

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



Government of the People's Republic of Bangladesh
Ministry of Shipping



Bangladesh Inland Water Transport Authority



The World Bank



MONTHLY PROGRESS REPORT JUNE 2024



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EXECUTIVE SUMMARY

Background

The Bangladesh Regional Waterway Transport Project-1 (Chittagong-Dhaka-Ashuganj Corridor of the Government of Bangladesh (GoB) is to develop the 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 maintaining the river corridors and ferry routes within the Project area through a performance-based contract. JPZ-DEMAS-JCL, the consulting firm referred to as S1A has started the supervision and monitoring work under this component since December 2022. The project is financed by the World Bank (WB) and implemented and administered by the 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 BRWTP W1A-03 respectively.

Progress of the Contractors during the reporting period – June 2024

Lot-2 Contractor

The Phase-1 capital dredging, initially scheduled to be completed by June 5, 2024, involved an estimated BoQ volume of 1,209,060 cubic meters over 18 months. The Lot-2 contractor has completed approximately 63.4% of this volume, facing delays due to several factors such as local community issues regarding land requisition for dredged material disposal, government administrative embargoes to address these local issues, mechanical breakdowns of dredgers and other machinery, manpower and logistics shortages, delayed surveys, among other reasons. The contractor has requested an extension until September 30, 2024, to complete the remaining work under Phase-1, and this request is currently under approval. On June 30, 2024, the contractor completed the intermediate hydrographic survey on Route 9. Additionally, a joint field visit was conducted to observe the installation of 100 P.C. Poles along Inland Waterway Routes 3&4, 05, 06, 07&08, 09, 10, and 11, as required by contract BRWTP-W1A Lot 02.

Lot-3 Contractor

The Lot-3 contractor successfully completed the Phase-1 capital dredging within the stipulated timeframe (June 5, 2024). The total estimated BoQ volume was 1,398,600 cubic meters, with an actual dredged volume of 1,347,267 cubic meters. The Lot-3 contractor is now preparing to start the Phase-2 capital dredging. Due to strong currents and rising water levels during the monsoon season, no dredging was conducted on the River Routes of Lot-3 in June. However, three Cutter Suction Dredgers (CSD), along with ancillary crafts and equipment, were kept on standby at Route 21 for any emergency work. Contractor representatives have indicated that dredging activities on all routes (12, 13, 13a, 15, 16, 17, and 21) will resume immediately after the monsoon. Additionally, Dharti-Banga JV has informed that they will submit the Dredged Materials Management Plan, including the ESHS Implementation Plan, to the Project Manager before resuming operations.

There were no issues regarding traffic or safety measures, with fire extinguishers and first aid boxes well-maintained. Grievances about dike location selection were resolved with the local community, contributing to a positive work environment. New employees were recruited to expedite the completion of work on time and to implement safety procedures during the reporting month. Overall, no significant environmental impacts have been detected.

The Consultant's activities during the Reporting Period

The consultant conducted routine monitoring surveys on the Lot-2 and Lot-3 river routes and participated in joint monitoring surveys with clients and contractor representatives. Due to delays in completing the Phase-1 capital dredging by the Lot-2 contractor, the consultant visited the site and recommended increasing manpower, logistics, and production hours by reducing downtime. Meetings were held with the PIU, World Bank, government

administration, local community leaders, and residents to expedite Phase-1 activities at Lot-2 and address issues. The consultant also emphasized the importance of accelerating financial progress for both lots, considering the upcoming June closing, to maintain healthy cash flow before funds for the next invoices become available.

In June 2024, environmental monitoring was conducted at Lot-2 sites, including Hasnabad Daudkandi (Route-11), Char Modhua, Nabinagar Loop (Route-6), and Salimganj, Bancharampur/Homna Loop (Route-9). No significant air pollution or ambient noise issues were found during dredging. Observations included 25 fish species and 4 crustacean species, with no fish mortality detected. One Ganges River Dolphin was spotted near Char Modhua during monitoring. No freshwater turtles were observed, and locals confirmed their absence in recent months. No significant negative environmental impacts on air, noise, water quality, or occupational health and safety were detected during June 2024.

For Lot-3, environmental monitoring in June 2024 was conducted at Routes 12 and 13 (Chandpur Boro station, Alu Bazar), with samples collected at two locations. No dredging activity or dredgers were present on Routes 12, 13, and 13a, and no new dikes were constructed during this period. Noise levels complied with IFC guidelines (2007), with the highest recorded at 71.09 dBA (Chandpur Boro station) and the lowest at 59.24 dBA (Alu Bazar). Observations included 27 fish species and 6 crustacean species, with no fish mortality detected. No Ganges River Dolphins or freshwater turtles were observed, and locals confirmed their absence. There were no significant impacts on ambient air quality, noise levels, water quality, sediment, or health and safety factors from the project during June 2024.

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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 |
| DC | District Commissioner |
| 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 Organization |
| 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. |
| 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

1.1 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; 66 months |
| Date of Commencement | 6 th December 2022; 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 |

1.2 Location of the Project

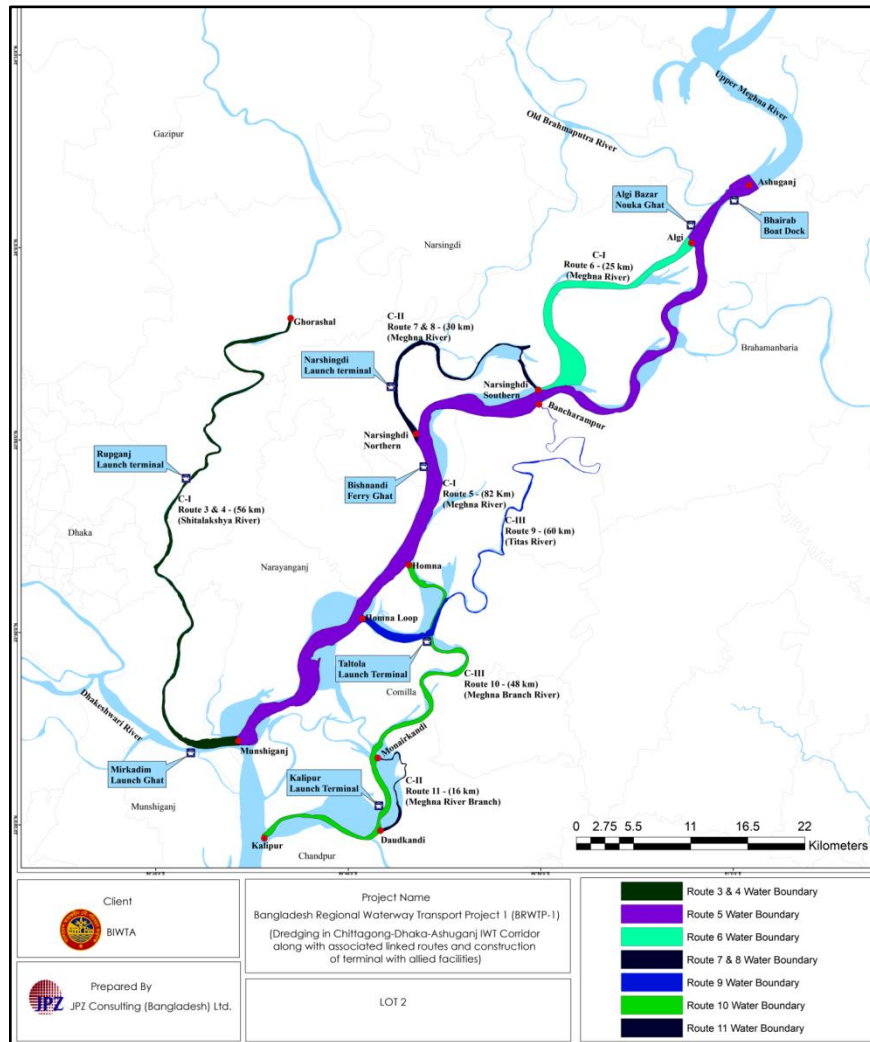


Figure 1: River Boundary Lot-2

Table 1: River Routes Lot-2

| Class | Route No | River/location | Length (Km) | Average width (m) | Shoal Length Approx. (km) |
|-------|----------|---|-------------|-------------------|---------------------------|
| I | 3 & 4 | Shitalakshya (From Ghorashal to Munshiganj) | 56 | 400 | 0.2 |
| I | 5 | Meghna (From Ashuganj to Munshiganj) | 82 | 1200 | - |
| I | 6 | Meghna (Nabinagar Loop joining route-5) | 25 | 850 | 1.5 |
| II | 7 & 8 | Meghna (Narsingdi Northern & Southern approaches) | 30 | 450 | 5.8 |
| III | 9 | Meghna (Bancharampur - Homna Loop) | 60 | 180 | 19.5 |
| III | 10 | Meghna (Hona-Doudkandi approach) | 48 | 400 | - |
| II | 11 | Gumti (Meghna loop approaching Dautkandi) | 16 | 300 | 10.6 |
| Total | | | 317 | | 27 |

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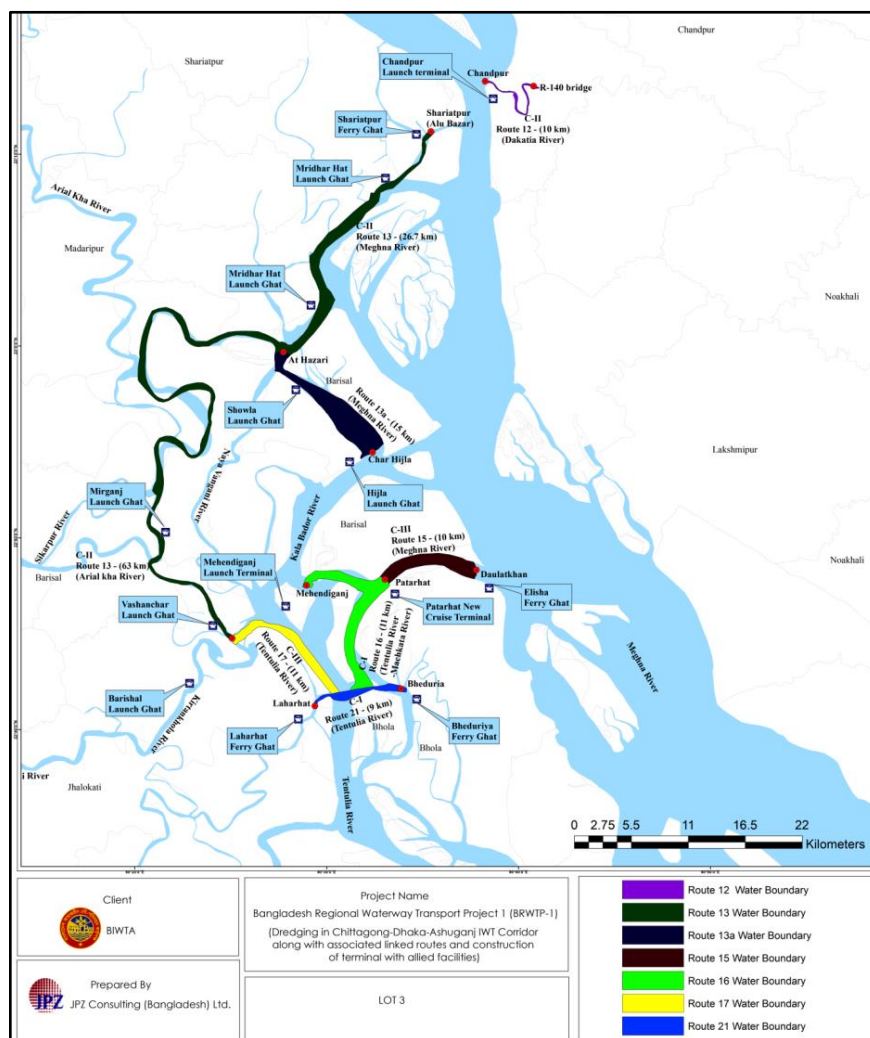


Figure 2: River Boundary, Lot-3

Table 2: River Routes Lot-3

| Class | Route No | River/location | Length (Km) | Average width (m) | Shoal Length Approx. (km) |
|-------|----------|---|-------------|-------------------|---------------------------|
| II | 12 | Dakatia (Chandpur to Gastola Bridge) | 10 | 400 | 1 |
| II | 13 | Meghna and Arial Khan (Shariatpur-Bheduria) | 89.7 | 1200 | 1.4 |
| II | 13a | Meghna (Looping root Inside Char Hisla) | 15 | 850 | - |
| III | 15 | Meghna/ Tentulia (Patarhat-Daulatkhan) | 10 | 450 | - |
| I | 16 | Meghna/Tentulia (Mehendiganj-Bheduria) | 19.6 | 180 | 2.1 |
| III | 17 | Tentulia (Bheduria - Vashanchar) | 11 | 400 | - |
| I | 21 | Tentulia (Bheduria -Laharhat) | 9 | 300 | 2.3 |
| Total | | | 164.3 | | 6.8 |

CHAPTER 02: SALIENT FEATURES & MONTHLY PROGRESS

2.1 PROGRESS OF BRWTP-S1A:

2.1.1 : Development and Maintenance Dredging Works:

Lot-2:

In this reporting month, dredging work on Route 09, spanning from Ch0+000 to Ch8+860 on the Titas River, has achieved a current average depth of 2.388 m. Conducted by seven dredgers: Pranto-01, MCD-01, Karnophuly-03, Karnophuly-05, Karnophuly-07, Reve-03, and Maa-01, the cumulative cutting length is 1,138 m with a volume of 62,018 m³ as of June 30, 2024.

In the Monipura Bazar/Baharnagar area, dredging work on Routes 07 & 08 by Kafela-01 and Karnophuly-02 covered 314 m and 34 m, respectively. The Meghna/Nabinagar loop Route 06, dredged by MBDDL Craft-01, covered 301 m. Route 11 in Daudkandi/Cumilla, dredged by Shah Yuvraj-01, covered 410 m. As of June 30, 2024, the total cumulative cutting length is 2,197 m with a volume of 111,944 m³.

In this month, the disposal areas utilized include Dikes D36, D41, D56, D57, D60, D61, and D62 for Route 09, Dike D1 for Route 06, Dike D2 for Route 11, and D5 and D6 for Route 07&08. Additionally, bathymetric pre-work monitoring surveys by BIWTA at Solimgonj-Homna Route 09 and Narsingdi Northern and Southern approach Route 07&08 commenced on June 27, 2024.

Table 3: Field Activity of BRWTP-S1A at Lot-2 Site.

| Sl. No | Date | Activity | Route name & Route number | Remarks |
|--------|-------------------------|--|---|---|
| 1. | 01.06.2024 | Inspection of dike 62 and dredging alignment. | Route 09 (Bancharampur - Homna Loop). | BRWTP-S1A team. Tejkhali, Baherchar Union Bancharampur Upazilla in Brahmanbaria |
| 2. | 03.06.2024 | To observe ongoing Dredging work by the dredger Karnaphully -07 at Anarpar | Route 09 (Bancharampur - Homna Loop). | |
| | | To observe ongoing Dredging work by the dredger Reve at Hasan Nagar | Route 09 (Bancharampur - Homna Loop). | |
| | | Engineering survey. Chainage 7+900~8+850 at Kadur | Route 09 (Bancharampur - Homna Loop). | |
| | | To visit ongoing dredging at Baherchar, Khalla, and Kadur. | Route 09 (Bancharampur - Homna Loop). | |
| 3. | 05.06.2024 | Site visit for getting updated views of dredging activities of Lot 2. | Lot-2, Route -9 (Bancharampur - Homna Loop). | WB, BIWTA, PIU, and S1A Consultant representatives. |
| 4. | 06.06.2024 | Fixed the starting point of the dredging area and check the centerline area. | Narshindi northern and southern approaches, route 06, 07 and 08, Lot-02 | |
| 5. | 10.06.2024 | Fixed the starting point of the dredging area and check the center line area. | Titas River. BRWTP-S1A, Route-09 Lot_2. | |
| 6. | 21.06.2024 & 22.06.2024 | A joint field visit to observe installed 100 P.C. Poles along Inland waterway routes 3&4, 05, 06, 07&08, 09, 10, 11 to meet the requirement as per contract BRWTP-W1A Lot 02. | All River Routes under Lot-2 commenced on 21-06-2024 at 05-30 AM & completed on 22-06-24 at 05 PM after traveling a total of 317 Kilometers by speedy speed boat. | PIU and S1A Consultant representatives. |
| 7. | 23.06.2024 | Inspection of dyke 36 62, 63 and dredging alignment. | BRWTP-S1A, Route-09 Lot_2 | |
| 8. | 24.06.2024 | Dike and Dredger Inspection | Route No. 6 Raipura Narsingdi. | |
| 9. | 26.06.2024 | Inspection of dyke 6 and dredging alignment. | BRWTP-S1A, Route-7&8 Lot_2 | |
| 10. | 28.06.2024 | Sampling the Environmental data like as: 1. Inspection of air- noise monitoring. 2. Observation of air noise level. 3. Underwater noise monitoring. 4. Inspection of Dissolved oxygen, Water pH, temperature, etc. 5. Sample collection upstream and downstream of the dredger for water quality analysis. 6. Soil sample collection from the disposal area and the riverbed for lab test. | Route-7 & 8 Meghna River (Narsingdi Northern & Southern approaches) | Jointly with contractors' representatives and S1A consultant |

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| Sl. No | Date | Activity | Route name & Route number | Remarks |
|--------|------------|--|--------------------------------------|--|
| 11. | 29.06.2024 | Water Level gauge Connection. | Route-09 (Bancharampur-Homna loop). | |
| | | Hydrographic post survey. | Route-09 (Bancharampur-Homna loop). | |
| | | Environmental Parameter sample collection (Water, Soil, Noise, etc.), fisheries survey, dolphin and turtle observation, fauna & fish mortality observation, and dike supervision | Route- 09, Titas River | Jointly with contractor's representatives and S1A consultant |
| 12. | 30.06.2024 | Hydrographic post survey. | Route- 09 (Bancharampur-Homna loop). | Jointly with contractor and S1A consultant |
| | | Environmental Parameter sample collection | Route- 09, Titas River | Jointly with contractor's representatives and S1A consultant |

Lot-3:

No dredging activities were conducted at the River Routes of Lot-3 during June due to the monsoon season. Three Cutter Suction Dredgers (CSD) along with ancillary crafts and equipment were kept on standby at Route 21 for any emergency work. The contractor's representatives have indicated that dredging activities on all routes (12, 13, 13a, 15, 16, 17, and 21) will resume immediately after the monsoon. Navigational aids are ready to be placed

Table 4: Field Activity of BRWTP-S1A at Lot-3 Site, June 2024

| Sl. No | Date | Activity | Route name & Route number | Remarks |
|--------|------------|---|---|---|
| 1. | 01.06.2024 | Level checking & multi-beam survey started. | Route: 13, from North Athazar to Alubazar- Horina of Lot-3 site | Jointly with BIWTA and S1A consultant |
| 2. | 02.06.2024 | Single-beam survey. | Route: 13, from North Athazar to Alubazar- Horina of Lot-3 site | Jointly with BIWTA and S1A consultant |
| | | Post-Cyclone old dyke Inspection | Route: 21, Bheduria, Barishal of Lot-3 site. | S1A consultant |
| 3. | 03.06.2024 | Level checking survey Continued. | Route: 13, from North Athazar to Alubazar- Horina of Lot-3 site | Jointly with BIWTA and S1A consultant |
| 4. | 04.06.2024 | Multi-beam survey and processing & level checking. | Route 13 (North Athazar to Alubazar- Horina). | Jointly with BIWTA and S1A consultant |
| 5. | 05.06.2024 | Multi-beam data processing & level checking. | Route 13 (North Athazar to Alubazar- Horina).at Lot-3. | Jointly with BIWTA and S1A consultant |
| 6. | 06.06.2024 | Multi-beam survey. | At route 13 (North Athazar to Alubazar- Horina). | Jointly with BIWTA and S1A consultant team |
| 7. | 07.06.2024 | Multi-beam survey data processing. | At route 13 (North Athazar to Alubazar- Horina). | Jointly with BIWTA and S1A consultant team |
| 8. | 08.06.2024 | Multibeam survey data processing at route 13 (North Athazar to Alubazar- Horina). | Route 13 (North Athazar to Alubazar- Horina). | Jointly with BIWTA and S1A consultant |
| 9. | 09.06.2024 | Multibeam survey & data processing. | Route 13 (North Athazar to Alubazar- Horina). | Jointly with BIWTA and S1A consultant. |
| 10. | 09.06.2024 | Multibeam survey & data processing. | Route 13 (North Athazar to Alubazar- Horina). | Jointly with BIWTA and S1A consultant. |
| | | Hydrographic line survey and Hydrographic post survey. Last day of the survey. | Route 13 and 12 (Chandpur- Alubazar). | Jointly with BIWTA and S1A consultant |
| 11. | 26.06.2024 | Sample collection for Environmental parameters Quality Assessment. And Fisheries survey Boat to Boat & Market survey. Dolphin and turtle observation, Fauna & fish mortality observation in the dike. | Route 12 and Route 13 (Chandpur- R140 bridge). | Jointly with Contractor's and S1A consultant's representatives. |

Updated information on Navigational Aids in June 2024:

All Project Coordination Meetings attended by the Navigational Aids Expert highlighted issues related to navigational aids. As per the project team's decisions, contractors for Lots 02 and 03 expedited the installation of Aids to Navigation during this reporting period.

On June 21, 2024, the Consultant Team BRWTP-S1A, along with representatives from the PIU Team, conducted a visit to observe the installation of 100 P.C. Poles along Inland Waterway Routes 3, 4, 5, 6, 7, 8, 9, 10, and 11, following contract BRWTP-W1A Lot 02. The visit concluded on June 22, 2024, at 5 PM after covering a total distance of 317 kilometers by speed boat.

2.1.2 Environmental Quality Assessment:

Environmental monitoring data for June 2024 indicate that the dredging work has not had any significant negative impact on any parameters. All laboratory data show values within the standard range and close to the baseline data.

Although the first phase has ended, several environmental and social aspects gaps remain incomplete during this reporting period. For example, the Biodiversity Management Plan, prepared by EQMS and approved by the PIU, has not yet been implemented. Lot 3 has not provided the sediment sample test report for the baseline. Additionally, a worn cardboard box is used as a complaint box and is located on a houseboat, making it inaccessible to residents. To effectively receive complaints, the complaint box needs to be properly located, well-constructed, and regularly maintained, along with raising awareness among the community for both the contractors of Lot-2 and Lot-3

2.1.3 Social and Resettlement Aspects:

During this period, steps were taken to accelerate the selection of dikes with the assistance of local administration. Regular meetings were held with various stakeholders at the site, with a particular focus on selecting the dikes in Lot 2.

During this reporting period, 68 disposal sites have been chosen within the Lot-2 and Lot-3 areas. The process of selecting dikes is in progress, with involvement from representatives of local governments and community members. To facilitate smooth execution, the project authority has applied to local government representatives, requesting their support and informing them of the project details. However, progress in June 2024 has been minimal, with no land lease agreements finalized during this time.

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

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

Information regarding river dredging, dredged material dumping, and agreements made in good faith are disseminated to the general population through various consultation meetings held in local bazaars, Union Councils, villages, and local schools. The progress of Dikes and Good Faith Agreements for Lot-2 and Lot-3 during this reporting period is detailed in Table 10 and Table 14-15&16 respectively.

2.1.3.2 Communication and Public Consultation:

The social and safeguard team has communicated with local people, local administration, and local elites and conducted consultation meetings regularly. The local administration was requested to assist in identifying land to dispose of the dredged soil. Moreover, the S1A team hoped for the assurance of all kinds of cooperation from the locals.

Table 5: Consultation with Local Stakeholders, Lot-2 site, June 2024

| Sl. No. | Date | Meeting Agenda and Location/Venue | Participants |
|---------|-------------|--|--|
| 1. | 04.06.2024. | Meeting for new disposal area Route 11,06, 7 & 8 and Route 09 | BRWTP-S1A and Lot-2 representatives |
| 2. | 08.06.2024 | Meeting for selecting new disposal area. Tejkhali, Baherchar Union under Bancharampur Upazilla in Brahmanbaria district. | BRWTP-S1A Team, Lot-2 Contractor's representatives and Local People, Land Owner. |
| 3. | 20.06.2024 | Stakeholder Meetings to manage the conflicts regarding the disposal area and continuing dredging work. Route-09 | Local Chairman and other political persons, BRWTP-S1A Team, Lot-2 Contractor's representatives and |

| Sl. No. | Date | Meeting Agenda and Location/Venue | Participants |
|---------|------------|---|---|
| | | | Local People, Land Owner |
| 4. | 22.06.2024 | Stakeholder Meeting with local Chairman and influential for conflict management at Route 09 site. | LG Representatives, Local elites and BRWTP-S1A Team, Lot-2 Contractors team, PIU. |
| 5. | 24.06.2024 | Discussion with the Chairman, Char Madhua. UNO instructed that before dredging an engineer from BWDB should visit the site, and to further task for getting permission from the DC, Narsinghdi. | Union Parishad Chairman, Upazila Nirbahi Officer, PIU representatives, S1A Team |

Table 6: Consultation with Local Stakeholders, Lot-3 site, June-2024

| Sl. No. | Date | Meeting Agenda and Location/Venue | Participants |
|---------|------------|--|---|
| 1. | 25.06.2024 | FGD with fishermen and Local people to collect information at the Route-13 site. | Fisherman, Local People, and S1A Consultant representatives, Lot-3 Contractor's data collectors group. |
| 2. | 26.06.2024 | Consultation with local people and Boat to Boat Fisheries survey, Market survey near the River Routes 12, 13 Chandpur. | Fisherman, Local People at the marketplace, S1A Consultant representatives, Lot-3 Contractor's data collectors. |

2.1.3.3 : Progress and Coordination Meetings of S1A Consultant in June 2024:

Table 7: Interaction with Client/Contractors and another Stakeholder (June 2024)

| SN | Date | Venue | Meeting Agenda | Participants |
|----|------------|-------------------------|--|--|
| 1. | 02.06.2024 | Conference room of S1A. | Submission of dredged material disposal site management plans, dike management, mitigation measures for benthos, and no use of polythene sheets on the dikes | S1A Team and the Environmental team of Lot-3 contractor. |
| 2. | 04.06.2024 | Conference room of S1A. | Progress review meeting with Third Party External Monitoring Team Social Safeguards (Package 12/2) at S1A Office. | Third Party Social Monitoring team S12/2 along with PIU and S1A experts. |

2.1.4 Grievance Redressal Mechanism (GRM):

Two Grievance Redress Committees (GRC) have been formed in the Lot-2 and Lot-3 project areas respectively, with one committee addressing site/local level issues and the other focusing on contractor-level gender-based violence (GBV) issues. Contractors, supported by S1A, conducted regular consultations to inform locals about reporting mechanisms. Grievance boxes were installed at project offices and dredging sites for people to submit their complaint letters and hotline numbers were provided for immediate contact. However, it was observed that one complaint box was placed on a houseboat without any directions for filing complaints. Additionally, the "complaint box" was a torn cardboard box and was not securely locked. Overall, the monitoring team observed a lack of proper maintenance.

Furthermore, the PIU, S1A, and senior project management of the government administration, along with all project officials, maintained contact with the local people during the reporting period, including holidays, to expedite the dredging activities of Lot 2. They were able to resolve obstacles through negotiation.

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 local inhabitants. No sexual exploitation, sexual violence, or gender-based violence was reported at work sites.

2.1.5 ESHS, Worker Employment, and OHS Status:

The S1A team assessed the ESHS situation, Worker Employment, and Working conditions, Occupational Health and Safety (OHS) status during the reporting period. Considering the safety of workers and the public during the dredging process, data were collected through field observation during site visits. The collected data is shown in the table below.

Table 8: ESHS Status at a Glance in June 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 were available at the project sites. | First aid facilities were available at project sites. |
| | Kitchen sanitation and cleanliness and food quality | Satisfactory | Satisfactory |
| | Sewage and wastewater discharge and Solid Waste Management | Good arrangements were kept in the Houseboat | Good arrangements were kept in the Houseboat |
| | Gas cylinder storage and maintenance | Maintained | Maintained |
| | Fire Extinguisher | Available | Available |
| | Safe Drinking Water | Accessible. Freshwater is collected daily from tube wells of nearby villages | Accessible. Freshwater is collected daily from tube wells 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 arrangements were kept in the Houseboat | Good arrangements were kept in the Houseboat |
| | Force Labor/ Child Labor | Not Applicable in this month | Not Applicable in this month |
| Personal Protection Equipment (PPE) for all staff/workers working on the site. | Wearing 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 the site. But not adequate. All workers are not using PPEs. | Available at site level but needs awareness and monitoring for using PPEs |
| Traffic management | Provision for preventing accidents including nighttime. | The contractors' ESHS team visited the site and met all concerned manpower | The contractors' ESHS team visited the site and met all concerned staff |
| | Dredging sites were demarcated and protected to ensure community safety. | Hundred (100) navigational PC Poles with top marks installed satisfactorily along the river routes | Seventy-five (75) PC Poles were installed with top marks satisfactorily along the river routes. Partly installation of lighted beacons. |

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 in June are 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 June 2024 is shown below.

Table 9: Description of dredging work for the month of June 2024, Lot-2 Site

| Sl. No. | Dredger Name | Time Period | Route No. | Place | Cutting Length(m) | Cutting Volume (cum.) |
|---------|-----------------|---------------|-----------|--------------|-------------------|-----------------------|
| 01. | Kafela 01 | 01 to 31 June | 7&8 | Khodalila | 314 | 16649 |
| 02. | Karnafuly 02 | 01 to 31 June | 7&8 | Khodalila | 34 | 1723 |
| 03. | Karnafuly 03 | 01 to 31 June | 09 | Barialchar | 0 | 0 |
| 04. | Karnafuly 05 | 01 to 31 June | 09 | Kadur | 291 | 14321 |
| 05. | Karnafuly 07 | 01 to 31 June | 09 | Bishnurampur | 147 | 6921 |
| 06. | Reve 05 | 01 to 31 June | 09 | Kadur | 46 | 5341 |
| 07. | Pranto 01 | 01 to 31 June | 09 | Nayachar | 63 | 1471 |
| 08. | Reve 03 | 01 to 31 June | 09 | Hasannagar | 551 | 20503 |
| 09. | MCD 01 | 01 to 31 June | 09 | Moddonagar | 310 | 12134 |
| 10. | Shah Yuvraj -09 | 01 to 31 June | 11 | Hasnabad | 410 | 11878 |
| 11. | MBDDL Craft -01 | 01 to 31 June | 06 | Char Madhua | 301 | 21248 |

The total estimated BoQ volume is 12,09,060 cubic meters for Phase I (18 months). The Lot-2 contractor dredged 52% (628,700 cubic meters) approximately of the estimated BoQ Volume of Phase-I capital dredging. This volume has been calculated based on the engineering/ manual survey and the exact volume will be found after the completion of the hydrographic survey, which is to be done.

The average dredged volume per day, considering the last 7 (Seven) days data, is 6,064 cubic meters. If this trend continues it will take approximately 3.4 to 3.8 months to complete Phase-I dredging. This means the Phase-I dredging will be completed approximately between 11-Sep-2024 to 23-Sep-2024.

2.2.2 Environmental Quality Assessment of Lot-2 Sites:

In June 2024, environmental monitoring at Lot-2 sites took place at Hasnabad Daudkandi (Route-11), Char Modhua, Nabinagar Loop (Route-6), and Solimganj, Bancharampur/Homna Loop (Route-9). During this reporting period, no significant environmental pollution or issues were detected during dredging.

Lot 2 collected monitoring data on June 30. However, monitoring data is required to be collected before the 15th of each month, as decided in a previous meeting. Due to this time difference, the results may not be comparable with the previous month's data.

Table 10: Environmental Quality Assessment for June 2024 for Lot-2

| Sl No. | Item | Parameters | Baseline Data of Route 09 | Route-9 | S1A Remarks June 2024 |
|--------|--------------------------------|---------------|---------------------------|----------------------------|-----------------------|
| | | | January 2023 | June 2024 | |
| 1 | Air Quality | SPM | 140.34 | 148.07 | *WAL |
| | | PM10 | 58.34 | 70.01 | WAL |
| | | PM2.5 | 31.43 | 38.6 | WAL |
| | | SO2 | 15.29 | 13.07 | WAL |
| | | NO2 | 12.75 | 26.09 | WAL |
| | | CO | 1.3 | 0.8 | WAL |
| 2 | Noise Level | LEQ day | 61.6 | 53.1 | WAL |
| | | Lmax | 76 | 64.8 | WAL |
| | | Lmin | 42.8 | 31.3 | WAL |
| 3 | Underwater Noise Level | LAvg [dB (A)] | - | No data collected from R09 | WAL |
| 4 | Surface Water Quality | Temperature | 22.1 | 27 | WAL |
| | | EC | 170 | 480 | WAL |
| | | pH | 7.20 | 7.66 | WAL |
| | | TDS | 160 | 234 | WAL |
| | | DO | 4.5 | 5.7 | WAL |
| | | BOD5 | 10 | No Data | WAL |
| | | TSS | 83 | 208 | WAL |
| 5 | Riverbed Sediment | Lead (Pb) | 9.79 | 15.01 | WAL |
| | | Cadmium (Cd) | 0.054 | 0.071 | WAL |
| | | Chromium(Cr) | 15.94 | 14 | WAL |
| | | Zinc (Zn) | 26.32 | 18.01 | WAL |
| | | Arsenic (As) | 1.96 | 1.4 | WAL |
| 6 | Dredged Material Dike no 64 | Lead (Pb) | - | 17.07 | WAL |
| | | Cadmium (Cd) | - | 0.09 | WAL |
| | | Chromium (Cr) | - | 23.84 | WAL |
| | | Zinc (Zn) | - | 29.69 | WAL |
| | | Arsenic (As) | - | 1.91 | WAL |

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

Table 11: Compliance Status for June 2024 for Lot-2

| Visual Monitoring Compliance | | | | | | | | |
|--|--|--|---|-------------------|---|---|---|---|
| Potential Aspects | Description | EMP Measures (Proposed in the EIA) | Measures Already Implemented | Compliance Status | | | Remarks/ Recommendation | Recommended deadline for implementing the corrective measures |
| | | | | C | P | N | | |
| Aquatic Flora & Fauna including Plankton, Benthos, fish, dolphin | Observations included 25 fish species and 4 crustacean species, with no fish mortality recorded. One Ganges River Dolphin was sighted near Char Modhua during the monitoring period. No freshwater turtles were observed, and locals confirmed their absence in recent months. | Mitigation measures not required During the S1A Environment Team's visit, destructive fishing gear like monofilament nets, and "china dohair" were seen to be used. | No mitigation measure was suggested by the Lot 2 monitoring team. The DOF will be informed to take appropriate measures | - | P | - | Common fishes and crustaceans have been recorded; one endangered fish species- Mud Perch (<i>Nandus nandus</i>) was recorded according to the IUCN Red List-Bangladesh, 2015. | DOF will be informed in due course. |

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

| Visual Monitoring Compliance | | | | | | | | |
|--|--|---|--|-------------------|---|---|--|--|
| Potential Aspects | Description | EMP Measures (Proposed in the EIA) | Measures Already Implemented | Compliance Status | | | Remarks/ Recommendation | Recommended deadline for implementing the corrective measures |
| | | | | C | P | N | | |
| Sediment Dispersion | Not measured | - | - | - | - | N | Contractors were notified to measure sediment plume on the 1st of March 2023, followed by verbal instruction and reminder emails | No action taken or data provided by the contractors yet. Will be reminded again. |
| Riverbank 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 reporting to the authorities and stop dredging |
| Hydrological Conditions | Surveyed before dredging | | | C | | | | |
| Drainage Congestion | No remarkable congestion was observed at the dredged material disposal sites. | | | - | P | - | No reports of any drainage congestion. Regular monitoring | Keep clear all drainage channels. Regular monitoring |
| River Traffic/ Transport | River traffic-related signboards have already been fixed to ensure a safe river traffic movement | | No mitigation measure is required | | P | - | Install river traffic and navigation-related signboards | Advised to install aids to navigation as per the contract. |
| Accidental Spillage | No reports yet | Oil spill emergency plan. 24/7 ready plan | - | | P | - | Logbook to be maintained, in case, of any incident, report to the authority | No action taken yet |
| Sediment leakages from pipes and sediment disposal | No significant leakages were observed with the floater and/or delivery pipe | Maintain pipes | Pipes regularly checked | - | P | - | Stop dredging, fix the problem before resumption; and report to the 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 the use of PPEs | Regular monitoring, punitive measures for not using PPEs, or Awareness programs for using PPEs. Besides, need to provide an adequate number of PPEs. |
| Waste management | Waste bins have been placed on the houseboat as well as in the 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 | - |
| Wastewater | Drained properly | | - | - | - | 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 were completed. In most places, people willingly agreed to allow the use of their lands. General people of the project sites got the news of river dredging, dredged materials disposal, and good faith agreements through consultation meetings with local people in local Bazaars, Union Councils, villages, and the local Schools. Progress of Dikes and Good Faith Agreements during this reporting period of Lot-02 is illustrated and attached herewith as Annexure I.

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

1.3.1 Development and Maintenance Dredging Works:

No dredging activities were conducted at the River Routes of Lot-3 during June due to the monsoon season. Three Cutter Suction Dredgers (CSD) along with ancillary crafts and equipment were kept on standby at Route 21 for any emergency work. The contractor's representatives have indicated that dredging activities on all routes (12, 13, 13a, 15, 16, 17, and 21) will resume immediately after the monsoon. Navigational aids (PC Poles) installation completed with top marks.

1.3.2 Environmental Quality Assessment of Lot-3 Site:

There was no dredging activity on-site during the monthly site visit in June 2024. No dredgers are placed on Routes 12, 13 and 13a. No new dikes were constructed for dredged material disposal in this reporting month. This month, environmental quality assessments were conducted at two locations along Routes 12 & 13. Since no dredging operations took place during the reporting month, there was no significant impact on terrestrial fauna, aquatic fauna, or fisheries from dredging and disposal activities.

During the June 2024 field visit, 27 fish species and six (6) crustacean species (prawn) were observed in river Routes 12 and 13, with no visible fish mortality around the Lot-3 dredging sites. The monitoring team did not observe any Ganges River Dolphins within 500m upstream or downstream of the dredging site, nor any freshwater turtles in the dredging or adjacent areas.

Table 122: Environmental Quality Assessment for June 2024 for Lot-3

| Sl No. | Item | Parameters | BaselineData of Route 12 | Route 12 | BaselineData of Route 13 | Route 13 | S1A Remarks June 2024 |
|--------|---|---------------|--------------------------|-----------|--------------------------|-----------|-----------------------|
| | | | | June 2024 | | June 2024 | |
| 1 | Ambient Air Pollutants' Concentration in $\mu\text{g}/\text{m}^3$ | SPM | 189.34 | 95.38 | 181.92 | 62.59 | WAL |
| | | PM10 | 104.36 | 52.30 | 92.79 | 35.63 | WAL |
| | | PM2.5 | 58.93 | 27.91 | 51.34 | 20.88 | WAL |
| | | SO2 | 28.51 | 18.12 | 24.66 | 14.76 | WAL |
| | | NO2 | 39.60 | 23.38 | 32.92 | 18.96 | WAL |
| 2 | Noise Level | CO | 1.6 | 0.6 | 1.2 | 0.5 | WAL |
| | | LEQ day | 51.3 | 71.09 | 62.3 | 59.24 | WAL |
| | | Lmax | 86.4 | 85.31 | 84.0 | 73.46 | Mixed Area. |
| 3 | Under Water Noise Level | Lmin | 30.9 | 38.15 | 35.2 | 36.41 | WAL |
| | | LAvg [dB (A)] | - | 75.5 | - | 63.9 | WAL |
| | | | | | | | |
| 4 | Surface Water Quality | Temperature | 22.4 | 27.5 | 22.3 | 28.1 | WAL |
| | | EC | 280 | 185 | 300 | 227 | WAL |
| | | pH | 6.67 | 8.57 | 7.57 | 8.89 | WAL |
| | | TDS | 150 | 82 | 140 | 112 | WAL |
| | | DO | 4.4 | 8.2 | 6.3 | 8.9 | WAL |
| | | BOD5 | 2.1 | 1.9 | 0.5 | 1.7 | WAL |
| | | TSS | 30 | 39 | 39 | 45 | WAL |
| 5 | Riverbed Sediment | Lead | 8.10 | 11.56 | 10.91 | 10.98 | WAL |
| | | Cadmium | 0.078 | 0.061 | 0.037 | 0.068 | WAL |
| | | Chromium | 25.03 | 19.49 | 21.35 | 16.19 | WAL |
| | | Zinc | 46.14 | 23.06 | 28.02 | 18.20 | WAL |
| | | Arsenic | 3.83 | 1.89 | 2.48 | 1.95 | WAL |

*WAL=Within Approved Limit; Detail remarks are in Chapter 2.

Table 133: Compliance Status for June 2024 for Lot-3

| Visual Monitoring Compliance | | | | | | | | |
|--|---|------------------------------------|---|------------------|---|---|---|---|
| Potential Aspects | Description | EMP Measures (Proposed in the EIA) | Measures Already Implemented | ComplianceStatus | | | Remarks/ Recommendation | Recommended deadline for implementing the corrective measures |
| | | | | C | P | N | | |
| Aquatic Flora and Fauna including Plankton, Benthos, fish, | 27 fish species and 6 crustacean species (prawn) were observed in river routes 12 and | 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 | To be practiced every month |

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

| Visual Monitoring Compliance | | | | | | | | |
|--|---|---|---|-------------------|---|---|--|---|
| Potential Aspects | Description | EMP Measures (Proposed in the EIA) | Measures Already Implemented | Compliance Status | | | Remarks/ Recommendation | Recommended deadline for implementing the corrective measures |
| | | | | C | P | N | | |
| dolphin | 13, with no visible fish mortality around the dredging site. The monitoring team did not observe any Ganges River Dolphins within 500m upstream or downstream of the dredging site, nor any freshwater turtles in the dredging or adjacent areas. | | | | | | biodiversity. | |
| Sediment Dispersion | Not measured | x | No mitigation measure is required in the reporting period | - | - | N | Contractors were notified to measure the sediment plume on the 1st of 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. | Regular monitoring | | - | P | - | | Regular monitoring |
| Hydrological Conditions | Surveyed before dredging | | | | | | | |
| 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 |
| 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 | Appropriate aids to navigation to be installed soon, some. |
| Accidental Spillage | No reports yet | Monitoring and preparedness to handle any accidental spillage | No spills from chemical storage | - | P | - | Emergency oil spill management plan | Emergency Plan in place, to be updated if necessary |
| Sediment leakages from pipes and sediment disposal | No reports of any 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 | Stop dredging, fix the problem before resumption; and report to the authority |
| Drinking water & sanitation | Safe drinking water is being supplied | | | C | - | - | | Drinking water source to be mentioned |
| Safety of workers | Occupational safety | | PPEs provided | - | - | N | Awareness of using PPEs | - |
| Waste management | Waste bins have been placed on the houseboat as well as in the dredger and maintained | | - | C | - | - | Colored collection bins for organic and non-organic solid wastes; no wastes in the river | Mention the end process where does the waste go from the bins? |

| Visual Monitoring Compliance | | | | | | | | |
|----------------------------------|------------------------------|------------------------------------|------------------------------|------------------|---|---|--|---|
| Potential Aspects | Description | EMP Measures (Proposed in the EIA) | Measures Already Implemented | ComplianceStatus | | | Remarks/ Recommendation | Recommended deadline for implementing the corrective measures |
| | | | | C | P | N | | |
| Cultural and archeological Sites | Preservation of such sites | | x | - | x | x | Stop dredging, report to the authorities | - |
| Wastewater | From houseboats, dykes, etc. | Treated, release after settling | Not described | - | - | N | To be treated before release | - |

1.3.3 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 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-03 is illustrated and attached herewith as Annexure I.

CHAPTER 03:

ACHIEVEMENT OF LAST MONTH'S PLAN AND NEXT MONTH'S PLAN

3.1 ACHIEVEMENT OF REPORTING MONTH:

S1A

- a) Submitted Daily Survey and Dredging Monitoring Sheet to PIU and WB.
- b) Supervision and Monitoring Surveys of Dredging activities were carried out for Route 7&8, 9 and 11 under Lot-2.
- c) Reviewing and assessing volume for Routes 7&8, 9 and 11 under Lot-2.
- d) Lot 2 dredging expedited for S1A coordination efforts and continuous monitoring.
- e) The Aid to Navigation expert of S1A consultant visited lot-2 and lot-3 site along with the committee formed by PIU including user's representation from BIWTA. He recommended expediting the work so that it gets completed prior to the starting of phase-2 activities.
- f) Field visits conducted by the S1A-ESHS team.

LOT-2

- a) The total revised estimated BoQ volume is 12,09,060 cubic meters for Phase I (18 months). The Lot-2 contractor dredged 63.4% approximately 767,413 cubic meters of the estimated BoQ Volume of Phase-1 capital dredging. They are continuing dredging to complete the remaining volume under phase-1 capital dredging. They requested for time extension until 30-Sep-2024 to complete phase-1 dredging.
- b) Related Environmental, Social and GRM Activities have been conducted.
- c) One hundred (100) PC Poles installed with top marks as a part of navigational aids along all designated river routes.
- d) Field visits were carried out by the S1A-ESHS team.

LOT-3

- a) Hydrographic Survey carried out along Routes 13, 13a, 15, 16, and 21.
- b) Related Environmental, Social and GRM activities have been conducted
- c) Field visits were carried out by the S1A-ESHS team.
- d) Seventy-five (75) PC Poles installed with top marks as a part of navigational aids along all designated river routes.

3.2 NEXT MONTH PLAN:

S1A

- a) Post intermittent survey will be conducted in Route 9 under Lot-2
- b) Review the volume data with the submitted data by the contractor and assess the volume for Route 9 under Lot-2.
- c) Supervision and Monitoring of dredging activities and environmental quality, ESHS and GRM activities of Lot-2 and Lot-3.
- d) Conducting Good Faith Agreement of the remaining six (6) under Lot 3.
- e) To expedite navigational aid installation work plan from the Lot-2 and Lot-3 contractors.
- f) To expedite the dredging activity of Lot-2 for completing 100% of dredging work under Phase-1.
- g) To organize meetings with the Lot 2 and Lot 3 contractor's environment team.

LOT-2

- a) Lot-2 contractor will expedite the dredging activities to achieve the phase-1 capital dredging.
- b) Lot-2 contractor will expedite the Aid to Navigation activities.
- c) The recommended field visits to be carried out by the Lot-2 contractor ESHS team.

LOT-3

- a) Lot-3 contractor will submit all the pre and post survey data for all the routes along with relevant chart and volume calculation as a part of their completion documentation of phase-1.
- b) Lot-3 contractor will expedite the Aid to Navigation activities.
- c) The recommended field visits to be carried out by the Lot-3 contractor ESHS team.

CHAPTER 04:

CONCLUSION AND RECOMMENDATIONS

- Lot 2 completed approximately 63.4% of the BoQ volume during Phase-1, which means that they could not complete the phase-1 capital dredging within the stipulated time. The Lot-2 contractor requested for time extension till 30-Sep-2024 which is under approval process. They are continuing the dredging activities to complete the remaining volume of phase-1. The progress of Lot-3 dredging activities was found satisfactory. They have finished their Phase-1 activities within the stipulated time. Installation of aids to navigations is progressing well.
- As this is the end of Phase-1 activities, both the contractors of Lot-2 and Lot-3 need to start their handover procedure and the pertinent post-survey as well.
- Dredged material to be monitored for any benthos during and after the dredging operation.
- Regular habitat monitoring and intensive, repeated field visits are recommended by both the contractors of lot-2 and lot-3 to establish a comprehensive inventory of flora and fauna species.

CHAPTER 05: ANNEXURE

ANNEX I: The Progress of Dyke and Good Faith Agreement

Table 144: The progress of Dikes and Good Faith Agreements (GFA) for Lot-2 during this reporting period

| Dyke no. | Route No | Land Owner | | Land | | | GFA |
|----------|----------|--|---|---|--------------------|---------------------------------|------|
| | | Name and NID | Address | Description | Quantity (Decimal) | Quality of Land | |
| D1 | 9 | Md. Monir Hossain NID: 6447046241 | Village: Joy Nagar Upazila: Bancharampur | Plot No: 1117.1118, 10, 65, 1016, Mouza: Jay Nagar | 95 | Agriculture Land (Two Crops) | Done |
| D2 | 9 | Siblu Mia NID:1210488091772 | Village: Imam Nagar Upazila: Bancharampur | Plot No:158, 155, 166, 147. Mouza: Imam Nagar | 270 | Agriculture Land (Two Crops) | Done |
| D3 | 9 | Md. Afzal Hossain NID:1210488092232 | Village: Joy Nagar Upazila: Bancharampur | Plot No: 461, 711, 712, 713, 714, 715 1016. Mouza: Jay Nagar | 150 | School and School Field | Done |
| D4 | 9 | Md. Monzur Mahabub NID: 1210488092428 | Village: Imam Nagar Upazila: Bancharampur | Plot No:3473, 3474 Mouza: Imam Nagar | 55 | Agriculture land (One crop) | Done |
| D5 | 9 | Jharna Begum NID:5546582981 | Village: Barail Upazila: Nabinagar | Plot No: 316, 318, 397, 399, 314, 315, 401 Mouza: Borail. | 132 | Agriculture land (Two Crops) | Done |
| D6 | 9 | Md. Dostogir NID:7813941536 | Village: Barail Upazila: Nabinagar. | Plot No: 326, 353,314, 622, 312, 126, 319, 320, 321, 334 Mouza: Borail, | 141 | Agriculture land (Two Crops) | Done |
| D7 | 9 | Monir Hossain NID:12104880921009 | Village: Imam Nagar Upazila: Bancharampur | Plot No.127 Mouza: Imam Nagar. | 40 | Agriculture land (Two Crops) | Done |
| D8 | 9 | Abdus Salam NID: 1210488089240 | Village: Aka Nagar Upazila: Bancharampur | Plot No.6021, 5622, 5627, 6620, 3277 Mouza: Aka Nagar. | 90 | Agriculture land (Two Crops) | Done |
| D9 | 9 | Md. Zakir Hossain NID: 2693016135957 | Village: Aka Nagar Upazilla: Bancharampur | Plot No. 2611, 2612, 6036 Mouza: Aka Nagar. | 139 | Agriculture land (Two Crops) | Done |
| D10 | 9 | Md. Alamgir Kabir. NID: 1218575059084 | Village: Nilukhi Upazila: Nabinagar | Plot no. 455. Mouza: Borail | 52 | Agriculture land (Two Crops) | Done |
| D11 | 9 | Md. Kabir Hossain. NID: 10488088336 | Village: Aka Nagar Upazilla: Bancharampur | Plot no. 5972/ 5380/5984 Mouza: Aka Nagar, Bancharampur, | 139 | Agriculture land (Two Crops) | Done |
| D12 | 9 | Md. Nazrul Islam. NID: 8705507518 | Village: Aka Nagar Upazila: Bancharampur | Plot no. 3053, Mouza: Aka Nagar. | 50 | Agriculture land (One Crop) | Done |
| D13 | 9 | Md. Monirul Islam. NID: 8672153577 | Village: Aka Nagar Upazila: Bancharampur | Plot no. 2422, 2423, 2412, 2417, 2424, 2425 Mouza: Aka Nagar. | 190 | Agriculture land (Two Crops) | Done |
| D14 | 9 | Md. Salek Mia. NID: 7385849111 Mbl:01985708570 | Village:Akanagar Union: Salimganj Upazila:Bancharampur District: Brahman Baria | Mouza: Akanagar, Plot no. 2948/2149/2150/ 2151/2152, BS-642; JL no. 13. | 24 | Agriculture land (One Crop) | Done |
| D15 | 9 | Abdul Halim NID: 2366199863 Mbl: 01819160113 | Village: Akanagar Union: Tejkhali Upazila: Bancharampur District: Brahman Baria | Mouza: Akanagar, Plot no. 3395,3396 BS-Khaitan no. 496 JL no. 13. | 67 | Agriculture land (One Crop) | Done |
| D16 | 9 | Md. Riazul Islam NID: 5533130141 | Village: Joykalipur Upazila: Bancharampur | Plot no. CS 1370, BS 3002-3003, mouza: Borail | 52 | Agriculture land (One Crop) | Done |
| D17 | 9 | 1.Babuk Mia NID:5546760314 2.Rakat Ali NID:9132515710 3.Nobi Mia NID:5996942016 | Village: Nilukhi Union: Solimgonj Upazila:Nabinagar District: Brahman Baria | Plot no. CS/SA 1373/1374, BS 3007, Mouja: Borail | 90 | Agriculture land (One Crop) | Done |
| D18 | 9 | Kader Miah NID: 1210488088731 Mbl: 01712830171 | Village:Akanagar, Union: Tejkhali Upazila:Bancharampur District: Brahman Baria | Mouza: Akanagar, Plot no. 2948/2149/2150/ 2151/2152, BS 650-JL no. 13. | 192 | Agriculture land (One Crop) | Done |
| D19 | 9 | Md. Kabir Hossain NID: 1210488087685 Mbl: 01789160113 | Village:Akanagar Union: Tejkhali Upazila:Bancharampur District: Brahman Baria | Mouza: Akanagar, Plot no. 2948/2149/2150/ 2151/2152, BS-642;JL no. 13. | 32 | Agriculture land (One Crop) | Done |
| D20 | 9 | 1.Jasim Uddin NID: 7798370685 Mbl: 01717531207 2.Oli Mia NID: 9152173382 Mbl: 01720322353 | Village: Bishnursmpur Union: Bishnursmpur Upazila:Bancharampur District: Brahman Baria | Mouza: Bishnursmpur SA Khatian: 11, Plot no: 1298,1428,1646,1655,1654 JL No 43 | 59 | Agriculture land (One Crop) | Done |
| D21 | 9 | Safar Ali NID: 2398388328 Mbl: 0191438148 | Village:Akanagar Union: Tejkhali Upazila:Bancharampur District: Brahman Baria | Mouza: Akanagar, SA Khatian: 3610, Plot no: 3456,3460 JL No. 13 | 75 | Agriculture land (One Crop) | Done |

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

| Dyke no. | Route No | Land Owner | | Land | | | GFA |
|----------|----------|---|--|---|--------------------|--------------------------------|------|
| | | Name and NID | Address | Description | Quantity (Decimal) | Quality of Land | |
| D22 | 9 | Md. Milon Mia NID: 7348365565 Mbl: 01321822727 | Village: Bahir char Union: Tejkhali Upazila: Bancharampur District: Brahman Baria | Mouza: Bahir char SA Khatian: 556, Plot no: 613, 857 JL No. 41 | 84 | Agriculture land (One Crop) | Done |
| D23 | 9 | 1. Alomgir Hossain NID: 1978121048800039; Mbl: 01741735087 2. Md. Borhan Uddin; NID: 1210488095770 Mbl: 01794735283 | Village: Bishnurampur Union: Tezkhali Upazila: Bancharampur District: Brahman Baria | Mouza: Bahirchar SA Khatian: 860,380 Plot no: 821,621,711,622,624,810,1070,623,626,7 10,711,1179 JL No. 41 | 119 | Agriculture land (One Crop) | Done |
| D24 | 9 | Aminul Islam (Liton) NID: 9917405796 Mbl: 01310822838 | Village: Bishnurampur Union: Bishnurampur Upazila: Bancharampur District: Brahman Baria | Mouza: Bishnurampur SA Khatian: 92 Plot no: 1209,1205,1439,1430 JL No. 40 | 120 | Agriculture land (One Crop) | Done |
| D25 | 9 | Ilias Miaz NID: 19921216488000130 Mbl: 01985728652 | Village: Bishnurampur Union: Tezkhali Upazila: Bancharampur District: Brahman Baria | Mouza: Bishnurampur SA Khatian: 172, Plot no: 1308,1497,1448,427,1105 JL No 43 | 174 | Agriculture land (One Crop) | Done |
| D26 | 9 | 1. Gazi Kawsar NID: 3298455597 Mbl: 01713685001 2. Gazi abdu Salam NID: 2398479119 Mbl: 01740956081 3. Md. Zakir Hossain NID: 7348561049 Mbl: 01713585112 4. Chandra Kumar Das NID: 1210488090007 Mbl: 01740968121 | Village: Aka Nagar Union: Tezkhali Upazila: Bancharampur District: Brahman | Mouza No: Aka Nagar SA Khatian: 3921,4096,3941 Plot No: 5760,5705,5707,5790,6370,6698,5744,57 11,5384,5715 J L No 13 | 310 | Agriculture land (One Crop) | |
| D27 | 9 | Md. Hanif NID: 5501395304 Mbl: 01717531207 | Village: Bishnurampur Union: Bishnurampur Upazilla: Bishnurampur District: Brahman Baria. | Mouza: Bishnurampur SA Khatian: 894, Plot no. 108,111 Khatian No. 860/380; JL No. 41 | 154 | Agriculture land (One Crop) | Done |
| D28 | 9 | Habib Ulla NID: 2398391876 Mbl: 1817506254 | Village: Bahirchar Union: Bishnurampur Upazila: Bancharampur District: Brahman Baria | Mouza. Bahirchar Plot no. 603,714,1152,1545 Khatian No: 92; JL No: 41 | 79 | Agriculture land (One Crop) | Done |
| D29 | 9 | Abu Kalam NID: 1948451222 Mbl: 01985708523 | Village: Bahirchar Union: Tezkhali Upazila: Bancharampur District: Brahman Baria. | Mouza. Bahirchar Plot no. 904, 608, 752, 1227 Khatian No: 617, 1487 JL No: 41 | 89 | Agriculture land (One Crop) | Done |
| D30 | 9 | 1. Md. Farid Mia NID: 3298435581 Mbl: 01317622313 2. Abdul Wahab NID: 6894609699 Mbl: 01735786521 | Village: Bahirchar Union: Tezkhali Upazila: Bancharampur District: Brahman Baria. | Mouza. Bahirchar Plot no. 119,1084,415 Khatian No: 551,61,108 JL No: 41 | 88 | Agriculture land (One Crop) | Done |
| D31 | 9 | Moin Uddin NID: 3748368614 Mbl: 01817506254 | Village: Bahirchar Upazila: Bancharampur District: Brahman Baria. | Mouza. Bahirchar Plot no. 1134,1138,1135,18,1052 Khatian No: 217,541 JL No: 41 | 85 | Agriculture land (One Crop) | Done |
| D32 | 9 | Ali Ahammad Sarker NID: 3747074718 Mbl: 01715046233 | Village: Nilokhi Union: Salimganj Upazila: Nabinagar District: Brahman Baria. | Mouza. Nilokhi Plot no. 1134,1138,1135,18,1052 Khatian No: 24/1, 106/1 JL No: 236 | 214 | Agriculture land (One Crop) | Done |
| D33 | 9 | 1. Rasel Mia NID: 1947127799 Mbl: 01738424077 2. Parul Begum NID: 1210488095296 Mbl: 01735786521 3. Sova Akter NID: 8707793660 Mbl: 01735786521 | Village: Nilokhi Union: Salimganj Upazila: Nabinagar District: Brahman Baria. | Mouza. Nilokhi Plot no. 1172,1208,1209,1199,1163,1198,1170,12 00,1232 Khatian No: 950, 992 JL No: 05 | 170 | Agriculture land (One Crop) | Done |
| D 34 | 9 | 1. Md. Billal NID: 2398523114 Mbl: 01725835721 2. Arfat Ali NID: 8257731771 Mbl: 01985789351 | Village: Bahir Char Union: Tezkhali Upazila: Bancharampur District: Brahman Baria. | Mouza. Bahirchar Plot no. 25/400,217/652,268/418,628,708 Khatian No: 209,74 JL No: 41 | 84 | Agriculture land (One Crop) | Done |

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

| Dyke no. | Route No | Land Owner | | Land | | | GFA |
|----------|----------|---|--|--|--------------------|--------------------------------|------|
| | | Name and NID | Address | Description | Quantity (Decimal) | Quality of Land | |
| D 35 | 9 | 1.Abdul Awal NID: 3746376999 Mbl: 01918578062 2.Abul Kalam NID: 8695983695 Mbl:01716592411 3.Abu Ishaq NID: 3712971580 Mbl: 01719834733 4.Nasir Uddin NID: 5546582717 | Village: Barail Upazila:Nabinagar District: Brahman Baria. | Mouza. Barail Plot no. 1590,3267,3144,3274,3515,1802,1803 Khatian No: 544,163,1560 JL No: 04 | 113 | Agriculture land (One Crop) | Done |
| D 36 | 9 | 1.Abdul Mannan NID: 8248455720 Mbl: 01738424077 2.Md. Jalal Mia NID: 4648465153 Mbl: 01735786521 3. Tazul Islam NID: 9173793036 Mbl: 01735786521 | Village: Bahir Char Union: Tezkhali Upazila:Bancharampur District: Brahman Baria. | Mouza. Bahirchar Plot no. 1286,1351,1649,144,1563,127 Khatian No: 549,600,996 JL No: 41 | 140 | Agriculture land (One Crop) | Done |
| D37 | 9 | Md. Swapon Mia NID: 8248495528 Cel: 01753828096 | Village: Bahirchar Union: Tezkhali Upazila:Bancharampur, District: Brahman Baria. | Mouza No. Bahirchar Khatian No: 530/616/1464 Plot: 553/552/554 JL No:41 | 60 | Agriculture land (One Crop) | Done |
| D38 | 09 | 1.Md. Nazim NID: 2421516085 Mbl: 01733123741 2. Apel Mahmud NID: 4201400373 Mbl: 01958705623 3. Aynal Hoque NID: 5554116691 Mbl: 01815237615 4. Abu Musa NID: 6448345691 Mbl: 01712578351 5. Mst. Razia khatun NID: 2848376618 Mbl: 01735892711 6. Marfot Ali NID: 19761210488000018 Mbl: 01928705721 7. Abdul Mannan NID: 7812888217 Mbl: 01789256722 | Village: Bahirchar Union: Tezkhali Upazila:Bancharampur District: Brahman Baria. | Mouza No. Bahirchar Khatian No: 751/439/120/889/743/70 Plot: 1282/1284/1285/1283/957/1641/2221/955 /1502/985/984 JL No:41 | 173 | Agriculture land (One Crop) | Done |
| D39 | 9 | Abu Sayem NID: 6890355958 Mbl: 01712853510 | Village: Kadoir Union: Salimganj Upazila:Nabinagar District: Brahman Baria. | Mouza No. Kadoir Khatian No: 591 Plot: 421 JL No:63 | 50 | Agriculture land (One Crop) | Done |
| D40 | 09 | Md. Jalu Mia NID: 4155505789 Mbl: 01712892751 | Village: Bahirchar Union: Tezkhali Upazila:Bancharampur District: Brahman Baria. | Mouza No. Bahirchar Khatian No: 709 Plot: 440 JL No:41 | 100 | Agriculture land (One Crop) | Done |
| D 41 | 09 | 1.Md. Kamal Mia NID: 7347275260 Mbl: 01724532687 2.Abdul Karim NID: 2397556354 Mbl: 01716161185 | Village: Kadoir Union: Tezkhali Upazila:Bancharampur District: Brahman Baria. | Mouza No. Bahirchar Khatian No: 706 Plot: 486/350/352 JL No:10 | 111 | Agriculture land (One Crop) | Done |
| D 42 | 09 | 1.Mst. Jahanara NID: 1210488096760 Mbl01986218781 | Village: Nilokhi Union: Salimganj Upazila:Nabinagar District: Brahman Baria. | Mouza No. Nilokhi Khatian No: 262 Plot: 1129/1 JL No:05 | 31 | Agriculture land (One Crop) | Done |

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

| Dyke no. | Route No | Land Owner | | Land | | | GFA |
|----------|----------|--|--|---|--------------------|-----------------------------|------|
| | | Name and NID | Address | Description | Quantity (Decimal) | Quality of Land | |
| D 43 | 09 | 1.Shakel Ahmed NID: 2397009727 2. Sazzad Ahmed NID: Mbl: 3. Md. Alomgir NID: 2397009727 4. Rezaul Karim NID: 6455341013 5. Ziaul Karim NID: 5983496109 Mbl: 6. Fazlul Karim NID: 9132487969 | Village: Badda Dakkhin Para Union: Salimganj Upazila:Nabinagar District: Brahman Baria. | Mouza No. Char Badda Khatian No: 1154/191/986 Plot: 486/350/352 JL No:14 | 197 | Agriculture land (One Crop) | Done |
| D 44 | 09 | 1. Md. Alomgir NID: 2397009727 2. Rezaul Karim NID: 6455341013 3. Ziaul Karim NID: 5983496109 Mbl: 01713018040 4. Fazlul Karim NID: 9132487969 | Village: Badda Dakkhin Para Union: Salimganj Upazila:Nabinagar District: Brahman Baria. | Mouza No. Jolli Khatian No: 175/1453 Plot: 122/233/325/ JL No:16 | 140 | Fallow Pond | Done |
| D 45 | 09 | 1. Md. Alomgir NID: 2397009727 | Village: Badda Dakkhin Para Union: Salimganj Upazila:Nabinagar District: Brahman Baria. | Mouza No. Jolli Khatian No: 1657 Plot: 291 JL No:16 | 22 | Agriculture land (One Crop) | Done |
| D 46 | 09 | Md. Jalu Mia NID: 4155505789 Mbl: 01712892751 | Village: Bahirchar Union: Tezkhali Upazila:Bancharampur District: Brahman Baria. | Mouza No. Bahirchar Khatian No: 111 Plot: 222/223/577/496 JL No:41 | 97 | Agriculture land (One Crop) | Done |
| D 47 | 09 | Md. Abu Hanif NID: 7305030772 Mbl: 01712892751 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) | Done |
| D 48 | 09 | Kamrul Hasan NID: 19791218575000030 Mbl: 01716161185 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: 19701218575000009 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: 1531/1502/1537/860/941/1282/1530/1531/1551/288/289/316/493/1567 JL No:14 | 200 | Agriculture land (One Crop) | Done |
| D 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 | Village: Bahir Char Union: Tezkhali Upazila:Bancharampur District: Brahman Baria. | Mouza No. Bahir Char Khatian No: 392/320/707/273/514/1071 Plot: 1105/617/1104/411/496/1111/1110 JL No:41 | 179 | Agriculture land (One Crop) | Done |

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

| Dyke no. | Route No | Land Owner | | Land | | | GFA |
|----------|----------|--|---|--|--------------------|---|------|
| | | Name and NID | Address | Description | Quantity (Decimal) | Quality of Land | |
| | | 5.Ismail Mia NID: 1523786984 Mbl: 01913777071 6.Amir Hossain Passport:0538242 Mbl: 01712835771 7.Farid NID: 3322198205 Mbl: 01852892821 | | | | | |
| D 50 | 09 | 1.Abul Kashem NID: 2398411542 Mbl: 01708665453 2.HuJuneun 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: 1105/617/1104/411/496/1111/1110 JL No:38 | 193 | Agriculture land (One Crop) | Done |
| D 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) | Done |
| D 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) | Done |
| D 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) | Done |
| D 54 | 09 | Abdur Razzak NID: 9574183696 Mbl: 01747343757 | Village: Bishnurampur Union: Tezkhal Upazila:Bancharampur District: Brahman Baria. | Mouza No. Bishnurampur Khatian No:1154 Plot: 1594 JL No:01 | 86 | Fallow Land | Done |
| D 55 | 09 | Shahjalal NID: 8242023813 Mbl: 01625888695 | Village: Bishnurampur Union: Tezkhal Upazila:Bancharampur District: Brahman Baria. | Mouza No. Bishnurampur Khatian No:386 Plot: 1550 JL No:40 | 73 | Fallow Land | Done |
| D 01 | 7&8 | 1.Hanif Mia NID: 6816020733136 2.Abu Kashed Mia NID: 6816020432149 3.Abul Kashem NID: 5501734684 4.Nuru Mia NID: 8218914904 5.Sushil Chandra Sutradhar NID: 6816020732471 Mbl: 01794391918, 01712766109 | Village: Birgaon Union: Alokbali Upazila:Narsingdi Sadar District: Narsingdi | Mouza: Char Madhobpur SA Khatian No: 425/2010/2051 CS Plot No: 4212, 4219, 4262, 4341, 10070, 10037, 13062, 10064, 10062, 10061, 10091, 10204, 9689, 9690, 9653, 10079, 10056, 10205, 9798, 10118, 10111, 10114 JL No: 73, 62, 52 | 677 | About 70% Fallow Land and 30% Agriculture land (One Crop) | Done |
| D 02 | 7&8 | Md. Delwar Hossain NID: 9550769062 Mbl: 01712766109 | Village: Bakhor nagar Union: Alokbal Upazila:Narsingdi Sadar District: Narsingdi | Mouza: Char Madhobpur SA Khatian No: 8723/4356/4126/4247 SA Plot No: 7879,7915,7880,8793,7891,7960,7961,9730,9731,9732,8730,896,7496,7494,9756, 9757, 9727,9730, 9731, 9732,8726, 8743, 7891, 8793,7886, JL No: 62 | 328 | Fallow Land | Done |

Table 155: GFA, Lot-03 (District: Barishal, Bhola, Sariatpur and Chandpur).

| Dyke No. | Route No | Land Owner | | Land | | | Good Faith Agreement |
|----------|----------|---|---|--|--------------------|--------------------------------------|----------------------|
| | | Name and NID | Address | Description | Quantity (Decimal) | Quality of Land | |
| D1 | 21 | Md. Salam Fakir NID:8223014047 | Village: Ghagoria Upazila: Mehendiganj | Plot no. 1901/56 Mouza: Ghagoriya. | 200 | Agriculture Land (Two Crops) | Under Process |
| D2 | 21 | Md. Mizan Fakir NID:6860475422 | Village: Bheduria Upazila: Bhola Sadar | Plot no. 1901/28 Mouza: Bheduria | 121 | Agriculture Land (Two Crops) | Under Process |
| D3 | 21 | Md. Salam Fakir NID:8223014047 | Village: Ghagoria Upazila: Mehendiganj | Plot no. 1901/56 Mouza: Ghagoriya. | 224 | Agriculture Land (Two Crops) | Under Process |
| D4 | 21 | Md. Jahangir Hossain NID: | Village: Sreepur Upazila: Mehendiganj | Plot no. 1501 Mouza: Ghagoriya. | 80 | Fallow Land | Under Process |
| D5 | 21 | Md. Mizanur Rahman NID: 6860475422 | Village: Shampur Upazila: Bhola Sadar | Plot no. 1107,1181,1182, 2123,2124,2119,2125 Mouza: Ghagoriya. | 355 | Agriculture Land (Two Crops) | Under Process |
| D6 | 21 | Md. Nur Nabi Vhuya NID: 0616213050970 | Village: Sreepur Upazila: Mehendiganj | Plot no. 1468 (DP Khotiyan-385, DP Plot: 4662) Mouza: Ghagoriya. | 355 | Agriculture Land (Two Crops) | Under Process |
| D7 | 21 | Md. Nur Nabi Vhuyia NID: 0616213050970 | Village: Shreepur Upazila: Mehendiganj | Plot no. 1479 (DP Khotiyan-385, DP Plot: 4662) Mouza: Ghagoriya. | 195 | Agriculture Land (Two Crops) | Under Process |
| D8 | 21 | Johurul Islam NID:4192286039 Mbl: 01711320785 | Village: Bheduriya Union: Bhola Sadar Upazila: Bhola Sadar District: Bhola. | Mouza No. Char Bheduriya Khatian No: 1319 JL No: 56 | 405 | Agriculture Land (Two Crops) | Under Process |
| D9 | 21 | Md. Kabir Hossain Mridha NID:6878485082 Mbl: 01735802399 | Village: Sreepur Union: Mehendiganj Upazila: Mehendiganj District: Barishal. | Mouza No. Ghagoria Khatian No: 296 JL No: 118 | 700 | Agriculture Land (Two Crops) | Under Process |
| D10 | 21 | Md. Hakim uddain NID: 1928737947 | Village: Bheduria Union: Bhola Sadar Upazila:Bhola Sadar District: Bhola | Did not collect yet | 768 | Agriculture land (Two Crops) | Under Process |
| D11 | 21 | 1.Rahul Amin NID: 0616213050968 Mbl # 01762-447287 (Mrs.Rina, Headmaster) NID: Did not collect yet Mbl# 01795-831831 | Village: Shreepur Union: Mehendiganj Upazila: Mehendiganj District: Barishal | Mouza. Shreepur Survey no. 47 Khatian No: 502,525,526 JL No: 120 | 444 | Govt. primary school and Fallow land | Under Process |

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

| Dyke No. | Route No | Land Owner | | Land | | | Good Faith Agreement |
|----------|----------|--|---|--|--------------------|-----------------------------|----------------------|
| | | Name and NID | Address | Description | Quantity (Decimal) | Quality of Land | |
| D1 | 16 | Monir Jomaddar NID: Did not collect yet Mbl # 01735167927 | Village: Sadequepur Union: Mehendiganj Upazila: Mehendiganj District: Barishal | Did not collect yet | 435.6 | Agriculture land (One Crop) | Under Process |
| D2 | 16 | 1.Adv. Md Khorshed NID: 7328539411 2.Adv.Md Jakir Hossain NID: 0616213038313 Mbl # 01770198608 | Village: Char Mitua Union: Alimabad Upazila: Mehandiganj District: Barishal | Mouza: Char mohisa. Plot no. 324, 325, 326, 344, 345, 346 | 287 | Agriculture land (One Crop) | Under Process |

ANNEX II: Photos of Project Activities

Progress and Coordination Meetings:



Local Level Stakeholder Communication and Consultation



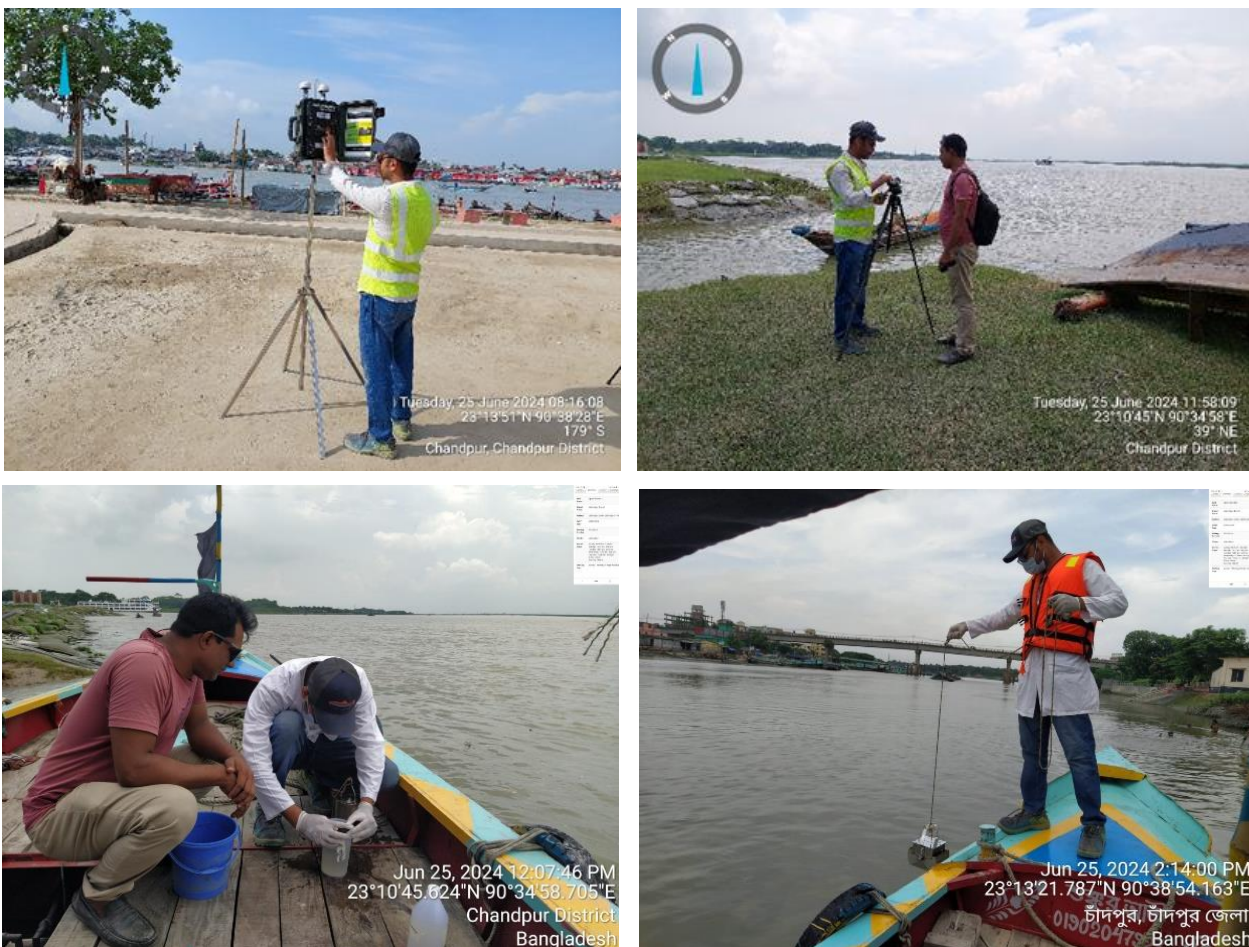
Field Visit June, 2024



Monthly Environmental Sample Collection at Lot-2 sites:



Monthly Environmental Sample Collection at Lot-3 sites:



Laboratory Test Results of Environmental Parameters, June, 2024

Laboratory Test Result of Lot-2:



Ref: ELRC/Air Quality/2024307912

| | | |
|----------------------------|---|--|
| 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 | : | AQ1: Near Natun Hasnabad Fajeri Bari Jame Masque; Route-11 (23°32'54.37"N 90°42'30.83"E) AQ2: Near Choromdhuya Morium Govt. Primary School; Route-6 (23°54'10.85"N 90°52'32.27"E) AQ3: Near Tejkhali Modhopara Billpara Jame Mosque; Route-9 (23°49'27.69"N 90°51'46.22"E) |
| Monitoring Date | : | 28.06.2024-30.06.2024 |
| Reporting Date | : | 03.07.2024 |

Description of Analysis:

| Location | Sampling Date | Ambient Air Pollutants' Concentration in µg/m3 | | | | | CO mg/m3 |
|---|---------------|--|-------|-------|----------------------------------|-------|----------|
| | | SPM | PM10 | PM2.5 | SO2 | NO2 | |
| AAQ1 | 28.05.2024 | 161.25 | 77.06 | 43.97 | 24.09 | 32.17 | 0.7 |
| AAQ2 | 29.06.2024 | 131.07 | 58.01 | 36.1 | 11.01 | 23.01 | 0.6 |
| AAQ3 | 30.06.2024 | 148.07 | 70.01 | 38.6 | 13.07 | 26.09 | 0.8 |
| 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/2024307913

| | | |
|----------------------------|---|--|
| 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: Near Natun Hasnabad Fajeri Bari Jame Masque; Route-11 (23°32'51.06"N 90°42'31.84"E) |
| | : | NL2: Near Choromdhuya Moriuam Govt. Primary School; Route-6 (23°54'10.85"N 90°52'32.27"E) |
| | : | NL3: Near Tejkhali Modhopara Billpara Jame Mosque; Route-9 (23°49'28.46"N 90°51'50.07"E) |
| Monitoring Date | : | 28.06.2024-30.06.2024 |
| Reporting Date | : | 03.07.2024 |

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 | 52.1 | 66.9 | 34.7 | 60 | 70 | Mixed area |
| NL2 | 44.1 | 58.9 | 29.1 | 60 | 70 | |
| NL3 | 53.1 | 64.8 | 31.3 | 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/2024307914

| | | |
|---------------------|---|--|
| 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: Meghna River; Route-11 (23°32'48.37"N 90°42'20.94"E) |
| | : | UWNL2: Meghna River; Route-6 (23°54'19.83"N 90°51'41.92"E) |
| Monitoring Date | : | 28.06.2024-30.06.2024 |
| Reporting Date | : | 03.07.2024 |

Description of Analysis:

| Code | Location | L _{Avg} [dB (A)] | *Standard |
|-------|------------------------|---------------------------|-----------------------------------|
| UWNL1 | Meghna River; Route-11 | 57.4 | No International/ GoB Standard |
| UWNL2 | Meghna River; Route-6 | 52.3 | |



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Ref: ELRC/Surface Water Quality/2024307915

| | | |
|------------------------------|---|--|
| 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: Gomati River; Route-11 (23°33'19.71"N 90°42'37.21"E) |
| | : | SW2: Meghna River; Route-11 (23°32'55.00"N 90°42'22.61"E) |
| | : | SW3: Meghna River; Route-6 (23°57'59.03"N 90°52'16.59"E) |
| | : | SW4: Meghna River; Route-6 (23°53'31.81"N 90°52'12.16"E) |
| | : | SW5: Titas River, Bancharampur; Route-9 (23°49'23.21"N 90°52'6.90"E) |
| | : | SW6: Titas River, Bancharampur; Route-9 (23°48'46.41"N 90°52'4.26"E) |
| Sampling Date | : | 28.06.2024-30.06.2024 |
| Reporting Date | : | 03.07.2024 |

Description of Analysis:

| Parameters | Unit | Concentration Present | | | | | | Bangladesh Standard |
|----------------|-------|-------------------------------------|------|------|------|------|------|---------------------|
| | | SW1 | SW2 | SW3 | SW4 | SW5 | SW6 | |
| Temperature | °C | 26.6 | 27.1 | 24 | 24.7 | 27.4 | 27 | - |
| EC | μS/cm | 470 | 477 | 459 | 461 | 484 | 480 | - |
| Turbidity | NTU | 4.3 | 5 | 3 | 3.7 | 4.7 | 4.1 | - |
| pH | - | 7.51 | 7.63 | 7.19 | 7.21 | 7.58 | 7.66 | 6-9 |
| TDS | ppm | 230 | 237 | 213 | 219 | 239 | 234 | 1000 |
| DO | mg/L | 5.9 | 6 | 5 | 4.8 | 5.5 | 5.7 | 5 of more |
| Potassium | mg/L | 31 | 27 | 23 | 25 | 33 | 33 | - |
| Calcium | mg/L | 32 | 30 | 26 | 27 | 34 | 34 | - |
| Magnesium | mg/L | 19 | 20 | 20 | 19 | 16 | 20 | - |
| Phosphate | mg/L | 1.1 | 1.3 | 1 | 1.1 | 1.4 | 1 | - |
| Chloride | mg/L | 23 | 27 | 21 | 19 | 24 | 24 | - |
| Fluoride | ppm | 0.7 | 0.8 | 0.6 | 0.7 | 0.8 | 0.8 | - |
| Nitrate | mg/L | 0.6 | 0.7 | 0.6 | 0.5 | 0.8 | 0.7 | 7 |
| BOD5 (at 20°C) | mg/L | Will be added in the revised report | | | | | | 6 of less |
| Sulfate | mg/L | 17 | 19 | 16 | 17 | 19 | 21 | - |
| TSS | mg/L | 199 | 203 | 177 | 281 | 204 | 208 | - |

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/Surface Water Quality/2024307915

| | | |
|------------------------------|---|--|
| 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 | : | DW1: Sample From Houseboat; Route-9 (23°50'15.71"N 90°50'43.47"E) |
| Sampling Date | : | 30.06.2024 |
| Reporting Date | : | 03.07.2024 |

Description of Analysis:

| Parameter | Unit | DW1 | Bangladesh Standard* |
|-----------------------|-------|-------|----------------------|
| Temperature | oC | 22.7 | 20-30 |
| Electric Conductivity | μS/cm | 751 | -- |
| pH | - | 6.64 | 6.5 – 8.5 |
| TDS | ppm | 388 | 1000 |
| Arsenic | mg/L | <0.01 | 0.05 |
| Potassium | mg/L | 7.1 | 12.0 |
| Calcium | mg/L | 12.9 | 75 |
| Magnesium | mg/L | 6 | 30–35 |
| Chloride | mg/L | 17 | 150 – 600* |
| Fluoride | ppm | 0.3 | 1.0 |
| Bromine | mg/L | -- | -- |
| Sodium | mg/L | -- | 200 |
| Sulfate | mg/L | 7 | 250 |
| Iron | mg/L | 0.05 | 0.3 – 1.0 |
| Manganese | mg/L | 0.01 | 0.4 |

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/Surface Water Quality/2024307915

| | | |
|------------------------------|---|--|
| 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 | : | SedQ1: Meghna River; Route-11 (23°32'55.00"N 90°42'22.61"E) |
| | | SedQ2: Meghna River; Route-6 (23°54'50.38"N 90°51'12.13"E) |
| | | SedQ3: Titas River, Bancharampur; Route-9 (23°48'51.21"N 90°52'3.22"E) |
| Sampling Date | : | 28.06.2024-30.06.2024 |
| Reporting Date | : | 03.07.2024 |

Description of Analysis:

| Testing Specification | Method | Unit | SedQ1 | SedQ2 | SedQ3 | Dutch Environmental Standard (mg/kg) |
|-----------------------|----------------------|-------|-------|-------|-------|--------------------------------------|
| Pb | Inductively | mg/kg | 14.03 | 11.12 | 15.01 | 85 |
| Cadmium | Coupled | mg/kg | 0.066 | 0.049 | 0.071 | 0.8 |
| Cr | Plasma | mg/kg | 13 | 10.09 | 14 | 100 |
| Zn | Mass | mg/kg | 17.01 | 13.01 | 18.01 | 140 |
| As | Spectrometry (ICPMS) | mg/kg | 1.2 | 0.09 | 1.4 | 29 |

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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Laboratory Test Result of Lot-3:

Ref: EQMS/Air Quality/ 202401070749

EQMS

EQMS ENVIRONMENTAL LABORATORY

Monitoring Results of Ambient Air Quality

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 Personnel : K.M. Shakik ahmed walid

Monitoring Date : 25.06.2024

Monitoring Location : Route 12; (AQ-1)- 23°13'51.02"N 90°38'28.38"E
Route 13; (AQ-2)- 23°10'45.17"N 90°34'58.45"E

Description of Analysis:

| Location | Sampling Date | Ambient Air Pollutants' Concentration in $\mu\text{g}/\text{m}^3$ | | | | | CO mg/m3 |
|---|---------------|---|------------------|-------------------|------------------|-----------------|-------------|
| | | SPM | PM ₁₀ | PM _{2.5} | SO ₂ | NO ₂ | |
| AQ-1 Route 12 | 25/06/2024 | 95.38 | 52.30 | 27.91 | 18.12 | 23.38 | 0.6 |
| AQ-2 Route 13 | 25/06/2024 | 62.59 | 35.63 | 20.88 | 14.76 | 18.96 | 0.5 |
| 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

Received By:

Shihabuddin Ahmed Imran
Consultant
EQMS

Analyzed By:

Ahmed Jubaer
Technical Manager
EQMS

Checked By:

Md. Jahidul Islam
Quality Manager
EQMS



Head Office: H # 53, R # 04, B # C, Banani, Dhaka -1213, Bangladesh
Lab Office: Flat # F1, House # Ta-134/A, Bolshakhi Sarani, Gulshan-Badda Link Road, Dhaka - 1212
Toronto Office: 7 Arnot Street, Scarborough Ontario, M1K4B5 Canada



Ref: EQMS/Noise Level/ 202401070750

EQMS ENVIRONMENTAL LABORATORY
Monitoring Results of Noise Level Measurement

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

Monitoring Personnel : K.M. Shakik ahmed walid

Location : **NL1** 22°42'27.05"N 90°33'18.77"E, **(Route-12)**
: **NL2** 22°42'19.33"N 90°33'44.12"E, **(Route-13)**

Monitoring Date : 25.06.2024

Description of Analysis:

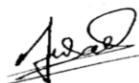
| Location | Noise level (dB(A)) ¹ | | | Bangladesh Standard (dB(A)) ² | IFC EHS Guideline (2007) ³ | Location setting |
|----------|----------------------------------|------------------|------------------|--|---------------------------------------|------------------|
| | Leq _{day} | L _{max} | L _{min} | Day | Day | |
| NL1 | 71.09 | 85.31 | 38.15 | 60 | 70 | Mixed Area |
| NL2 | 59.24 | 73.46 | 36.41 | - | - | - |

Received By:



Shihabuddin Ahmed Imran
Consultant
EQMS

Analyzed By:



Ahmed Jubaer
Technical Manager
EQMS

Checked By:



Md. Jahidul Islam
Quality Manager
EQMS

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: EQMS/Surface Water Quality/ 202401070751

EQMS ENVIRONMENTAL LABORATORY

Test Results of Surface Water Quality

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

Monitoring Personnel : K.M. Shakik ahmed walid

Location : SW1 - 22°42'22.12"N 90°33'20.05"E, Route 12
SW2 - 22°42'1.37"N 90°33'46.04"E, Route 13

Sampling Date : 25.06.2024

Description of Analysis:

| Parameters | Unit | Concentration Present (Route – 12 & 13) | | Bangladesh Standard |
|----------------|-------|---|-------|---------------------|
| | | SW1 | SW2 | |
| Temperature | °C | 27.5 | 28.1 | - |
| EC | µS/cm | 185 | 227 | - |
| Turbidity | NTU | 11.8 | 13.8 | - |
| pH | - | 8.57 | 8.89 | 6 - 9 |
| TDS | ppm | 82 | 112 | 1000 |
| DO | mg/L | 8.2 | 8.9 | 5 or more |
| Potassium | mg/L | 8.9 | 9.2 | - |
| Calcium | mg/L | <0.01 | <0.01 | - |
| Magnesium | mg/L | 17 | 19 | - |
| Phosphate | mg/L | <0.01 | <0.01 | 0.05 |
| Chloride | mg/L | 6.9 | 5.5 | - |
| Fluoride | ppm | 0.16 | 0.12 | - |
| Nitrate | mg/L | 0.4 | 0.7 | 7.0 |
| BOD5 (at 20°C) | mg/L | 1.9 | 1.7 | 6 or less |
| Sulfate | mg/L | 14 | 17 | - |
| TSS | mg/L | 39 | 45 | - |

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: EQMS/Underwater Noise Level/ 202401070752

EQMS

EQMS ENVIRONMENTAL LABORATORY

Monitoring Results of Underwater Noise Level Measurement

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

Monitoring Personnel : K.M. Shakik ahmed walid

Location : **UWNL1** 22°42'20.89"N 90°33'24.37"E, **Route-12**
UWNL2 22°42'15.65"N 90°33'46.22"E, **Route-13**

Monitoring Date : 25.06.2024

Description of Analysis:

| Code | Location | L _{Avg} [dB (A)] | *Standard |
|-------|----------|---------------------------|------------------------------------|
| | | [dB (A)] | |
| UWNL1 | Route 12 | 75.5 | No standard of International / GoB |
| UWNL2 | Route 13 | 63.9 | |

Received By:

Shihabuddin Ahmed Imran
Consultant
EQMS

Analyzed By:

Ahmed Jubaer
Technical Manager
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Checked By:

Md. Jahidul Islam
Quality Manager
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Toronto Office: 7 Arnot Street, Scarborough Ontario, M1K4B5 Canada



Ref: EQMS/Riverbed sediment/ 202401070753

EQMS ENVIRONMENTAL LABORATORY

Test Results of Riverbed sediment

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

Monitoring Personnel : K.M. Shakik ahmed walid

Sampling Date : 25.06.2024

Location Details:

| Code | Route No. | GPS Location |
|-------|-----------|-----------------------------|
| SedQ1 | Route 12 | 23°13'21.56"N 90°38'55.60"E |
| SedQ2 | Route 13 | 23°10'38.84"N 90°35'2.94"E |

Description of Analysis:

| Parameter | Unit | Riverbed sediment – Lot 3 | | Methodology | Dutch Environmental standard (mg/kg) |
|-----------|-------|---------------------------|-------|-------------|--------------------------------------|
| | | SedQ1 | SedQ2 | | |
| Lead | mg/kg | 11.56 | 10.98 | ICPMS | 85 |
| Cadmium | mg/kg | 0.061 | 0.068 | ICPMS | 0.8 |
| Chromium | mg/kg | 19.49 | 16.19 | ICPMS | 100 |
| Zinc | mg/kg | 23.06 | 18.20 | ICPMS | 140 |
| Arsenic | mg/kg | 1.89 | 1.95 | ICPMS | 29 |

Note: ICPMS - Inductively coupled plasma mass spectrometry

Received By:

Shihabuddin Ahmed Imran
Consultant
EQMS

Analyzed By:

Ahmed Jubayer
Chemist
EQMS

Checked By:

Md. Jahidul Islam
Quality Manager
EQMS

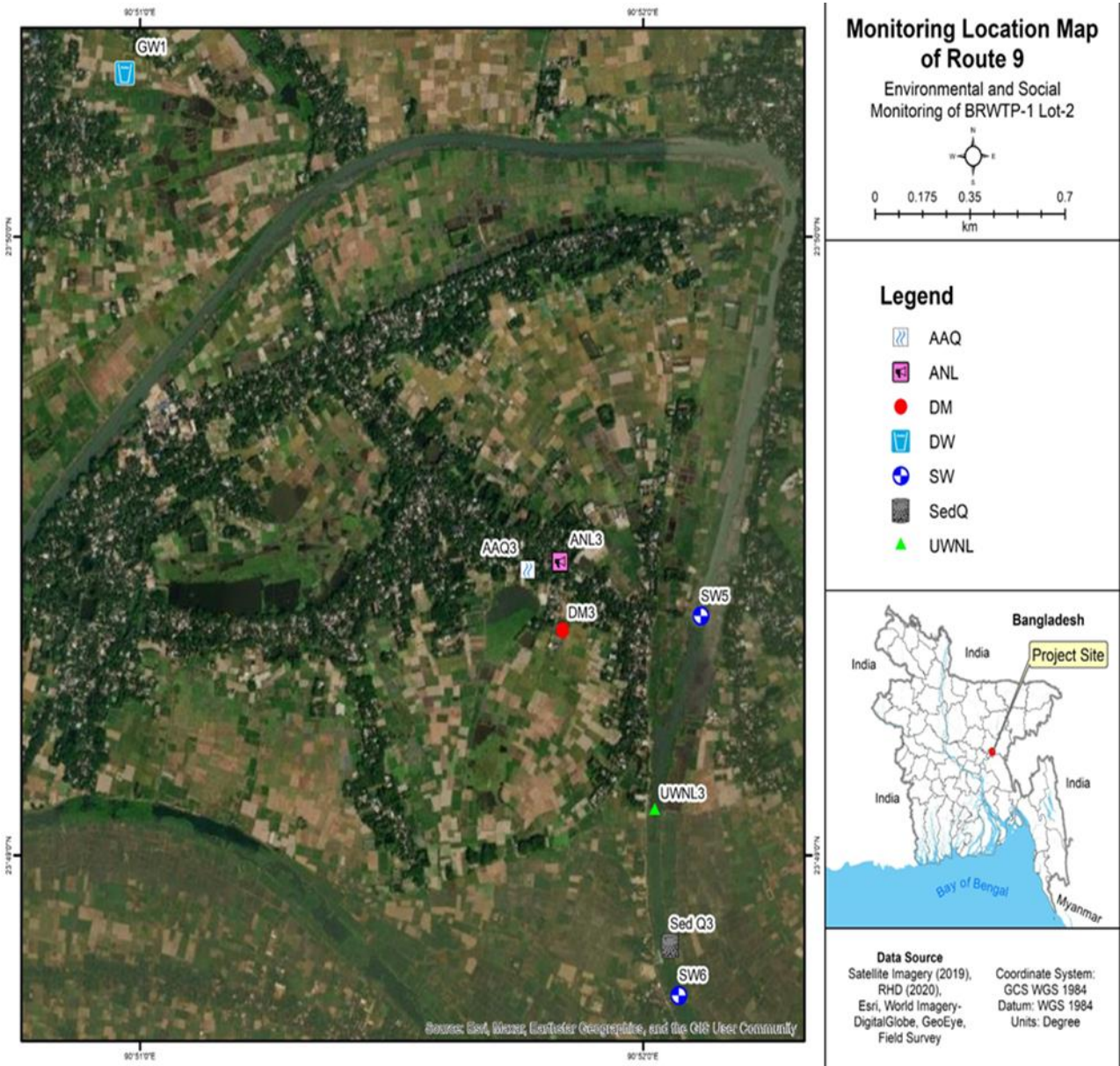


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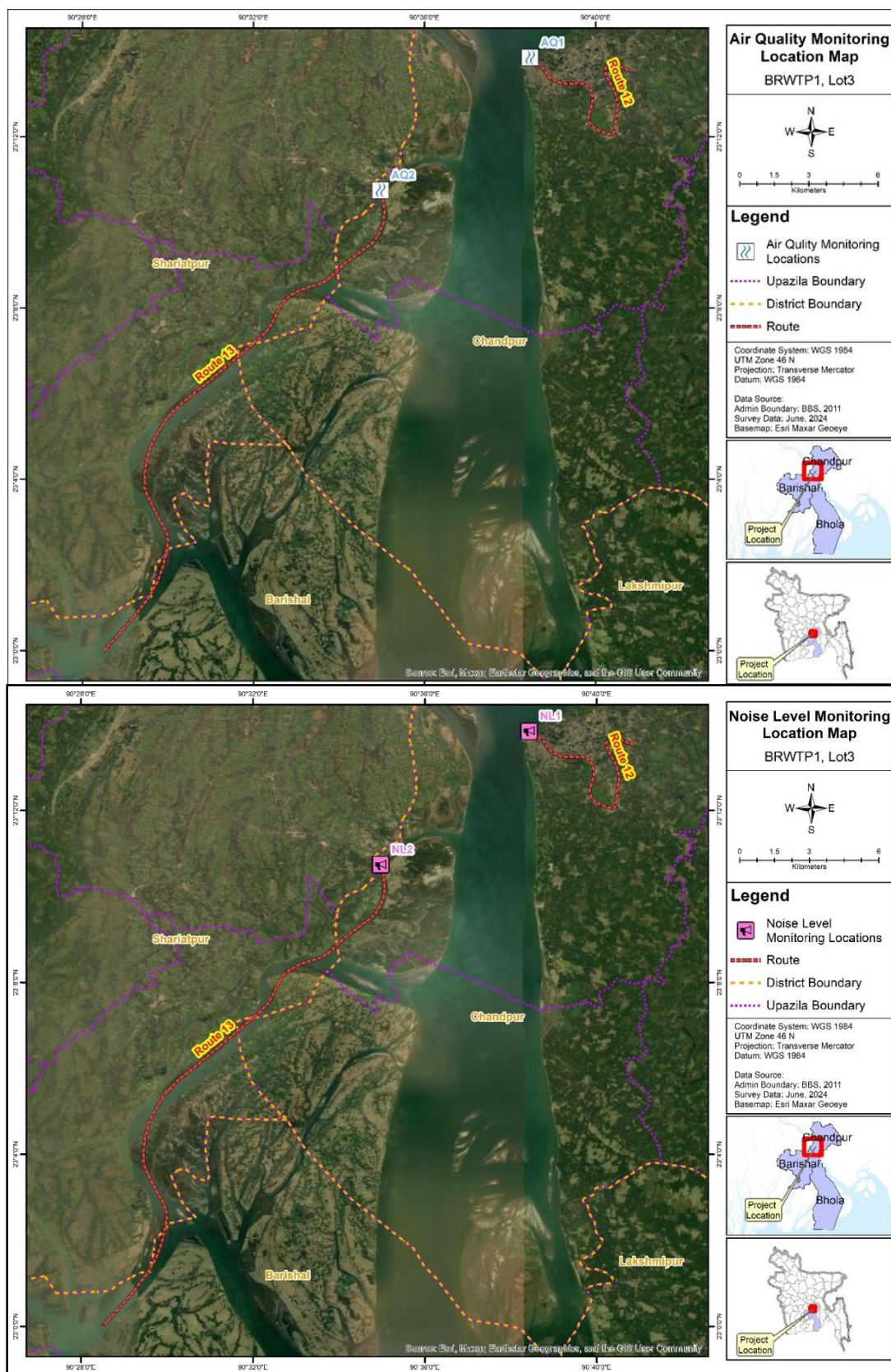


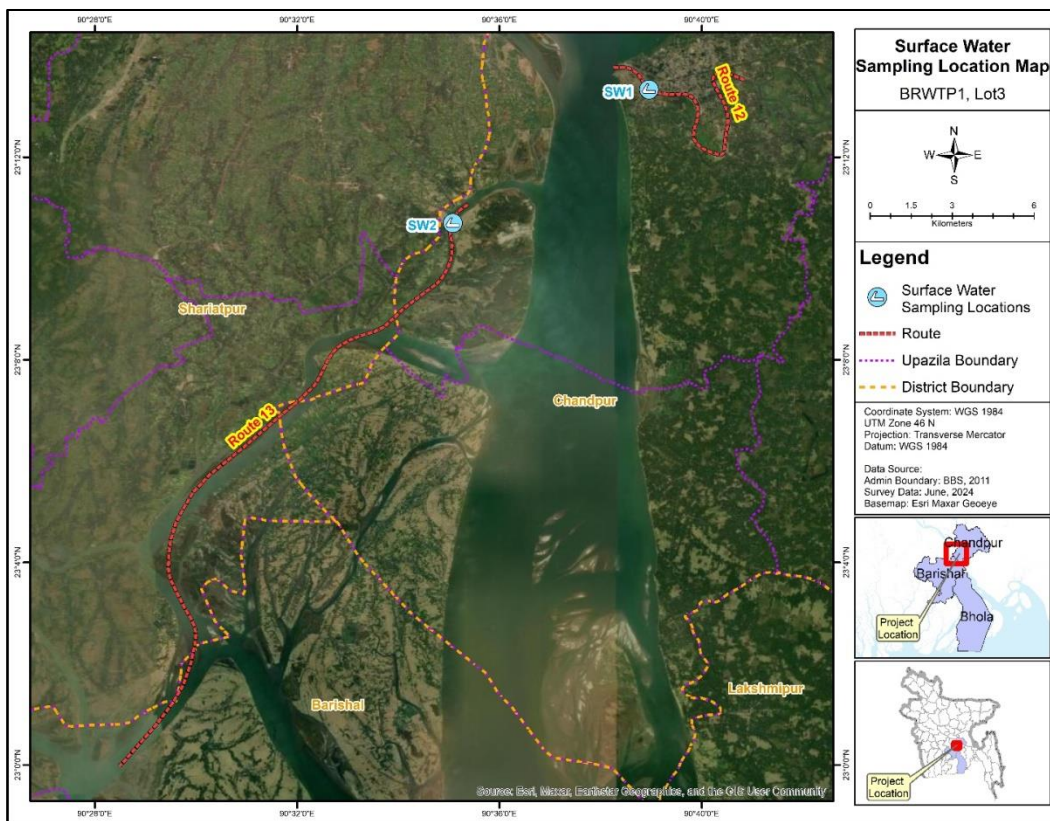
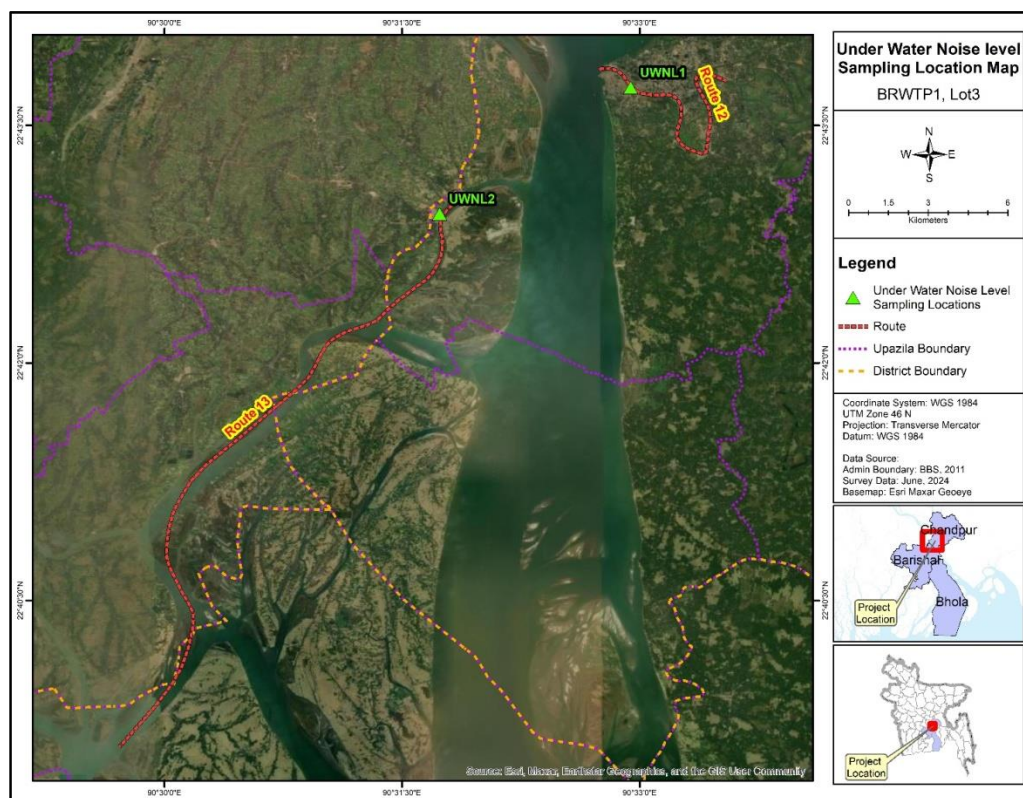
ANNEX IV:
Location of Environmental Sample Collection

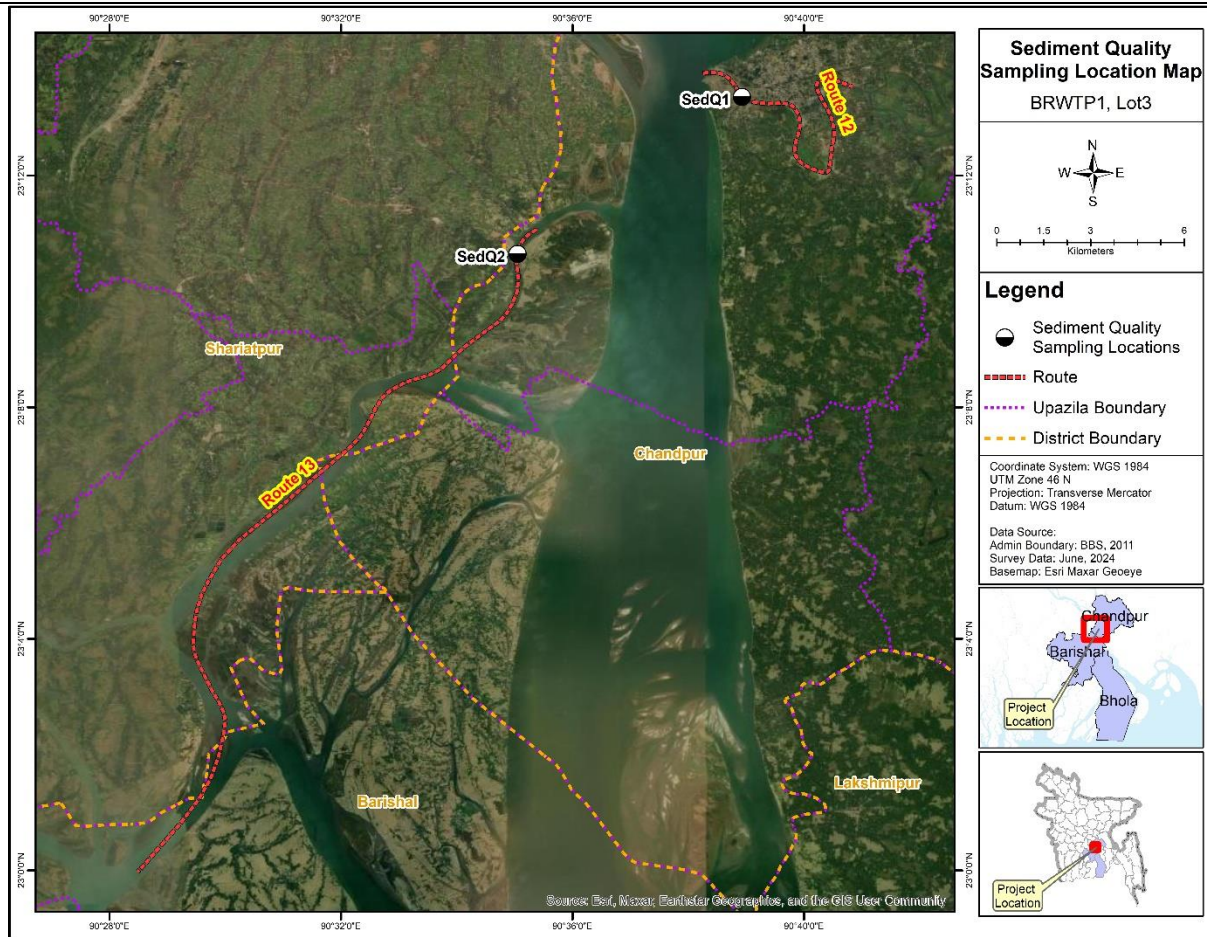
Location Map Environmental Sample Collection at Lot-2 sites:



Location Map Environmental Sample Collection at Lot-3 sites:







ANNEX V: Dredging Activity at a Glance up to June 2024

Table 166: Final Dredging Activity Schedule on 30th June 2024

| S L N o. | River Name River No. | Dredger Size | Dredger Name | Location | GPS (Starting) | GPS (Ending) | Dredger No | Pipe Length (m) | R. Length (m) | Dredge Length (m) | Dredge Length to day (m) | Cumulative Length (m) | Remaining length (m) | Dike Status | Start Dredging time | End Dredging time | Approved BOQ Qty (m ³) | Daily Progress (m ³) | Cumulative Qty (m ³) | Adjusted dredging volume | Remaining dredging volume |
|----------|-----------------------------|--------------|------------------|-----------------------------|---------------------|---------------------|------------|-----------------|---------------|-------------------|--------------------------|-----------------------|----------------------|-------------|---------------------|-------------------|------------------------------------|----------------------------------|----------------------------------|--------------------------|---------------------------|
| 1 | River Route 09 Brahmanbaria | 18 | Karnafuly -03 | BaherchorBancharampur | E=, N= | E=, N= | 7 | 650 | 60,000 | 19,500 | 0 | 1,782 | 4,863 | 0 | 0:00 | 0:00 | 1,27,000 | 0.00 | 0.00 | 752702.00 | 366667.15 |
| 2 | | 18 | Karnafuly -05 | BaherchorBancharampur | E=283089, N=2637654 | E=283094, N=2637652 | | 7,16 | | | 7 | 2,820 | | Dyke-36 | 7:30 | 12:35 | | 314.00 | 107153.00 | | |
| 3 | | 18 | Karnafuly -07 | Hanarpar, Bancharampur | E=, N= | E=, N= | | 1,581 | | | 0 | 3,989 | | Dyke-57 | 0:00 | 0:00 | | 0.00 | 154671.65 | | |
| 4 | | 16 | Parnto -01 | Kadur Nabinagar | E= N= | E= N= | | 866 | | | 0 | 1,864 | | Dyke-61 | 0:00 | 0:00 | | 0.00 | 28724.18 | | |
| 5 | | 16 | MCD -01 | Khalla Bancharampur | E= N= | E= N= | | 1,054 | | | 0 | 1,312 | | Dyke-62 | 0:00 | 0:00 | | 0.00 | 24735.02 | | |
| 6 | | 16 | Reve -03 | Hasonnagar Bancharampur | E=282716, N=2635591 | E=282720, N=2635570 | | 716 | | | 13 | 2,191 | | Dyke-60 | 9:10 | 4:15 | | 494.00 | 57231.00 | | |
| 7 | | 14 | Reve-05 | Kadur Nabinagar | E=282736, N=2635552 | E=282730, N=2635560 | | 800 | | | 9 | 679 | | Dyke-41 | 0:00 | 0:00 | | 376.00 | 13520.00 | | |
| 8 | R-07&08 Narsingdi | 18 | Karnafuly -02 | Khudazilla, Narsingdi Sadar | E= N= | E= N= | 2 | 900 | 30,000 | 5,800 | 0 | 334 | 2,448 | Dyke-06 | 18:00 | 20:30 | 3,70,000 | 0.00 | 12357.07 | 253416.00 | 92034.93 |
| 9 | | 20 | Kafela -01 | Khudazilla, Narsingdi Sadar | E=283039, N=2637644 | E=283034, N=2637647 | | 1,818 | | | 12 | 3,018 | | Dyke-05 | 16:10 | 22:23 | | 361.00 | 149024.00 | | |
| 10 | R-11 Cumilla | 20 | Shah Yuvraj | Hasnabad Daudkandi | E= N= | E= N= | 1 | 1688 | 16,000 | 10,600 | 18 | 609 | 9,991 | Dyke-01 | 0:00 | 0:00 | 1,32,000 | 1286.00 | 33830.00 | 93436.97 | 59606.97 |
| 11 | R-06 Narsingdi | 20 | MBDDL - Craft -1 | Charmadua Raipura | E=282736, N=263545 | E=282739, N=2635549 | 1 | 1,463 | 25,000 | 1,500 | 0 | 465 | 1,035 | Dyke-01 | 12:50 | 23:36 | 1,01,500 | 0.00 | 29667.00 | 99504.72 | 69837.72 |

Checklist of Lot-2

Grievance Redressal Mechanism (GRM) Checklist, BRWTP-S1A

| SI 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. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | There are GRM committees with 5 persons here. |
| | | 2 | Contact details for lodging grievance easily accessible. | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 2 | Community Engagement | 1 | Consultations/ FGD have been conducted with local communities, dredging contractors to collect their input on the GRM design. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 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). | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 4 | Processing of GFA (Good Faith Agreement) | 1 | Dyke/Land selection survey. | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | Survey in every week. |
| | | 2 | Opinion meeting with land owner along with inform to the contractor and S1A team for justifying land as dyke. | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | Survey in 15 days a month. |
| | | 3 | GFA documentation collection. | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | Collection the document 15 days a month. |
| | | 4 | GFA will be submitted to S1A. | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | |
| | | 5 | FGD on GFA with the Locals | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | |
| 5 | Constitution of GRM Protocol | 1 | Preparation of GRM Protocol and Greivance Redres Committee (GRC) will be Constituted by the Contractors. | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | |
| 6 | Establish a Complaint Box | 1 | For receive feedback, suggestions and complain letters. | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | There are 3 complain box in site. One box is in office, one box in houseboat and another 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. | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | There is a signboard in front of office. |
| 8 | 3 (three) tyers of the GRM Committee will be formed | 1 | Local level GRC (Committee members 05, quorum fullfill at least 03) -Project related issues. | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | |
| | | 2 | Contractor level GRC (Committee members 03, quorum fullfill at least 03)- GBV, CoC, Contractors workers occurance etc. related issues. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| | | 3 | Project level GRC (Committee members 03, quorum fullfill at least 03) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 9 | Capacity Building | 1 | Project staffs and local institutions have received training on the GRM, GBV related issues and its operation. | <input type="radio"/> | ON/A | <input type="radio"/> | <input type="radio"/> | |
| 10 | Leaflet/ Brochure | 1 | The Leaflet/ Brochure will be published for dissemination to all the stakeholders. | <input type="radio"/> | ON/A | <input type="radio"/> | <input type="radio"/> | There is no liflat 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) | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | |
| 12 | Social Consultation | 1 | Local Community | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | |
| | | 2 | Land Owner | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | |
| | | 3 | Local Government Authority | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | |
| 13 | Gender-Based Violence | 1 | Sex Violence by an intimate partner | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <input type="radio"/> | |
| | | 2 | Sexual violence by a non-peer | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | <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

| | | | | | | | | |
|--|-------|---|--|---|-----------------------|---|-----------------------|--|
| | (GBV) | 3 | Child sexual abuse & forced marriage | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | |
| | | 4 | Sexual exploitation & abuse | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | |
| | | 5 | Sexual harassment | <input checked="" type="radio"/> <input type="checkbox"/> | <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="checkbox"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

Dredging Activity

| Checklist Items | | Dredging Activity | | | Comments/Compliance |
|-----------------|---|---|---|---|--|
| | | Daily | Monthly | When and As Required | |
| 1 | Gauge reading & Water level (WL) | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | Average water level is 0.914 m |
| 2 | Connectivity with BM & TBM | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| 3 | Study Hydrographic Chart | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | Chart is prepared for route 09, 06 route 7 &8 and route 11 |
| 4 | Fixing Cutting Depth respect to existing WL as per design depth | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | Average cutting depth is 2.388 m |
| 5 | Checking Dredging Alignment | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| 6 | Checking Dredged Activities as below; | | | | |
| a | Dredging Hours | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | |
| b | Cutting Length | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Total cutting length 4760 m |
| c | Cutting Depth | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Average cutting depth is 2.388 m |
| d | Cutting Width | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | 30~35 m |
| e | Dredged Volume | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Total volume 613014.586 m3 |
| 7 | Supervising Dredged Material Disposal Area whether the Dykes are designed as per Design | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| 8 | Supervising Dredged Material Disposal Area whether the Dykes are capable to resist the pressure of disposed materials | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | |
| 9 | Checking outlet of the compartment | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | |
| 10 | Check whether the dykes are being constructed at safe distance from river bank | <input type="radio"/> | <input checked="" type="checkbox"/> | <input type="radio"/> | |
| 11 | Check construction of the pipe line whether there is any leakage in the Joints of Floating Pipe/Shore pipe lines | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | |
| 12 | Check whether dredging work exacting Keeping Safety distance of River side installations like Road/houses/buiding. | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | |
| 13 | Check Survey Activities | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |

Environmental Factors and Dredging Activity

| 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 checked="" type="radio"/> <input type="checkbox"/> | |
| | 2 | Explanation to the Local Stakeholders | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 3 | Signboards, Notice Boards | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| 2. Physical Environmental Parameters Monitoring | 1 | Air Quality | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| | 2 | Surface Water Quality | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| | 3 | Solid Wastes | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| | 4 | Liquid Wastes | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| | 5 | Soil Contamination | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| | 6 | Noise and Vibration | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| | 7 | Underwater Noise | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| | 8 | Odor | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| | 9 | Riverbed Sediment | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| | 10 | Groundwater | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Supervised in 26 & 27 June at Norshingdi site and 28 and 29 June at solimgonj site. |
| 3. Natural Environment | 1 | Protected Areas | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Route no. 07&08 and 09 |
| | 2 | Habitat Type | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Route no. 07&08 and 09 |
| | 3 | Hydrology | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Route no. 07&08 and 09 |
| | 4 | Topography and Geology | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Route no. 07&08 and 09 |
| | 5 | Dolphin Observation | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Route no. 07&08 and 09 |
| | 6 | Fish Catch Examination | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Route no. 07&08 and 09 |
| | 7 | Flora (Aquatic & Terrestrial) | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Route no. 07&08 and 09 |
| | 8 | Benthos (Micro & Macro) | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Route no. 07&08 and 09 |
| | 9 | Phyto- & Zoo-planktons | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Route no. 07&08 and 09 |
| 4. Social Environment | 1 | Resettlement | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 2 | Living and Livelihood | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 3 | Heritage | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 4 | Landscape | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 5 | Ethnic Minorities and Indigenous Peoples | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| 5. Occupational Health Safety | 1 | Work Permit/Contract | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 2 | Daily Toolbox Meeting - OHS | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 3 | Working Conditions | | <input checked="" type="checkbox"/> | | Fair |
| | 4 | Impact/Precaution during Dredging | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | Not any major issue observed |
| | 5 | Accident Prevention Measures | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | Contractors ESHS team visiting site and concerning all the Manpower |
| | 6 | Working Condition | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | Fair |
| | 7 | Accommodation | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | House Boat |

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 |
|-----------------------------------|-----------------|----------------------------------|---|---|---|---|
| | | | Daily | Monthly | Quarterly | |
| | 8 | Personal Protection Equipment | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | <input type="radio"/> | Safety helmet, Safety vest, safety shoes, Hand gloves etc observed at site. |
| | 10 | Sanitary Condition | <input checked="" type="radio"/> <input type="checkbox"/> | <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 checked="" type="radio"/> <input type="checkbox"/> | |
| | 2 | Land Use Type | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | |
| | 3 | Dyke Design Approval | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | |
| | 4 | Dyke Setback Distance | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | |
| | 5 | Disposal Area Dyke Height | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | <input type="radio"/> | |
| | 6 | Dyke Strengthened/Material Used* | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | When required then used. |
| 7. Dredger | 1 | Carbon Emission | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | Not found/observed at site for all route in lot-2 |
| | 2 | Leakage | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 3 | Oil Spill | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 4 | Onboard Waste Management | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> <input type="checkbox"/> | |
| | 5 | Noise and Vibration | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> | |

ESHS Activity

| 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 |

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) 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 S1A 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 |
| 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, 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 |
| | | (c) Are adequate mitigation measures taken to prevent soil runoffs? | 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 |
|-----------------------|-----------------------------------|--|--------------|
| | | (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? | 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 |
| | | (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 |

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) 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 |

Checklist of Lot-3

Dredging June 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 June, 2024 |
| | a Dredging Hours | <input type="radio"/> | ✓ | <input type="radio"/> | Total Dredging Hours 633.15 hrs (Route 21 is 578.3hrs, Route 16 is 54.85 hrs & Route 13 is 0hrs) |
| | b Cutting Length | <input type="radio"/> | ✓ | <input type="radio"/> | Total length is 3088m Route 21 length total 2583m (here length 2583m for 38m width). Route 16 length 505m (here length 505m for 38m width) Route 13 length 0.00 m(due to previous month work finished) |
| | c Cutting Depth | <input type="radio"/> | ✓ | <input type="radio"/> | Average Cutting Depth for Route 21 is 1.98m, route 16 is 2.023m & route 13 is 0.00m) |
| | d Cutting Width | <input type="radio"/> | ✓ | <input type="radio"/> | Cutting Width Route 21 & 16 is 76m and Route 13 is 76m |
| | e Dredged Volume | <input type="radio"/> | ✓ | <input type="radio"/> | Total Dredged Volume 2,05,319.32 cum (Route 21 is 1,86,844.1cum, Route 16 is 18,475.22cum & Route 13 is 0.00 cum) |
| 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 is 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/4nrs 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 21.04.2024 to 22.04.2024 for lot 3 Route number 16(Patarhat-Bheduria) 2. Hydrographic Post details survey work done on dated 24.04.2024 to 25.04.2024 for lot 3 Route 21(Laharhat-Bheduria) |

ESHS

| Checklist Items | | Dredging Activity | | | Comments/Compliance |
|-----------------|---------------------------------------|-----------------------|-----------------------|-----------------------|---|
| | | Daily | Monthly | Quarterly | |
| 1 | EIA and Environmental Permits | <input type="radio"/> | <input type="radio"/> | ✓ | |
| 2 | Explanation to the Local Stakeholders | <input type="radio"/> | <input type="radio"/> | ✓ | |
| 3 | Signboards, Notice Boards | <input type="radio"/> | <input type="radio"/> | ✓ | Not found/observed at site for all route in lot_3 |
| 1 | Air Quality | <input type="radio"/> | ✓ | <input type="radio"/> | All Test done for Route no. 21 only |
| 2 | Surface Water Quality | <input type="radio"/> | ✓ | <input type="radio"/> | |
| 3 | Solid Wastes | <input type="radio"/> | ✓ | <input type="radio"/> | |
| 4 | Liquid Wastes | <input type="radio"/> | ✓ | <input type="radio"/> | |
| 5 | Soil Contamination | <input type="radio"/> | ✓ | <input type="radio"/> | |
| 6 | Noise and Vibration | <input type="radio"/> | ✓ | <input type="radio"/> | |
| 7 | Underwater Noise | <input type="radio"/> | ✓ | <input type="radio"/> | |
| 8 | Odor | <input type="radio"/> | ✓ | <input type="radio"/> | |
| 9 | Riverbed Sediment | <input type="radio"/> | ✓ | <input type="radio"/> | |
| 10 | Groundwater | <input type="radio"/> | ✓ | <input type="radio"/> | |
| 1 | Protected Areas | <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

| Checklist Items | | Dredging Activity | | | Comments/Compliance |
|-----------------|--|-------------------|---------|-----------|--|
| | | Daily | Monthly | Quarterly | |
| 2 | Habitat Type | ○ | √ | ○ | |
| 3 | Hydrology | ○ | √ | ○ | |
| 4 | Topography and Geology | ○ | √ | ○ | |
| 5 | Dolphin Observation | ○ | √ | ○ | |
| 6 | Fish Catch Examination | ○ | √ | ○ | |
| 7 | Flora (Aquatic & Terrestrial) | ○ | √ | ○ | |
| 8 | Benthos (Micro & Macro) | ○ | √ | ○ | |
| 9 | Phyto- & Zoo-planktons | ○ | √ | ○ | |
| 1 | Resettlement | ○ | ○ | √ | |
| 2 | Living and Livelihood | ○ | ○ | √ | |
| 3 | Heritage | ○ | ○ | √ | |
| 4 | Landscape | ○ | ○ | √ | |
| 5 | Ethnic Minorities and Indigenous Peoples | ○ | ○ | √ | |
| 1 | Work Permit/Contract | ○ | ○ | √ | Fair |
| 2 | Daily Toolbox Meeting - OHS | ○ | ○ | √ | |
| 3 | Working Conditions | ○ | √ | ○ | |
| 4 | Impact/Precaution during Dredging | ○ | ○ | √ | |
| 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.7 (extension), Dyke no. 16, Dyke no.17 and Dyke no.18 for route 21 constructed. (Not any new dyke constructed for route 16 & route 13) |
| 4 | Dyke Setback Distance | ○ | √ | ○ | 640m, 1067m, 1632m and 1343m safe distance from the river bank |
| 5 | Disposal Area Dyke Height | ○ | √ | ○ | Height 1.875m (avg) for Route no.21, Height 2.0m 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 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 docks comply with the country's emission standards? Are any mitigating measures taken? | Y |

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

| Environmental Item | Main Check Items | Yes: Y No: N |
|-----------------------------------|--|--------------|
| (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 S1A 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 |
| | (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 |

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

| Environmental Item | Main Check Items | Yes: Y No: 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 |
| (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 |

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

| Environmental Item | Main Check Items | Yes: Y No: 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

| 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 |
| | | 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 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 |
| 12 | Social Consultation | 1 | Local Community | ○ | ○ | √ | ○ | Route no.21 & 16 |
| | | 2 | Land Owner | ○ | ○ | √ | ○ | Route no.21 & 16 |
| | | 3 | Local Government Authority | ○ | ○ | ○ | √ | no |
| 13 | Gender-Based | 1 | Sex Violence by an intimate partner | ○ | ○ | ○ | √ | None of these has been |

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 | |
| | Violence (GBV) | 2 | Sexual violence by a non-peer | ○ | ○ | ○ | √ | found/observed for the month of June, 2024 |
| | | 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 |