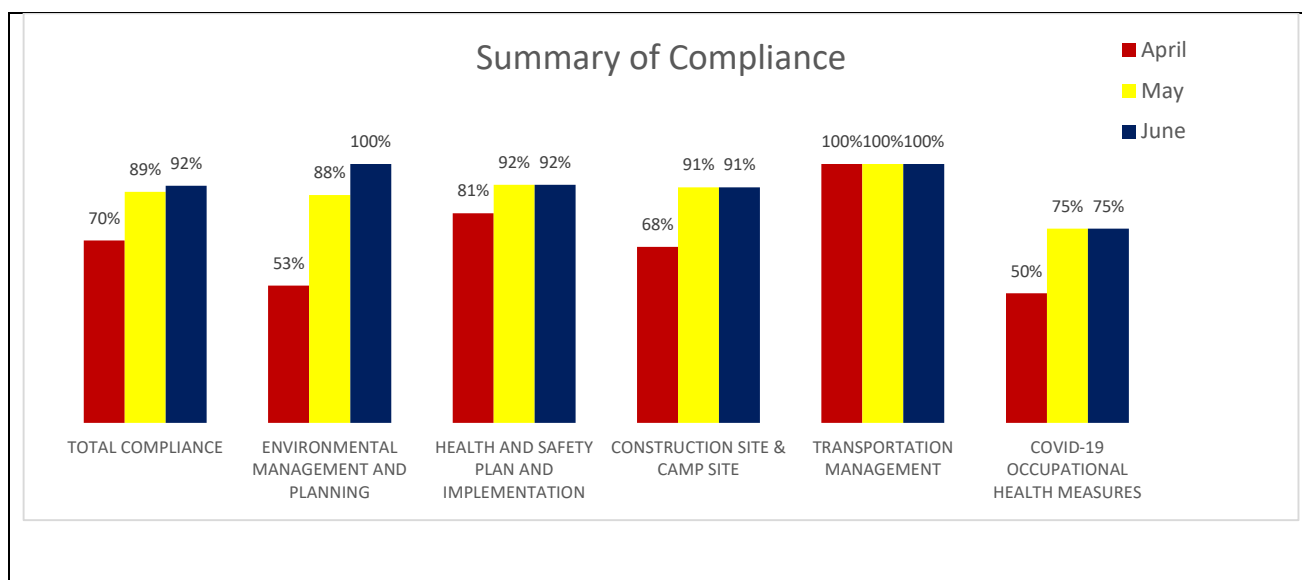
As per contract, two lifebuoys were kept on every barge and life jackets were provided in speedboats and country boats. Waste bins were found at the site office and a domestic waste management system was in place. But no designated area prepare for temporary storage of constructional wastes deposit. Safety signs and signals were erected at the site. Fuel and lubricant were found on brick soling without cement concrete base. It was suggested to make c.c base to keep fuel and lubricants. Two numbers of tube wells were installed with pacca basement near labor shed.

The work was stopped at 25th June due to Eid vacation and workers was not available from 26th June.

The water level was rising, and the current flow was increasing every day in June. So, it was recommended to take necessary steps to prevent risk due to turbulent flow of river. If the weather condition becomes worse, it is recommended to stop moving over river. Diving teams should be alerted during monsoon season to prevent life risk due to unexpected accidents during full season.

As per requirements, Ambient Air quality (PM 10, PM 2.5, SPM), Surface water quality test (PH, Conductivity, Do, BOD, TDS, As etc.), Drinking water quality test (Drinking As+, Tc/Fe+), Noise quality monitoring test would be done twice in a year. As the work progressed for four months, the tests would be done at least one time during this time. So, instruction should be given to the Contractor to conduct the above tests immediately.

This compliance report is prepared based on daily site records and site visits during June 2023. The Contractor's performance for the monitoring month and previous two months are provided in the figure below. The overall compliance was 92% for June 2023.



1E. Circulation (recommended)

BWDB / PMO office – Dhaka BWDB / SMO office – Contractor’s Resident Engineer – Consultant’s Supervising Engineer – Consultant’s Site Engineer –	
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PART 2 – Monitoring Contractor’s Environmental, Health & Safety at Site Compliance

ENVIRONMENTAL MANAGEMENT AND PLANNING							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
CEHMP (1.4.7)	Submission of Contractor's Environmental Health & Safety management plan.	1			The contractor's representative already submitted the CEHMP to SMO which was reviewed by ISPMC for approval.	3	3
Air & noise (1.4.7.2)	Spraying water on dry surfaces (roads and work sites)	1			Spraying of water was done to camp site and near site office.	3	3

	Noise cancellation at work sites.				There was no equipment working at site. The working place is in so remote area that this item is not applicable.	-	-
Water Supply & Sanitation facilities (1.4.7.6)	Drinking Water supply.	1			Tube well was installed with concrete floor and disposal system. And drinking water was available on barges.	3	3
	Sanitation (toilets etc.)	1			Sanitary toilets were prepared for visitors and laborers.	2	2
Environm ental Inspector (1.4.7.1)	Employing one full-time Environmental inspector.	1			Environmental inspector was available at site.	3	3
	Monthly EMP reporting.	1			Template was provided to contractor and submitted the report.	3	3
Tests (1.4.7)	Ambient Air quality (PM 10, PM 2.5, SPM)				Not done yet. Should be done two times in a year.	-	-
	Surface water quality test (PH, Conductivity, Do, BOD, TDS, As etc.)				Not done yet. Should be done two times in a year.	-	-
	Drinking water quality test (Drinking As+, Tc/Fe+)				Not done yet. Should be done two times in a year	-	-
	Noise quality monitoring.				Not done yet. Should be done two times in a year.	-	-
	Total					17	17
ENVIRONMENTAL MANAGEMENT AND PLANNING SCORE =						100%	

HEALTH AND SAFETY PLAN AND IMPLEMENTATION							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
First aid services (1.4.7.1 & 1.4.7.6)	First Aid kit (box)	1			First Aid Kit (box) was available in site office and on every barges.	2	2
	Awareness to avoid accident (Toolbox talk)	1			Toolboxes talk started and register book was maintained properly.	2	2
	Health inspection & vaccination to workers.	1			Regular health inspection & oral saline were provided regularly.	1	1
Safety equipment to prevent accidents / injuries. (1.4.7.1 & 1.4.7.6)	Using of PPE (Helmets, life jackets, musk, gloves etc.)	1			Using of PPE was found to Contactor’s Engineer.	3	3
	Lifebuoys (min. 2 nos. in each barge)	1			Two lifebuoys were found properly in every barges.	3	3
	Warning sign and signal at site.	1			Warning sign and signage were available at site.	2	2
Full-time Safety Inspector (1.4.7.1 & 1.4.7.6)	Employed / on-site.	1			Inspector has been engaged.	3	3
	Monthly safety report.	1			Template was provided to contractor and submitted the report.	3	3
Nurse for First-aid services (1.4.7.1 & 1.4.7.6)	Engagement of Nurse.	1			Nurse has been engaged at site.	3	3
	Actions on sudden accidental events.				No accident was not occurred in June.	-	-
	Reporting of accidents within 24 h.		1		Contractor has still not submitted their report on the fatal accident which occurred on 07 April.	2	0
	Total					24	22
HEALTH AND SAFETY PLAN AND IMPLEMENTATION SCORE=						92%	

CONSTRUCTION SITE & CAMP SITE MANAGEMENT							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
Waste disposal & leakage of polluting substance (1.4.7.4 & 1.4.7.5)	Lubricants and fuel.	1			Fuel and lubricant containers were found kept on hard surface and protected roof.	3	3
	Construction waste disposal at work sites.		1		Designated area did not prepare for temporary storage of constructional wastes.	2	0
	Waste disposal at worker camps.	1			Waste disposal management was found at workers' camp.	2	2
	Domestic waste disposal.	1			Arrangement for disposal of domestic waste was found. Sufficient bins and collecting points were arranged.	2	2
Maintenance (1.4.7)	Site fencing	1			Protective fencing was provided.	2	2
	Maintenance of temporary roads.	1			Maintained temporary road.	2	2
	Building maintenance.	1			Maintenance was found.	2	2
Land Use (1.4.7.3)	Topsoil removal/preservation	1			Topsoil was found to preserve.	2	2
	Restoring surface vegetation at work				These will be done after completion of work	-	-

	sites.						
Sand mining (1.4.7)	Mining in accordance with approvals.	1			Necessary permission was sought.	3	3
	Compensation of land loss (crops, structure, trees)	1			Compensation provided for land used temporarily	2	2
	Total					22	20
CONSTRUCTION SITE & CAMP SITE MANAGEMENT SCORE=						91%	
TRANSPORTATION MANAGEMENT							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
Road (1.4.7)	Road inspections	1			A video was recorded of present condition of approach road.	2	2
	Road use & maintenance.				Maintenance was not required yet.	-	-
Signals (1.4.7)	Traffic control signboards.	1			Traffic signboards were available.	3	3
	Total					5	5
TRANSPORTATION MANAGEMENT SCORE=						100%	

COVID-19 OCCUPATIONAL HEALTH MEASURES							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
COVID-19 (1.4.7.6)	Compliance of COVID-19 protocols	1			Protocols were maintained.	2	2
	Prepare a comprehensive COVID-19 guidance plan		1		Comprehensive COVID-19 guidance plan was not found. Should prepare guidance and submit to SMO as early as possible.	2	0
	Worksite entrance				As the Covid situation is under control all over the country this item is not applicable	-	-

	Worksite awareness raising	1			Awareness raising signboard & signage were provided	2	2
	Physical distancing				As the Covid situation is under control all over the country this item is not applicable	-	-
	Hand washing				As the Covid situation is under control all over the country this item is not applicable	-	-
	Disinfection	1			Contractor informed disinfection was done.	2	2
	Checking body temperature				As the Covid situation is under control all over the country this item is not applicable	-	-
	Regular briefing/training on preventive requirement				As the Covid situation is under control all over the country this item is not applicable	-	-
	Total					8	6
COVID-19 OCCUPATIONAL HEALTH MEASURES SCORE=						75%	

Other matters:

Grievance Redress Mechanism (GRM)

Ref: Chapter 9.2 of EIA

No information of formation of **Grievance Redress Mechanism (GRM)** was received. The SMO was advised to form the GRC if it did not exist.

PART 3 – Compliance

The Contractor shall comply with relevant government environmental policies and regulations, mitigation measures as defined in the environmental management plan and the gender action plan.

No.	Item	Penalty/deduction	Measurement/ Remark
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1.	Environmental Inspector	Non-payment of time the Inspector is not on site. In addition, penalty of 30% of the salary deducted for time does not present	Time sheet
2.	Safety Inspector	Non-payment of time the Inspector is not on site. In addition, penalty of 30% of the salary deducted for time does not present	Time sheet
3.	Nurse	Non-payment of time the Nurse is not on site. In addition, penalty of 30% of the salary deducted for time does not present	Time sheet
4.	Air and noise	Penalty of BDT 5,000 per day of non-compliance	Site engineer report
5.	Pollution	Penalty of BDT 5,000 per day of non-compliance	Site engineer report
6.	Life preservers	Penalty of BDT 10,000 per day of non-compliance in addition to deduction of line item	Site engineer report

PART 4– Pictures taken during the visit at Package W-01 site.



1. Fuel and lubricant were placed with hard surface.



2. Toolbox Talk.



3. Unhygienic and inadequate toilets for labors.



4. Hygienic toilets with sock pit for visitors.



5. Supplying drinking water on barges.



6. Tube well was found with concrete floor and proper disposal system.



7. Safety Signboards.



8. Waste disposal points.



9. First Aid-kits



10. Health checking at morning.

FRERMIP, Project-2– Monthly Monitoring of EHS Implementation

Harirampur underwater riverbank protection site

Package No. W-05/2021-2022

June 2023

This monitoring form includes four parts, i.e.:

PART 1: General Project information, findings, and recommendations.

PART 2: Monitoring Contractor's Environmental, Health & Safety at Site Compliance.

PART 3: Compliance.

PART 4: Pictures taken during the monitoring visit.

This report has been prepared in combination with on the technical specification, BoQ of the contract agreement and the EIA of the project 2.

PART 1 – General Project Information, Findings and Recommendations

1-A. Location, key contacts, and report

Sub-Project	PLB-1		
Location:	Harirampur	Monitoring report:	R-4
Date of visit:	During June	Date:	05-July-2023
Contract Package:	W-05/2021-2022	By:	Md. Amir Faisal Environmental Specialist, ISPMC Abdullah Al Arafat Junior Engineer, ISPMC
Contractor:	JV. M/S MD JAMIL IQBAL-SK. EMDADUL HAQUE AL MAMUN		
Contractor's contact:	Nahid Parves Lafsu Project Manager		
BWDB's contact:	Md. Mayn Uddin Executive Engineer, BWDB, Manikganj.		
On-site ISPMC Consultant's	Md. Aman Ullah		

contact	Site Engineer, ISPMC		
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1-B. Main Contract features

Current Contract	Protection of the left bank of Padma River over 4.00 km by dumping sandbags on the riverbank at Harirampur Upazila Harirampur Dist. Manikgonj, Contract Package No. is W-05/2021-2022. Main contract activities are establishment and clearance of work sites and worker's camps, sand mining, transport of sand to filling areas, filling, and dumping of sandbags on/from barges.
Start of the works	23 February 2023
End of the works	31 March 2024

1-C. Persons met during visits –

	Party	Name	Position
1	BWDB/SMO	Shahinur Rahman	SAE, BWDB, Manikganj.
2	Contractor	Nahid Parves Lafsu	Contractors' Manager
3	Supervising Consultant	Md. Aman Ullah	Site Engineer, ISPMC

1-D. Persons met during previous visit

	Party	Name	Position
1	Contractor	Nahid Parves Lafsu	Project Manager
2	Supervising Consultant	Md. Aman Ullah	Site Engineer, ISPMC

1-E. Contractor's EHS Staff

	Position	Name	Contact details
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1	Environmental Inspector	Zahin Rahman	-
2	Safety Inspector	Pradip Biswas	01737281540
3	Nurse	Fatema Perveen	01642603954

1-F. Summary of observations

The Contractor submitted their EHSMP, ISPMC reviewed it and the Contractor updated EHSMP and resubmitted to the XEN for approval.

The Environmental Inspector has been appointed, but he was not present at site. A safety inspector has been appointed by the Contractor and found at site. A nurse has been appointed but during the whole month of June she was absent at site and did not carry out health screening of the labourers. The monthly EMP report and safety report were submitted for the month of June.

Establishment of Site office, construction of toilets, and installation of tube wells were done. However, some tube wells have been constructed within only a few meters of the toilets, which poses a significant health risk to the labourers. The Contractor was instructed to clearly mark these tube wells as 'Not for Drinking Water' and provide an alternative supply.

Waste bins were noticed at the site office and labor camp and a waste management system was in place. But it was observed that plastic threat cone was lying haphazardly.

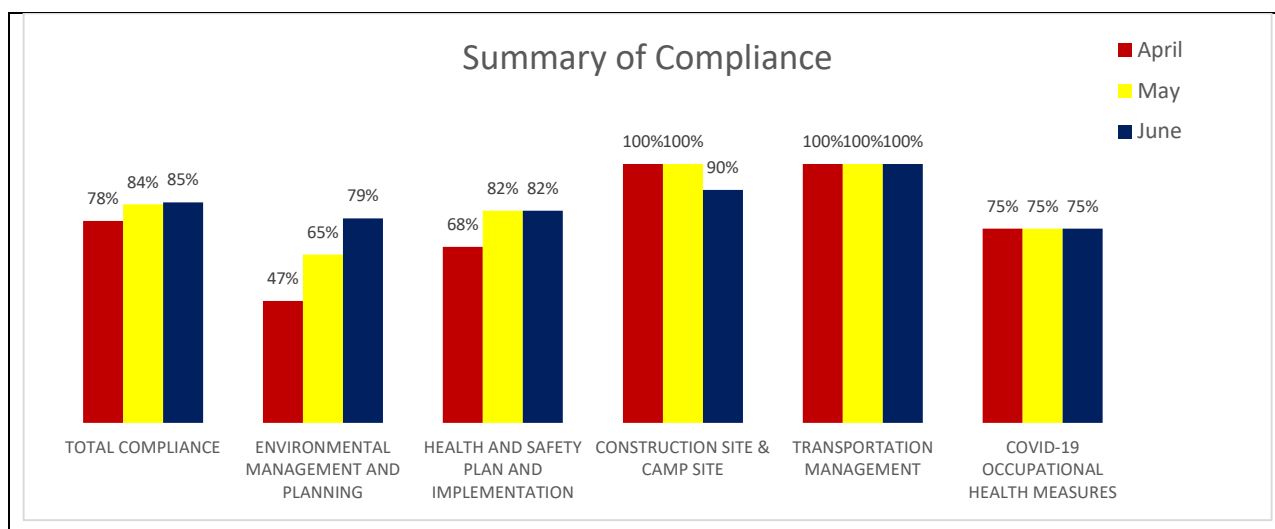
Two lifebuoys were kept on every barge and life jackets were provided in speed boats and country boats.

The water level was rising, and the current flow was increasing every day in June. So, it was recommended to take necessary steps to prevent risk due to turbulent flow of river. If the weather condition becomes worse, it is recommended to stop moving over river. Diving teams should be alerted during monsoon season to prevent life risk due to unexpected accidents during full season.

Work was stopped at 25th June due to Eid vacation.

As per requirements, Ambient Air quality (PM 10, PM 2.5, SPM), Surface water quality test (PH, Conductivity, Do, BOD, TDS, As etc.), Drinking water quality test (Drinking As+, Tc/Fe+), Noise quality monitoring test would be done twice in a year. The Contractor have conducted the required tests. Sample collection was done in June, report was submitted to SMO. The results of test are satisfactory.

This compliance report is prepared based on daily site records and site visits during June 2023. The Contractor's performance for the monitoring month and previous two months are provided in the figure below. The overall compliance was 85% in June 2023.



1G. Circulation (recommended)

BWDB / PMO office – Dhaka BWDB / SMO office – Contractor's Resident Engineer – Consultant's Supervising Engineer – Consultant's Site Engineer –	
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PART 2 – Monitoring Contractor's Environmental, Health & Safety at Site Compliance

ENVIRONMENTAL MANAGEMENT AND PLANNING							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
CEHMP (1.4.7)	Submission of Contractor's Environmental Health & Safety management plan	1			The contractor's representative submitted the CEHMP to SMO and approved by SMO.	3	3
Air & noise (1.4.7.2)	Spraying water on dry surfaces (roads and work sites)	1			Spraying of water was done to camp site and near site office. It should be done several times in a day in dry season.	3	3

	Noise cancellation at work sites.				There was no equipment working at site. The working place is in so remote area that this item is not applicable.	-	-
Water Supply & Sanitation facilities (1.4.7.6)	Drinking Water supply		1		Four numbers of tube well were installed based on Pucca floor. However, some tube wells have been constructed within only a few metres of the toilets, which poses a significant health risk to the labourers. It was recommended to erect sign but was not taken necessary steps by the Contractor.	3	0
	Sanitation (toilets etc.)	1			Enough sanitary toilets were prepared for visitors and laborers.	2	2
Environmental Inspector (1.4.7.1)	Employing one full-time Environmental inspector.		1		Environmental inspector has appointed but was not present at the site during June.	3	0
	Monthly reporting. EMP	1			Template was provided to contractor and submitted the report.	3	3
Tests (1.4.7)	Ambient Air quality (PM 10, PM 2.5, SPM)				Test was conducted in June, but report was not submitted yet.	3	3
	Surface water quality test (PH, Conductivity, Do, BOD, TDS, As etc.)				Sample was collected from site, but the report was not submitted yet.	3	3
	Drinking water quality test (Drinking As+, Tc/Fe+)				Sample was collected from site, but the report was not submitted yet.	3	3
	Noise quality monitoring.				Test was conducted in June, but report was not submitted yet.	3	3
	Total					29	23
ENVIRONMENTAL MANAGEMENT AND PLANNING SCORE =						79%	

HEALTH AND SAFETY PLAN AND IMPLEMENTATION							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
First aid services (1.4.7.1 & 1.4.7.6)	First Aid kit (box)	1			First Aid Kit (box) was available in site office.	2	2
	Awareness to avoid accident (Toolbox talk)	1			Toolboxes talks were done regularly and maintained register properly.	2	2
	Health inspection & vaccination to workers.		1		Nurse was absent in full month of June. So, no health inspection was done during June.	1	0
Safety equipment to prevent accidents / injuries. (1.4.7.1 & 1.4.7.6)	Using of PPE (Helmets, life jackets, musk, gloves etc.)	1			Using of PPE was found to Contactor's Engineer.	3	3
	Lifebuoy (min. 2 nos. in each barge)	1			Two lifebuoy were found in every barges.	3	3
	Warning sign and signal at site.	1			Warning sign and signal were available at work site and camp site.	2	2
Full-time Safety Inspector (1.4.7.1 & 1.4.7.6)	Employed / on-site.	1			Inspector has been engaged. And properly found on duty.	3	3
	Monthly safety report.	1			Templet was provided to contractor and submitted the report.	3	3
Nurse for First-aid services (1.4.7.1 & 1.4.7.6)	Engagement of Nurse.		1		Nurse has been engaged at site. But fully absent in June.	3	0
	Actions on sudden accidental events.				No accident was not occurred yet.	-	-
	Reporting of accidents within 24 h.				No accident was not occurred yet.	-	-
	Total					22	18
HEALTH AND SAFETY PLAN AND IMPLEMENTATION SCORE=						82%	

CONSTRUCTION SITE & CAMP SITE MANAGEMENT							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
Waste disposal & leakage of polluting substance (1.4.7.4 & 1.4.7.5)	Lubricants and fuel.	1			Fuel and lubricant containers were found kept on hard surface and protected roof.	3	3
	Construction waste disposal at work sites.		1		Designated area prepared for temporary storage of constructional wastes. But was not reserved properly. Plastic cones were found to reserve haphazardly.	2	0
	Waste disposal at worker camps.	1			Waste disposal system at workers' camp maintained.	2	2
	Domestic waste disposal.	1			Arrangement for disposal of domestic waste was found. Sufficient bins and collecting points were arranged.	2	2
Maintenance (1.4.7)	Site fencing	1			Protective fencing was provided.	2	2
	Maintenance of temporary roads.	1			Maintenance of temporary road was found.	2	2
	Building maintenance.	1			Maintenance was found	2	2
Land Use (1.4.7.3)	Topsoil removal/preservation and replacement at work sites.				Topsoil was found to preserve. Score will be considered after placement of topsoil	-	-
	Restoring surface vegetation at work sites.				These will be done after completion of work	-	-
Sand mining (1.4.7)	Mining in accordance with approvals.	1			Contractor informed that approval was taken.	3	3
	Compensation of land loss (crops, structure, trees)	1			Temporary compensation provided for site office and camp.	2	2
	Total					20	18
CONSTRUCTION SITE & CAMP SITE MANAGEMENT SCORE=						90%	

TRANSPORTATION MANAGEMENT							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
Road (1.4.7)	Road inspections	1			A video was recorded of the present condition of approach road.	2	2
	Road use & maintenance.				Maintenance was not required yet.	-	-
Signals (1.4.7)	Traffic control signboards.	1			Traffic signboards were available on road, near godowns and loading unloading points.	3	3
	Total					5	5
TRANSPORTATION MANAGEMENT SCORE=						100%	

COVID-19 OCCUPATIONAL HEALTH MEASURES							
Item (Specification)	Requirement	Yes (Compliant)	No (Non-Compliant)	Not Applicable	Comments	Severity	Score
COVID-19 (1.4.7.6)	Compliance of COVID-19 protocols	1			Awareness signboard was found.	2	2
	Prepare a comprehensive COVID-19 guidance plan		1		Comprehensive COVID-19 guidance plan was not found. Should prepare guidance and submit to SMO as early as possible.	2	0
	Worksite entrance				As the Covid situation is under control all over the country this item is not applicable	-	-
	Worksite awareness raising	1			Few awareness raising signboard & signage were provided.	2	2
	Physical distancing				As the Covid situation is under control all over the country this	-	-

					item is not applicable		
	Hand washing				-As the Covid situation is under control all over the country this item is not applicable	-	-
	Disinfection	1			Contractor informed disinfection was done in camp site and site office.	2	2
	Checking body temperature				As the Covid situation is under control all over the country this item is not applicable.	-	-
	Regular briefing/training on preventive requirement				As the Covid situation is under control all over the country this item is not applicable.	-	-
	Total					8	6
COVID-19 OCCUPATIONAL HEALTH MEASURES SCORE=						75%	

Other matters:

Grievance Redress Mechanism (GRM)

Ref: Chapter 9.2 of EIA

No information of formation of **Grievance Redress Mechanism (GRM)** was received. The SMO was advised to form the GRC if it did not exist.

PART 3 – Compliance

The Contractor shall comply with relevant government environmental policies and regulations, mitigation measures as defined in the environmental management plan and the gender action plan.

No.	Item	Penalty/deduction	Measurement/ Remark
1.	Environmental Inspector	Non-payment of time the Inspector is not on site. In addition, penalty of 30% of the salary deducted for time does not present	Time sheet

2.	Safety Inspector	Non-payment of time the Inspector is not on site. In addition, penalty of 30% of the salary deducted for time does not present	Time sheet
3.	Nurse	Non-payment of time the Nurse is not on site. In addition, penalty of 30% of the salary deducted for time does not present	Time sheet
4.	Air and noise	Penalty of BDT 5,000 per day of non-compliance	Site engineer report
5.	Pollution	Penalty of BDT 5,000 per day of non-compliance	Site engineer report
6.	Life preservers	Penalty of BDT 10,000 per day of non-compliance in addition to deduction of line item	Site engineer report

No recommendation is given right now for the table above. But will be recommended as stated in the table on status of compliance.

PART 4– Pictures taken during the visit at Package W-05 site.



13. Fuel and lubricant were placed on concrete surface and protected roof.



14. Hygienic kitchen with female cook.



15. Hygienic toilets with gender signs for office staff and visitors.



16. Toilets found to be constructed too close to tube well, which poses a significant health risk to the labourers. The Contractor was instructed to clearly mark these tube wells as 'Not For Drinking Water' and provide an alternative supply



17. Labor colony.



18. Tube well with protected base and temporary drainage system.



19. Toolbox Talk.



20. Topsoil preservation.



21. Toilet with sock pit.



22. Site office fencing with safety signboard.



23. Traffic management sign



24. Waste disposal points.



13. First Aid-kits



14. Safety Signboards.

Appendix 5- Environmental quality testing reports

Department of Environmental Sciences, Jahangirnagar University, Dhaka-1342, Bangladesh

Md. Mostafizur Rahman, PhD

Associate Professor



B.Sc. (Honours), M.S (Environmental Sciences)

PhD (Environmental Science, Hokkaido University)

E-mail: rahmanmm@juniv.edu

Date: 09 July 2023

Conducting of Environmental Test in connection with the work* Underwater riverbank protection with geotextile bags Extension at Harirampur- 4.00 km in c/w Flood and Riverbank erosion risk management investment program (Protect-2)' Tender ID No 713629, Package no Yt/0512021'2022;

Date of Sampling: 23 June 2023

Test Report for Environmental Parameters

Surface Water:

S/LNO	Site Name	pH	DO (mg/L)	TDS (ppt)	BOD5 (mg/L)	EC (mS/cm)
1	L1 (Office site)	7.0	5.4	0.38	0.003	0.73
2	L2 (Mama Paglar Majar)	7.6	5.3	0.62	0.002	0.86
3	L3 (Labour Shade PSC)	7.3	6.2	0.48	0.006	0.94
4	L4 (Upstream)	6.9	6.6	0.07	0.006	0.14
5	L5 (Downstream)	7.9	6.6	0.07	0.008	0.14
6	L6 (Labour shade)	7.9	7.2	-	0.009	-
7	L7 (Bulkhead)	7.7	5.6	0.10	0.004	0.20

Drinking Water:

S/LNO	Site Name	As (ppb)	FC/TC
1	L1 (Office site)	0.00	0
2	L2 (Mama Paglar Majar)	0.00	0
3	L3 (Labour Shade PSC)	0.00	0
4	L4 (Upstream)	0.00	0
5	L5 (Downstream)	0.00	0
6	L6 (Labour shade)	10.00	0
7	L7 (Bulkhead)*	0.00	<4

*The presence of FC in bulkhead drinking water indicates more care should be taken though the value is within the acceptable range. All other parameters are okay.

Laboratory of Environmental Health and Ecotoxicology ; Phone: +8801717514833



Date: 09 July 2023

Conducting of Environmental Test in connection with the work" Underwater riverbank protection with geotextile bags Extension at Harirampur- 4 00 km in c/w Flood and Riverbank erosion risk management investment program (Protect-2)* Tender ID No 713629, Package no YU'0512021'2022;

Date of Sampling: 23 June 2023

Test Report for Environmental Parameters

*Air Pollution: Unit $\mu\text{g m}^{-3}$

Sl.NO	Site Name	PM2.5	PM10	SPM	Standard	Comments
1	L1 (Office site)	17	19	25.67	PM2.5:65/25	All the values are within the permissible limit of both Bangladesh & WHO standard
2	L2 (Mama Paglar Majar)	10	11		PM10:150/50	
3	L3 (Laour Shade PSC)	15	17		SPM:200	
4	L4 (Upstream)	10	11			
5	L5 (Downstream)	11	12			
6	L6 (Labor shade)	--	--			
7	L7 (Bulkhead)	10	11			

Method* HAZ Scanner: HIM 6000 was used for air quality measurement. Data are averaged for 4-hrs continuous mode collection of SPM, PM2.5, PM10.

Noise Level (dB)**

Sl.NO	Site Name	Noise Level (dB)	Standard	Comments
1	L1 (Office site)	50	60 (Mixed Area)	All the values are within the permissible limit of Bangladesh standard
2	L2 (Mama Paglar Majar)	44.3		
3	L3 (Laour Shade PSC)	59.7		
4	L4 (Upstream)	37.8		
5	L5 (Downstream)	55.5		
6	L6 (Labor shade)	54.9		
7	L7 (Bulkhead)	58.7		

Method** DT-8820 Multifunction Environment Meter was used for noise Level measurement. Both maximum and minimum (dB) level were recorded to get the final average value of an hour of measurement.



**DEPARTMENT OF FARM STRUCTURE AND ENVIRONMENTAL ENGINEERING
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33538

ENVIRONMENTAL ENGINEERING LABORATORY

Ref. No. 25173 (3e)/FS

Date: 11.04.2023

Specimen sent by: Sub-Divisional Engineer, Tangail WD Sub-Division, (Sadar), BWDB, Tangail.

Vide letter No. O-2/117

Date: 03.04.2023

Subject: Testing of Water Sample (Surface water) .

Name of work: Under water river bank protection with Geo- textile bags at Upstream Chauhali - 7.500km in c/w Flood & River bank Erosion Risk Management investment program (Project-2) in Upazila Tangail Sadar District-Tangail under Tangail WD Division, BWDB, Tangail during the year 2020-2023.

Package No: W-03/2021-2022/Tender ID No- 718244

Contractor: KECL-BECL(JV)

TEST RESULTS

Sl. No.	Name of the test	Test Result	Unit	Surface waters	Remarks
1.	pH	7.3	-----	6-9	Acceptable
2.	COD	2.7	mg/L	200	"
3.	BOD	1.8	mg/L	50	"
4.	TDS	0	mg/L	2100	"
5.	DO	5.8	mg/L	4.5-8	"
6.	Suspended Solids	0	mg/L	150	"
7.	AS	0	mg/L	0.05	"

Counter signed by:

[Signature]

11.04.23
Prof. Md. Zillur Rahman
Dept. of Farm Structure and Environmental Engineering
Bangladesh Agricultural University
Mymensingh-2202

Test performed by:

[Signature]

11/04/2023
Prof. Md. Siddikur Rahman
Dept. of Farm Structure and Environmental Engineering
Bangladesh Agricultural University
Mymensingh-2202

কার্য স্ট্রাকচার এন্ড এনভায়রনমেন্টাল ইঞ্জিনিয়ারিং বিভাগ BRTC এর মাধ্যমে যে সমস্ত সেবা সমূহ প্রদান করে থাকে :

- ❖ বিভিন্ন নির্মাণ সামগ্রীর (যেমন ইট, সিমেন্ট, বালি, পাথর, খোয়া, মাটি, পানি, পিভিসি পাইপ ও ফিল্টার ইত্যাদি) গুণগত মান পরীক্ষা করা হয়।
- ❖ বসত বাড়ীর প্র্যান, ডিজাইন, কনসাল্টেশন, নির্মাণাধীন স্ট্রাকচার সরেজমিনে পরিদর্শন করা ও নির্মাণ বিষয়ক পরামর্শ প্রদান করা হয়।



**DEPARTMENT OF FARM STRUCTURE AND ENVIRONMENTAL ENGINEERING
BANGLADESH AGRICULTURAL UNIVERSITY, MYMENSINGH**

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33600



2366-3

ENVIRONMENTAL ENGINEERING LABORATORY

Ref. No. 25/26 (3e)/FS

Date: 11.04.2023

Specimen sent by: Sub-Divisional Engineer, Tangail WD Sub-Division, (Sadar), BWDB, Tangail.

Vide letter No. O-2/129

Date: 06.04.2023

Subject: Testing of Water Sample (Drinking Water)

Name of work: Under water river bank protection with Geo- textile bags at Upstream Chauhali - 7.500km in c/w Flood & River bank Erosion Risk Management investment program (Project-2) in Upazila Tangail Sadar District-Tangail under Tangail WD Division, BWDB, Tangail during the year 2020-2023.

Package No: W-03/2021-2022/Tender ID No- 718244

Contractor: KECL-BECL(JV)

TEST RESULTS

Sl. No.	Name of the test	Test result (mg/L)	Allowable		Remarks
			Who Guideline (2006)	BDS (1997)	
1.	Iron (Fe) Content	0.947	0.30 mg/L	0.30 – 1.00 mg/L	Acceptable
2.	Arsenic (As) Content	0.022	-----	0.05 mg/L	"
3.	Calcium(Ca) Content	55.35	-----	-----	"
4.	Magnesium (Mg) Content	24.99	-----	-----	"
5.	pH	6.58	6.5-8.5	9.2	7.20
6.	Turbidity	12	5 NTU	10 NTU	Acceptable
9.	Cl	Samples need to be analyzed immediately after collection. Many factors such as sunlight, PH temperature & sample composition will influence decomposition of Cl in water. Samples should also be collected in glass containers. Plastic containers may have large Cl demand.			

Counter signed by:

Test performed by:

11.04.23
Prof. Md. Zillur Rahman
Dept. of Farm Structure and Environmental Engineering
Bangladesh Agricultural University
Mymensingh

11/04/23
Prof. Md. Siddikur Rahman
Dept. of Farm Structure and Environmental Engineering
Bangladesh Agricultural University
Mymensingh-2202

ফার্ম স্ট্রাকচার এন্ড এনভায়রনমেন্টাল ইঞ্জিনিয়ারিং বিভাগ BRTC এর মাধ্যমে যে সমস্ত সেবা সমূহ প্রদান করে থাকে :

- ❖ বিভিন্ন নির্মাণ সামগ্রীর (যেমন ইট, সিমেন্ট, রড, বালি, পাথর, খোয়া, মাটি, পানি, পিভিসি পাইপ ও ফিস্টার ইত্যাদি) গুণগত মান পরীক্ষা করা হয়।
- ❖ বসন্ত বাড়ীর প্ল্যান, ডিজাইন, কনসাল্টেশন, নির্মাণাধীন স্ট্রাকচার সরেজমিনে পরিদর্শন করা ও নির্মাণ বিষয়ক পরামর্শ প্রদান করা হয়।



**DEPARTMENT OF FARM STRUCTURE AND ENVIRONMENTAL ENGINEERING
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33599



2366-2

ENVIRONMENTAL ENGINEERING LABORATORY

Ref. No. **25174**.....(3e)/FS

Date: **11.04.2023**

Specimen sent by: Sub-Divisional Engineer, Tangail WD Sub-Division, (Sadar), BWDB, Tangail.

Vide letter No. O-2/116

Date: 03.04.2023

Subject: Testing of Water Sample (Surface water) .

Name of work: Underwater river bank protection at Upstream Chauhali -8.000km with Geo- textile bags including 1.00km of dredging on the underwater slope in c/w Flood & River bank Erosion Risk Management investment program (Project-2) in Upazila Tangail Sadar District-Tnagail under Tangail WD Division , BWDB, Tangail during the year 2021-2022.

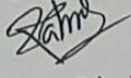
Package No: W-04/2021-2022/Tender ID No- 718245

Contractor: MBEL-BECL(JV)

TEST RESULTS

Sl. No.	Name of the test	Test Result	Unit	Surface waters	Remarks
1.	pH	7.1	-----	6-9	Acceptable
2.	COD	2.6	mg/L	200	"
3.	BOD	1.71	mg/L	50	"
4.	TDS	0	mg/L	2100	"
5.	DO	5.9	mg/L	4.5-8	"
6.	Suspended Solids	0	mg/L	150	"
7.	AS	0	mg/L	0.05 mg/L	"

Counter signed by:


11.04.23
Prof. Md. Zillur Rahman
Dept. of Farm Structure and Environmental Engineering
Bangladesh Agricultural University
Mymensingh-2202

Test performed by:


11/04/23
Prof. Md. Siddikur Rahman
Dept. of Farm Structure and Environmental Engineering
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Mymensingh-2202

ফার্ম স্ট্রাকচার এন্ড এনভায়রনমেন্টাল ইঞ্জিনিয়ারিং বিভাগ BRTC এর মাধ্যমে যে সমস্ত সেবা সমূহ প্রদান করে থাকে :

- ❖ বিভিন্ন নির্মাণ সামগ্রীর (যেমন ইট, সিমেন্ট, রড, বাগি, পাথর, খোয়া, মাটি, পানি, পিডিসি পাইপ ও ফিল্টার ইত্যাদি) গুণগত মান পরীক্ষা করা হয়।
- ❖ বসত বাড়ীর প্রাণ, ডিজাইন, কনসাল্টেশন, নির্মাণাধীন স্ট্রাকচার সরেজমিনে পরিদর্শন করা ও নির্মাণ বিষয়ক পরামর্শ প্রদান করা হয়।



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2366-Z

ENVIRONMENTAL ENGINEERING LABORATORY

Ref. No. 25/75 (3e)/FS

Date: 11.04.2023

Specimen sent by: Sub-Divisional Engineer, Tangail WD Sub-Division, (Sadar), BWDB, Tangail.

Vide letter No. O-2/128

Date: 06.04.2023

Subject: Testing of Water Sample . (Drinking Water)

Name of work: Underwater river bank protection at Upstream Chauhali -8.000km with Geo- textile bags including 1.00km of dredging on the underwater slope in c/w Flood & River bank Erosion Risk Management investment program (Project-2) in Upazila Tangail Sadar District-Tangail under Tangail WD Division, BWDB, Tangail during the year 2021-2022.

Package No: W-04/2021-2022/Tender ID No- 718245

Contractor: MBEL-BECL(JV)

TEST RESULTS

Sl. No.	Name of the test	Test result (mg/L)	Allowable		Remarks
			Who Guideline (2006)	BDS (1997)	
1.	Iron (Fe) Content	0.942	0.30 mg/L	0.30 – 1.00 mg/L	Acceptable
2.	Arsenic (As) Content	0.027	-----	0.05 mg/L	"
3.	Calcium(Ca) Content	55.35	-----	-----	"
4.	Magnesium (Mg) Content	24.94	-----	-----	"
5.	pH	7.0	6.5-8.5	9.2	7.20
6.	Turbidity	9	5 NTU	10 NTU	Acceptable
9.	Cl	Samples need to be analyzed immediately after collection. Many factors such as sunlight, P ^H temperature & sample composition will influence decomposition of Cl in water. Samples should also be collected in glass containers. Plastic containers may have large Cl demand.			

Counter signed by:

[Signature]
11.04.23
Prof. Md. Zillur Rahman
Dept. of Farm Structure and Environmental Engg
Bangladesh Agricultural University
Mymensingh-2202

Test performed by:

[Signature]
11.04.23
Prof. Md. Siddikur Rahman
Dept. of Farm Structure and Environmental Engineering
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Mymensingh-2202

ফর্ম স্ট্রাকচার এন্ড এনভায়রনমেন্টাল ইঞ্জিনিয়ারিং বিভাগ BRTC এর মাধ্যমে যে সমস্ত সেবা সমূহ প্রদান করে থাকে :

- ❖ বিভিন্ন নির্মাণ সামগ্রীর (সিমেন্ট, রড, বাগি, পাথর, খোয়া, মাটি, পানি, পিভিসি পাইপ ও ফিস্টার ইত্যাদি) উপযুক্ত মান পরীক্ষা করা হয়।
- ❖ বসন্ত বাড়ীর প্র্যান, ডিজাইন, কনসাল্টেশন, নির্মাণাধীন স্ট্রাকচার সরেজমিনে পরিদর্শন করা ও নির্মাণ বিষয়ক পরামর্শ প্রদান করা হয়।

Appendix 6- Photo of air quality, noise and water quality monitoring



1. Ground water sample collection



2. Testing was on going at site.

Appendix 7- Photographs and participants of the training programs during January-June 2023



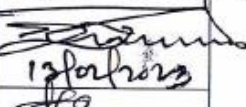
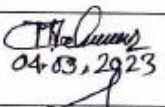
1. Trainig at Manikganj SMO (Package W-5)



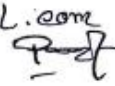
2. Trainig at Tangail SMO (Package W-03 & W-04)

Orientation training program on construction supervision plan and environment management
to Contractor Package W-03 and W-04

Date: 13 Feb, 2023

Sl. No.	Name	Designation with Organization	Tel. no/e-mail Id	Signature
1.	Md. Skazzed Hossain	XEN, BWDB, Tangail	01755254264 xenbwdbtng@gmail.com	
2.	MD. Imdadul Haque	SDE, BWDB	Mob: 01732809626 Email: Sde2-tangail@bwdb.com	
3.	Kh. Mizanur Rahman Shelly	SDE, BWDB Tangail	01711-705391 sdekhucapw@bwdb.com	
4.	Mohammad Saidur Rahman	S.A.E. BWDB Tangail	01723-573779 saidur.bwdb@gmail.com	
5.	Md. Mijidul Islam Moznu	SAE, BWDB, Tangail.	01798-785780 mtbawdb@gmail.com	
6.	Sakiraman Bhuiam	SAE, BWDB, Tangail.	01764189617 bwdbapril2016@gmail.com	
7.	Md. Amir Faisal	Env. Specialist ISPMC	01715-315227 faisal.mclamir@gmail.com	
8.	DOUGLAS WHITE	CONSTRUCTION / QUALITY MNG, ISPMC	douglas White @mactmac.com	D. White
9.	James Rebstock	River Engineer ISPMC	01304258713 jrebstock@nhcmw.com	JR

Awareness meeting on Contract Management & Env.
Management in FRERMP Project-2 Date: 21/02/2023
Attendence list

S.No.	Name with designation.	Email ID/Cellno.	Signature
01.	Mr. Mahubub Rahman Executive Engineer	ken.koitala@gmail.com 01773358988	
02.	Md. Shaheen Reza Sub-Divisional Engineer	shaheen2k11@gmail.com 01722368077	
03.	Md. Shamsul Alam Sub-Assst Engineer/ Sectional officer	mdshamsul.bwdb@gmail.com 01723-355548	
04.	Md. Shahinur Islam Sub-Assl. Engineer Sectional officer	shahinurislam00002@gmail.com 01710-609682	

5. MD. AL AMIN
SAE /SO-2 (Sub-Assistant Engg)
BWDB, Kotla, Bera, Pabna. Mob: 01732538613
SAE-2 BWDB koitalabera@pabna.gov.bd
SAE-2.bwdb.alamia@gmail.com

6. Md. Amir Faisal
Env. Specialist
ISPMC
faisal.mdamia@gmail.com
Mob: 01715-315227

7. MD. AMINUL ISLAM
Procurement Specialist
ISPMC
aminul86@gmail.com 01723/04/20

8. DOUGLAS WHITE
CONSTRUCTION ENGINEER
ISPMC
douglas.white@mac.com D.L.H

Orientation training program on construction supervision plan and environment management
to Manikgonj, SMO

Date : 01 Marc, 2023.

Sl. No.	Name	Designation with Organization	Tel. no/e-mail id	Signature
1.	MD. Maymuddin	XEN, BWDB Manikgonj	01318236100	Maymuddin 01/03/2023
2.	MD. ASUL KAZAM AZAD.	SDE, BWDB MANIKGONJ.	01711-014094	Asul Kazam Azad
3.	James Rebstock	ISPMC/River Engineer	01304-258-713	JR
4.	Mr. Abdul Razak	SCF/ISPMC	01755568996	Abdul Razak
5.	DOUGLAS WHITE	ISPMC con. QUARTY ENG.	douglas.white@motamac.com	D. White
6.	MD. MONIRUZZAMAN	SAE, BWDB Manikgonj	01711-342688 monirbwdb16@gmail.com	Moniruzzaman
7.	Shahinur Rahman	SAE, BWDB manikgonj	01747-560721	Shahinur Rahman
8.	MD. Aman Ullah	Site Engineer ISPMC	01714847172	Aman Ullah
9.	Abdullah Al Arafat	Jr. Engineer ISPMC	01623477780	Arafat
10.	MD. Amir Faisal	Env. Specialist ISPMC	faisal.mclamin@gmail.com. 01715315227	Amir Faisal
11.	MD. Helaluzzaman	Sub-Assistant Engineer, BWDB	helalbwdb@yahoo.com 01751-110210	Helal
12.	MD SALAMAT FAKIR	Sub-Assistant Engineer, BWDB.	md.salamattakir@yahoo.com	Salamat Fakir
13.	MD Zahin Rahman	Field Engineer	zahirahman712@gmail.com 01682351607	Zahin
14.	Prodip Biswas	Accommodation	Prodipbiswas309@gmail.com	Prodip Biswas

Orientation training program on construction supervision plan and environment management to Manikgonj, SMO

[illegible]

Orientation training program on construction supervision plan and environment management
to Contractor Package W-03 and W-04

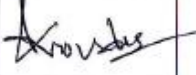
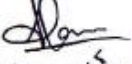
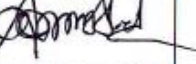
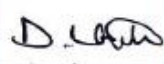
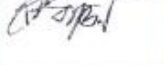
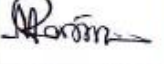
Date: 04 March 2023

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Orientation training program on construction supervision plan and environment management to Contractor Package W-01 and W-02

Date: 18 March 2023

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