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Bangladesh



Bangladesh Inland Water Transport Authority (BIWTA)



The World Bank



MONTHLY PROGRESS REPORT MARCH 2024

**Consultancy Services for Supervision and Monitoring of Performance-Based
Dredging Contracts with Maintenance Dredging and Installation and Maintenance
of Navigational Aids along the Navigational Routes under the Contract**

**Bangladesh Regional Waterway Transport Project-1
BRWTP-S1A**



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EXECUTIVE SUMMARY

Background

The Bangladesh Regional Waterway Transport Project 1 (Chittagong-Dhaka-Ashuganj Corridor) is the 'Project' of the Government of Bangladesh (GoB) to develop Inland Water Transport (IWT) sector and related infrastructure between Dhaka-Chittagong and Dhaka-Ashuganj River corridors and linked corridors. The Project has three major components. Component 1 includes dredging and maintenance of the river corridors and ferry routes within the Project area through a performance-based contract. JPZ-DEMAs-JCL, the consulting firm herein referred to as SIA has started the supervision and monitoring work under this component in December 2022. The project is financed by the World Bank (WB) and implemented by Bangladesh Inland Water Transport Authority (BIWTA), under the Ministry of Shipping (MoS).

The works package on dredging shall operate for 66 (Sixty-six) months on the river routes 3, 4, 5, 6, 7 & 8, 9, 10 and 11 by Contractor GULF-COBLA KARNAFULY JV herein referred to as Lot-2, and 12, 13 & 13a, 15 & 16, 17 and 21 by Contractor DHARTI-BANGA JV herein referred to as Lot-3; under Bangladesh Regional Waterway Transport Project -1 (BRWTP-1), Contract Number BRWTP W1A-02 and 03 respectively.

Progress of the Contractors during the Reporting Period – March 2024

Under Lot-2, hydrographic survey and water level connection done at Route 09, including post-dredging survey at Route 7&8. Supervision for starting dredging work and construction of dykes for disposal of dredged materials along Route 11 (Daudkandi) was carried out. Post-dredging survey on-going along Routes 7&8. WB representatives visited Solimganj at Route 09 to assess the progress of the dredging and compliance of the social and environmental safeguard issues.

In March, dredging commenced along Routes 13, 16, and 21 of Lot-3. Inspection of the dredging work and dredged material disposal sites along the routes were also carried out. The hydrographic post survey was jointly carried out with BIWTA for Routes 13 and 16. Routes 16 and 21 were visited by the WB team to assess the progress of the project activities.

Dredging work up to 31st March 2024 was done from Salimganj -Homna Route 09 and Narsingdi Southern and Northern approach Route 7 & 8. In this reporting period total cutting length was 5522m/5.522km and width 30 m. of above-mentioned River Routes. In March 2024, the average water level was 0.914 m. In this period total cutting length is 4760 m; Cutting width 25 m and total volume 223036.491m³ in this site. Moreover, they have mobilized necessary additional dredgers on Route 9 and Route 7&8 during this month. The main challenge is failing to provide continuous operation of dredgers due to frequent machinery breakdown, pipeline shortages, existing water hyacinth and low manpower. Besides, the Lot-2 contractor has done environmental quality control surveys on route 7 & 8 and 9. Although the Lot-2 contractor have fallen far behind from the 80% completion of the BOQ volume, which they have to complete 100% by 5th June, 2024.

In March 2024 dredging work at Lot-3 has done in River Route 12 and 13. Route 12 is located in the Dakatia River of Chandpur area and its length is about 10km (Ch.0+000 to Ch.10+000). This is class II type Route and LAD is 3.0m. Route 13 is located in the Meghna & Arial khan river and its length is about 89km (Ch.0+000 to Ch.98+000). This is class II type route and LAD is 3.0m. A hydrographic survey up to 31st March 2024 was carried out from Alubazar to At Hazar of River Route 13 and Chandpur-R140 Bridge of Route 12. Dredger Banga Padma was active in this reporting period and dredging conducted in total length 950m, cutting width 81m and cutting depth 1.36m (Average).

In March 2024, the average water level was 0.914 m. Average cutting depth was 2.388 m and Hydrographic Chart was prepared for Routes 09, and 7&8 under Lot-2. In this period total cutting length is 4760 m; Cutting width 25 m and total volume 223036.491m³ in this site. Moreover, they have mobilized necessary additional dredgers on Route 9 and Route 7&8 during this month. The main challenge is failing to provide continuous operation of dredgers due to frequent machinery breakdown, pipeline shortages, local community problem, existing water hyacinth and low manpower. Besides, the Lot-2 contractor has done environmental quality control surveys along Routes 7&8 and 9.

Samples for analysis to assess the environmental condition were collected from two locations along Routes 16 and 21. Air and noise quality remained below the baseline level and within the ECR 2023 standard limits all the monitoring locations. SPM was recorded at 65.81 and 68.1 for Routes 16 and 21, while PM_{2.5} was 18.79 and 17.46 for the said Routes respectively. The parameters for surface water quality for Routes 07, 09, 16 and 21 complied with the prescribed limits under ECR 2023. However, the electrical conductivity (EC) for Route 07 under Lot 02 was higher suggesting that the concentration of salinity was higher than previous months. Among the riverbed sample of Route 09 the concentration of lead and chromium was 18.42 and 17.63 respectively. The concentration of Zinc (23.17) was significantly higher in the dredged material of Route 16 under Lot 02 but lower than the baseline concentration. Similarly, the zinc concentration (23.48 & 23.17) was higher in March than the previous months for Routes 16 and 21 respectively in both the riverbed sediment and dredged material.

Traffic-related issues were absent, and safety measures, including well-maintained fire extinguishers and first aid boxes, were in place. Grievances related selecting dyke solved by the local people, indicating a positive work environment. New employee safety procedures were implemented during the reporting month. Overall, no significant environmental impacts were detected.

The Consultants activities during the Reporting Period

Throughout this month, the field team diligently visited both Lot-2 and Lot-3 sites on a daily basis. Thus far, they have selected a total of 68 dykes across the two Lots. Consultations with Upazila representatives and landowners were conducted as necessary. At the central level, several meetings took place this month involving representatives from the World Bank, PIU, BIWTA, and contractors. These meetings focused on reviewing the progress of dredging work and addressing environmental and social concerns.

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Abbreviation

AILA	Association of International Lighthouse Authorities
ASCII	American Standard Code for Information Interchange
BIWTA	Bangladesh Inland Water Transportation Authority
BM	Bench Mark
BRWTP	Bangladesh Regional Waterway Transport Project I
BWDB	Bangladesh Water Development Board
CD	Chart Datum
CEAP	Contractor's Environmental Action Plan
CSD	Cutter Suction Dredger
EIA	Environmental Impact Assessment
EMP	Environment Management Plan
ESHS	Environment, Social, Health and Safety
ESMP	Environment and Social Management Plan
GBV	Gender-Based Violence
GIS	Geographic Information System
GPS	Global Positioning System
GRC	Grievance Redress Committee
GRM	Grievance Redressal Mechanism
HSE	Health and Safety Expert
IALA	International Association of Marine Aids and Lighthouse Authorities
IBC	Idle Berthing Centre
ID	Identity
IHO	International Hydrographic Organisation
IWT	Inland Water Transport
JPZ	Jurutera Perunding Zaaba
JV	Joint Venture
LAD	Least Available Depth
LLW	Lowest Low Water
MOEF	Ministry of Environment, Forest and Climate Change.
IMED	
MSL	Mean Sea Level
NID	National Identity
OPBC	Output and Performance-Based Contract
PC Poles	Pre-Stressed Concrete Poles
PIU	Project Implementation Unit
RAP	Resettlement Action Plan
RCC	Reinforced Cement Concrete
RTK-GPS	Real-Time Kinematic- Global Positioning System
SOB	Survey of Bangladesh
TBM	Temporary Bench Mark
UTM	Universal Transverse Mercator
VSS	Vessel Storm Shelter
WB	World Bank
WGS	World Geodetic System

CHAPTER 01:
PROJECT DESCRIPTION IN A BRIEF

Table 1: Basic Information

Project Name	:	Consultancy Services for Supervision and Monitoring of Performance-Based Dredging Contracts with Maintenance Dredging and Installation and Maintenance of Navigational Aids along the Navigational Routes under the Contract
Source of Funding	:	The World Bank
Contract No.	:	BRWTP-S1A
Employer	:	Bangladesh Inland Water Transport Authority (BIWTA)
Consultant	:	JPZ-DEMAS-JCL JV
Date of signing the contract	:	21 st December, 2022; Duration of 66 months
Date of Commencement	:	6 th December, 2022; Duration of 66 months
Phases	:	Phase I: 18 Months, Phase II: 12 Months, Phase III: 36 Months
Total Routes	:	12
Route Nos. under dredging activities	:	Lot-2: 3 & 4, 5, 6, 7 & 8, 9, 10, 11 Lot-3: 12, 13 & 13a, 15 & 16, 17, 21

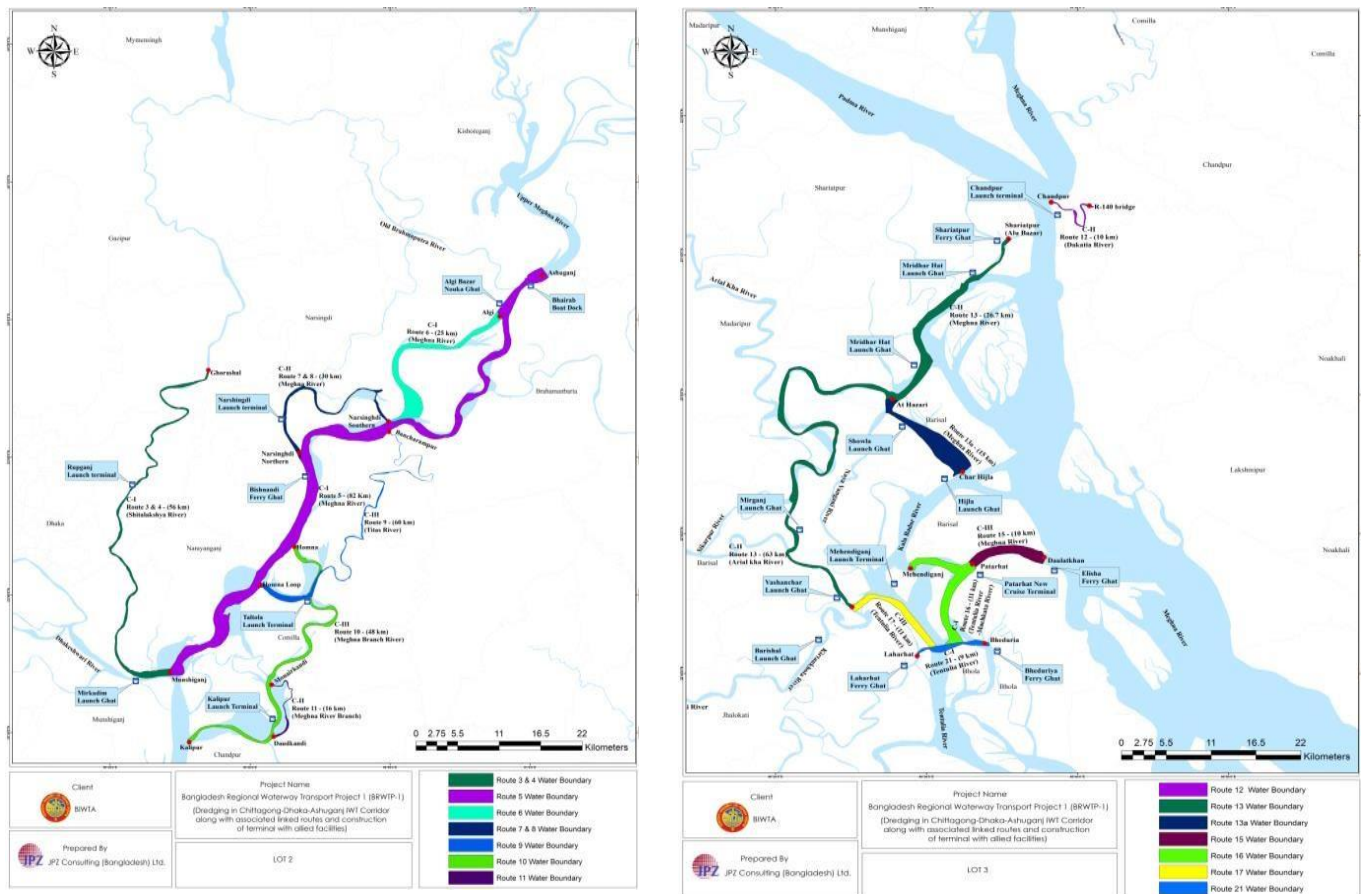


Figure 1: Water Boundary of all Routes under Lot-2 and Lot-3

2.1 PROGRESS OF BRWTP-S1A:

2.1.1 : Development and Maintenance Dredging Works:

Lot-2:

Dredging work up to 31st March 2024 was done from Salimgonj -Homna Route 09 and Narsingdi Southern and Northern approach Route 7 & 8. In this reporting period total cutting length was 5522m/5.522km and width 30 m. of above-mentioned River Routes. In March 2024, the average water level was 0.914 m. In this period total cutting length is 4760 m; Cutting width 25 m and total volume 223036.491m³ in this site. Moreover, they have mobilized necessary additional dredgers on Route 9 and Route 7&8 during this month.

Lot-3:

In March 2024 dredging work at Lot-3 has done in River Route 12 and 13. Route 12 is located in the Dakatia River of Chandpur area and its length is about 10km (Ch.0+000 to Ch.10+000). This is class II type Route and LAD is 3.0m. Route 13 is located in the Meghna & Arial khan river and its length is about 89km (Ch.0+000 to Ch.98+000). This is Class II type route and LAD is 3.0m.

Hydrographic survey up to 31st March 2024 was carried out from Alubazar to At Hazar of River Route 13 and Chandpur-R140 Bridge of Route 12. Dredger Banga Padma was active in this reporting period and dredging conducted in total length 950m, cutting width 81m and cutting depth 1.36m (Average).

Update information on Navigational Aids in March 2024:

Site visit carried out by PIU Team, IMED Team and Consultant Team BRWTP-S1A on 02 March, 2024 for P.C. pole manufacturing yard of BRWTP-W1A-03 at Mirkadim Bandar, Narayanganj to see the environment and the process for manufacturing of P.C poles. All measurements and mixing ratio of Water, Cement, and Stone chips are recorded for the PC poles.

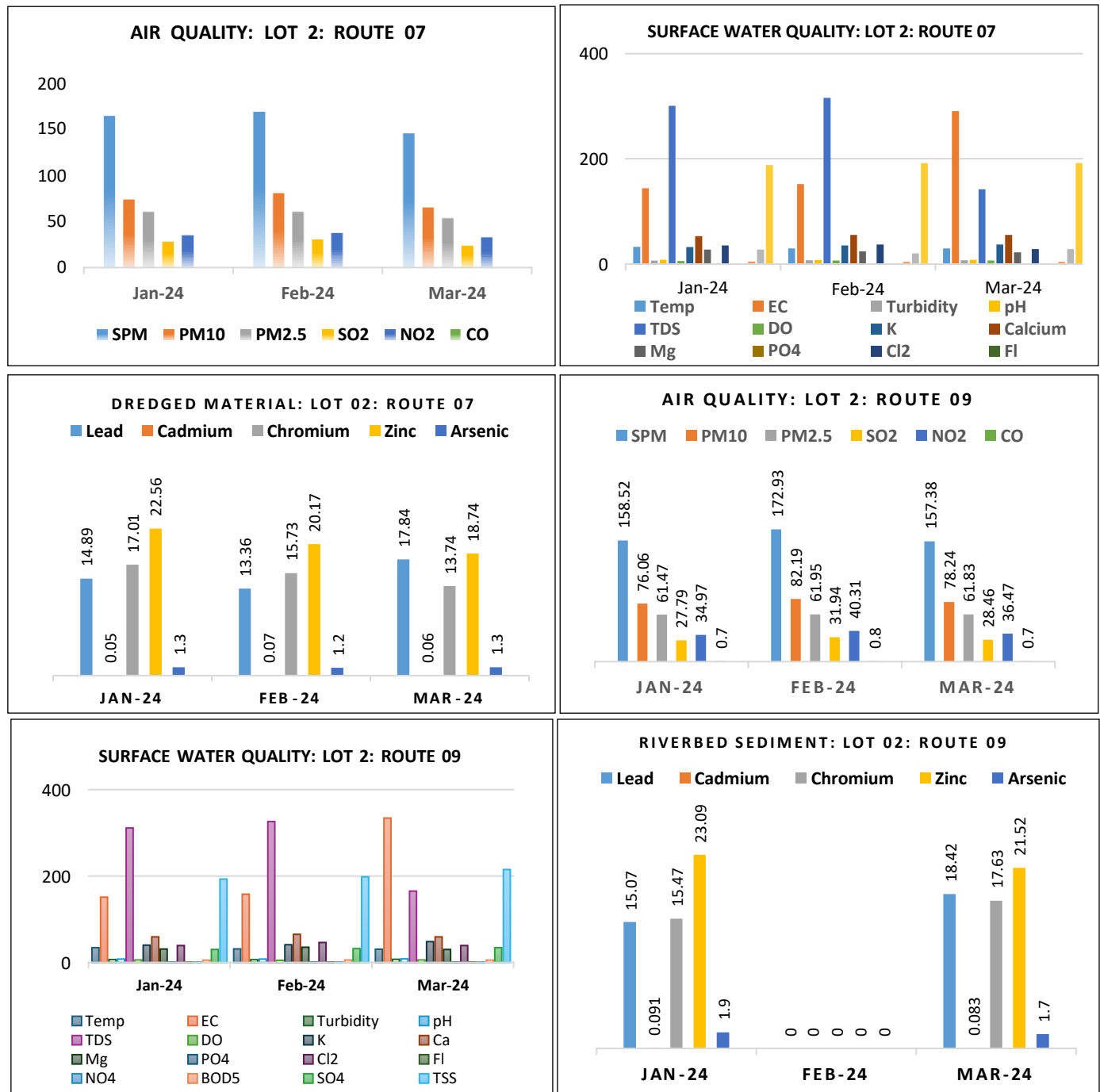
Site visit made for BRWTP-W1A-02 and meeting held on 16 March, 2024 at site office for lot-02 where World Bank team, PIU team and Consultant team BRWTP-S1A attended and discoursed on various issues including installation of Aids to Navigation for easy and quickest solution of the problem if arises any.

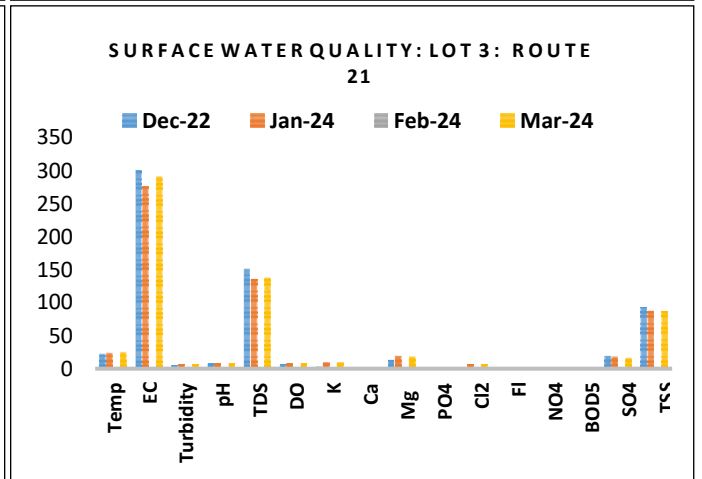
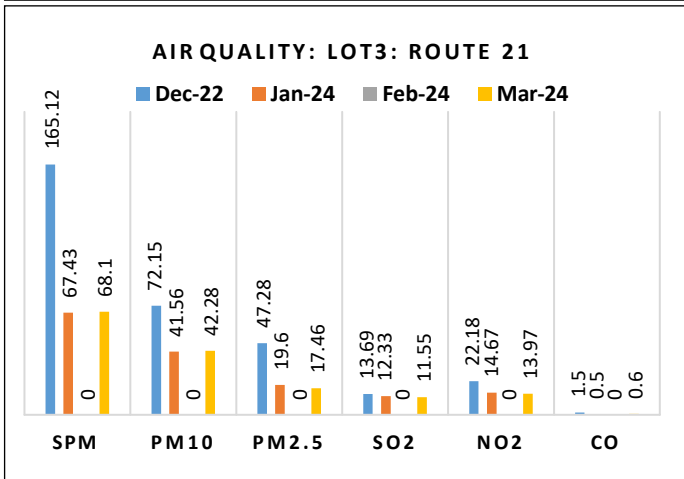
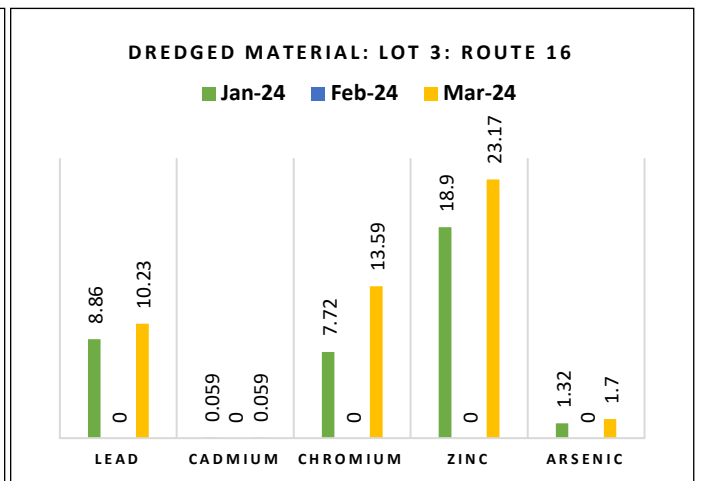
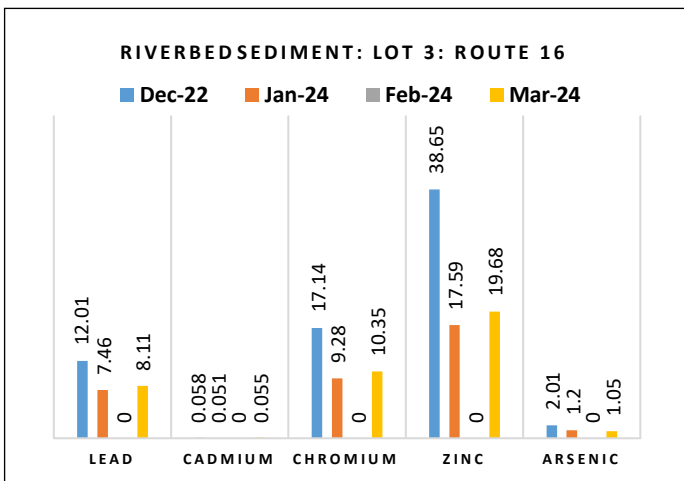
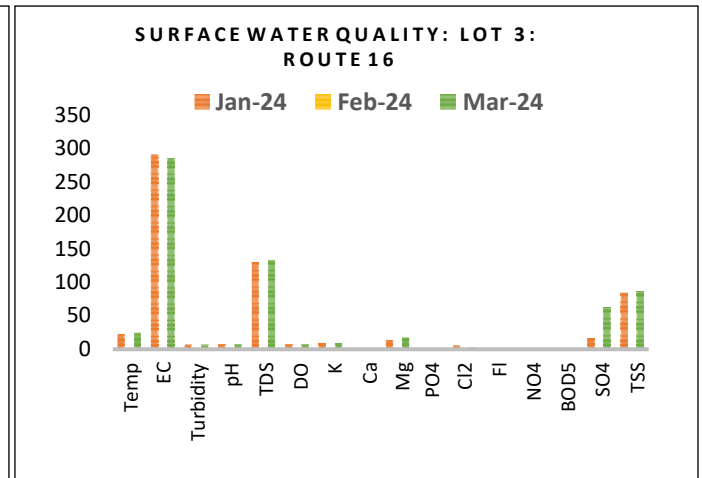
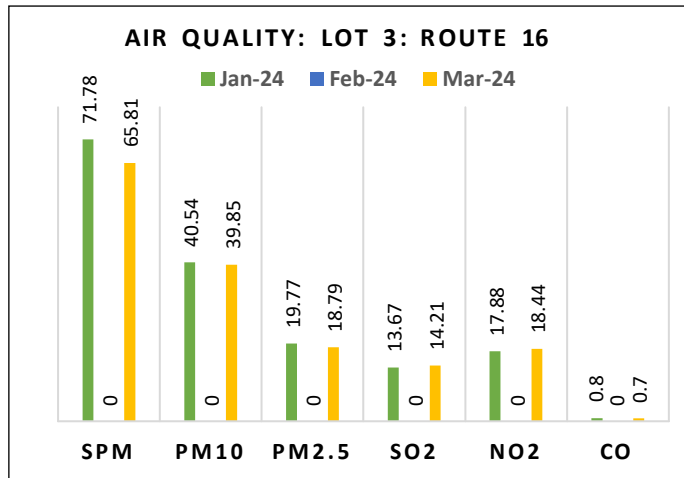
Meeting held with PIU team and S1A consultant on 20March, 2024 at PIU conference room to discuss on the development of installation of Aids to Navigation. Approval was given for concrete sinkers as per requirements along the navigable routes in both Lot-2 and Lot-3.

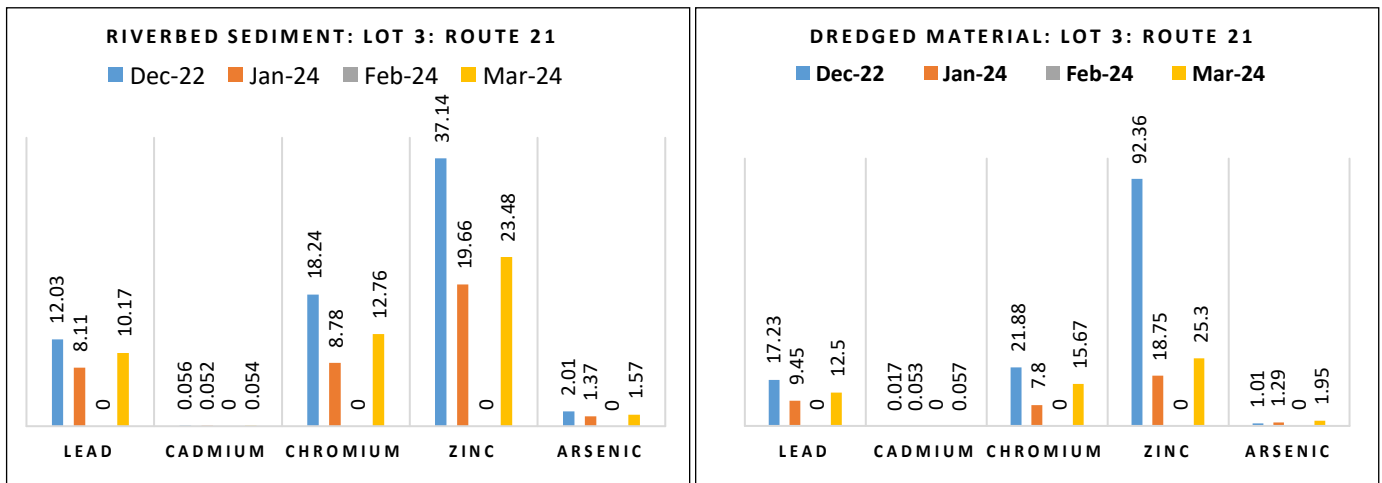
Notable development noticed from the contractors end to expedite the installation of Aids to Navigation which is much appreciated.

2.1.2 : Environmental Quality Assessment:

Sampling for analysis of environmental parameters were carried out at two locations for Routes 07 and 09 under Lot 2 and Routes 16 and 21 under Lot 03. The samples were analyzed for air quality, surface water quality, riverbed sediment, dredged material, ambient, and underwater noise. All the parameters for the said Routes showed values less than the baseline values and complied with the ECR 2023 standard.







The surveys recorded eleven fish species and two crustacean species in Routes 7 & 8. In contrast, fishing activities in Route 9 were not observed, attributed to a significant reduction in water levels. Furthermore, there were no sightings of freshwater turtles in the vicinity of the dredging areas, embankments, or adjacent localities. Conversations with locals and fishermen along Routes 7 & 8 and 9 also confirmed the absence of turtle sightings in the river or surrounding areas in recent months.

2.1.3 : Social and Resettlement Aspects:

During this reporting period, 65 disposal sites have been chosen within the Lot-2 and Lot-3 areas. The process of selecting dykes is in progress, with involvement from representatives of local governments and community members. To facilitate smooth execution, the project authority has submitted an application to local government representatives, requesting their support and informing them of the project details. However, progress in March 2024 has been minimal, with no land lease agreements finalized during this time frame.

2.1.3.1 Land Acquisition/Requisition/Good Faith Agreement/Charity:

In Lot-2 and Lot-3, total **79** dredged disposal areas have been selected. The GRM expert of S1A is working on setting up the protocols for reporting the GRM issues at different level in a structured way based on CEAP and Contractual responsibilities.

Information regarding river dredging, dredged material dumping, and agreements made in good faith is disseminated to the general population through various consultation meetings held in local *bazaars*, Union Councils, villages, and local schools. The progress of Dykes and Good Faith Agreements for Lot-2 and Lot-3 during this reporting period is detailed in Table 11 and Table 15 respectively.

2.1.3.2 Communication and Public Consultation:

The social and safeguard team have communicated with local people, local administration, local elites and conducted consultation meeting on a regular basis. The local administration is requested to assist in obtaining land for replacing the dredged soil and also.

2.1.3.3 Local Level Consultation of S1A Consultant in March 2024:

Table 2: Consultation with Local Stakeholders, Lot-2 site, March 2024

Sl. No.	Date	Meeting Agenda and Location/Venue	Participants
1.	12.03.2024	Negotiations to expedite dredging work on Route 09 by taking necessary steps to overcome the problems involving the higher authorities.	Local community people, S1A Consultant, Lot-2 Contractor & PIU Representatives.
3.	16.03.2024	Informal meeting with Local people and land owners of the Lot-2 site at Salimganj and Narsingdi at Route 09 and Route 7&8.	World Bank, BIWTA, PIU, S1A Consultant & Gulf Cobla Karnafuly contractors representatives.
3.	21.03.2024	Discussion on proper documentation of River dredging at Nabinagar, village Badda Route -09, dyke no 48 of Lot-2.	S1A, LG representatives and Local People
4.	23.03.2024	A meeting was held for restarting the dredging work at Badda village.	Local people, Union Councilor and S1A Team
5.	25.03.2024	Meeting with Upazila Nirbahi Officer of Nabinagar Upazila for getting approval or consent for restarting the closed work at Badda village in Route 09.	S1A Team, LG Representatives and Local elites.
6.	26.03.2024	Discussion on Dyke selection for Route 7&8 at Alok Bali village, Satpara Union.	Land Owners, Local people and S1A Team
7.	27.03.2024,	Discussion meeting with lot-2 contractor's representatives on Dyke selection and construction of new dyke for Route-09.	Local people, Lot-2 contractor's representatives and S1A team.

Table 3: Consultation with Local Stakeholders, Lot-3 site, March 2024

Sl. No.	Date	Meeting Agenda and Location/Venue	Participants
1.	02.03.2024	Discussion on operational service of all measuring tools including pumps; observed the measurements of Rods, Pre-tension Spring & cotter pins; Size and quality of Sand & stone Chips; mixing ratio of water, sand, cement & stone Chips; proper mixture of concrete poured into the frame of pole, etc. at P.C. Pole manufacturing yard of BRWTP-W1A Lot 03 at Mirkadim Bandar, Munshiganj.	Engr. Md. Ayub Ali, Project Director (BRWTP-1),BIWTA. Mr. Kabir Ahmmad , Joint Chief, ERD, IMED. Engr. Golam Rabbani,Team leader and Engr. Mohammad Shah Alam, Navigational Aids Expert, JPZ-DEMAS-JCL JV BIWTP-S1A Capt. Razzak, Team Leader W1A-Lot 3.
2.	10.03.2024	Negotiations to resume dredging work on Route 16 Dike No. 02 due to inevitable conflict between local people.	Local People and S1A consultant team.
3.	12.03.2024	Informal meeting with Local people and land owners of the Lot-3 site at Bheduria to Patarhat Route 21 and Route 16.	World Bank, BIWTA, PIU, S1A Consultant & Dharti-Banga contractors representatives.
4.	19.03.24	Discussion on the preparation process and GFA of Route: -16 Dyke no-2. At Patarhat area.	S1A Consultant Field team, Local People and LG representatives.
5.	26.03.2024	Discussion on new dykes selection and construction of dyke no. 17 of Route- 16. In addition discussion on the feedback of post dredging engineering survey at Route 21(Bheduria).	Local People, Lot-3 Contractor and S1A Team.

2.1.3.4 Field Visit of BRWTP-S1A Consultant in March 2024:

Table 4: Field Activity and site visit of BRWTP-S1A at Lot-2 Site

Sl. No	Date	Activity	Route name & Route number	Remarks
1.	02.03.2024	PC Pole construction site (Mirkadim) inspection by S1A Team with Navigational Aids Expert, PIU & IMED representatives	Mirkadim Construction Site of Karnafuly yard Lot- 02 contractor.	
2.	07.03.2024	Site Supervision for observing the opening of dredging work and ongoing dyke construction.	River Route-11 of Lot-2 at Daoukandi.	
3.	12.03.2024	Site Supervision for solving dredging problem with local community people by taking necessary steps through concerning with the higher authorities.	River Route-9 of Lot-2 at Salimganj.	PIU and Contractors representatives

Sl. No	Date	Activity	Route name & Route number	Remarks
				were present
4.	15.03.2024.	To observe water level connection and ongoing Hydrographic survey at River Route-09.	Route No-09. Lot-02 at Brahmanbaria.	
5.	16.03.2024	World Bank Mission headed by TTL Mr Diallo at Salimganj and Nabinagar site to monitor the overall field progress of Lot-2 contractors dredging work.	Route-09 and Route- 07&08	
6.	17.03.2024	To observe water level & gauge connection and ongoing Post-work survey at route-7&8	Lot-2, Route- 07, 08, (Narsingdi)	
7.	18.03.2024.	To supervise ongoing Post-work survey at route-7&8	Lot-2, Route- 07, 08, (Narsingdi)	
8.	19.03.2024.	To observe water level connection at Route-09. And Monitoring survey done by S1A at Route-9	Lot-02, Route-09 Brahmanbaria	
9.	25.03.2024.	Monitoring visit by S1A field team at route-9, lot-02	Lot-02, Route-09, Brahmanbaria	Ongoing work
10.	26.03.2024	Monitoring visit by S1A team at route-9, lot-02	Lot-02, Route-09, Narsingdi	
11.	27.03.2024	Supervision of dredging work and disposal areas of Route-09. To observe water level & gauge connection at Munsiganj and monitoring survey by S1A at Route-7&8	Route-7&8 and Route- 09	
12.	28.03.2024	Monitoring survey by S1A at route-7&8 at Narsingdi Sadar Upazila, Narsingdi	Route-7&8, Narsingdi	
13.	30.03.2024	To observe the imported Navigational Aids Equipment at Narayanganj Karnafuly Yard with PIU team	Narayanganj, Karnafuly Yard	
14.	31.03.2024	To observe the Dredger movement of Lot-2 site. Karnofully-2 at Narsindi Route goes for dredging. They are preparing for dredging work pipe shifting and dyke preparation, etc. Pipe shifting work is ongoing at Route 06 for dredger -MBDDL Craft-1.	Bishnurampur, Anarpar, Noyachor, Reve-badda Mcd-Modhonagar ,Sayfullakandi Areas of Route 09 and Narshindi Route-07&08	

Table 5: Field Activity and site visit of BRWTP-S1A at Lot-3 Site

Serial No	Date	Activity	Route name & Route number	Remarks
1.	07.03.2024	To visit the ongoing Dredging work and disposal areas of Route-13.	Route: 13 (Alu bazar channel)	Dyke no.2 (R13-D2)
2.	10.03.2024	To monitor ongoing Dredging activities.	Route:13 (Alu bazar channel) Route16 (Patarhat- Bheduria)	
3.	12.03.2024	Hydrographic Post survey done jointly with BIWTA representatives, S1A consultant and Banga contractor at route 16	Route: 16 (Patarhat-Bheduria)	
4.	13.03.2024	Site visit at Patarhat to Bheduria of route 16 and route 21 by world bank, BIWTA along with other participants such as PIU, S1A Consultant team & Banga contractor	Route 21 & 16 (Patarhat to Bheduria)	Site visit with World bank & PIU visitors
	14.03.2024	Hydrographic survey & site inspection at at Alubazar ghat route 13 jointly S1A consultant and Banga contractor representatives.	Route 13 (Alurbazar ghat- horina, chandpur)	Site visit and survey work
5.	18.03.2024	Two dredgers Banga Padma and Banga Jamuna have been deployed on Route no. 21 and work is in progress. Here also two disposal area dyke no. 8 and dyke no. 15 are being used	Route: 21 (Tentulia River)	
6.	19.03.2024	Inspect the ongoing work of Patarhat No. 2 and meet the common people including the members of the area.	Route: 16 (Patarhat-Bheduria)	
7.	24.03.2024	Inspection of dredging work and disposal area dyke no.02 (R16-D2) and Engineering survey at dredged area.	Route: 16 (Patarhat-Bheduria)	
8.	26.03.2024	Supervision of dredging work and disposal areas. Inspection the construction of a new dyke no.17 and also post dredging engineering survey at Route 21(Bheduria).	Route: 21. (Tentulia River)	Local Government and contractor's representatives were present.

2.1.3.5: Progress and Coordination Meetings of S1A Consultant in March 2024:

Table 6: Interaction with Client/Contractors and another Stakeholder (March, 2024)

SN	Date	Venue	Meeting Agenda	Participants
1.	04.03.2024	Conference room of BIWTA	Discussion on routine survey with Hydrography department of BIWTA	S1A and Hydrography department of BIWTA.
2.	12.03.2024	Progress meeting in Lot-3 house boat at bheduria to Patarhat, Route-21 and Route-16	Presenting the overall advancement of the dredging project, including updates on its social and environmental impacts and mitigation measures that have been implemented.	World Bank and BIWTA representatives along with PIU, S1A Consultant and Dharti-Banga contractor team.
3.	16.03.2024	Meeting Room of Lot-2 Contractor's office at Salimganj, Brahmanbaria.	Before the WB Mission's progress and oversight meetings, steps will be taken to accelerate the dredging work and the selection process for dykes. This will involve coordinating with both local and higher-level government authorities.	S1A consultants, PIU representatives and Lot-2 contractors representatives.
4.	20.03.2024	Weekly Coordination Meeting at Conference room of PIU	Providing an update on project's progress, with a focus on prioritizing Navigational Aids.	PIU representatives and S1A Experts

2.1.4 Grievance Redressal Mechanism (GRM):

Two Grievance Redress Committees (GRC) have been developed in Lot-2 project area and another 02 (Two) GRCs have been developed in Lot-3 project area. Site/Local level GRC is structured for only land related issues and Contractor level GRC is structured for only Gender-Based Violence (GBV) issues in order to effectively resolve their feedback, concern, grievance, complaints and suggestions to the contractors by submitting their grievance through the proposed mechanism. Regular consultations are being conducted by the contractors with the supporting of S1A to inform local peoples about reporting mechanisms of grievance or suggestions if any. Grievance box have been installed in Lot-2 and Lot-3 at project office, dredging sites so that project affected people (PAPs), workers could drop their grievance letters. A signboard has also been set up near the project office providing a hotline number so that people could immediately contact if they have any grievance or suggestions. However, during the reporting period, no grievance has been recorded.

2.1.4.1 GBV/SEA/SH by workers and enforcement of the CoC

The local people have reported that the dredging workers/ laborers have no congenial or illicit sexual relationship with the local inhabitants. No data have found about the violence against women. Everybody reported that no sexual exploitation, sexual violence, or gender-based violence happened in work sites.

2.1.5 ESHS, Worker Employment and OHS Status:

The S1A team assessed the ESHS situation, Worker Employment, and Working condition, Occupational Health and Safety (OHS) status during the reporting period. Considering safety of workers and the public during the dredging process data has been collected through field observation during site visit. Collected data has been illustrated in the table below.

Table 7: ESHS Information at a Glance in March 2024

ESHS Issues	Parameters	Lot-2	Lot-3
Occupational Health and Safety (OHS)	Set up a first aid clinic room, equipped with a medical treatment registration card for each employee.	First aid facilities available at project sites.	First aid facilities available at project sites.
	Kitchen sanitation and cleanness and Food Quality	Satisfactory	Satisfactory
	Sewage and wastewater discharge and Solid Waste Management	Good arrangement kept in House boat	Good arrangement kept in House boat
	Gas cylinder storage and maintenance	Maintained	Maintained
	Fire Extinguisher	Available	Available
	Safe Drinking Water	Accessible. Freshwater is collecting daily from tube well of nearby villages	Accessible. Freshwater is collecting daily from tube well of nearby villages
	Toilet facilities	Good	Good
Workers Condition and Employment situation	Total Employment (person) for all routes	38	60
	Male Female Ratio	All employees are Male	No Female Employee
	Wage Status	Good arrangement kept in House boat	Good arrangement kept in House boat
	Force Labor/ Child Labor	Not Applicable in this month	Not Applicable in this month
Personal Protection Equipment (PPE) for all staff/workers working in the site.	Wearing of appropriate PPE like helmets, safety goggles, hand and arm protection, elbow protection gloves, safety shoes, life jacket/vests for protection while working in the river, use of hearing protection in case of loud noise for all officers/employees and laborers engaged in project work.	Safety helmet, Safety vest, safety shoes, Hand gloves etc. observed at site.	Available in site level but need awareness for using PPE
Traffic management	Provision for preventing accident including night time.	Contractors ESHS team visiting site and concerning all the Manpower	Contractors ESHS team visiting site and concerning all the Manpower
	Dredging sites clearly demarcated and protected to ensure community safety.	Demarcated and Processing for installation required Aids to navigation	Demarcated and Processing for installation required Aids to navigation

2.2 PROGRESS OF LOT-2 (GULF COBLA-KARNAFULY JV) CONTRACTOR:

2.2.1 Development and Maintenance Dredging Works:

The dredging depth and dredging volume may be changed from time to time based on the hydrographic survey. The dredge volumes depend on route centerline, quality of MB/SB data, spacing of survey lines and interpolation between these. The dredge volume for the month of March 2024 is shown below.

Table 8: Description of dredging work for the month of March 2024

Serial No.	Dredger Name	Time Period	Route No.	Place	Cutting Length(m)	Cutting Volume(cum.)
01.	Kafela -01	01 to 31 March	7&8	Khodalila	1499	61103.970
02.	Karnafuly -02	01 to 31 March	09	Khodalila	113	2915.520
03.	Karnafuly -03	01 to 31 March	09	Barialchar	335	18917.680
04.	Karnafuly -05	01 to 31 March	09	Kadur	650	36559.920
05.	Karnafuly -07	01 to 31 March	09	Bishnurampur	849	42365.780
06.	Maa-01	01 to 31 March	09	Kadur	460	22420.440
07.	Pranto-01	01 to 31 March	09	Nayachar	1025	52804.045
08	Reve-03	01 to 31 March	09	Hasannagar	356	16084.920
09	MCD-01	01 to 31 March	09	Moddonagar	425	14820.870

In March 2024, Lot-2 contractor dredged 5.6 km on Route 9 (Class III, length 80km, Titas River) and 1.57 km on Route 7 & 8 (Class III, Length 30 km, Upper Meghna River). From the beginning, they have cumulatively dredged 15.2 km on Route 9 from March 2023 to March 2024. Moreover, they have mobilized Seven additional dredgers on Route 9 during this month. The main challenge is failing to provide continuous operation of dredgers due to frequent machinery breakdown, pipeline shortages and low manpower. Besides, the Lot-2 contractor has done environmental quality control surveys on route 7 & 8 and 9. On the month of March 2024, the S1A consultant and PIU have visited Route 9 and route 7 & 8 in order to expedite the dredging work, to speed up the dyke selection and dyke preparation process and to observe the environmental quality assessment method as well as to communicate with local people for monitoring social activities of the project area.

2.2.2 Environmental Quality Assessment of Lot-2 Sites:

Table 9: Environmental Quality Assessment for March 2024 for Lot-2

SI No.	Item	Parameters	Baseline Data of Route 09	Present Data of Route 09	Baseline Data of Route 07	Present Data of Route 07&08	S1A Remarks ¹ March 2024
			January 2023	March 2024	January 2023	March 2024	
1	Air Quality	SPM	140.34	144.64	153.67	161.53	*WAL
		PM10	58.34	64.83	75.42	80.29	WAL
		PM2.5	31.43	54.21	51.33	61.83	WAL
		SO2	15.29	24.74	27.46	29.35	WAL
		NO2	12.75	32.63	15.21	37.74	WAL
		CO	1.3	0.5	1.4	0.7	WAL
2	Noise Level	LEQ day	61.6	59.2	69.8	54.5	WAL
		L _{max}	76	66.5	74.3	40.9	WAL
		L _{min}	42.8	46.2	40.4	58.4	WAL
3	Surface Water Quality	Temperature	22.1	29.4	22.1	30.2	WAL
		EC	170	291	610	328	WAL
		pH	7.20	7.64	7.25	7.97	WAL
		TDS	160	142	320	162	WAL
		DO	4.5	6.2	5.2	5.9	WAL
		BOD5	10	3.9	2.2	5.5	WAL
		TSS	83	192	87	220	WAL
4	Riverbed Sediment	Lead (Pb)	9.79	-	12.15	-	WAL
		Cadmium (Cd)	0.054	-	0.023	-	WAL

¹ Detail remarks are in Chapter 2

5	Dredged Material	Chromium (Cr)	15.94	-	17.37	-	WAL
		Zinc (Zn)	26.32	-	26.84	-	WAL
		Arsenic (As)	1.96	-	2.54	-	WAL
		Lead (Pb)	-	15.82	-	17.84	WAL
		Cadmium (Cd)	-	0.08	-	0.06	WAL
		Chromium (Cr)	-	16.52	-	13.74	WAL
		Zinc (Zn)	-	22.38	-	18.74	WAL
		Arsenic (As)	-	1.6	-	1.3	WAL

*WAL=Within Approved Limit; - = Sample was not collected; Detail remarks are in Chapter 2

Table10: Compliance Status for March 2024 for Lot-2

Visual Monitoring Compliance								
Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Remarks/ Recommendation	Recommended deadline for implementing the corrective measures
				C	P	N		
Aquatic Flora and Fauna including Plankton, Benthos, fish, dolphin	A total of Twelve (12) species of fish and two (02) species of crustaceans were observed. There is no visible fish mortality within and around the dredging site location. Observer did not observe any Ganges River dolphins.	Mitigation measures not required	No mitigation measure is required	-	P	-	Common fishes and crustaceans have been recorded; one endangered fish species recorded according to the IUCN Red List-Bangladesh, 2015. No dolphins in a year is quite amazing, maybe the timing of the observation or the amount of time, effort given to observe dolphins is inadequate	Advised regular monitoring of the habitat and intensive, repeated visits to establish an inventory of the floral and faunal species. Check the starting of the distributary and the opening of the distributary at the Meghna side for dolphins.
Sediment Dispersion	Not measured	-	-	-	-	N	Contractors were notified to measure sediment plume on 1 st March 2023, followed by verbal instruction and reminder emails	No action taken or data provided by the contractors yet. Will be reminded again
River Bank Erosion	There were no issues regarding riverbank erosion or flooding.	Dredger stopped and relocated	Dredger stopped and relocated; some protection measures taken	C	-	-	Stop dredging and relocate	Recommended to report to the authority and stop dredging
Hydrological Conditions	Surveyed prior to dredging	x	x	x	P	x	x	x
Drainage Congestion	The dredging work in December 2023 is being carried out at Salimganj Ghat (Route-9) area. During site observation, the outline for water passing from the dredge material was found to be functional.			-	P	-	No reports of any drainage congestion. Regular monitoring	Keep clear all drainage channels. Regular monitoring
River Traffic/Transport	River traffic related sign boards have already been fixed to ensure a safe river traffic movement		No mitigation measure is required		P	-	Install river traffic and navigation-related sign boards	Advised to install aids to navigation as per the contract.
Accidental Spillage	No reports yet	Oil spill emergency plan. 24/7 ready plan	-		P	-	Log book to be maintained, in case of any incident,	No action taken yet

Visual Monitoring Compliance								
Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Remarks/ Recommendation	Recommended deadline for implementing the corrective measures
				C	P	N		
							report to authority	
Sediment leakages from pipes and sediment disposal	No reports on any leakage	Maintain pipes	Pipes regularly checked	-	P	-	Stop dredging, fix the problem prior to resumption; report to authority	
Drinking water & sanitation	Safe drinking water is being supplied	Source to be mentioned	-	-	C	-	-	Source of drinking water to be mentioned
Safety of workers	Occupational safety		PPEs provided	-	-	P	Monitor use of PPEs	Regular monitor, Punitive measures for using PPEs
Waste management	Waste bins have been placed on the houseboat as well as in dredger and maintained		-	-	C	-	Colored collection bins for organic and non-organic solid wastes; no wastes in the river	Mention later stages, what happens after collection from waste bins
Cultural and archeological Sites	Preservation of such sites		x	-	x	x	Stop dredging, report to the authorities	-
Waste water			-	-	-	P	-	-

Note: The table was prepared based on observations from the field visit.

2.2.3 Social and Resettlement Aspects at Lot-2 Site:

Lot-02

At present 57 agreements are on process. Most of the places people have willingly agreed to allow using their lands. General people of the project sites can get the news of river dredging, dredged materials dumping and good faith agreements through several consultation meetings with local people in local Bazars, Union Council, villages and the local Schools. Progress of Dykes and Good Faith Agreements during this reporting period of Lot-02 is illustrated in the following tables:

Table 11: Good Faith Agreements (GFA), Lot 2, Route-09, (District: Brahmanbaria, Narsingdi and Cumilla).

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement (GFA)
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
47	09	1. Md. Abu Hanif NID: 7305030772 Mbl: 01712892751 2. Sohrab Hossain NID: 1975871797 Mbl: 01728356911	Village: Kadoir Union: Salimganj Upazila:Nabi Nagar District: Brahman Baria.	Mouza No. Kadoir Khatian No: 342 Plot: 438 JL No:10	68	Agriculture land (One Crop)	Under Process

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Dyke No.	Route No	Land Owner		Land			Good Faith Agreement (GFA)
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
48	09	1. Kamrul Hasan NID: 1979121857500003 0 Mbl: 01716161185 2. Jaman Uddin NID: 2361962059 Mbl: 01859278912 3. Moshen Mia NID: 5107234883 Mbl: 01713925813 4. Dulal Mia NID: 7347018397 Mbl: 01712830195 5. Baijid Hasan NID: 5107234883 Mbl: 01915830112 6. Abdul Motin NID: 1218588035697 Mbl: 01913592311 7. Hanif Mia NID: 1970121857500000 9 Mbl: 01713925813	Village: Char Badda Union: Salimganj Upazila: Nabi Nagar District: Brahman Baria.	Mouza No. Char Badda Khatian No: 404/344/160/606/557/605 Plot: 1531/1502/1537/860/941/1 282/1530/1531/1551/288/2 89/316/493/1567 JL No: 14	200	Agriculture land (One Crop)	Under Process
49	09	1. Kamal Uddin NID: 9148394498 Mbl: 01602208686 2. Forkan uddin NID: 1948433175 Mbl: 01711180780 3. Abdul Hashim NID: 8248455555 Mbl: 01733113742 4. Parul Begum NID: 4201436906 Mbl: 01716497968 5. Ismail Mia NID: 1523786984 Mbl: 01913777071 6. Amir Hossain Passport: 0538242 Mbl: 01712835771 7. Farid NID: 3322198205 Mbl: 01852892821	Village: Bahir Char Union: Tezkhal Upazila: Bancharampur District: Brahman Baria.	Mouza No. Bahir Char Khatian No: 392/320/707/273/514/1071 Plot: 1105/617/1104/411/496/11 11/1110 JL No: 41	179	Agriculture land (One Crop)	Under Process
50	09	1. Abul Kashem NID: 2398411542 Mbl: 01708665453 2. Humayun Kobir NID: 1210436157748 Mbl: 01983460221	Village: Moddho Nagar Union: Choyfullah Kandi Upazila: Nabinagar District: Brahman Baria.	Mouza No. Moddho Nagar Khatian No: 1054/1485 Plot: 1105/617/1104/411/496/11 11/1110 JL No: 38	193	Agriculture land (One Crop)	Under Process
51	09	1. Murshid Mia NID: 3296986155 Mbl: 01852897257 2. Dulal Mia NID: 1218575054223 Mbl: 01719835021 3. Lal Chand Passport: 0363728 Mbl: 01719478351	Village: Char Badda Union: Salimganj Upazila: Nabinagar District: Brahman Baria.	Mouza No. Char Badda Khatian No: 525/263/675 Plot: 210/211/39/68 JL No: 68	130	Agriculture land (One Crop)	Under Process

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement (GFA)
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
52	09	Shahin NID: 19821218575000021 Mbl: 01734532462	Village: Bandey Bahir char Union: Salimganj Upazila:Nabinagar District: Brahman Baria.	Mouza No. Char Badda Khatian No: 1118 Plot: 26 JL No:14	32	Agriculture land (One Crop)	Under Process
53	09	Md. Monirul Islam NID: 8672153577 Mbl: 01711175171	Village: Joy Nagar Union: Salimganj Upazila:Nabinagar District: Brahman Baria.	Mouza No. Joy Nagar Khatian No:1154 Plot: 2374 JL No:11	75	Agriculture land (One Crop)	Under Process
54	09	Abdur Razzak NID: 9574183696 Mbl: 01747343757	Village: Bishnurampur Union: Tezkhali Upazila:Bancharampur District: Brahman Baria.	Mouza No. Bishnurampur Khatian No:1154 Plot: 1594 JL No:01	86	Fallow Land	Under Process
55	09	Shahjalal NID: 8242023813 Mbl: 01625888695	Village: Bishnurampur Union: Tezkhali Upazila:Bancharampur District: Brahman Baria.	Mouza No. Bishnurampur Khatian No:386 Plot: 1550 JL No:40	73	Fallow Land	Under Process

2.3 PROGRESS OF LOT-3, (DHARTI-BANGA JV) CONTRACTOR:

2.3.1 Development and Maintenance Dredging Works:

The Lot-3 contractor carried out 550 m of emergency dredging on Route 21, 570 m of dredging on Route 16 and 446 m of dredging on Route 13 in this reporting period. Besides, they have done Hydrographic Baseline Survey on Route 13 and 16. Moreover, they did environmental quality control surveys on Route 16, Route 13 and 21.

Table 12: Dredging work Lot-3 in March 2024

Location/ Section	Dredger	Month	Cutting Length (m)	Dredged Volume (Cum)
Route 21, Laharhat-Bheduria	Banga Jamuna	March, 2024	550	78,341
Route 16, Patarhat-Bheduria	Banga Sitalakhya	March, 2024	570	72,49
Route 13, Alu Bazar Launch Ghat to Horina	Banga Padma	March, 2024	446	47,362

2.3.2 Environmental Quality Assessment of Lot-3 Site:

The Lot-3 team did not submit the results for the riverbed sediment and dredged material samples during this reporting period, preventing the S1A team from assessing them.

Table 13: Environmental Quality Assessment for March 2024 for Lot-3

Sl No.	Item	Parameters	Baseline Data of Route 16	Route 16	Baseline Data of Route 21	Route 21	S1A Remarks ² March 2024
				March 2024		March 2024	
1	Air Quality	SPM	170.65	65.81	165.12	68.10	*WAL
		PM10	81.24	39.85	72.15	42.28	WAL
		PM2.5	42.85	18.79	47.28	17.46	WAL
		SO2	16.44	14.21	13.69	11.55	WAL
		NO2	21.40	18.44	22.18	13.97	WAL

² Detail remarks are in Chapter 2

		CO	1.1	0.7	1.5	0.6	WAL
2	Noise Level	LEQ day	53.5	57.34	68.6	62.35	WAL
		L _{max}	75.7	69.54	84.4	82.53	Mixed Area. Within baseline.
		L _{min}	32.8	36.90	37.3	39.76	WAL
3	Surface Water Quality	Temperature	22.0	24.5	22.1	24.8	WAL
		EC	280	285	300	290	WAL
		pH	7.91	7.25	7.89	7.77	WAL
		TDS	140	133	150	137	WAL
		DO	6.3	7.2	6.2	7.0	WAL
		BOD5	0.6	1.3	0.4	1.5	WAL
		TSS	29	62	93	86	WAL
4	Riverbed sediment	Lead		8.11		10.17	WAL
		Cadmium		0.055		0.054	WAL
		Chromium		10.35		12.76	WAL
		Zinc		19.68		23.48	WAL
		Arsenic		1.05		1.57	WAL
5	Dredge Material	Lead		10.23		12.50	
		Cadmium		0.059		0.057	
		Chromium		13.59		15.67	
		Zinc		23.17		25.30	
		Arsenic		1.70		1.95	

*WAL=Within Approved Limit; Detail remarks are in Chapter 2; Note: No Baseline data on Riverbed sediment

Table14: Compliance Status for March 2024 for Lot-3

Visual Monitoring Compliance								
Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Remarks/ Recommendation	Recommended deadline for implementing the corrective measures
				C	P	N		
Aquatic Flora and Fauna including Plankton, Benthos, fish, dolphin	Fourteen (14) species of fish and two (02) crustacean species were observed in River route 16 and 21. The study team did not observe any Ganges River Dolphin (<i>Platanista gangetica</i>) near the dredging site, dredger placement and adjacent areas (500m upstream and downstream area) during this month. During the survey, no turtle sightings were recorded within the dredger placement area, dredging site, dike area, adjacent area, or along River Routes 16 and 21.	Mitigation measures not required	No mitigation measure is required in the reporting period	-	P	-		Advised to give more effort, and to spend more time for regular monitoring of the habitat and biodiversity.
Sediment Dispersion	Not measured	x	No mitigation measure is required in the reporting period	-	-	N	Contractors were notified to measure sediment plume on 1 st March 2023. Reminders were given verbally and by email	No action taken or data provided by the contractors yet. Will be reminded again
Riverbank Erosion	No reports of riverbank erosion or flooding occurred during the reporting month.			-	P	-		Regular monitoring
Hydrological Conditions	Surveyed prior to dredging	x	x	x	x	x	x	x
Drainage Congestion	No drainage congestion was observed during this month.				P	-	No reports of any drainage congestion	To be monitored regularly, early mornings and evenings

Visual Monitoring Compliance							
Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Recommended deadline for implementing the corrective measures
				C	P	N	
River Traffic/Transport	No traffic-related problems were identified	Appropriate aids to navigation to be installed	Procurement of aids to navigation under process	-	P	-	River traffic related sign boards observed
Accidental Spillage	No reports yet	Monitoring and preparedness to handle any accidental spillage	No spills from chemical storage -	-	P	-	Emergency oil spill management plan
Sediment leakages from pipes and sediment disposal	No reports on ant leakage	Maintain pipes, regular checking	During this reporting month no leakage was found in the dredge pipe. Pipes regularly checked	-	P	-	No reports of leakage
Drinking water & sanitation	Safe drinking water is being supplied			-	C	-	-
Safety of workers	Occupational safety		PPEs provided	-	-	P	Monitor use of PPEs
Waste management	Waste bins have been placed on the houseboat as well as in dredger and maintained		-	-	C	-	Colored collection bins for organic and non-organic solid wastes; no wastes in the river
Cultural and archeological Sites	Preservation of such sites		x	-	x	x	Stop dredging, report to the authorities
Waste water	From houseboat, dykes, etc.	Treated, release after settling	Not described	-	-	N	To be treated before release

2.3.3 Social and Resettlement Aspects at Lot-3 Site:

Lot-03:

At present 22 agreements are on process. Most of the places people have willingly agreed to allow using their lands. General people of the project sites can get the news of river dredging, dredged materials dumping and Good Faith Agreements (GFAs) through several consultation meetings with local people in local Bazars, Union Council, villages and the local Schools.

Table 15: Good Faith Agreements (GFAs), Lot-03, Route-21, Route-16, Route-13&13a (District: Bhola, Barisal, Chandpur and Shariatpur).

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement (GFA)
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
12	21	Harun chairman NID: Under processing Mobile # 01712-404378	Village: Shreipur Union: Mehendiganj Upazila: Mehendiganj District: Barishal	Land information collection is on process.	73	Agriculture land (Two Crops)	Under Process
13	21	Harun chairman NID: Under processing Mobile # 01712-404378	Village: Shreipur Union: Mehendiganj Upazila: Mehendiganj District: Barishal	Land information collection is on process.	128	Agriculture land (Two Crops)	Under Process

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Dyke No.	Route No	Land Owner		Land			Good Faith Agreement (GFA)
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
14	21	Md. Mizanur Rahman Harun NID: 6860475422 Mbl: 01712878285	Village: Shampur Union: Kalupur Upazila: Bhola Sadar District: Bhola.	Mouza No. Ghagoria Khatian No: JL No: 56	1000	Agriculture land (Two Crops)	Under Process
15	21	Mizanur Rahman Harun NID: 6860475422 Mobile # 01712-878285	Village: Shreipur Union: Mehendiganj Upazila: Mehendiganj District: Barishal	Land information collection is on process.	1572	Agriculture land (Two Crops)	Under Process
16	21	Kamal hossain(member) NID: Not given by contractor Mbl:	Village: Ghagoria Union: Bhola Sadar Upazila: Bhola Sadar District: Bhola	Land information collection is on process.	Not yet confirmed	Agriculture land (Two Crops)	Under Process
01	13	Md. Ali Bapari NID: not given Mbl # 01739224610	Village: Narshinshopur Union: Shokhipur Upazila: Bhedorganj District: Shariotpur	Land information collection is on process.	574	Agriculture land (Two Crops)	Under Process
02	13	land owner: pulic/Government	Village: Lokkhir char Union: Upazila: Chandpur sadar District: Chandpur	Land information collection is on process.	400	Agriculture land (Two Crops)	Under Process
03	13	Md. Md. Dulal Khan NID: Not given by land owner Mbl # 01729-505858 Md. Monir Hossain NID: Not given by land owner Mbl # 01791-330411	Village: Narshinshopur Union: Shokhipur Upazila: Bhedorganj District: Shariotpur	Land information collection is on process.	445	Agriculture land (Two Crops)	Under Process
01 (Old)	16	Md.Amir hossain Jomaddar NID: 8225574485 Mbl # 01718051191	Village: Sadequepur Union: Mehendiganj Upazila: Mehendiganj District: Barishal	Land information collection is on process.	488	Agriculture land (Two Crops)	Under Process
01 (New)	16	Md.Amir hossain Jomaddar NID: 8225574485 Mbl # 01718051191	Village: Sadequepur Union: Mehendiganj Upazila: Mehendiganj District: Barishal	Land information collection is on process.	435	Agriculture land (Two Crops)	Under Process
02	16	1. Adv. Md Khorshed NID: 7328539411 and 2. Adv. Md Jakir Hossain NID: 0616213038313 Mbl # 01770198608	Village: Char Mitua Union: Alimabad Upazila: Mehandiganj District: Barishal	Land information collection is on process.	286	Agriculture land (Two Crops)	Under Process

CHAPTER 03:
ACHIEVEMENT OF LAST MONTH PLAN AND NEXT MONTH PLAN

3.1 ACHIEVEMENT OF REPORTING MONTH:

S1A

- a) Submitted Daily Survey and Dredging Monitoring Sheet to PIU and WB.
- b) Conducted Supervision and Monitoring Surveys of Dredging activities on Route 9, Route 7 & 8 under Lot-2.
- c) Reviewing and Assessing volume for Route 13 and Route 16 under Lot-3.

Lot-2

- a) Completed 11.36 km of dredging of 20 km on Route 9, which is 56.8% dredging progress on Route 9.
- b) Completed 3.23 km of dredging of 5.8 km on Route 7 & 8, which is 55.6%
- c) Related Environmental, Social and GRM Activities have been conducted.

Lot-3

- a) Hydrographic Survey on Route 13 and Route 12.
- b) Completed 950 m of dredging on Route 13.
- c) Related Environmental, Social and GRM Activities have been conducted.

3.2 NEXT MONTH PLAN:

S1A

- a) Reviewing the Volume data with the submitted data by the contractor and assess the volume for Route 7 & 8 and Route 9 under Lot-2.
- b) Supervision and Monitoring of Surveying, dredging activities and quality, ESHS and GRM activities of Lot-2 and Lot-3 as mentioned below.
- c) Conducting Good Faith Agreement on Route 6, 9, 7 & 8 and 11 under Lot-2 and on Route 13, 16 and 21 under Lot-3.
- d) Expediting navigational aid installation work plan from the Lot-2 and Lot-3 contractors.
- e) Expedite the dredging activity of Lot-2 in order to complete 100% of dredging work by 5th June, 2024.

Lot-2

- a) Expediting dredging work on Route 6, 7 & 8, 9 and 11 in order to meet 100% of development dredging by 5th June, 2024.
- b) Dredging Route 6, 7 & 8, 9 and 11.
- c) Constructing dyke as per the approved design by the S1A.
- d) Related Environmental, Social and GRM Activities

Lot-3

- a) Dredging work on Route 13 and 12.
- b) Constructing dyke as per the approved design by the S1A.
- c) Related Environmental, Social and GRM Activities.
- d) Constructing dyke as per the approved design by the S1A.

CHAPTER 04: CONCLUSION AND/OR RECOMMENDATIONS

The dredging project under Lot-2 and Lot-3 has made significant progress during the reporting period, with active dredging operations conducted along multiple river routes. Despite significant efforts and progress made in the dredging project under Lot-2, it is concerning that the contractor has fallen far behind schedule, particularly in meeting the 80% completion percentage of the Bill of Quantities (BOQ) volume. With only a limited time remaining until the deadline of 5th June 2024, the current pace of work indicates a significant risk of failing to achieve the project's objectives within the stipulated timeframe. Moreover, encountering challenges such as machinery breakdowns, pipeline shortages, water hyacinth, and low manpower, efforts have been made to mobilize additional resources to maintain project momentum. Environmental quality control surveys have been conducted, and samples analyzed to assess the impact of dredging activities on the surrounding ecosystem. Overall, the environmental parameters, including air and noise quality, surface water quality, and sediment concentrations, generally remained within acceptable limits, indicating effective mitigation measures in place. Socially, the project has maintained a positive relationship with local communities, as evidenced by the resolution of grievances related to dyke selection and the implementation of new employee safety procedures. Traffic-related issues were minimal, and safety measures were observed to be in place, ensuring a safe working environment.

Besides, the Lot-2 contractor need to mitigate the impact of frequent machinery breakdowns, a proactive maintenance schedule should be implemented, along with ensuring an adequate supply of logistics and spare parts and efforts need to be made to address pipeline shortages to ensure continuous dredging operations along the designated routes. Consideration should be given to increasing manpower or implementing strategies to optimize existing resources to overcome the challenge of low manpower.

CHAPTER 05: ANNEXURE

ANNEX-I: Photos of Project Activities

Figure 2: Progress and Coordination Meetings:



Figure 3: Local Level Stakeholder Communication and Consultation



Figure 4: Field Visit March, 2024



Figure 5: Monthly Environmental Sample Collection at Lot-2 sites:



Figure 6: Monthly Environmental Sample Collection at Lot-3 sites:



ANNEX II: Laboratory Test Results of Environmental Parameters, March, 2024

Laboratory Test Result of Lot-2:



Ref: ELRC/Air Quality/2024307892

Project Name	:	BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11
Monitoring Activity	:	Ambient Air Quality
Location	:	AQ 1: 23°53'7.23"N 90°49'15.09"E; Khodadila Narsingdi (Route- 7&8) AQ 2: 23°53'16.36"N 90°48'8.13"E; Near Alokali Eidgah (Route- 7&8) AQ 3: 23°50'3.75"N 90°52'14.15"E; Kadur Ghat (Route-9) AQ 4: 23°50'51.72"N 90°50'38.16"E; Near Salimganj Bridge (Route-9)
Monitoring Date	:	(18-21).03.2024
Reporting Date	:	02.04.2024

Description of Analysis:

Location	Sampling Date	Ambient Air Pollutants' Concentration in µg/m3					CO mg/m3
		SPM	PM10	PM2.5	SO2	NO2	
AQ1	18/03/24	144.64	64.83	54.21	24.74	32.63	0.5
AQ 2	18/03/24	148.19	65.49	55.54	25.93	33.36	0.6
AQ 3	19/03/24	157.38	78.24	60.69	28.46	36.47	0.7
AQ 4	20/03/24	161.53	80.29	61.83	29.35	37.74	0.7
Air Pollution (control) rules, 2022*		-	150	65	80	80	5
Method of Analysis Instrument Use: Haz-Scanner TM (HIM, 6000)		Particulates Sensor Light Scattering Nephelometer			High Sensitivity Electrochemical		

Note: * Air Pollution (Control) Rules, 2022

Legend: PM₁₀-Particulate Matter of a diameter of 10 microns or less. PM_{2.5}-Particulate Matter of a diameter of 2.5 microns or less, SO₂-Sulphur Dioxide; NO₂-Nitrogen-Dioxide; CO -Carbon Monoxide



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Ref: ELRC/Noise Level/2024307893

Project Name	: BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11.
Monitoring Activity	: Noise Level
Location	: NL1: 23°53'10.27"N 90°49'10.94"E; Khodadila Narsingdi (Route- 7&8) NL2: 23°53'21.10"N 90°48'9.38"E; Near Alokballi Eidgah (Route- 7&8) NL3: 23°50'5.00"N 90°52'12.38"E; Kadur Ghat (Route-9) NL4: 23°50'52.81"N 90°50'37.73"E; Near Salimganj Bridge (Route-9)
Monitoring Date	: (18-21).03.2024
Reporting Date	: 02.04.2024

Description of Analysis:

Location	Noise level (dB(A))			Bangladesh Standard (dB(A)) *	IFC EHS Guideline (2007)	Location setting
	Leq _{day}	L _{max}	L _{min}	Day	Day	
NL1	54.5	58.4	40.9	60	70	Mixed area
NL2	53.7	57.2	40.1	60	70	
NL3	57.4	65.6	45.4	60	70	
NL4	59.2	66.5	46.2	60	70	

Note:

*Ministry of Environment, Forest, and Climate Change. (2006). Noise Pollution (Control) Rules, 2006 (S.R.O. No. 212-Law/2006). The People's Republic of Bangladesh.

A-weighted decibel, abbreviated dB(A), is an expression of the relative loudness of sounds in air as perceived by the human ear. In the A-weighted system, the decibel values of sounds at low frequencies are reduced, as the ear is less sensitive to low audio frequencies, especially below 1000 Hz, than to high audio frequencies.



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Ref: ELRC/Underwater Noise Level/2024307894

Project Name	:	BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11.
Monitoring Activity	:	Noise Level
Location	:	UWNL1: 23°50'8.50"N 90°51'48.81"E Near Nodi Ghat Narsingdi (Route-7&8)
	:	UWNL2: 23°53'3.84"N 90°49'26.07"E; Bancharampur-Salimganj Now Path (Route-9)
Monitoring Date	:	18-19.03.2024
Reporting Date	:	02.04.2024

Description of Analysis:

Code	Location	L _{Avg} [dB (A)]	*Standard
UWNL1	Near Nodi Ghat Narsingdi	61.5	No International/GoB Standard
UWNL2	Bancharampur-Salimganj Now Path	59.8	



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Ref: ELRC/Surface Water Quality/2024307895

Project Name	:	BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11.
Description of Sample	:	Surface Water – Lot 2
Location	:	SW1- 23°53'2.83"N 90°49'27.04"E - Near Nodi Ghat Narsingdi (Route-7&8)
	:	SW2 - 23°53'39.92"N 90°49'8.35"E - Near Nodi Ghat Narsingdi (Route-7&8)
	:	SW3 - 23°50'6.38"N 90°52'16.12"E - Bancharampur-Salimganj Now Path (Route-9)
	:	SW4 - 23°50'8.32"N 90°51'58.70"E - Bancharampur-Salimganj Now Path (Route-9)
Sampling Date	:	(18-21).03.2024
Reporting Date	:	02.04.2024

Description of Analysis:

Parameters	Unit	Concentration Present				Bangladesh Standard
		SW1	SW2	SW3	SW4	
Temperature	°C	29.4	29.7	30.5	30.2	-
EC	μS/cm	291	295	334	328	-
Turbidity	NTU	6.7	6.8	7.1	7.4	-
pH	-	7.64	7.75	8.23	7.97	6-9
TDS	ppm	142	145	165	162	1000
DO	mg/L	6.2	6.4	5.8	5.9	5 or more
Potassium	mg/L	37	40	48	46	-
Calcium	mg/L	55	54	59	57	-
Magnesium	mg/L	22	24	30	31	-
Phosphate	mg/L	0.6	0.7	0.8	0.9	-
Chloride	mg/L	28	29	39	37	-
Fluoride	ppm	0.7	0.8	0.9	1.0	-
Nitrate	mg/L	0.7	0.8	0.6	0.5	7
BOD5 (at 20°C)	mg/L	3.9	4.2	5.2	5.5	6 or less
Sulfate	mg/L	28	29	34	36	-
TSS	mg/L	192	198	215	220	-

Note: Bangladesh Environment Conservation Rules, 1997- Schedule 3 (Standards for Inland Surface Water). DO: Dissolved Oxygen; BOD: Biological Oxygen Demand; EC: Electric Conductivity; TDS: Total Dissolved Solids; TSS: Total Suspended Solids



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Ref: ELRC/ Dredge Material /2024307897

Project Name	:	BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11.
Description of Sample	:	Dredge Material – Lot 2
Location	:	DM1 - 23°49'40.00"N 90°51'0.33"E - (Route-7&8) DM2 - 23°49'40.00"N 90°51'0.33"E - (Route-9)
Sampling Date	:	18-21.03.2024
Reporting Date	:	02.04.2024

Description of Analysis:

Parameter	Unit	Dredge Material – Lot 2		Methodology	Dutch Environmental Standard (mg/kg)
		DM1	DM2		
Lead	mg/kg	17.84	15.82	ICPMS	85
Cadmium	mg/kg	0.06	0.08	ICPMS	0.8
Chromium	mg/kg	13.74	16.52	ICPMS	100
Zinc	mg/kg	18.74	22.38	ICPMS	140
Arsenic	mg/kg	1.3	1.6	ICPMS	29

Note: ICPMS - Inductively coupled plasma mass spectrometry



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Ref: ELRC/ Drinking Water /2024307898

Project Name	:	BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11.
Description of Sample	:	Drinking Water – Lot 2
Location	:	DW1: 23°38'2.90"N 90°30'54.04"E - Route 7&8
	:	DW2: 23°47'21.99"N 90°31'29.63"E - Route 9
Sampling Date	:	18-21.03.2024
Reporting Date	:	02.04.2024

Description of Analysis:

Parameter	Unit	DW1	DW2	Bangladesh Standard*
Temperature	oC	23.4	23.6	20-30
Electric Conductivity	μS/cm	760	300	--
pH	-	6.72	6.92	6.5 – 8.5
TDS	ppm	400	155	1000
Arsenic	mg/L	<0.01	<0.01	0.05
Potassium	mg/L	7.2	8.0	12.0
Calcium	mg/L	13.8	19.3	75
Magnesium	mg/L	6.3	6.7	30–35
Chloride	mg/L	18	32	150 – 600*
Fluoride	ppm	0.5	0.4	1.0
Bromine	mg/L	--	--	--
Sodium	mg/L	--	--	200
Sulfate	mg/L	8	2.8	250
Iron	mg/L	0.07	0.82	0.3 – 1.0
Manganese	mg/L	0.01	<0.01	0.4

* Bangladesh Environment Conservation Rules, 2023 [Schedule 2 (B)]



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Laboratory Test Result of Lot-3:



Ref: ELRC/Air Quality/ AQMM2024-03

Project Name	:	BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 &16, 17 and 21
Monitoring Activity	:	Ambient Air Quality
Monitoring Date	:	10.03.2024
Monitoring Location	:	Route 16: (AQ-1)- 22°47'17.85"N 90°31'32.60"E Route 21: (AQ-2)- 22°41'59.46"N 90°32'56.50"E

Description of Analysis:

Location	Sampling Date	Ambient Air Pollutants' Concentration in µg/m ³					CO mg/m ³
		SPM	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	
AQ-1 Route 16	10/03/2024	65.81	39.85	18.79	14.21	18.44	0.7
AQ-2 Route 21	10/03/2024	68.10	42.28	17.46	11.55	13.97	0.6
Air Pollution (control) rules, 2022*		-	150	65	80	80	5
Method of Analysis		Particulates Sensor			High Sensitivity		
Instrument Use:		Light Scattering Nephelometer			Electrochemical		
Haz-Scanner TM (HIM, 6000)							

Note: * Air Pollution (Control) Rules, 2022

Legend: PM₁₀-Particulate Matter of a diameter of 10 microns or less, PM_{2.5}-Particulate Matter of a diameter of 2.5 microns or less, SO₂-Sulphur Dioxide; NO₂-Nitrogen-Dioxide; CO -Carbon Monoxide

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Ref: ELRC/Noise Level/ NLMM2024-03

Project Name	:	BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 & 16, 17 and 21
Monitoring Activity	:	Noise Level
Location	:	NL1 22°47'21.15"N 90°31'28.82"E, (Route-16) NL2 22°42'0.31"N 90°32'47.62"E, (Route-21)
Monitoring Date	:	10.03.2024

Description of Analysis:

Location	Noise level (dB(A)) ¹			Bangladesh Standard (dB(A)) ²	IFC EHS Guideline (2007) ³	Location setting
	Leq _{day}	L _{max}	L _{min}	Day	Day	
NL1	57.34	69.54	36.90	-	-	-
NL2	62.35	82.53	39.76	-	-	-

Note:

¹Ministry of Environment, Forest, and Climate Change. (2006). Noise Pollution (Control) Rules, 2006 (S.R.O. No. 212-Law/2006). The People's Republic of Bangladesh.

A-weighted decibel, abbreviated dB(A), is an expression of the relative loudness of sounds in air as perceived by the human ear. In the A-weighted system, the decibel values of sounds at low frequencies are reduced, as the ear is less sensitive to low audio frequencies, especially below 1000 Hz, than to high audio frequencies.

¹ A-weighted decibel, abbreviated dB(A), is an expression of the relative loudness of sounds in air as perceived by the human ear. In the A-weighted system, the decibel values of sounds at low frequencies are reduced, as the ear is less sensitive to low audio frequencies, especially below 1000 Hz, than to high audio frequencies.

²Ministry of Environment, Forest, and Climate Change. (2006). Noise Pollution (Control) Rules, 2006 (S.R.O. No. 212-Law/2006). The People's Republic of Bangladesh.

³ Guidelines values are for noise levels measured out of doors. Source: Guidelines for Community Noise, World Health Organization (WHO), 1999

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Ref: ELRC/ Underwater Noise Level/ UWNL2024-03

Project Name	:	BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 & 16, 17 and 21
Monitoring Activity	:	Underwater Noise Level
Location	:	UWNL1 22°47'28.89"N 90°31'22.39"E, Route-16 UWNL2 22°42'5.55"N 90°34'59.47"E, Route-21
Monitoring Date	:	10.03.2024

Description of Analysis:

Code	Location	L _{Avg} [dB (A)]	*Standard
		[dB (A)]	
UWNL1	Route 16	58.9	No standard of International / GoB
UWNL2	Route 21	64.2	

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Ref: ELRC/Surface Water Quality/ SWMM2024-03

Project Name	:	BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 &16, 17 and 21
Description of Sample	:	Surface Water
Location	:	Route-16, and 21.
		SW1 - 22°47'27.90"N 90°31'28.43"E, Route 16
		SW2 - 22°42'4.70"N 90°33'13.93"E, Route 21
Sampling Date	:	10.03.2024

Description of Analysis:

Parameters	Unit	Concentration Present (Route -16, & 21)		Bangladesh Standard
		SW1	SW2	
Temperature	°C	24.5	24.8	-
EC	µS/cm	285	290	-
Turbidity	NTU	6.5	6.1	-
pH	-	7.25	7.77	6 - 9
TDS	ppm	133	137	1000
DO	mg/L	7.2	7.0	5 or more
Potassium	mg/L	8.4	8.5	-
Calcium	mg/L	<0.01	<0.01	-
Magnesium	mg/L	15	18	-
Phosphate	mg/L	<0.01	<0.01	0.05
Chloride	mg/L	3.4	6.1	-
Fluoride	ppm	0.8	0.6	-
Nitrate	mg/L	0.2	0.8	7.0
BOD5 (at 20°C)	mg/L	1.3	1.5	6 or less
Sulfate	mg/L	12	16	-
TSS	mg/L	62	86	-

Note: * Bangladesh Environment Conservation Rules-2023, Schedule 2(Ka) (Water Usable for Fisheries). DO: Dissolved Oxygen; BOD: Biological Oxygen Demand; EC: Electric Conductivity; TDS: Total Dissolved Solids; TSS: Total Suspended Solids

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Ref: ELRC/ Riverbed sediment / SDMM2024-03

Project Name	:	BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 &16, 17 and 21
Description of Sample	:	Riverbed sediment – Lot 3
Sampling Date	:	10.03.2024

Location Details:

Code	Route No.	GPS Location
SedQ1	Route 16	22°47'23.87"N 90°31'31.49"E
SedQ2	Route 21	22°42'2.62"N 90°33'3.73"E

Description of Analysis:

Parameter	Unit	Riverbed sediment – Lot 3		Methodology	Dutch Environmental standard (mg/kg)
		SedQ1	SedQ2		
Lead	mg/kg	8.11	10.17	ICPMS	85
Cadmium	mg/kg	0.055	0.054	ICPMS	0.8
Chromium	mg/kg	10.35	12.76	ICPMS	100
Zinc	mg/kg	19.68	23.48	ICPMS	140
Arsenic	mg/kg	1.05	1.57	ICPMS	29

Note: ICPMS - Inductively coupled plasma mass spectrometry

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Ref: ELRC/ Dredge Material / SDMM2024-03

Project Name	:	BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 &16, 17 and 21
Description of Sample	:	Dredge Material – Lot 3
Sampling Date	:	10.03.2024

Location Details:

Code	Route No.	GPS Location
DM-15a	Route 16	22°47'11.22"N 90°31'38.44"E
DM-15b	Route 16	22°47'10.43"N 90°31'37.44"E
DM-15c	Route 16	22°47'11.70"N 90°31'41.74"E
DM-16a	Route 21	22°41'53.39"N 90°32'28.86"E
DM-16b	Route 21	22°41'55.20"N 90°32'29.16"E
DM-16c	Route 21	22°41'52.22"N 90°32'28.20"E

Description of Analysis:

Parameter	Unit	Dredge Material Route 16 and 21						Methodology	Dutch Environmental standard (mg/kg)
		DM 15a	DM 15b	DM 15c	DM 16a	DM 16b	DM 16c		
Lead	mg/kg	10.23	10.11	11.18	12.50	13.35	12.92	ICPMS	85
Cadmium	mg/kg	0.059	0.057	0.058	0.057	0.056	0.058	ICPMS	0.8
Chromium	mg/kg	13.59	13.08	14.76	15.67	15.79	16.24	ICPMS	100
Zinc	mg/kg	23.17	22.01	24.25	25.30	26.98	25.38	ICPMS	140
Arsenic	mg/kg	1.70	1.66	1.78	1.95	1.98	1.89	ICPMS	29

Note: ICPMS - Inductively coupled plasma mass spectrometry

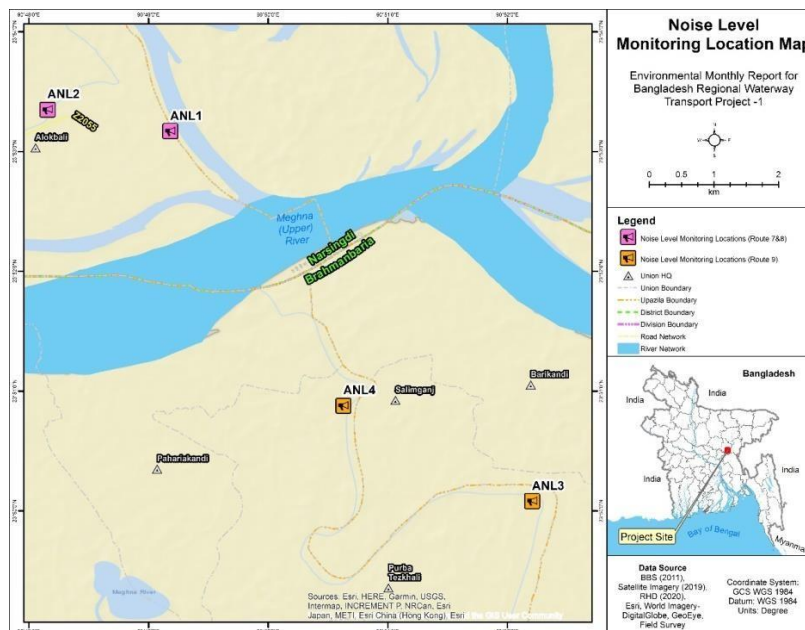
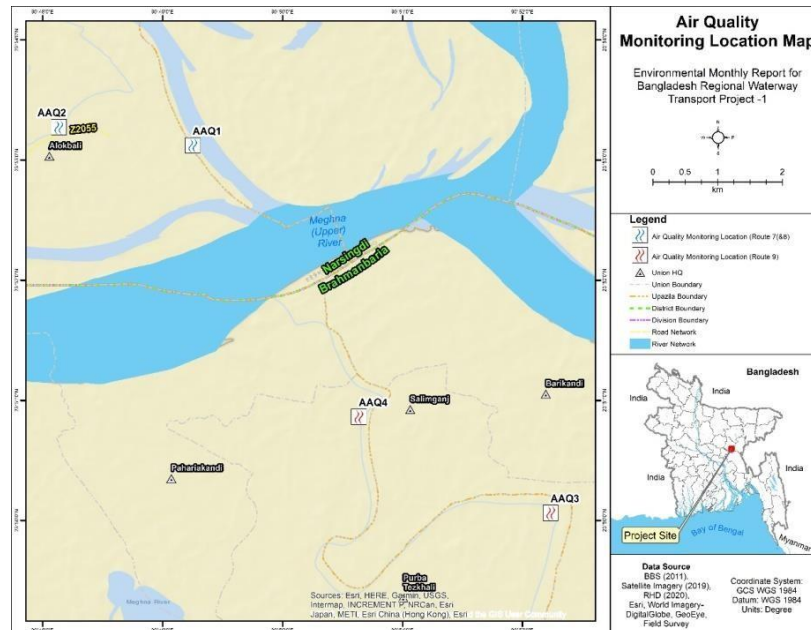
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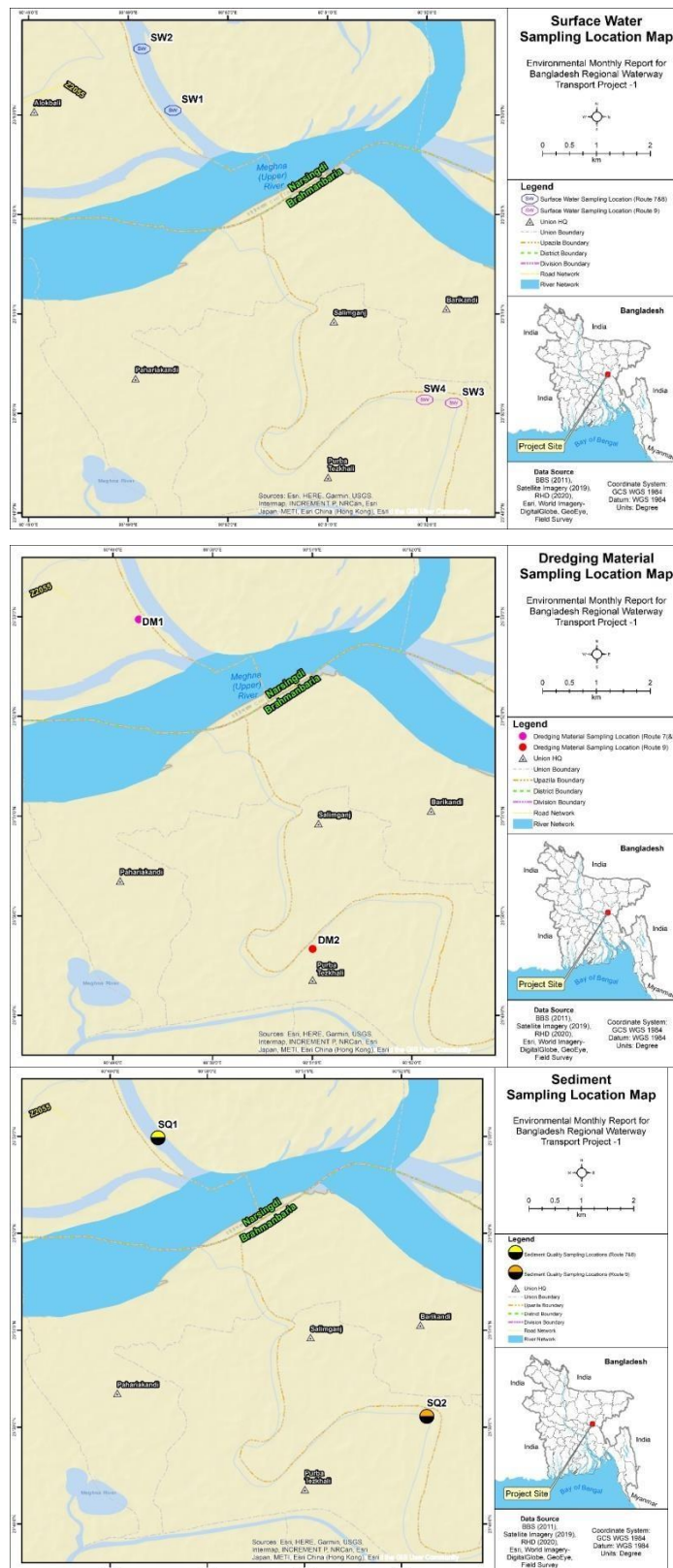
Tel: +(880) 248810789-90
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www.elrc.com.bd



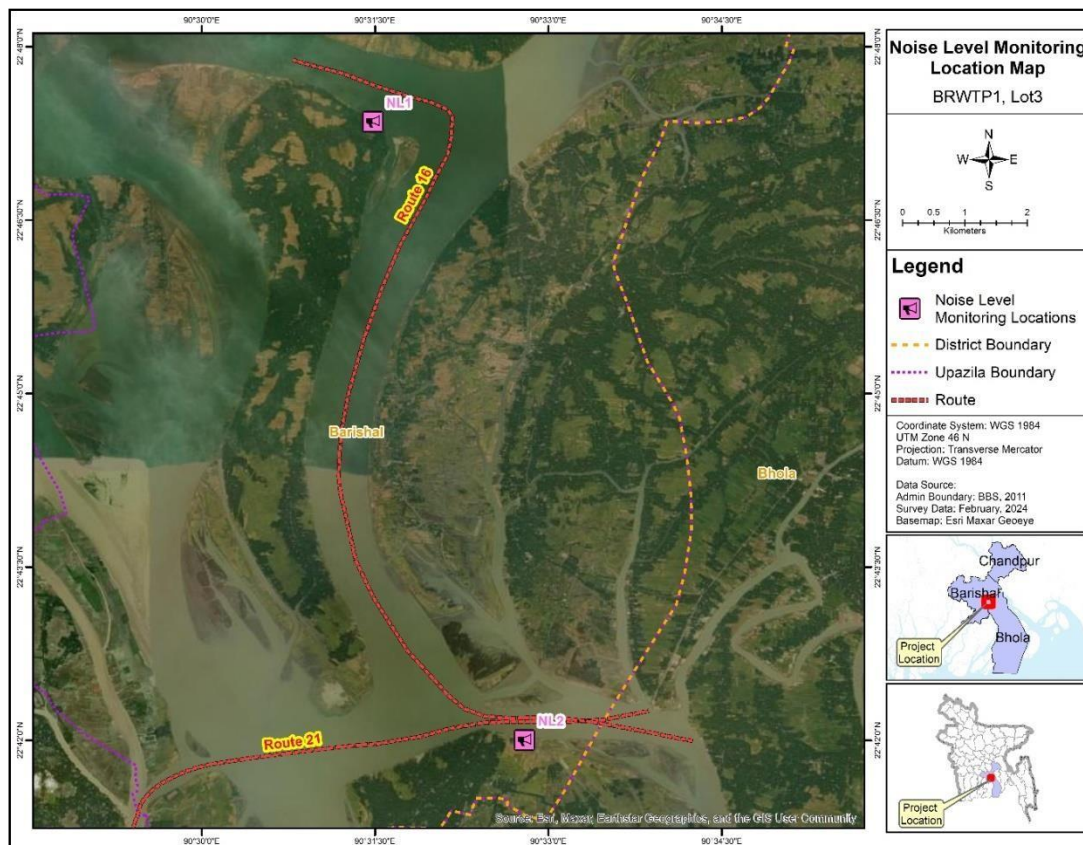
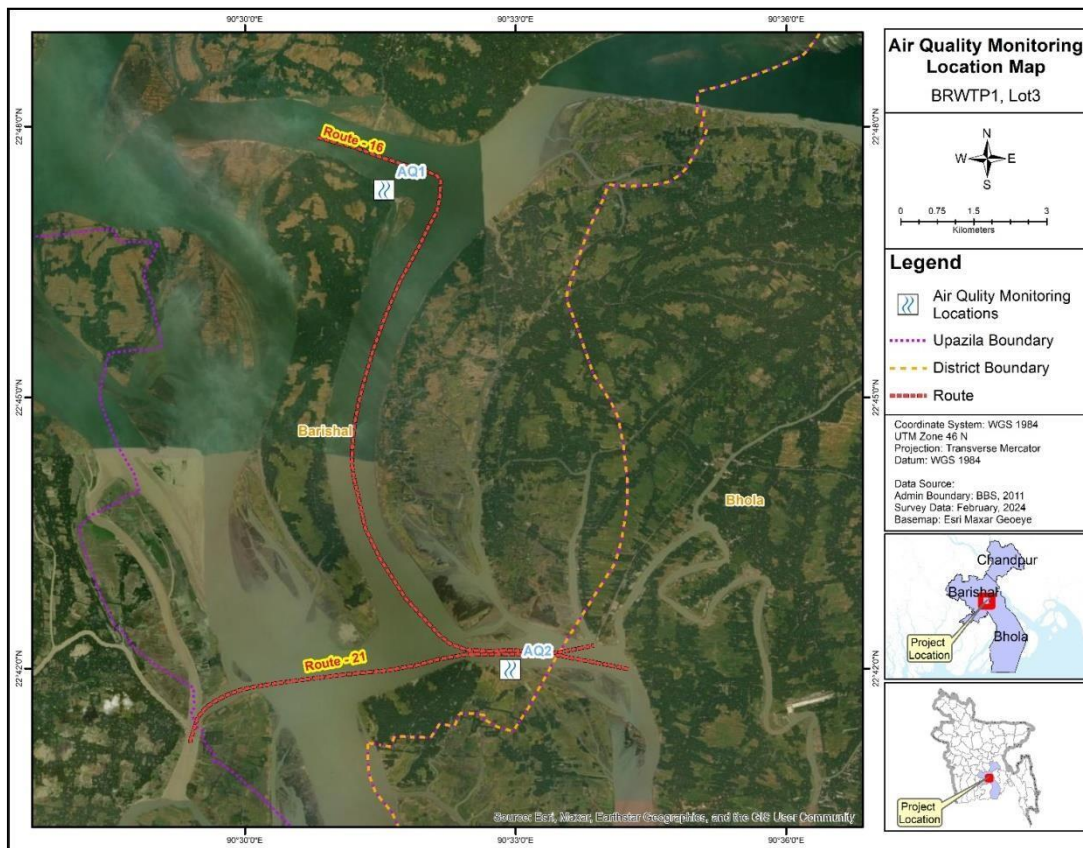
ANNEX III: Location of Environmental Sample Collection

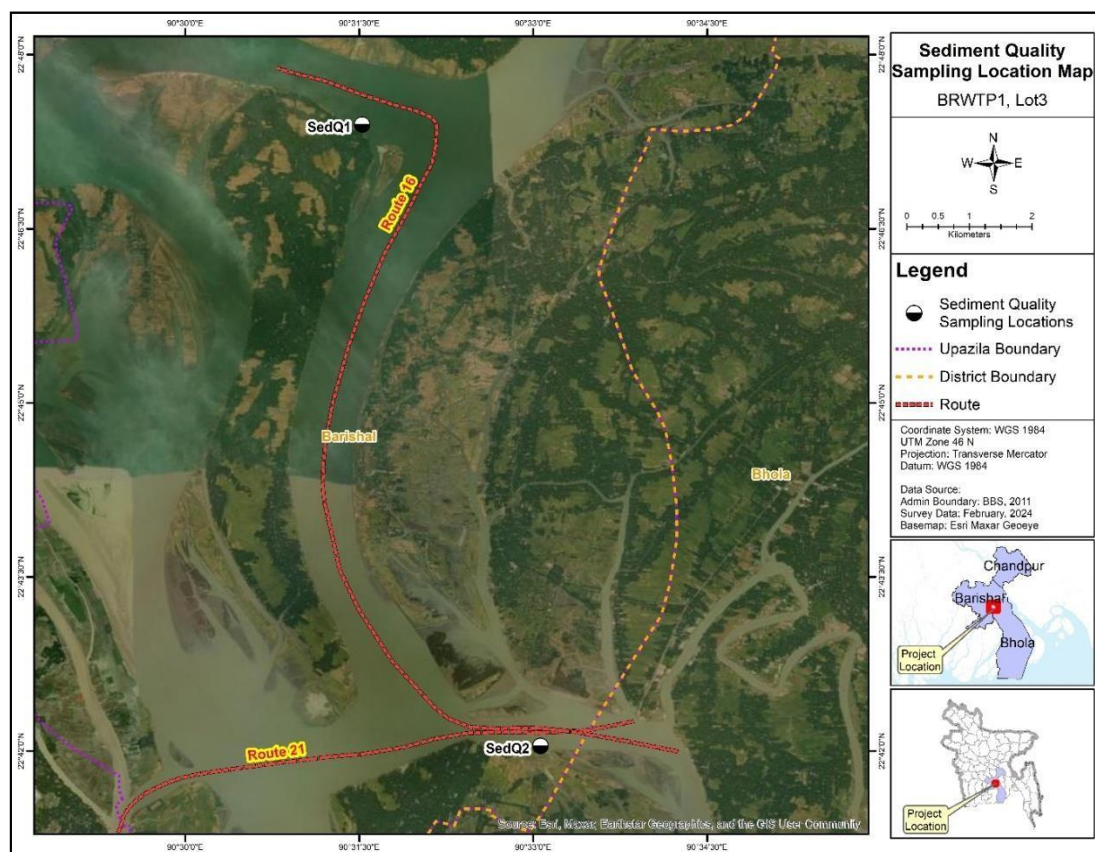
Location of Environmental Sample Collection- Lot-2





Location of Environmental Sample Collection- Lot-3





ANNEX IV: Checklists of March 2024

Checklist of Lot-2

Checklist of Lot-2

DREDGING ACTIVITY AT LOT-3 SITE, MARCH 2024

Checklist Items		Dredging Activity			Comments/Compliance
		Daily	Monthly	When and As Required	
1	Gauge reading & Water level (WL)	0/0	0	0	Average water level is 0.914 m
2	Connectivity with BM & TBM	0	0	0/0	
3	Study Hydrographic Chart	0	0	0/0	Chart is prepared for route 09, route 7 & 8 and route 11
4	Fixing Cutting Depth respect to existing WL as per design depth	0/0	0	0	Average cutting depth is 2.388 m
5	Checking Dredging Alignment	0	0	0/0	
6	Checking Dredged Activities as below;				
a	Dredging Hours	0	0/0	0	
b	Cutting Length	0	0/0	0	Total cutting length 4760 m
c	Cutting Depth	0	0/0	0	Average cutting depth is 2.388 m
d	Cutting Width	0	0/0	0	25 m
e	Dredged Volume	0	0/0	0	Total volume 223036.491 m ³
7	Supervising Dredged Material Disposal Area whether the Dykes are designed as per Design	0	0	0/0	
8	Supervising Dredged Material Disposal Area whether the Dykes are capable to resist the pressure of disposed materials	0	0/0	0	
9	Checking outlet of the compartment	0	0/0	0	
10	Check whether the dykes are being constructed at safe distance from river bank	0	0	0	
11	Check construction of the pipe line whether there is any leakage in the Joints of Floating Pipe/Shore pipe lines	0/0	0	0	
12	Check whether dredging work exacting Keeping Safety distance of River side installations like Road/houses/buiding.	0/0	0	0	
13	Check Survey Activities	0	0	0/0	

ESHS ACTIVITY AT LOT-3 SITE, MARCH 2024

Factors	Checklist Items		Dredging Activity			Comments/Compliance
			Daily	Monthly	Quarterly	
1. Permits and Explanation	1	EIA and Environmental Permits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	2	Explanation to the Local Stakeholders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	3	Signboards, Notice Boards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
2. Physical Environmental Parameters Monitoring	1	Air Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
	2	Surface Water Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
	3	Solid Wastes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
	4	Liquid Wastes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
	5	Soil Contamination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
	6	Noise and Vibration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
	7	Underwater Noise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
	8	Odor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
	9	Riverbed Sediment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
	10	Groundwater	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Supervised in 17 March at Norshingdi site and 18 and 19 March at Solimgonj site.
3. Natural Environment	1	Protected Areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Route no. 07&08 and 09
	2	Habitat Type	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Route no. 07&08 and 09
	3	Hydrology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Route no. 07&08 and 09
	4	Topography and Geology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Route no. 07&08 and 09
	5	Dolphin Observation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Route no. 07&08 and 09
	6	Fish Catch Examination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Route no. 07&08 and 09
	7	Flora (Aquatic & Terrestrial)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Route no. 07&08 and 09
	8	Benthos (Micro & Macro)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Route no. 07&08 and 09
	9	Phyto- & Zoo-planktons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Route no. 07&08 and 09
4. Social Environment	1	Resettlement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	2	Living and Livelihood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	3	Heritage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	4	Landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	5	Ethnic Minorities and Indigenous Peoples	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
5. Occupational Health Safety	1	Work Permit/Contract	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	2	Daily Toolbox Meeting - OHS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	3	Working Conditions		<input type="radio"/>		Fair
	4	Impact/Precaution during Dredging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Not any major issue observed
	5	Accident Prevention Measures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Contractors ESHS team visiting site and concerning all the Manpower
	6	Working Condition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Fair
	7	Accommodation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	House Boat
	8	Personal Protection Equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Safety helmet, Safety vest, safety shoes, Hand gloves etc observed at site.
	9	Drinking Water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Freshwater daily collect from tube well
	10	Sanitary Condition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Good arrangement kept in House boat
6. Dredged Material Disposal Area	1	Agreement with Land Owner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	2	Land Use Type	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	3	Dyke Design Approval	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	4	Dyke Setback Distance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Consultancy Services for: Supervision and Monitoring of Performance-Based Dredging Contracts with Maintenance Dredging and Installation and Maintenance of Navigational Aids along the Navigational Routes under the Contract

Factors	Checklist Items		Dredging Activity			Comments/Compliance
	5	Disposal Area Dyke Height	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
	6	Dyke Strengthened/Material Used*	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	When required then used.
7. Dredger	1	Carbon Emission	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Not found/observed at site for all route in lot-2
	2	Leakage	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
	3	Oil Spill	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
	4	Onboard Waste Management	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
	5	Noise and Vibration	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	

ENVIRONMENTAL CHECKLIST AT LOT-3 SITE, MARCH 2024

Category	Environmental Item	Main Check Items	Yes: Y No: N
1. Permits and Explanation	(1) EIA and Environmental Permits	(a) Have EIA reports been already prepared in official process?	Y
		(b) Have EIA reports been approved by authorities of the host country's government?	Y
		(c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied?	Y
		(d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?	Y
	(2) Explanation to the Local Stakeholders	(a) Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the Local stakeholders?	Y
	(3) Examination of Alternatives	(a) Have alternative plans of the project been examined with social and environmental considerations?	Y
2. Physical Environmental Parameters Monitoring	(1) Air Quality	(a) Do air pollutants, such as sulfur oxides (SOx), nitrogen oxides (NOx), soot and dust emitted from the ships, vehicles and the facilities like docs comply with the country's emission standards? Are any mitigating measures taken?	Y
	(2) Water Quality	(a) Do pollutants, such as Suspended Solids (SS), oils/fats and other toxicants contained in effluents comply with the country's effluent standards (BOD, COD, ph, etc)? Is there a possibility that the effluents from the project will cause areas not to comply with the country's ambient water quality standards?	Y
		(b) Are adequate measures taken to prevent contamination of surface water, groundwater and soil by the effluents from storage areas, including raw materials, chemicals, and wastes?	N
	(3) Wastes	(a) Are wastes (including hazardous wastes and other industrial wastes) generated from the project facilities properly treated and disposed of in accordance with the country's regulations?	N
		(b) Are adequate measures taken to prevent contamination of soil and groundwater by leachates from the waste storage/disposal sites?	N
	(4) Noise and Vibration	(a) Do noise and vibrations comply with the country's standards?	N
	(5) Subsidence	(a) In the case of extraction of a large volume of groundwater, is there a possibility that the extraction of groundwater will cause subsidence?	N
	(6) Odor	(a) Are there any odor sources? Are adequate odor control measures taken?	N
	(7) Riverbed Sediment	(a) Sediment collection in presence of SIA team members/staff?	Y
		(b) Samples sent to the laboratory within 12 hours?	Y
		(c) If sample results showed presence of heavy metal, treatment measures like separate compartment for disposal of dredged material taken by the Contractor	N
	(8) Groundwater	Samples collected and analyzed	N

Consultancy Services for: Supervision and Monitoring of Performance-Based Dredging Contracts with Maintenance Dredging and Installation and Maintenance of Navigational Aids along the Navigational Routes under the Contract

Category	Environmental Item	Main Check Items	Yes: Y No: N
3. Natural Environment	(1) Protected Areas	(a) Is the project site located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?	N
	(2) Ecosystem/Habitat Type	(a) Does the project site encompass primeval forests, tropical rain forests; ecologically valuable habitats (e.g., Char land, reed land, mangroves, or tidal flats)?	N
		(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?	N
		(c) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?	N
		(d) Is there a possibility that the amount of water (e.g., surface water, groundwater) used by the project will adversely affect aquatic environments?	N
		(e) Are adequate measures taken to reduce the impacts on aquatic environments, such as aquatic organisms?	N
	(3) Topography and Geology	(a) Is the stability of the existing topographic conditions adequately considered for alteration of topographic features, such as cut and fill operations?	N
		(b) Is there a possibility that soil runoffs will result from cut and fill areas, waste soil disposal sites, and borrow sites?	N
		(c) Are adequate mitigation measures taken to prevent soil runoffs?	N
		(d) Is there any possibility that the project will erode natural river bank, foreshore area, beaches?	N
	(4) Dolphin Observation	(a) Exclusive time spent for observing dolphins?	N
	(5) Fish Catch Examination	(a) Fishermen upstream and downstream of dredging site interviewed and catch examined? Types of gears used?	Y
	(6) Flora (Aquatic & Terrestrial)	(a) Flora surveyed around the dredging and dredged material disposal sites	N
	(7) Benthos (Micro and Macro)	(a) Sampling done and analyzed, report submitted	Y
	(8) Phyto- & Zoo-Planktons	(a) Sampling done and analyzed, report submitted	Y
4. Social Environment	(1) Resettlement	(a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?	N
		(b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement?	N
		(c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?	N
		(d) Are the compensations going to be paid prior to the resettlement?	N
		(e) Are the compensation policies prepared in document?	N
		(f) Does the resettlement plan pay particular attention to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?	N
		(g) Are agreements with the affected people obtained prior to resettlement?	N
		(h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan?	N
		(i) Are any plans developed to monitor the impacts of resettlement?	N
		(j) Is the grievance redress mechanism established?	N
	(2) Living and Livelihood	(a) Is there a possibility that the project will adversely affect the living conditions of inhabitants? Are adequate measures considered to reduce the impacts, if necessary?	N

Consultancy Services for: Supervision and Monitoring of Performance-Based Dredging Contracts with Maintenance Dredging and Installation and Maintenance of Navigational Aids along the Navigational Routes under the Contract

Category	Environmental Item	Main Check Items	Yes: Y No: N
		(b) Is sufficient infrastructure (e.g., hospitals, schools, and roads) available for the project implementation? If the existing infrastructure is insufficient, are any plans developed to construct new infrastructure or improve the existing infrastructure?	N
		(c) Is there a possibility that large vehicles traffic for transportation of materials, such as raw materials and products will have impacts on traffic in the surrounding areas, impede the movement of inhabitants, and cause any risks to pedestrians?	N
		(d) Is there a possibility that diseases, including infectious diseases, such as HIV, will be brought due to the immigration of workers associated with the project? Are adequate considerations given to public health, if necessary?	N
	(3) Heritage	(a) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage sites? Are adequate measures considered to protect these sites in accordance with the country's laws?	N
	(4) Landscape	(a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?	N
	(5) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples?	N
		(b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	N
	(6) Working Conditions	(a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project?	N
		(b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials?	N
		(c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public sanitation) for workers etc.?	N
		(d) Are appropriate measures being taken to ensure that security guards involved in the project do not violate safety of other individuals involved, or local residents?	N
5. Others	(1) Impacts during dredging/construction	(a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)?	N
		(b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce the impacts?	N
	(2) Accident Prevention Measures	(a) Does the project have any accident prevention equipment and scheme to store, emit and transport toxic and hazardous materials?	N
	(3) Monitoring	(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts?	N
		(b) What are the items, methods and frequencies of the monitoring program?	N
		(c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)?	N
		(d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?	N

GRM CHECKLIST AT LOT-3 SITE, MARCH 2024

Sl no.	Factors	Checklist Items	Dredging Activity				Comments/Compliance
			Daily	Weekly	Monthly	Quarterly	
1	Legal and Regulatory Compliance	1 The contractors communicate to all the stakeholders regarding GRM processing and lodging complaints.	○	○	○	0/1	There are GRM committees with 5 persons here.
		2 Contact details for lodging grievance easily accessible.	0/1	○	○	○	
2	Community Engagement	1 Consultations/ FGD have been conducted with local communities, dredging contractors to collect their input on the GRM design.	○	○	○	0/1	
3	Grievance Channels	1 The multiple accessible channels available for the stakeholders to submit their grievances. (e.g., toll-free hotline, online platform , drop box, post, landline/mobile phone and e-mail).	0/1	○	○	○	
4	Processing of GFA (Good Faith Agreement)	1 Dyke/Land selection survey.	○	0/1	○	○	Survey in every week.
		2 Opinion meeting with land owner along with inform to the contractor and S1A team for justifying land as dyke.	○	0/1	○	○	Survey in 15 days a month.
		3 GFA documentation collection.	○	0/1	○	○	Collection the document 15 days a month.
		4 GFA will be submitted to S1A.	○	0/1	○	○	
		5 FGD on GFA with the Locals	○	○	0/1	○	
5	Constitution of GRM Protocol	1 Preparation of GRM Protocol and Greivance Redres Committee (GRC) will be Constituted by the Contractors.	○	0/1	○	○	
6	Establish a Complaint Box	1 For receive feedback, suggestions and complain letters.	○	0/1	○	○	There are 3 complain box in site. One box is in office, one box in houseboat and onther is open road site.
7	Establish a Signboard	1 The size of Bill board will be 5/15. The bill board should contain: name, mobile number and email of the focal person.	○	0/1	○	○	There is a signboard in front of office.
8	3 (three) tyers of the GRM Comittee will be formed	1 Local level GRC (Committee members 05, quorum fullfill at least 03) -Project related issues.	○	0/1	○	○	
		2 Contractor level GRC (Committee members 03, quorum fullfill at least 03)- GBV, CoC, Contractors workers occurance etc. related issues.	○	○	○	0/1	
		3 Project level GRC (Committee members 03, quorum fullfill at least 03)	○	○	○	0/1	
9	Capacity Building	1 Project staffs and local institutions have received training on the GRM, GBV related issues and its operation.	○	○ N/A	○	○	
10	Leaflet/ Brochure	1 The Leaflet/ Brochure will be published for dissemination to all the stakeholders.	○	○ N/A	○	○	There is no leaflet in the site.
11	Monitoring, Reporting & documentation	1 The regular reports generated to document the number, nature, and resolution of grievances (Registration Book, Resolution book / Decision book & Closing book)	○	0/1	○	○	
12	Social Consultation	1 Local Community	○	0/1	○	○	
		2 Land Owner	○	0/1	○	○	
		3 Local Government Authority	○	0/1	○	○	
13	Gender-Based	1 Sex Violence by an intimate partner	○	○	0/1	○	

Consultancy Services for: Supervision and Monitoring of Performance-Based Dredging Contracts with Maintenance Dredging and Installation and Maintenance of Navigational Aids along the Navigational Routes under the Contract

SI	Factors	Checklist Items	Dredging Activity				Comments/Compliance
	Violence (GBV)	2 Sexual violence by a non-peer	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
		3 Child sexual abuse & forced marriage	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
		4 Sexual exploitation & abuse	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
		5 Sexual harassment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
		6 In case of emergency, the local level GRC will address the matter within 04 -12 hours.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Checklist of Lot-3

DREDGING ACTIVITY AT LOT-3 SITE, MARCH 2024

Checklist Items		Dredging Activity			Comments/Compliance
		Daily	Monthly	When and as Required	
1	Gauge reading & Water level (WL)	<input type="radio"/>	<input type="radio"/>	√	
2	Connectivity with BM & TBM	<input type="radio"/>	<input type="radio"/>	√	
3	Study Hydrographic Chart	<input type="radio"/>	<input type="radio"/>	√	
4	Fixing Cutting Depth respect to existing WL as per design depth	<input type="radio"/>	<input type="radio"/>	√	
5	Checking Dredging Alignment	<input type="radio"/>	<input type="radio"/>	√	
6	Checking Dredged Activities as below	Dredged Activities for the month of March, 2024			
	a Dredging Hours	<input type="radio"/>	√	<input type="radio"/>	Total Dredging Hours 569.9 hrs (Route 21 is 275hrs, Route 16 is 232 hrs & Route 13 is 62.9 hrs)
	b Cutting Length	<input type="radio"/>	√	<input type="radio"/>	Total length is 2522m Route 21 length total 1219m (here length 1006m for 38m width and 213m for 76m width). Route 16 length 853m (here length 706m for 76m width and 147m for 38m width) Route 13 length 450m (here 450m for 76m width)
	c Cutting Depth	<input type="radio"/>	√	<input type="radio"/>	Average Cutting Depth for Route 21 is 2.37m, Route 16 is 1.325m & Route 13 is 0.628m)
	d Cutting Width	<input type="radio"/>	√	<input type="radio"/>	Cutting Width Route 21 & 16 is 85m and Route 13 is 80m
	e Dredged Volume	<input type="radio"/>	√	<input type="radio"/>	Total Dredged Volume 1,97,591.64 cum (Route 21 is 99,492.74cum, Route 16 is 73,256.02cum & Route 13 is 24,842.88cum)
7	Supervising Dredged Material Disposal Area whether the Dykes are designed as per Design	<input type="radio"/>	√	<input type="radio"/>	Supervised together with dredging experts during the new dyke construction and it is observed that Dykes are maintained as per Design
8	Supervising Dredged Material Disposal Area whether the Dykes are capable to resist the pressure of disposed materials	<input type="radio"/>	√	<input type="radio"/>	It's observed that new dyke boundary wall maintained proper design thickness, slope, layer of compaction, 20m/30m safe distance from river bank.
9	Checking outlet of the compartment	<input type="radio"/>	√	<input type="radio"/>	Using 5rs/4hrs of outlet of this compartment
10	Check whether the dykes are being constructed at safe distance from river bank	<input type="radio"/>	√	<input type="radio"/>	644m, 1067m, 1343m and 762m safe distance from the river bank
11	Check construction of the pipe line whether there is any leakage in the Joints of Floating Pipe/Shore pipe lines	<input type="radio"/>	√	<input type="radio"/>	No leakage observed in the Joints of Floating Pipe/Shore pipe lines
12	Check whether dredging work exacting Keeping Safety distance of River side installations like Road/houses/building.	<input type="radio"/>	√	<input type="radio"/>	It is observed that contractor maintained 100m from safe distance from Road/Houses/building and 20m-30m safe distance maintained from river Bank
13	Check Survey Activities	<input type="radio"/>	√	<input type="radio"/>	1. Hydrographic Post details survey work done on dated 12.03.2024 for lot 3 Route number 16 (Patarhat-Bheduria) 2. Hydrographic Post details survey work done on dated 14.03.2024 for lot 3 Route 13 (Alur-bazar launch ghat to channel face)

ESHS ACTIVITY AT LOT-3 SITE, MARCH 2024

Checklist Items		Dredging Activity			Comments/Compliance
		Daily	Monthly	Quarterly	
1	EIA and Environmental Permits	○	○	√	
2	Explanation to the Local Stakeholders	○	○	√	
3	Signboards, Notice Boards	○	○	√	Not found/observed at site for all route in lot_3
1	Air Quality	○	√	○	Test done for Route no. 21 & 16
2	Surface Water Quality	○	√	○	Test done for Route no. 21 & 16
3	Solid Wastes	○	√	○	Test done for Route no. 21 & 16
4	Liquid Wastes	○	√	○	Test done for Route no. 21 & 16
5	Soil Contamination	○	√	○	Test done for Route no. 21 & 16
6	Noise and Vibration	○	√	○	Test done for Route no. 21 & 16
7	Underwater Noise	○	√	○	Test done for Route no. 21 & 16
8	Odor	○	√	○	Test done for Route no. 21 & 16
9	Riverbed Sediment	○	√	○	Test done for Route no. 21 & 16
10	Groundwater	○	√	○	Test done for Route no. 21 & 16
1	Protected Areas	○	√	○	Test done for Route no. 21 & 16
2	Habitat Type	○	√	○	Test done for Route no. 21 & 16
3	Hydrology	○	√	○	Test done for Route no. 21 & 16
4	Topography and Geology	○	√	○	Test done for Route no. 21 & 16
5	Dolphin Observation	○	√	○	Test done for Route no. 21 & 16
6	Fish Catch Examination	○	√	○	Test done for Route no. 21 & 16
7	Flora (Aquatic & Terrestrial)	○	√	○	Test done for Route no. 21 & 16
8	Benthos (Micro & Macro)	○	√	○	Test done for Route no. 21 & 16
9	Phyto- & Zoo-planktons	○	√	○	Test done for Route no. 21 & 16
1	Resettlement	○	○	√	
2	Living and Livelihood	○	○	√	
3	Heritage	○	○	√	
4	Landscape	○	○	√	
5	Ethnic Minorities and Indigenous Peoples	○	○	√	
1	Work Permit/Contract	○	○	√	
2	Daily Toolbox Meeting - OHS	○	○	√	
3	Working Conditions	○	√	○	Fair
4	Impact/Precaution during Dredging	○	○	√	Not any major issue observed
5	Accident Prevention Measures	○	√	○	not found
6	Working Condition	√	○	○	Fair
7	Accommodation	√	○	○	House Boat
8	Personal Protection Equipment	√	○	○	Safety helmet, Safety vest, safety shoes, Hand gloves etc store at site but do not wear or maintain properly
9	Drinking Water	√	○	○	Freshwater daily collect from tube well of nearby village
10	Sanitary Condition	√	○	○	Good arrangement kept in House boat
1	Agreement with Land Owner	○	○	√	Process on going
2	Land Use Type	○	√	○	Once or twice cultivated land in a year and also some non-cultivated fellow land
3	Dyke Design Approval	○	√	○	Dyke no. 15, Dyke no. 08 and dyke no.2 (extension) for route 21, Dyke No.2 for route 16 & Dyke No. 2 for route 13 used in this month of March,2024
4	Dyke Setback Distance	○	√	○	644m, 1067m, 1343m and 762m safe distance from the river bank
5	Disposal Area Dyke Height	○	√	○	Height 2m (avg) for Route no.21, Height 7.5m for Route no.16 and Height 1.8m for Route no.13
6	Dyke Strengthened/Material Used*	○	○	√	When required then used
1	Carbon Emission	○	○	√	Very low by dredgers
2	Leakage	○	○	√	Not observed or not found in lot 3
3	Oil Spill	○	○	√	Visibly very less observed from dredgers and oil tanker
4	Onboard Waste Management	○	○	√	Not satisfactory or poor management
5	Noise and Vibration	○	○	√	Very low by dredgers

ENVIRONMENTAL CHECKLIST AT LOT-3 SITE, MARCH 2024

Environmental Item	Main Check Items	Yes: Y No: N
(1) EIA and Environmental Permits	(a) Have EIA reports been already prepared in official process?	Y
	(b) Have EIA reports been approved by authorities of the host country's government?	Y
	(c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied?	Y
	(d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?	Y
(2) Explanation to the Local Stakeholders	(a) Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the Local stakeholders?	Y
(3) Examination of Alternatives	(a) Have alternative plans of the project been examined with social and environmental considerations?	Y
(1) Air Quality	(a) Do air pollutants, such as sulfur oxides (SOx), nitrogen oxides (NOx), soot and dust emitted from the ships, vehicles and the facilities like docs comply with the country's emission standards? Are any mitigating measures taken?	Y
(2) Water Quality	(a) Do pollutants, such as Suspended Solids (SS), oils/fats and other toxicants contained in effluents comply with the country's effluent standards (BOD, COD, pH, etc)? Is there a possibility that the effluents from the project will cause areas not to comply with the country's ambient water quality standards?	Y
	(b) Are adequate measures taken to prevent contamination of surface water, groundwater and soil by the effluents from storage areas, including raw materials, chemicals, and wastes?	N
(3) Wastes	(a) Are wastes (including hazardous wastes and other industrial wastes) generated from the project facilities properly treated and disposed of in accordance with the country's regulations?	N
	(b) Are adequate measures taken to prevent contamination of soil and groundwater by leachates from the waste storage/disposal sites?	N
(4) Noise and Vibration	(a) Do noise and vibrations comply with the country's standards?	Y
(5) Subsidence	(a) In the case of extraction of a large volume of groundwater, is there a possibility that the extraction of groundwater will cause subsidence?	N
(6) Odor	(a) Are there any odor sources? Are adequate odor control measures taken?	N
(7) Riverbed Sediment	(a) Sediment collection in presence of SIA team members/staff?	Y
	(b) Samples sent to the laboratory within 12 hours?	Y
	(c) If sample results showed presence of heavy metal, treatment measures like separate compartment for disposal of dredged material taken by the Contractor	N
(8) Groundwater	Samples collected and analyzed	N
(1) Protected Areas	(a) Is the project site located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?	N
(2) Ecosystem/Habitat Type	(a) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., Char land, reedland, mangroves, or tidal flats)?	N
	(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?	N
	(c) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?	N
	(d) Is there a possibility that the amount of water (e.g., surface water, groundwater) used by the project will adversely affect aquatic environments?	N
	(e) Are adequate measures taken to reduce the impacts on aquatic environments, such as aquatic organisms?	N
(3) Topography and Geology	(a) Is the stability of the existing topographic conditions adequately considered for alteration of topographic features, such as cut and fill operations?	N
	(b) Is there a possibility that soil runoffs will result from cut and fill areas, waste soil disposal sites, and borrow sites?	N

Environmental Item	Main Check Items	Yes: Y No: N
	(c) Are adequate mitigation measures taken to prevent soil runoffs?	N
	(d) Is there any possibility that the project will erode natural river bank, forshore area, beaches?	N
(4) Dolphin Observation	(a) Exclusive time spent for observing dolphins?	Y
(5) Fish Catch Examination	(a) Fishermen upstream and downstream of dredging site interviewed and catch examined? Types of gears used?	Y
(6) Flora (Aquatic & Terrestrial)	(a) Flora surveyed around the dredging and dredged material disposal sites	N
(7) Benthos (Micro and Macro)	(a) Sampling done and analyzed, report submitted	Y
(8) Phyto- & Zoo-Planktons	(a) Sampling done and analyzed, report submitted	Y
(1) Resettlement	(a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?	N
	(b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement?	N
	(c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?	N
	(d) Are the compensations going to be paid prior to the resettlement?	N
	(e) Are the compensation policies prepared in document?	N
	(f) Does the resettlement plan pay particular attention to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?	N
	(g) Are agreements with the affected people obtained prior to resettlement?	N
	(h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan?	N
	(i) Are any plans developed to monitor the impacts of resettlement?	N
	(j) Is the grievance redress mechanism established?	N
(2) Living and Livelihood	(a) Is there a possibility that the project will adversely affect the living conditions of inhabitants? Are adequate measures considered to reduce the impacts, if necessary?	N
	(b) Is sufficient infrastructure (e.g., hospitals, schools, and roads) available for the project implementation? If the existing infrastructure is insufficient, are any plans developed to construct new infrastructure or improve the existing infrastructure?	N
	(c) Is there a possibility that large vehicles traffic for transportation of materials, such as raw materials and products will have impacts on traffic in the surrounding areas, impede the movement of inhabitants, and cause any risks to pedestrians?	N
	(d) Is there a possibility that diseases, including infectious diseases, such as HIV, will be brought due to the immigration of workers associated with the project? Are adequate considerations given to public health, if necessary?	N
(3) Heritage	(a) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage sites? Are adequate measures considered to protect these sites in accordance with the country's laws?	N
(4) Landscape	(a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?	N
(5) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples?	N
	(b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	N
(6) Working Conditions	(a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project?	N
	(b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials?	N
	(c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public sanitation) for workers etc.?	N
	(d) Are appropriate measures being taken to ensure that security guards involved in the project do not violate safety of other individuals involved, or local residents?	N

Environmental Item	Main Check Items	Yes: Y No: N
(1) Impacts during dredging/construction	(a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)?	N
	(b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce the impacts?	N
(2) Accident Prevention Measures	(a) Does the project have any accident prevention equipment and scheme to store, emit and transport toxic and hazardous materials?	N
(3) Monitoring	(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts?	N
	(b) What are the items, methods and frequencies of the monitoring program?	N
	(c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)?	N
	(d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?	N

GRM CHECKLIST AT LOT-3 SITE, MARCH 2024

Sl. No.	Factors	Checklist Items	Dredging Activity				Comments/Compliance
			Daily	Weekly	Monthly	Quarterly	
1	Legal and Regulatory Compliance	1 The contractors communicate to all the stakeholders regarding GRM processing and lodging complaints.	○	○	○	√	
		2 Contact details for lodging grievance easily accessible.	○	○	○	√	
2	Community Engagement	1 Consultations have been conducted with local communities, dredging contractors to collect their input on the GRM design.	○	○	○	√	
		2 The preferences of social customs and cultural sensitivities of the project affected communities taken into consideration.	○	○	○	√	
		3 FGD on GRM with the Project Affected Persons (PAPs)	○	○	○	√	
3	Grievance Channels	1 The multiple accessible channels available for the stakeholders to submit their grievances. (e.g., toll-free hotline, online platform, drop box, post, landline/mobile phone and e-mail).	○	○	○	√	
4	Processing of GFA (Good Faith Agreement)	1 Dyke/Land selection survey.	○	○	√	○	Route no.21, 16 & 13
		2 Opinion meeting with land owner along with inform to the contractor and S1A team for justifying land as dyke.	○	○	√	○	
		3 GFA documentation collection.	○	○	√	○	
		4 GFA will be submitted to S1A.	○	○	√	○	
		5 FGD on GFA with the Locals	○	○	○	√	
5	Constitution of GRM Committee	1 Preparation of GRM Committee Constituion by the Contractors.	○	○	○	√	
6	Establish a Complaint Box	1 Nos. of Feedback, concerned, suggestions and complain letters.	○	○	√	○	Not found/observed at site for all route in lot_3
7	Establish a Signboard	1 The size (5/15) of Bill board will according the BOQ	○	○	√	○	Not found/observed at site for all route in lot_3
		2 Name, Mobile number and email of the focal person will be included in the Bill board.	○	○	√	○	Not found/observed at site for all route in lot_3
8	3 (three) tiers of the GRM Committee will be formed	1 Local level GRC [In a five (5) members committee meeting Three (3) members participation will be the quorum]	○	○	○	√	Local level GRC committee formed by Banga contractor on dated 14th October,2023
		2 Contractor level GRC [In a five (3) members committee meeting Three (3) members participation will be the quorum]	○	○	○	√	Local level GRC committee formed by Banga contractor on dated 14th October,2023
		3 Project level GRC [In a five (3) members committee meeting Three (3) members participation will be the quorum]	○	○	○	√	Local level GRC committee formed by Banga contractor on dated 14th October,2023
9	Capacity Building	1 Project staffs and local institutions have received training on the GRM and its	○	○	○	√	

Consultancy Services for: Supervision and Monitoring of Performance-Based Dredging Contracts with Maintenance Dredging and Installation and Maintenance of Navigational Aids along the Navigational Routes under the Contract

Sl. No.	Factors	Checklist Items	Dredging Activity				Comments/Compliance
			Daily	Weekly	Monthly	Quarterly	
		operation.					
10	Leaflet/ Brochure	1 The Leaflet/ Brochure will be published for dissemination to all the stakeholders.	○	○	○	√	
11	Monitoring, Reporting & documentation	1 The regular reports generated to document the number, nature, and resolution of grievances (Registration Book, Resolution book or Decision book & Closing book)	○	○	√	○	Route no.21, 16 & 13
12	Social Consultation	1 Local Community	○	○	√	○	Route no.21, 16 & 13
		2 Land Owner	○	○	√	○	Route no.21, 16 & 13
		3 Local Government Authority	○	○	○	√	no
13	Gender-Based Violence (GBV)	1 Sex Violence by an intimate partner	○	○	○	√	None of these has been found/observed for the month of March, 2024
		2 Sexual violence by a non-peer	○	○	○	√	
		3 Child sexual abuse& forced marriage	○	○	○	√	
		4 Sexual exploitation & abuse	○	○	○	√	
		5 Sexual harassment	○	○	○	√	
		6 In case of emergency, the local level GRC will address the matter within 4 -12 hours.	○	○	○	√	When required