



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



Bangladesh Inland Water Transport Authority  
(BIWTA)



The World Bank



## MONTHLY PROGRESS REPORT JULY 2024

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

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



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## EXECUTIVE SUMMARY

### Background

The Government of Bangladesh has prioritized developing and maintaining the Dhaka-Chittagong corridor's Class I Route and connected Class II and III Routes. The "Bangladesh Regional Waterway Transport Project-1" (BRWTP-1) is undertaken with World Bank support and comprises three major components. One of the Components (Component-1) involves dredging and maintaining river corridors and ferry routes through performance-based contracts. The supervision and monitoring work, initiated by the consulting firm JPZ-DEMAS-JCL (S1A) in December 2022, is financed by the World Bank and implemented by the Bangladesh Inland Water Transport Authority (BIWTA) under the Ministry of Shipping (MoS).

The dredging works are divided into two lots:

- Lot-2: Contractor GULF-COBLA KARNAFULY JV, covering Routes 3, 4, 5, 6, 7 & 8, 9, 10, and 11.
- Lot-3: Contractor DHARTI-BANGA JV, covering Routes 12, 13, 13a, 15, 16, 17, and 21.

### Progress of Contractors (July 2024)

#### Lot-2 Contractor

The Phase-1 capital dredging was expired on 5-Jun-2024. During that time the Lot-2 contractor completed only 50% (approx.) of Phase-1 dredging with respect to the estimated total BoQ volume of 12,09,060 cubic meter (revised). Since the expiry of Phase-1 dredging the Lot-2 contractor are continuing the remaining Phase-1 dredging. Till 31-Jul-2024 they have completed 77% (approx.) of the total estimated BoQ volume. The Lot-2 is planning to complete the Phase-1 dredging sometime in September-2024. They are yet to receive the formal approval of time extension for Phase-1 activities.

Overall, the Lot-2 contractor completed 9,29,790 cubic meter of dredging on Route 06, 7&8, 09 and 11 until 31-Jul-2024. The remaining volume is 2,79,270 cubic meters.

#### Lot-3 Contractor

The Lot-3 contractor successfully completed the Phase-1 capital dredging within the stipulated timeframe (June 5, 2024), Due to rising water levels during the monsoon season, no dredging was conducted in July 2024 on the River Routes of Lot-3. However, the dredgers working in Lot-03 have kept on standby for emergency work. The contractor is preparing to resume dredging on all routes under Phase-2 capital dredging after the monsoon.

### 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. There were no issues regarding traffic or safety measures. Fire extinguishers and first aid boxes were well-maintained. Grievances arose from the local community concerning the dyke location selection were resolved coordinating with government administration and PIU, contributing to resuming the work. As a decision has been made in May-2024 by the Deputy Commissioner of Brahmanbaria in a meeting at his office the selection of dyke location will be taken care of by government administration where is the PIU, BIWTA and the Consultant, BRWTP-S1A will coordinate with them as required. Based on this decision PIU instructed that, no Good Faith Agreement will be required onward between BRWTP-1 and land owners regarding dyke location selection.

For Lot 03, the imported items for Aids to Navigation were inspected and found compliant with the contract requirements. The contractor (DHARTI-BANGA) is ready for the final inspection of installed Lighted Tower Beacons and buoys. For Lot 02, the first shipment of navigation aid components has arrived and is ready for inspection by the designated teams. Throughout the reporting period, safety measures were effectively implemented, no grievance issues were reported. The S1A consultants advised both the contractors to be careful about the riverbed sediment, particularly the macro- and micro-benthos. The contractors were advised to stop dredging at the sites where benthos was observed to be extracted with the dredged material.

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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

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### 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 <sup>st</sup> September 2022; Duration of Contract 66 months
Date of Commencement	:	6 <sup>th</sup> December 2022; Duration 66 months
Total Routes	:	12 (Twelve)
Phases		Phase I: 18 Months, Phase II: 12 Months, Phase III: 36 Months
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

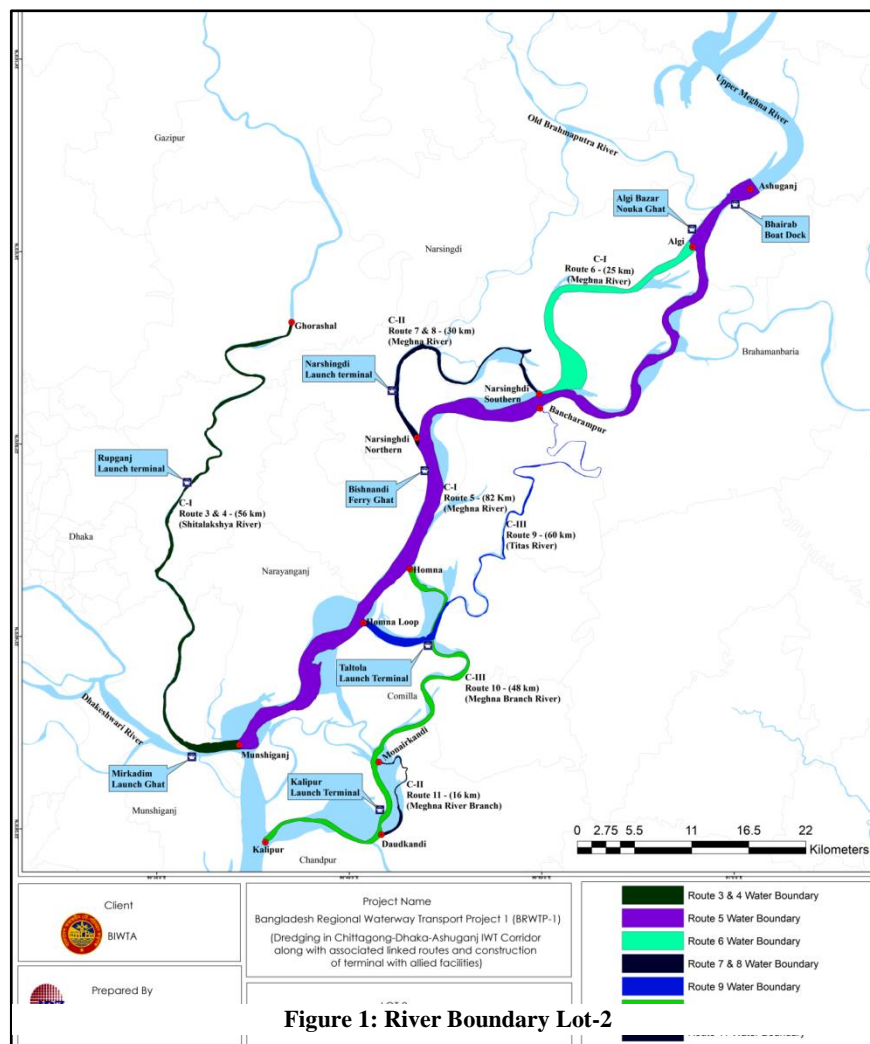


Table 1: River Routes Lot-2

Class	Route No	River/location	Length (Km)	Average width (m)	Shoal Length (km)
I	3 & 4	Shitalakshya (From Ghorashal to Munshiganj)	56	400	-
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	1.60
<b>Total</b>			<b>317</b>		<b>28.40</b>

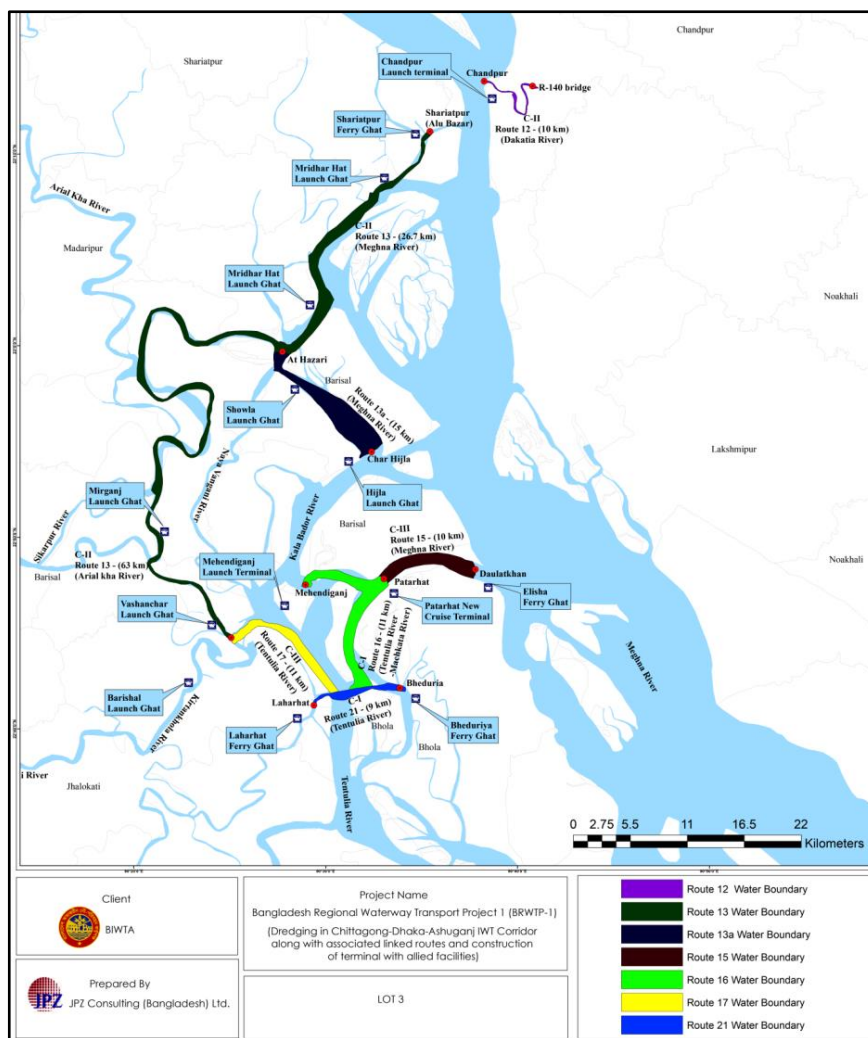


Figure 2: River Boundary, Lot-3

Table 2: River Routes Lot-3

Class	Route No	River/location	Length (Km)	Average width (m)	Shoal Length (km)
II	12	Dakatia (Chandpur to Gastola Bridge)	10	400	-
II	13	Meghna and Arial Khan (Shariatpur-Bheduria)	89.7	1200	-
II	13a	Meghna (Looping root Inside Char Hsila)	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 -Bhashanchar)	11	400	-
I	21	Tentulia (Bheduria -Laharhat)	9	300	2.3
<b>Total</b>			<b>164.3</b>		<b>4.4</b>

## CHAPTER 02: SALIENT FEATURES & MONTHLY PROGRESS

### 2.1 PROGRESS OF BRWTP-S1A:

#### 2.1.1 : Development and Maintenance Dredging Works:

##### Lot-2:

Throughout the month, six dredgers were operational, though they occasionally had to be shut down due to mechanical issues. Additionally, dredging work was interrupted this month due to pipeline shifting, dike construction, and other factors.

The total revised estimated BoQ volume for Phase-1 is 12,09,060 cubic meters, which spans 18 months. However, Phase-1 has already expired in 05-June 2024.

Delaying of dredging on Route 9 is critical for the completion of Phase-1. The total estimated BoQ volume for Route 9 is 7,52,702 cubic meters. According to the post-intermediate hydrographic survey Lot 2 contractor had dredged 5, 46,197 cubic meters as of June 30, 2024. And from July 1, 2024, to July 31, 2024, they approximately dredged 81,014 cubic meters; this brings the total dredged volume on Route 9 to 6, 27,211 cubic meters.

From 01 July to July 31, 2024, they approximately dredged 1,28,138 cubic meters. The total dredging amount of all routes is 9,29,790 cubic meters up to 31 July, 2024, which is 77% of the revised estimated total BoQ volume. The remaining volume is 2,79,270 cubic meters (approx.) If this trend continues, and the contractor does not speed up the dredging work it will not be very difficult to complete 100% dredging volume within the requested extended timeframe under Phase-1.

**Table 3: Field Activity of BRWTP-S1A at Lot-2 Site (July 2024).**

Serial No	Date	Activity	Route name & Route number	Remarks
1.	03.07.2024	To visit and monitor the Water Level Connection process, Hydrographic post survey jointly with the contractor and S1A consultant	Lot-2 Route_7&8 (Narsingdhi Northern & Southern Approaches).	
2.	04.07.2024	Hydrographic post survey jointly with the contractor and S1A consultant	Lot_02, Route_7&8 (Narsingdhi Northern & Southern Approaches).	
		Visit the area to negotiate with the local people, in the presence of the Bancharampur Upazila Nirbahi Officer, to resolve the conflict regarding disposal at dike number 47 along river route 09.	Lot_02, Route_09 at Kadair Gudaraghat and Nayarchar area.	Nabinagar Upazila Nirbahi Officer spoke on the phone.
3.	05.07.2024	To visit and monitor the Water Level Connection process and Hydrographic post survey jointly with the contractor and S1A consultant.	Lot-02, Route_11 (Meghna to Daudkandi).	
4.	14.07.2024	TBM Connection and Hydrographic Monitoring survey at Route_09 (Bancharampur -Homna loop).	Lot-2, Route_09 (Bancharampur -Homna loop)	
5.	16.07.2024	Dyke visit and land agreement signing.	Lot-2, Tezkhali, Bancharampur, Brahmanbaria.	
6.	30.07.2024	TBM Connection and Hydrographic Monitoring survey at (Bancharampur- Homna loop)	Lot-2, route-9, (Bancharampur Homna loop)	
7.	31.07.2024	Hydrographic Monitoring Survey and TBM Connection.	Lot_02, Route_09 (Bancharampur-Homna loop).	

##### Lot-3:

The Lot-3 contractor successfully completed the Phase-1 capital dredging within the stipulated timeframe (June 5, 2024), Due to rising water levels during the monsoon season, no dredging was conducted in July 2024 on the River Routes of Lot-3.

In this reporting month, Hydrographic Monitoring Survey work was done by the BIWTA and S1ATeam jointly from July 18, 2024, to July 31, 2024, at Route 13 (Athazar-Alubazar-Horina). All dredging works are completed for Phase 1, so all dredgers are keeping standby 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 3: Field Activity of BRWTP-S1A at Lot-3 Site, July 2024**

Serial No.	Date	Activity	Route name & Route number	Remarks
1.	08.07.2024	Field visit to observe old dykes and for communication with local people	Route 21, dyke no 15 and 16	At Bheduria
2.	18.07.2024 to 31.07.2024	Hydrographic Multibeam and single beam Monitoring survey work jointly by BIWTA team and S1A team.	Route 13 (Athazar-Alubazar-Horina)	

#### Updated information on Navigational Aids in July 2024:

A meeting was held on July 2, 2024, at the PIU conference room to discuss the status of work under Contract Package BRWTP-W1A, Lot 02 & Lot 03. In addition to the relevant members, the meeting was attended by the Joint Chief of ERD, PIU (BRWTP-1 Project), the Consultant Team BRWTP-S1A, and representatives from the contractors BRWTP-W1A-02 & 03. The progress of both contractors' work was found to be satisfactorily expedited.

The Navigation Aids expert from BRWTP-S1A reported that the contractors for Lot 02 & Lot 03 have completed the installation of P.C. Poles, a key component of Aids to Navigation, along with the required top marks, in accordance with the contract documents. These installations were carried out along all designated riverbanks of the inland routes under Lot 02 & Lot 03.

For Lot 03, the imported items for the installation of Aids to Navigation were inspected by a joint team composed of members from the relevant teams and were found to meet the contract requirements. The Lot 03 contractor (DHARTI-BANGA) has confirmed their readiness to proceed with the final visit to the installed Lighted Tower Beacons and the ongoing installation of buoys with sinkers along the designated routes. This visit will be conducted by the Aids to Navigation Superintendence Committee, along with other designated teams, including the Consultant Team BRWTP-S1A, upon receiving an official request from the Lot 03 contractor.

For Lot 02, the contractor (GULF COBLA-KARNAFULY JV) has reported that the first shipment of imported components for the Aids to Navigation has arrived and is ready for inspection at their warehouse in Narayanganj. A joint team comprising members from the designated teams will conduct the inspection following an official request from the contractor.

Throughout this period, all coordination meetings held at various venues and dates focused on providing updates and suggestions regarding the installation of Aids to Navigation along the designated riverbanks under Lot 02 & Lot 03.

#### 2.1.2 Environmental Quality Assessment:

The S1A team reviewed the environmental data provided by the contractors' monitoring team. For this month (July 2024), data was collected from Routes 09 and 7&8 under Lot-2, as well as two locations on Routes 16 & 21 under Lot-3. The details of the sample collection locations are presented in the table below:

**Table 4: Sample Collection Locations in this month (July2024)**

Month	Environmental Variables.	Lot2	Lot-3
		River Name and Sample Collection Location	River Name and Sample Collection Location
July, 2024	Ambient air quality in and around the dredging site	<ul style="list-style-type: none"> <li>River Route - 7&amp;8 (Near Narsingdi Nouka Ghat; Khodadila village approx. 200 m away from the dredging site);</li> <li>River Route-09 (Bancharampur/Homna Loop named Salimganj</li> </ul>	<ul style="list-style-type: none"> <li>River Route 15 &amp; 16 (Mehendiganj to Bheduria along Meghna distributary and Tentulia).</li> <li>River Route 21 (Bheduria -Laharhat).</li> </ul>
	Noise level quality assessments		
	Underwater Noise Level		
	Surface Water Quality		
	Riverbed Sediment		
	Dredged Material		
	Aquatic Fauna (Fish, Dolphin, Turtle)		

Environmental monitoring data for July 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.

In July 2024 no dredging work was carried out as the Lot-3 contractor achieved the 100% completion of Phase-1 capital dredging. Environmental monitoring showed no significant impacts, except for temporary disturbances of



the riverbed benthos at Lot-3 Site. Dead and dry macrobenthos were observed in the dredged material of the previous dykes (Lot 3, Route 16 dike no 14, 19, and Lot 2 Routes 7&8).

### 2.1.3 Social and Resettlement Aspects:

As a decision has been made in May-2024 by the Deputy Commissioner of Brahmanbaria in a meeting at his office the selection of dyke location will be taken care of by government administration where is the PIU, BIWTA and the Consultant, BRWTP-S1A will coordinate with them as required. Based on this decision PIU instructed that, no Good Faith Agreement will be required onward between BRWTP-1 and land owners regarding dyke location selection.

A total of 67 disposal sites were chosen within the Lot-2 areas and 22 agreements are in process within Lot 3 areas so far. Overall, 89 dredged material disposal areas have been selected in the Lot-2 and Lot-3 areas. The process of selecting dikes is ongoing, involving representatives of government administration, local governments, and community members.

#### 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 created in this time frame . The Social and Resettlement Expert Team of S1A is working on setting up the protocols for selecting disposal areas at different river routes in a structured way based on CEAP and Contractual responsibilities.

Information regarding river dredging, dredged material disposal, 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. Details are provided in the tables in Annexure I.

#### 2.1.3.2 Communication and Public Consultation:

A meeting was conducted on 04-Jul-2024 at 4:00 PM regarding the stoppage of dredging on route-6 and 7&8 along with the government administrating, PIU and local community people at DC office. After solving local community problems, the dredging was resumed on 07-Jul-2024 at 6:00 AM. Besides, several meetings between the local community people, UNOs of Nabinagar and Bancharampur of government administration, PIU's representatives, Consultant and Contractor's representatives have been arranged to resolve the issues on route-9.

The social and safeguard team has communicated at field level with local people, local administration, and local elites regularly.

#### 2.1.3.3 : Progress and Coordination Meetings of S1A Consultant in July 2024:

**Table 4: Interaction with Client/Contractors and another Stakeholder (July 2024)**

SN	Date	Venue	Meeting Agenda	Participants
1.	02.07.2024	Conference room of PIU.	Meeting regarding progress work of packages under BRWTP-1 Project	BRWTP-W1A-Lot-1, Lot-2, BRWTP-W2 Lot-1, Lot-2, BRWTP-W3-Lot-1, Lot-2, Lot-3, Lot-4, BRWTP- G1A-02, BRWTP-S1A, BRWTP-S3 and BRWTP-S4 representatives.
2.	10.07.2024	Conference room of S1A.	Meeting with the Lot 2 and Lot 3 environment staff to clarify some issues on their monthly reports.	Representatives of Lot 2 and Lot 3 contractors and S1A experts.
3.	15.07.2024	Conference room of S1A	Monthly ESHS report review meeting	S1A experts and staff

### 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.

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 5: ESHS Status at a Glance in July 2024**

ESHS Issues	Parameters	Lot-2	Lot-3
<b>Occupational Health and Safety (OHS)</b>	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
<b>Workers' Condition and Employment Situation</b>	Total Employment (person) for all routes	38 (Thirty-eight)	60 (Sixty)
	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
<b>Personal Protection Equipment (PPE) for all staff/workers working on the site.</b>	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 were not using PPEs.	Available at site level but needs awareness and monitoring for using PPEs
<b>Traffic management</b>	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.	Adequate signs signals are posted to avoid any unwanted endangered while working.	Working hands are found to be careful about their personal safety and working safety as well.

Source: Field Information S1A Consultant Team

## 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 July 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 July 2024 is shown below.

**Table 6: Description of dredging work for the month of July 2024, Lot-2 Site**

Serial No.	Dredger Name	Period	Route No.	Place	Cutting Length(m)	Cutting Volume(cum.)
01.	Kafela -01	01 to 31 July	7&8	Khodalila	469	16,578
02.	Karnafuly -02	01 to 31 July	7&8	Khodalila	18	950
03.	Karnafuly -03	01 to 31 July	09	Hasannagar	605	15,133
04.	Karnafuly -05	01 to 31 July	09	Kadur	108	4,661
05.	Karnafuly -07	01 to 31 July	09	Hasannagar	500	18,132
06.	Pranto_01	01 to 31 July	09	Kadur	54	1,919
08	Reve_03	01 to 31 July	09	Hasannagar	530	18,219
09	MCD_01	01 to 31 July	09	Khalla	154	3,274
12	Reve_05	01 to 31 July	09	Tejkhali	368	19,676
10	SHAH YUVRAJ_09	01 to 31 July	11	Hasnabad	369	19,777
11	MBDDL CRAFT_01	01 to 31 July	06	Charmodhua	139	9,818
	Total					1,28,138

### 2.2.2 Environmental Quality Assessment of Lot-2 Sites:

In July 2024, environmental monitoring was conducted along Routes 7&8 and 9 in Narsingdi, focusing on air quality, noise levels, and water quality. All measured parameters, including particulate matter, gaseous substances, and noise levels, were within national and international standards. Surface water sampling indicated no significant impact from ongoing dredging activities and no major pollution or safety issues were observed. Fisheries surveys identified 29 fish species and 4 crustacean species, with no fish mortality reported. Additionally, no Ganges River Dolphins or freshwater turtles were observed along the surveyed routes, and no grievances were raised, indicating a harmonious work environment. Details are in Annexure V

### 2.2.3 Social and Resettlement Aspects at Lot-2 Site:

At present **67 good faith** agreements have been 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 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:**

In July 2024, a joint Hydrographic Monitoring Survey was conducted by the BIWTA and S1A Team from July 18 to July 31 at Route 13 (Athazar-Alubazar-Horina). All Phase 1 dredging works were completed by May 30, 2024, by DHARTI-BANGA JV, and the dredgers are now on standby for the season. A joint post-survey was carried out across Routes 12, 13, 13A, 15, 16, 17, and 21, confirming that the required design depth has been maintained, and no additional dredging was necessary in July. The situation of the river routes remains under observation, and dyke construction will be undertaken as needed in accordance with the Contract. Environmental quality assessments were also conducted at two locations on Routes 21 and 16 during the month.

#### **1.3.2 Environmental Quality Assessment of Lot-3 Site:**

In July 2024, environmental monitoring focused on air quality, noise levels, and water quality across Routes 16 and 21, with all assessed parameters found within national and international standards. Surface water quality was also tested, showing no significant impact from prior dredging activities, and sediment and underwater noise levels were maintained below thresholds. No fish mortality, Ganges River Dolphins, or freshwater turtles were observed during the monitoring. Throughout the reporting period, all safety measures were effectively implemented, and no grievances or environmental issues were reported.

Eighteen species of fish were observed being caught along river routes 16 and 21. Additionally, four species of crustaceans (prawns) were also recorded during observation.

#### **1.3.3 Social and Resettlement Aspects at Lot-3 Site:**

At present 22 agreements are in process. In most 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 disposal, and good faith agreements through several consultation meetings with local people in local Bazars, Union Council, villages, and the local Schools. Progress of Dikes and Good Faith Agreements during this reporting period of Lot-03 is illustrated and attached herewith as Annexure I.

## **CHAPTER 03:**

### **ACHIEVEMENT OF THIS MONTH'S AND NEXT MONTH'S PLAN**

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#### **3.1 ACHIEVEMENT OF REPORTING MONTH:**

##### **S1A**

- a) Submitted Survey and Dredging Monitoring Sheet to PIU and WB regularly.
- b) Supervision and Monitoring Surveys of Dredging activities were carried out for Routes 06, 7&8, 09 and 11 under Lot-2.
- c) Reviewing hydrographic chart and assessing volume for Routes 7&8, 9, and 11 under Lot-2.
- d) Lot 2 dredging expedited by S1A coordination efforts and continuous monitoring.
- e) S1A Consultant team visited Lot-2 and Lot-3 sites including PIU and BIWTA representatives regularly.
- f) Though recent countrywide unavoidable circumstances regular field activities and ESHS supervision conducted by S1A consultant.

##### **LOT-2**

- a) The contractor dredged 1,28,138 cubic meter in July, 2024.
- b) The total revised estimated BoQ volume is 12,09,060 cubic meters for Phase I (18 months). They dredged 9,29,790 cubic meters up to 31 July 2024 which is 77% of the estimated BoQ Volume of Phase-1 capital dredging.
- c) Related Environmental, Social, and GRM Activities have been conducted.
- d) Field visits were carried out by the S1A-ESHS team.

##### **LOT-3**

- a) Hydrographic Survey carried out along Routes 13 (Megna and Arial Khan).
- b) Related Environmental, Social, and GRM activities have been conducted
- c) Field visits were carried out by the S1A-ESHS team.

#### **3.2 NEXT MONTH PLAN:**

##### **S1A**

- a) Post intermittent hydrographic survey will be continued Route 06, 07&08, 09 and 11 under Lot-2
- b) Reviewing and analyzing hydrographic chart, raw data, and calculating dredging volume with the submitted data by the contractor and assess the volume for Routes 06, 07&08, 09 and 11 under Lot 2.
- c) Supervision and Monitoring of dredging activities and environmental quality, ESHS, and GRM activities of Lot-2 and Lot-3.
- d) To expedite the navigational aid installation work plan submitted by the Lot-2 and Lot-3 contractors.
- e) To expedite the dredging activity of Lot-2 for completing 100% of dredging work under Phase-1.
- f) To organize meetings with the Lot 2 and Lot 3 contractor's environment team.

**LOT-2**

- a) The Lot-2 contractor will expedite the dredging activities to achieve the completion of 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 continue hydrographic survey for all the routes along with relevant chart and execute dredging work if needed with stand by dredgers.
- 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

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Lot 2 completed approximately 77% of the BoQ volume up to 31-Jul-2024 of Phase-1. The Lot-2 contractor requested a time extension till 30-Sep-2024, which is under approval. They continue 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 activity within the stipulated time i.e. within 5-June-2024. Installation of aids to navigation is progressing well.

Dredged material is to be monitored for any benthos during and after the dredging operation. Regular habitat monitoring and intensive, repeated field visits are recommended for 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 Dike and Good Faith Agreement

**Table: 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: Tezkhal Upazila:Bancharampur District: Brahman Baria	Mouza: Akanagar, Plot no. 3395,3396 BS-khatian 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

**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	
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
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: 197812104880000 39 Mbl: 01741735087 2. Md. Borhan Uddin NID: 1210488095770 Mbl: 01794735283	Village: Bishnursmpur Union: Tezkhali Upazila:Bancharampur District: Brahman Baria	Mouza: Bahirchar SA Khatian: 860,380 Plot no: 821,621,711,622,624,810,1 070,623,626,710,711,1179 JL No. 41	119	Agriculture land (One Crop)	Done
D24	9	Aminul Islam (Liton) NID: 9917405796 Mbl: 01310822838	Village: Bishnursmpur Union: Bishnursmpur Upazila:Bancharampur District: Brahman Baria	Mouza: Bishnursmpur SA Khatian: 92 Plot no: 1209,1205,1439,1430 JL No. 40	120	Agriculture land (One Crop)	Done
D25	9	Ilias Miazi NID: 199212164880001 30 Mbl: 01985728652	Village: Bishnursmpur Union: Tezkhali Upazila:Bancharampur District: Brahman Baria	Mouza: Bishnursmpur SA Khatian: 172, Plot no: 1308,1497,1448,427,1105 JL No 43	174	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	
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: Tezkhal Upazila: Bancharampur District: Brahman	Mouza No: Aka Nagar SA Khatian: 3921,4096,3941 Plot No: 5760,5705,5707,5790,6370, 6698,5744,5711,5384,5715 J L No 13	310	Agriculture land (One Crop)	Done
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: 01817506254	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: Tezkhal 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: Tezkhal 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, 1198,1170,1200,1232 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: Tezkhal Upazila: Bancharampur District: Brahman Baria.	Mouza. Bahirchar Plot no. 25/400,217/652,268/418,62 8,708 Khatian No: 209,74 JL No: 41	84	Agriculture land (One Crop)	Done

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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. 1286,1351,1649,144,1563,1 27 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: 197612104880000 18 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: 1282/1284/1285/1283/957/1 641/2221/955/1502/985/984 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



**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 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 Mbl: 01986218781	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
D 43	09	1.Shakel Ahmed NID: 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	1. Md. Abu Hanif NID: 7305030772 Mbl: 01712892751 2. Sohrab Hossain NID: 1975871797 Mbl: 01728356911	Village: Kadoir Union: Salimganj Upazila:Nabi Nagar District: Brahman Baria.	Mouza No. Kadoir Khatian No: 342 Plot: 438 JL No:10	68	Agriculture land (One Crop)	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 48	09	2. Kamrul Hasan NID: 19791218575000030 Mbl: 01716161185 3. 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 5. Ismail Mia NID: 1523786984 Mbl: 01913777071 6. Amir Hossain Passport: 0538242 Mbl: 01712835771 7. Farid NID: 3322198205 Mbl: 01852892821	Village: Bahir Char Union: Tezkhal Upazila: Bancharampur District: Brahman Baria.	Mouza No. Bahir Char Khatian No: 392/320/707/273/514/1071 Plot: 1105/617/1104/411/496/1111/1110 JL No: 41	179	Agriculture land (One Crop)	Done
D 50	09	1. Abul Kashem NID: 2398411542 Mbl: 01708665453 2. Humayun Kobir NID: 1210436157748 Mbl: 01983460221	Village: Moddho Nagar Union: Choyfullah Kandi Upazila: Nabinagar District: Brahman Baria.	Mouza No. Moddho Nagar Khatian No: 1054/1485 Plot: 1105/617/1104/411/496/1111/1110 JL No: 38	193	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 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: 198212185750000 21 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 56	09	Md. Aktar Hossain NID: 3725002590 Mbl: 01605208355	Village: Tezkhal Union: Tezkhal Upazila:Bancharampur District: Brahman Baria.	Mouza No. Tezkhal Khatian No: 1852 Plot: 430/688/960/972/482 JL No: 42	120	Agriculture land (One Crop)	Done
D 57	09	Md. Ashikul Islam NID: 3268311275 Mbl: 01855997070	Village: Tezkhal Union: Tezkhal Upazila:Bancharampur District: Brahman Baria.	Mouza No. Tezkhal Khatian No: 1852 Plot: 430/688/960/972/482 JL No: 42	120	Agriculture land (One Crop)	Done
D 58	09	Md. Masud NID: 4197522263 Mbl: 01625888695	Village: Noyar char Union: Salimganj Upazila: Nabinagar District: Brahman Baria.	Mouza No. Noyar char Khatian No: 689 Plot: 366/422/645/389 JL No: 67	62	Agriculture land (One Crop)	Done
D 59	09	Anowar Hossain Raza NID: 1948336233 Mbl: 01625888695	Village: Bishnurampur Union: Bishnurampur Upazila: Bancharampur District: Brahman Baria.	Mouza No. Bishnurampur Khatian No: 315 Plot: 365/254/423/546/259/121 JL No: 39	270	Agriculture land (One Crop)	Done
D 01	7&8	1.Hanif Mia NID: 6816020733136 2.Abu Kashed Mia NID:	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,	677	About 70% Fallow Land and 30% 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	
		6816020432149 3.Abul Kashem NID: 5501734684 4.Nuru Mia NID: 8218914904 5.Sushil Chandra Sutradhar NID: 6816020732471 Mbl: 01794391918, 01712766109		13062, 10064, 10062, 10061, 10091, 10204, 9689, 9690, 9653, 10079, 10056, 10205, 9798, 10118, 10111, 10114 JL No: 73, 62, 52			
D 02	7&8	Md. Delwar Hossain NID: 9550769062 Mbl: 01712766109	Village: Bakhor nagar Union: Alokballi 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
D 03	7&8	Hazrat Ali NID: 7822450420 Mbl: 01935205783	Village: Birgaon Union: Alokballi Upazila:Narsingdi Sadar District: Narsingdi	Mouza: Char Madhobpur CS Khatian No: 122 SA Plot No: 12458/12466/12485 JL No: 52	91	Agriculture land (One Crop)	Done
D 04	7&8	1. Sukkur Ali NID: 4151539675 Mbl: 01987608661 2. Jahangir Alom NID: 2360551242 3. Md. Milon Kha NID: 4601748173	Village: Sat para Union: Alokballi Upazila:Narsingdi Sadar District: Narsingdi	Mouza: Char Madhobpur CS Khatian No: 3024/26/2068/98/4150 SA Plot No: 1841/7865/7877/7262/7869/ 7499/1815/1817/2089/7878/ 7885 JL No: 62	180	Agriculture land (One Crop)	Done
D 05	7&8	1. Md. Sheikh Farid NID: 6816020734834 Mbl: 01765- 995824 2. Rezon Mia NID: 7358087984 Mbl: 01677556624	Village: Sat para Union: Alokballi Upazila:Narsingdi Sadar District: Narsingdi	Mouza: Char Madhobpur CS Khatian No: 121 SA Plot No: 6711/6512/6706/6727/6712/ 7364/7369/7794/7868 JL No: 62	170	Agriculture land (One Crop)	Done
D 01	06	2. Sahad Mia NID: 1481632832 Mbl: 01855992870 2. Md. Jalal Fakir NID: 5851625392 Mbl: 01759252667	Village: Char Modhua Union: Char Modhua Upazila:Roypura District: Narsingdi	Mouza: Char Modhua CS Khatian No: 637 SA Plot No: 1062/1011/894/1131/42/131 /806/811/913/1042/1181/11 88 JL No: 123	290	Agriculture land (One Crop)	Done
D 01	11	Abul Kasem NID: 1913621823408 Mbl: 01724340171	Village: Notun Hasnabad Union: Daud Kandi Upazila:Daud Kandi District: Cumilla	Mouza: Nando pur CS Khatian No: 44 Plot No: 158/44/41/150/67 JL No: 98	210	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 02	11	Foyez Uddin NID: 1913621824175 Mbl: 01928932815	Village: Notun Hasnabad Union: Daud Kandi Upazila:Daud Kandi District: Cumilla	Mouza: Nando pur CS Khatian No: 39 Plot No: 160/39/151/155/44 JL No: 92	293	One crop	Done

**Table: GFA, Lot-03 (District: Barishal, Bhola, Shariatpur and Chandpur).**

Dyke No.	Route No	Landowner		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 Vhuiya 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 Uddin 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	Landowner		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 (July 2024)

### Progress Meetings, Communication and Consultation:



### Field Visit, Survey, and Sample Collection:



## ANNEX III: Laboratory Test Results of Environmental Parameters, July, 2024

### Laboratory Test Result of Lot-2:



Ref: ELRC/Air Quality/2024307131

<b>Project Name</b>	:	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
<b>Monitoring Activity</b>	:	Ambient Air Quality
<b>Location</b>	:	AQ1: 23.904293° 90.814675°; Khodadila Narshingdi; Route-7&8
	:	AQ2: 23.809895° 90.880228°; Hasannagar Brahmanbaria; Route-9
	:	AQ3: 23.805109° 90.862666°; Hasannagar Khalla; Route-9
<b>Monitoring Date</b>	:	28.07.2024-30.07.2024
<b>Reporting Date</b>	:	04.08.2024

#### Description of Analysis:

Location	Sampling Date	Ambient Air Pollutants' Concentration in µg/m3					CO mg/m3
		SPM	PM10	PM2.5	SO2	NO2	
AQ 1	28/07/24	132.93	67.42	23.16	22.43	28.26	0.6
AQ 2	29/07/24	142.65	72.53	31.92	19.28	25.77	0.6
AQ 3	30/07/24	138.16	71.34	30.47	18.83	23.44	0.6
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: PM<sub>10</sub> -Particulate Matter of a diameter of 10 microns or less. PM<sub>2.5</sub> -Particulate Matter of a diameter of 2.5 microns or less, SO<sub>2</sub> -Sulphur Dioxide; NO<sub>2</sub> -Nitrogen-Dioxide; CO -Carbon Monoxide



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Ref: ELRC/Noise Level/2024307132

<b>Project Name</b>	:	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.
<b>Monitoring Activity</b>	:	Noise Level
<b>Location</b>	:	NL1: 23.904293° 90.814675°; Khodadila Narshingdi; Route-7&8
	:	NL2: 23.809895° 90.880228°; Hasannagar Brahmanbaria; Route-9
	:	NL3: 23.805109° 90.862666°; Hasannagar Khalla; Route-9
<b>Monitoring Date</b>	:	28.07.2024-30.07.2024
<b>Reporting Date</b>	:	04.08.2024

**Description of Analysis:**

Location	Noise level (dB(A))			Bangladesh Standard (dB(A)) *	IFC EHS Guideline (2007)	Location setting
	Leq <sub>day</sub>	L <sub>max</sub>	L <sub>min</sub>	Day	Day	
NL1	54.6	67.9	36.2	60	70	Mixed area
NL2	52.5	69.2	32.5	60	70	
NL3	51.9	66.6	33.8	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/2024307133

<b>Project Name</b>	:	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.
<b>Monitoring Activity</b>	:	Noise Level
<b>Location</b>	:	UWNL1: 23.906472° 90.815792°, Meghna River; Route-7&8 UWNL2: 23.808320° 90.883822°; Bancharampur-salimganj Nou path; Route-9
<b>Monitoring Date</b>	:	28.07.2024-29.07.2024
<b>Reporting Date</b>	:	04.08.2024

**Description of Analysis:**

Code	Location	L <sub>Avg</sub> [dB (A)]	*Standard
UWNL1	Meghna River; Route-7&8	55.2	No International/ GoB Standard
UWNL2	Bancharampur-salimganj Nou path; Route-9	51.8	



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Ref: ELRC/Surface Water Quality/2024307134

<b>Project Name</b>	:	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.
<b>Description of Sample</b>	:	Surface Water – Lot 2
<b>Location</b>	:	SW1 - 23.907899° 90.816647°; Meghna River; Route-7&8
	:	SW2 - 23.896825° 90.818346°; Meghna River; Route-7&8
	:	SW3 -23.806781° 90.883002°; Titas River; Route-9
	:	SW4 -23.812027° 90.881189°; Titas River; Route-9
<b>Sampling Date</b>	:	28.07.2024-29.07.2024
<b>Reporting Date</b>	:	04.08.2024

**Description of Analysis:**

Parameters	Unit	Concentration Present			Bangladesh Standard
		SW1	SW2	SW3	
Temperature	°C	25.6	25.8	26.1	-
EC	μS/cm	394	402	469	-
Turbidity	NTU	4.8	4.2	5.6	-
pH	-	8.1	7.92	7.78	6.5-8.5
TDS	ppm	205	208	235	-
DO	mg/L	6	6.1	5.3	5 or more
Potassium	mg/L	24	23	26	-
Calcium	mg/L	27	31	28	-
Magnesium	mg/L	15	19	24	-
Phosphate	mg/L	1	1.1	1.1	-
Chloride	mg/L	20	22	24	-
Fluoride	ppm	0.6	0.7	0.5	-
Nitrate	mg/L	0.5	0.6	0.7	-
BOD5 (at 20°C)	mg/L	3.7	3.8	4.4	6 or less
Sulfate	mg/L	17	20	22	-
TSS	mg/L	204	196	189	-

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



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Ref: ELRC/ Dredge Material /2024307135

<b>Project Name</b>	:	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.
<b>Description of Sample</b>	:	Dredge Material – Lot 2
<b>Location</b>	:	DM1 - 23°32'55.14"N 90°42'33.72"E - Khodadila; Route-7&8
		DM2 - 23°54'14.55"N 90°52'30.52"E)- Near beside Hasannagar Bridge; Route-9
<b>Sampling Date</b>	:	28.07.2024-29.07.2024
<b>Reporting Date</b>	:	04.08.2024

**Description of Analysis:**

Parameter	Unit	Dredge Material – Lot 2		Methodology	Dutch Environmental Standard (mg/kg)
		DM1	DM2		
Lead	mg/kg	12.34	14.77	ICPMS	85
Cadmium	mg/kg	0.06	0.05	ICPMS	0.8
Chromium	mg/kg	18.34	20.46	ICPMS	100
Zinc	mg/kg	21.63	24.22	ICPMS	140
Arsenic	mg/kg	1.89	1.71	ICPMS	29

Note: ICPMS - Inductively coupled plasma mass spectrometry



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### Laboratory Test Result of Lot-3:



Ref: ELRC/Air Quality/ AQMM2024-07

<b>Project Name</b>	: 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
<b>Monitoring Activity</b>	: Ambient Air Quality
<b>Monitoring Date</b>	: 15.07.2024
<b>Monitoring Location</b>	: Route 16; (AQ-1)- 22°47'22.74"N 90°31'27.23"E Route 21; (AQ-2)- 22°42'20.05"N 90°33'46.47"E

#### Description of Analysis:

Location	Sampling Date	Ambient Air Pollutants' Concentration in $\mu\text{g}/\text{m}^3$					CO mg/m3
		SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub>	
AQ-1 Route 16	15/07/2024	61.86	38.46	16.50	13.72	17.11	0.5
AQ-2 Route 21	15/07/2024	73.04	44.93	19.72	15.32	22.95	0.6
<b>Air Pollution (control) rules, 2022*</b>		-	150	65	80	80	5
<b>Method of Analysis Instrument Use: Haz-Scanner TM (HIM, 6000)</b>		Particulates Sensor Light Scattering Nephelometer			High Sensitivity Electrochemical		

Note: \* Air Pollution (Control) Rules, 2022

Legend: PM<sub>10</sub>-Particulate Matter of a diameter of 10 microns or less. PM<sub>2.5</sub>-Particulate Matter of a diameter of 2.5 microns or less. SO<sub>2</sub>-Sulphur Dioxide; NO<sub>2</sub>-Nitrogen-Dioxide; CO -Carbon Monoxide

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Ref: ELRC/Noise Level/ NLMM2024-07

<b>Project Name</b>	: 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
<b>Monitoring Activity</b>	: Noise Level
<b>Location</b>	: <b>NL1</b> 22°47'17.94"N 90°31'32.57"E, <b>(Route-16)</b> <b>NL2</b> 22°42'19.43"N 90°33'45.54"E, <b>(Route-21)</b>
<b>Monitoring Date</b>	: 15.07.2024

**Description of Analysis:**

Location	Noise level (dB(A)) <sup>1</sup>			Bangladesh Standard (dB(A)) <sup>2</sup>	IFC EHS Guideline (2007) <sup>3</sup>	Location setting
	Leq <sub>day</sub>	L <sub>max</sub>	L <sub>min</sub>	Day	Day	
NL1	58.44	78.09	37.55	-	-	-
NL2	72.63	89.49	34.15	-	-	-

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.

<sup>1</sup> 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.

<sup>2</sup>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.

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

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Ref: ELRC/ Underwater Noise Level/ UWNL2024-07

<b>Project Name</b>	:	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
<b>Monitoring Activity</b>	:	Underwater Noise Level
<b>Location</b>	:	<b>UWNL1</b> 22°47'29.85"N 90°31'21.08"E, <b>Route-16</b> <b>UWNL2</b> 22°42'18.19"N 90°33'47.08"E, <b>Route-21</b>
<b>Monitoring Date</b>	:	15.07.2024

**Description of Analysis:**

Code	Location	L <sub>Avg</sub> [dB (A)]	*Standard
		[dB (A)]	
UWNL1	Route 16	58.2	No standard of International / GoB
UWNL2	Route 21	70.4	

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Ref: ELRC/Surface Water Quality/ SWMM2024-07

<b>Project Name</b>	:	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
<b>Description of Sample</b>	:	Surface Water
<b>Location</b>	:	Route- 16 & 21.
		SW1 - 22°47'25.34"N 90°31'36.39"E, Route 16
		SW2 - 22°42'17.45"N 90°33'45.42"E, Route 21
<b>Sampling Date</b>	:	15.07.2024

**Description of Analysis:**

Parameters	Unit	Concentration Present (Route – 16, & 21)		Bangladesh Standard
		SW1	SW2	
Temperature	°C	28.5	29.2	-
EC	µS/cm	277	284	-
Turbidity	NTU	6.6	6.9	-
pH	-	7.22	7.45	6 - 9
TDS	ppm	127	141	1000
DO	mg/L	7.8	8.1	5 or more
Potassium	mg/L	9.2	8.6	-
Calcium	mg/L	<0.01	<0.01	-
Magnesium	mg/L	17	21	-
Phosphate	mg/L	<0.01	<0.01	0.05
Chloride	mg/L	6.7	7.1	-
Fluoride	ppm	0.5	0.7	-
Nitrate	mg/L	0.6	0.8	7.0
BOD5 (at 20°C)	mg/L	1.4	1.6	6 or less
Sulfate	mg/L	17	23	-
TSS	mg/L	78	92	-

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

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Ref: ELRC/ Riverbed sediment / SDMM2024-07

<b>Project Name</b>	:	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
<b>Description of Sample</b>	:	Riverbed sediment – Lot 3
<b>Sampling Date</b>	:	15.07.2024

**Location Details:**

Code	Route No.	GPS Location
SedQ1	Route 16	22°47'20.96"N 90°31'37.38"E
SedQ2	Route 21	22°42'18.00"N 90°33'42.63"E

**Description of Analysis:**

Parameter	Unit	Riverbed sediment – Lot 3		Methodology	Dutch Environmental standard (mg/kg)
		SedQ1	SedQ2		
Lead	mg/kg	10.43	11.88	ICPMS	85
Cadmium	mg/kg	0.060	0.067	ICPMS	0.8
Chromium	mg/kg	15.21	18.74	ICPMS	100
Zinc	mg/kg	19.59	25.11	ICPMS	140
Arsenic	mg/kg	1.90	2.03	ICPMS	29

Note: ICPMS - Inductively coupled plasma mass spectrometry

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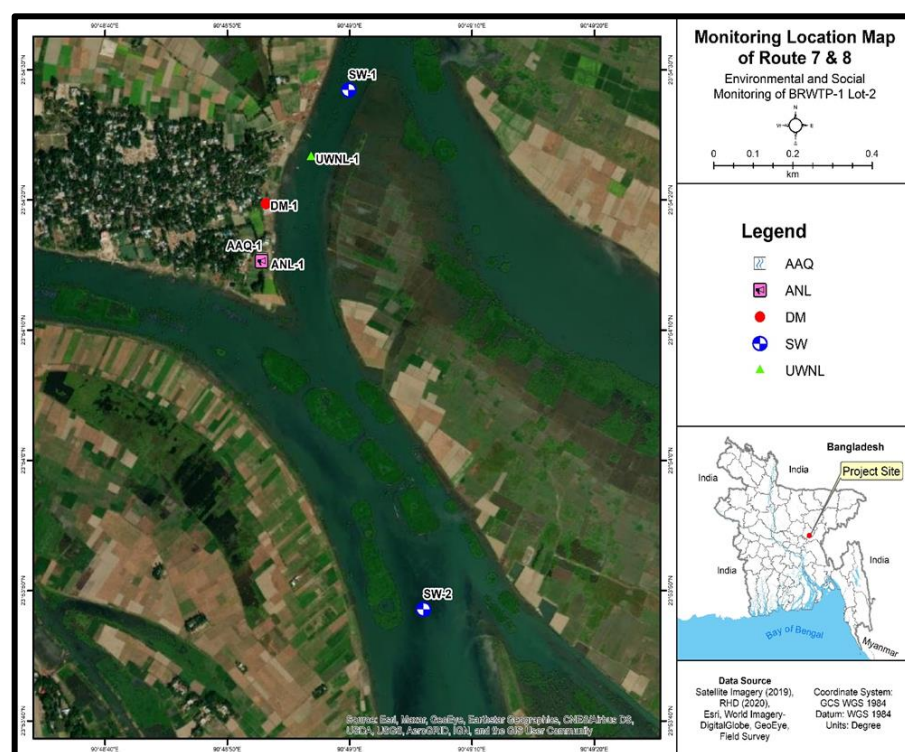
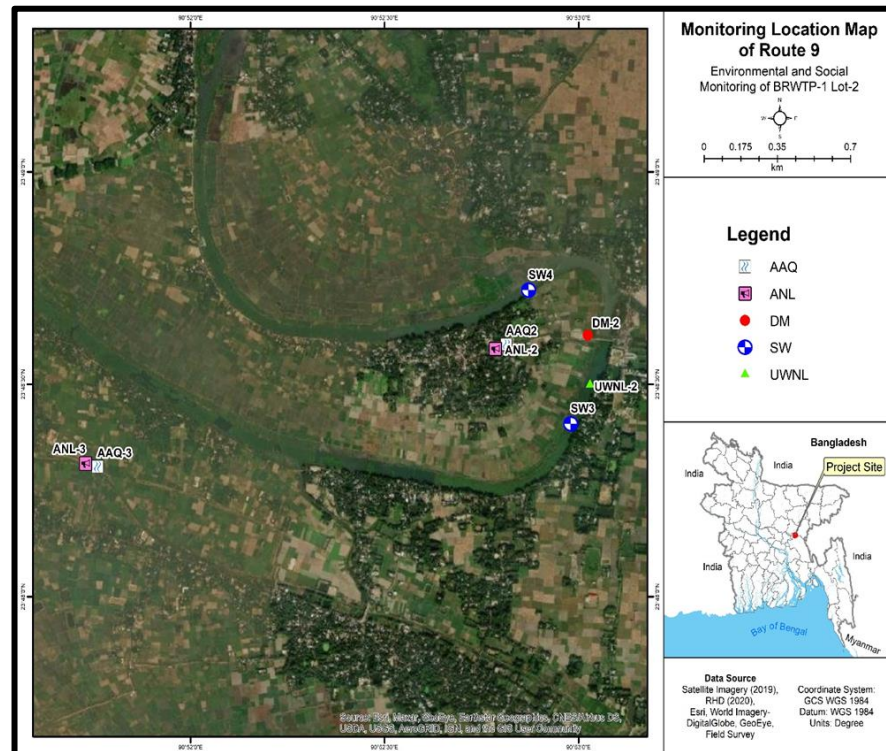
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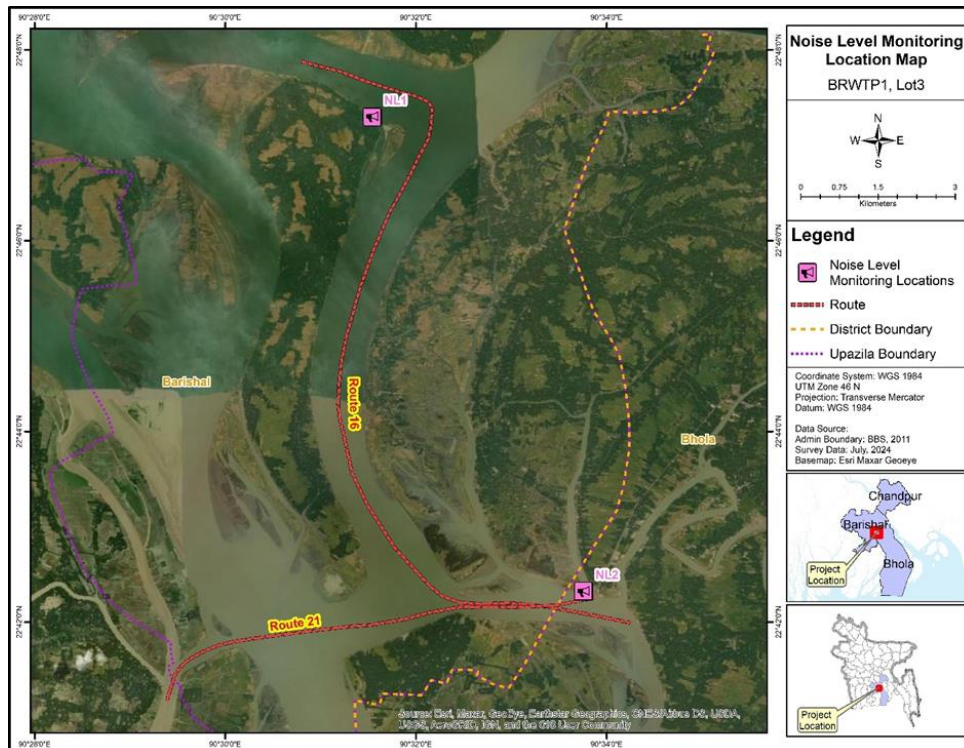
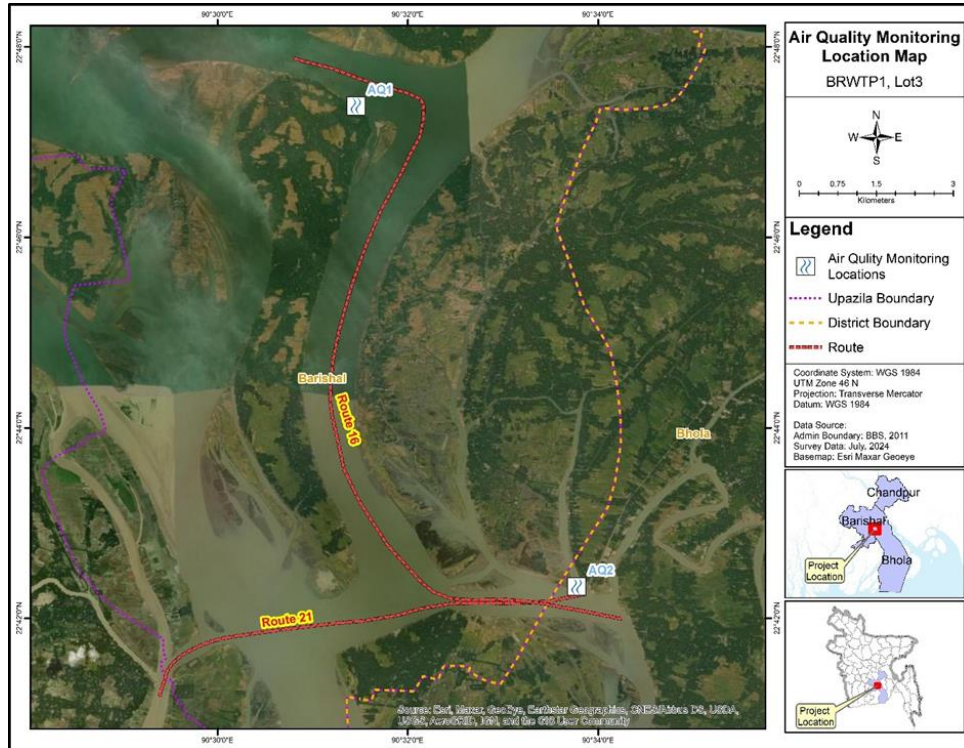


## ANNEX IV: Location of Environmental Sample Collection

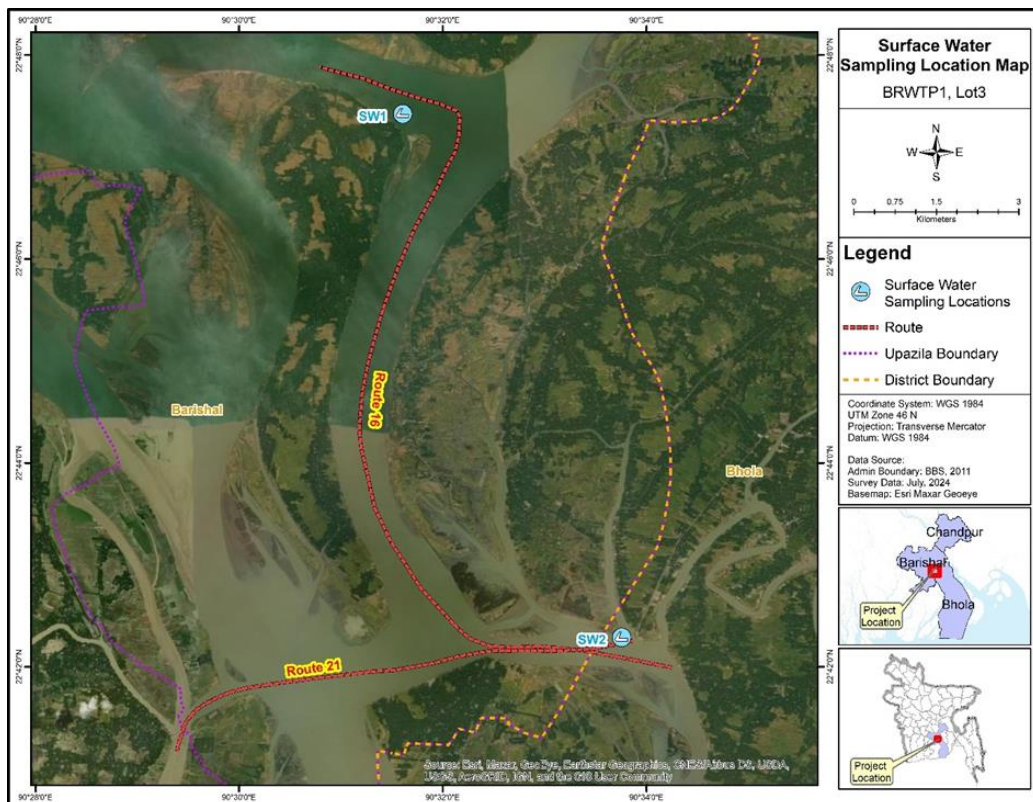
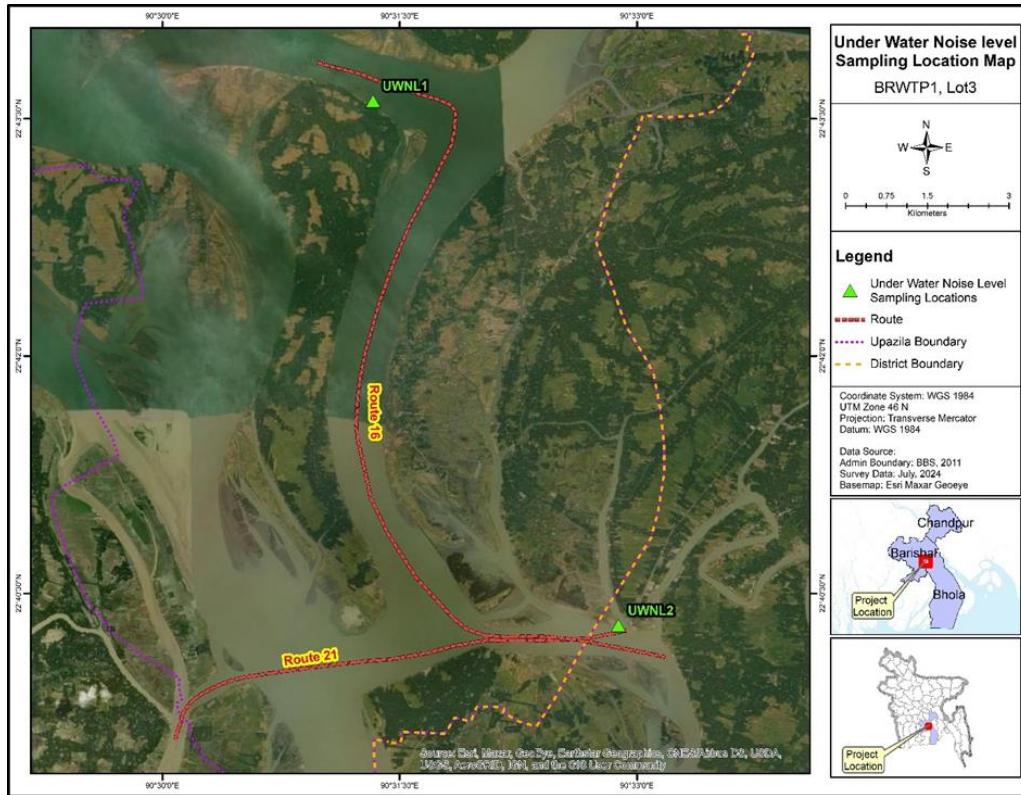
### Location Map Environmental Sample Collection at Lot-2 sites:

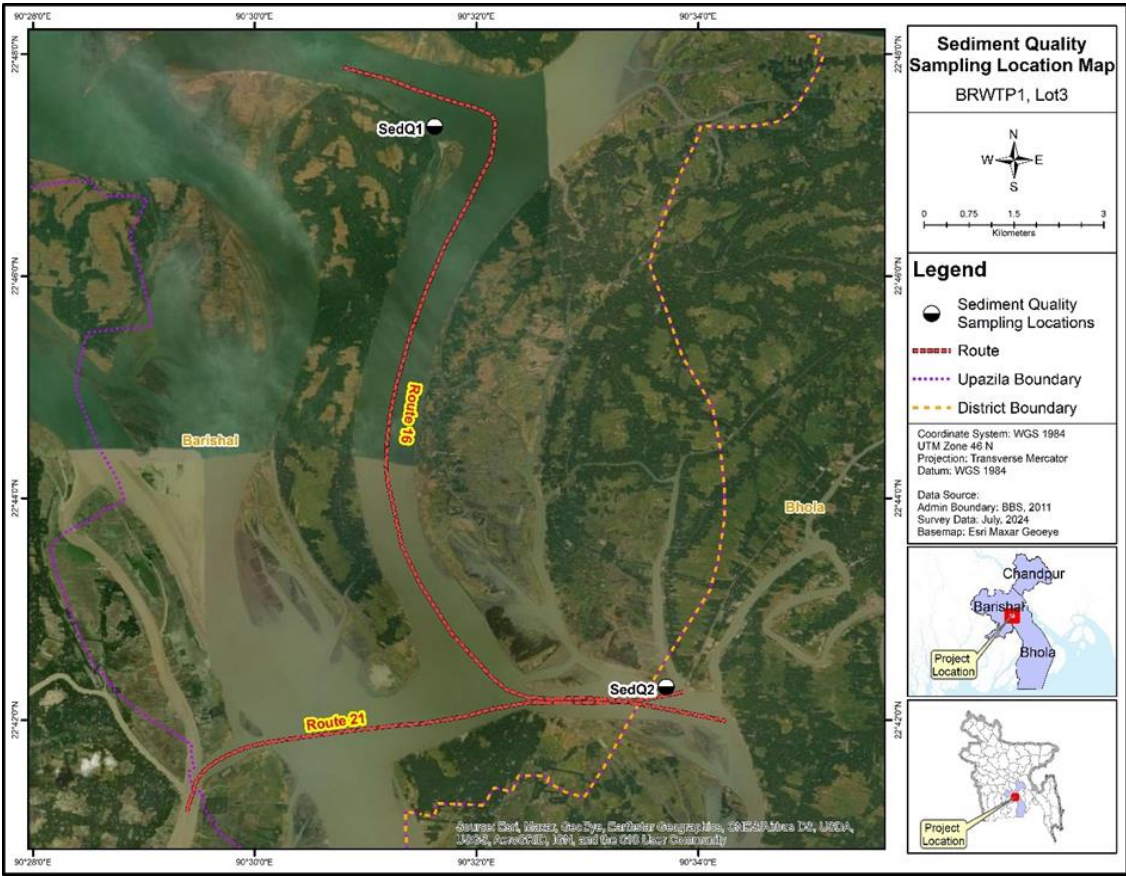


## Location Map Environmental Sample Collection at Lot-3 sites:











## ANNEX V: Environmental Quality Assessment and Compliance Status for July 2024

**Table 1: Environmental Quality Assessment for July 2024 for Lot-2**

Sl No.	Item	Parameters	Baseline Data of Route 09	Route-9	S1A Remarks July 2024
			January 2023	July 2024	
1	Air Quality	SPM	140.34	132.93	*WAL
		PM10	58.34	67.42	WAL
		PM2.5	31.43	23.16	WAL
		SO2	15.29	22.43	WAL
		NO2	12.75	28.26	WAL
2	Noise Level	CO	1.3	0.6	WAL
		LEQ day	61.6	54.6	WAL
		Lmax	76	67.9	WAL
3	Underwater Noise Level	Lmin	42.8	36.2	WAL
		LAvg [dB (A)]	-	55.2	WAL
4	Surface Water Quality	Temperature	22.1	25.6	WAL
		EC	170	394	WAL
		pH	7.20	8.1	WAL
		TDS	160	205	WAL
		DO	4.5	6	WAL
		BOD5	10	3.7	WAL
5	Riverbed Sediment	TSS	83	204	WAL
		Lead (Pb)	9.79	-	WAL
		Cadmium (Cd)	0.054	-	WAL
		Chromium(Cr)	15.94	-	WAL
		Zinc (Zn)	26.32	-	WAL
6	Dredged Material Dike no 64	Arsenic (As)	1.96	-	WAL
		Lead (Pb)	-	12.34	WAL
		Cadmium (Cd)	-	0.06	WAL
		Chromium (Cr)	-	18.34	WAL
		Zinc (Zn)	-	21.63	WAL
		Arsenic (As)	-	1.89	WAL

\*WAL=Within Approved Limit; - = Sample was not collected.

**Table 2: Compliance Status for July 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 29 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.
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				

**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		
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.

**Table 3: Environmental Quality Assessment for July 2024 for Lot 3**

Sl No.	Item	Parameters	BaselineData of Route 16	Route 16	BaselineData of Route 21	Route 21	S1A Remarks July 2024
				July 2024		July 2024	
1	Ambient Air Pollutants' Concentration in $\mu\text{g}/\text{m}^3$	SPM	189.34	61.86	181.92	73.04	WAL
		PM10	104.36	38.46	92.79	44.93	WAL
		PM2.5	58.93	16.50	51.34	19.72	WAL
		SO2	28.51	13.72	24.66	15.32	WAL
		NO2	39.60	17.11	32.92	22.95	WAL
		CO	1.6	0.5	1.2	0.6	WAL
2	Noise Level	LEQ day	51.3	58.44	62.3	72.63	WAL
		Lmax	86.4	78.09	84.0	89.49	Mixed Area.
		Lmin	30.9	37.55	35.2	34.15	WAL
3	Under Water Noise Level	LAvg [dB (A)]	-	58.2	-	70.4	WAL
4	Surface Water Quality	Temperature	22.4	28.5	22.3	29.2	WAL
		EC	280	277	300	284	WAL
		pH	6.67	7.22	7.57	7.45	WAL
		TDS	150	127	140	141	WAL
		DO	4.4	7.8	6.3	8.1	WAL
		BOD5	2.1	1.4	0.5	1.6	WAL
		TSS	30	78	39	92	WAL
5	Riverbed Sediment	Lead	8.10	10.43	10.91	11.88	WAL
		Cadmium	0.078	0.06	0.037	0.07	WAL
		Chromium	25.03	15.21	21.35	18.74	WAL
		Zinc	46.14	19.59	28.02	25.11	WAL
		Arsenic	3.83	1.90	2.48	2.03	WAL

\*WAL=Within Approved Limit.

**Table 4: Compliance Status for July 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, dolphin	18 fish species and 6 crustacean species (prawn) were observed in river routes 12 and 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.	Mitigation measures not required	No mitigation measure is required in the reporting period	-	P	-	Lo2 and Lot 3 ESHS staff were advised to be physically present while dredging is ongoing to give more effort and to spend more time on regular monitoring of the habitat and biodiversity.	To be practiced every month
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	Regular monitoring		-	P	-		Regular monitoring

**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		
	reporting month.							
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	Give warning notice to workers
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?
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	-

Checklist of Lot-2

Grievance Redressal Mechanism (GRM) Checklist, BRWTP-S1A

Sl no	Factors	Checklist Items		Dredging Activity				Comments/Compliance
				Daily	Weekly	Monthly	Quarterly	
1	Legal and Regulatory Compliance	1	The contractors communicate with 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 grievances are 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, and 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 are 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	Dike/Land selection survey.	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	Survey every week.
		2	Opinion meeting with the landowner 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 Grievance Redress 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 receiving feedback, suggestions and complaint letters.	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	There are 3 complaint boxes on site. One box is in the office, one box is in the houseboat, and another is open road side.
7	Establish a Signboard	1	The size of Billboard will be 5/15. The billboard should contain the 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) tiers of the GRM Committee will be formed	1	Local level GRC (Committee members 05, quorum fulfill 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 fulfill at least 03)- GBV, CoC, Contractor's workers occurrence, 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 fulfill 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 staff 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 leaflet in the site.

**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**

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 checked="" type="radio"/> <input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
12	Social Consultation	1	Local Community	<input type="radio"/>	<input checked="" type="radio"/> <input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
		2	Landowner	<input type="radio"/>	<input checked="" type="radio"/> <input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
		3	Local Government Authority	<input type="radio"/>	<input checked="" type="radio"/> <input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
13	Gender-Based Violence (GBV)	1	Sex Violence by an intimate partner	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> <input type="checkbox"/>	<input type="radio"/>	
		2	Sexual violence by a non-peer	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> <input type="checkbox"/>	<input type="radio"/>	
		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 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 m <sup>3</sup>
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 the 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 a safe distance from the river bank	<input type="radio"/>	<input checked="" type="radio"/> <input 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/building.	<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
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**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**

			Daily	Monthly	Quarterly	
1. Permits and Explanation	1	EIA and Environmental Permits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	2	Explanation to the Local Stakeholders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	3	Signboards, Notice Boards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
2. Physical Environmental Parameters Monitoring	1	Air Quality	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site.
	2	Surface Water Quality	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site.
	3	Solid Wastes	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site.
	4	Liquid Wastes	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site.
	5	Soil Contamination	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site.
	6	Noise and Vibration	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site.
	7	Underwater Noise	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site.
	8	Odor	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site..
	9	Riverbed Sediment	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site.
	10	Groundwater	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Supervised on 26 & 27 June at the Norshingdi site and on 28 and 29 June at the Solimganj site.
3. Natural Environment	1	Protected Areas	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Route no. 07&08 and 09
	2	Habitat Type	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Route no. 07&08 and 09
	3	Hydrology	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Route no. 07&08 and 09
	4	Topography and Geology	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Route no. 07&08 and 09
	5	Dolphin Observation	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Route no. 07&08 and 09
	6	Fish Catch Examination	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Route no. 07&08 and 09
	7	Flora (Aquatic & Terrestrial)	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Route no. 07&08 and 09
	8	Benthos (Micro & Macro)	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Route no. 07&08 and 09
	9	Phyto- & Zoo-planktons	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="radio"/>	Route no. 07&08 and 09
4. Social Environment	1	Resettlement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	2	Living and Livelihood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	3	Heritage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	4	Landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	5	Ethnic Minorities and Indigenous Peoples	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
5. Occupational Health Safety	1	Work Permit/Contract	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	2	Daily Toolbox Meeting - OHS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	3	Working Conditions		<input checked="" type="checkbox"/> <input type="checkbox"/>		Fair
	4	Impact/Precaution during Dredging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	No major issue observed

**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	
	5	Accident Prevention Measures	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/>	<input type="radio"/>	Contractors ESHS team visiting site and concerning all the Manpower
	6	Working Condition	<input type="radio"/> <input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	Fair
	7	Accommodation	<input type="radio"/> <input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	House Boat
	8	Personal Protection Equipment	<input type="radio"/> <input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	Safety helmet, Safety vest, safety shoes, Hand gloves etc. observed at site.
	10	Sanitary Condition	<input type="radio"/> <input checked="" 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 type="radio"/> <input checked="" type="checkbox"/>	
	2	Land Use Type	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/>	<input type="radio"/>	
	3	Dyke Design Approval	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/>	<input type="radio"/>	
	4	Dyke Setback Distance	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/>	<input type="radio"/>	
	5	Disposal Area Dyke Height	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/>	<input type="radio"/>	
	6	Dyke Strengthened/Material Used*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/>	When required then used.
7. Dredger	1	Carbon Emission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/>	Not found/observed at site for all route in lot-2
	2	Leakage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/>	
	3	Oil Spill	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" type="checkbox"/>	
	4	Onboard Waste Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <input checked="" 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 the official process?	Y
		(b) Have EIA reports been approved by the 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



**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
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 ships, vehicles, and facilities like docs comply with the country's emission standards? Are any mitigating measures taken?	Y
	(2) Water Quality	(a) Do pollutants, such as Suspended Solids (SS), oils/fats, and other toxicants contained in effluents comply with the country's effluent standards (BOD, COD, pH, etc.)? Is there a possibility that the effluents from the project will cause areas not to comply with the country's ambient water quality standards?	Y
		(b) Are adequate measures taken to prevent contamination of surface water, groundwater and soil by the effluents from storage areas, including raw materials, chemicals, and wastes?	N
	(3) Wastes	(a) Are wastes (including hazardous wastes and other industrial wastes) generated from the project facilities properly treated and disposed of in accordance with the country's regulations?	N
		(b) Are adequate measures taken to prevent contamination of soil and groundwater by leachates from the waste storage/disposal sites?	N
	(4) Noise and Vibration	(a) Do noise and vibrations comply with the country's standards?	N
	(5) Subsidence	(a) In the case of extraction of a large volume of groundwater, is there a possibility that the extraction of groundwater will cause subsidence?	N
	(6) Odor	(a) Are there any odor sources? Are adequate odor control measures taken?	N
	(7) Riverbed Sediment	(a) Sediment collection in the presence of S1A team members/staff?	Y
		(b) Samples sent to the laboratory within 12 hours?	Y
		(c) If sample results showed the presence of heavy metal, treatment measures like a 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, or ecologically valuable habitats (e.g., Char land, reed land, mangroves, or tidal flats)?	N
		(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?	N

**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
		(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 runoff will result from cut and fill areas, waste soil disposal sites, and borrow sites?	N
		(c) Are adequate mitigation measures taken to prevent soil runoffs?	N
		(d) Is there any possibility that the project will erode natural river bank, foreshore area, beaches?	N
	(4) Dolphin Observation	(a) Exclusive time spent for observing dolphins?	N
	(5) Fish Catch Examination	(a) Fishermen upstream and downstream of dredging site interviewed and catch examined? Types of gears used?	Y
	(6) Flora (Aquatic & Terrestrial)	(a) Flora surveyed around the dredging and dredged material disposal sites	N
	(7) Benthos (Micro and Macro)	(a) Sampling done and analyzed; report submitted	Y
	(8) Phyto- & Zoo-Planktons	(a) Sampling done and analyzed; report submitted	Y
4. Social Environment	(1) Resettlement	(a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?	N/A
		(b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement?	N/A
		(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/A
		(d) Are the compensations going to be paid prior to the resettlement?	N/A
		(e) Are the compensation policies prepared in document?	N/A
		(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/A
		(g) Are agreements with the affected people obtained prior to resettlement?	N/A
		(h) Is the organizational framework established to properly implement resettlement? Are the capacity and	N/A

**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
		budget secured to implement the plan?	
		(i) Are any plans developed to monitor the impacts of resettlement?	N/A
		(j) Is the grievance redress mechanism established?	Y
	(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	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
		sanitation) for workers etc.?	
		(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)	○	○	√	
2	Connectivity with BM & TBM	○	○	√	
3	Study Hydrographic Chart	○	○	√	
4	Fixing Cutting Depth respect to existing WL as per design depth	○	○	√	
5	Checking Dredging Alignment	○	○	√	
6	Checking Dredged Activities as below;				Dredged Activities for the month of June, 2024
	a Dredging Hours	○	√	○	Total Dredging Hours 633.15 hrs (Route 21 is 578.3hrs, Route 16 is 54.85 hrs & Route 13 is 0hrs)
	b Cutting Length	○	√	○	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	○	√	○	Average Cutting Depth for Route 21 is 1.98m, route 16 is 2.023m & route 13 is 0.00m)
	d Cutting Width	○	√	○	Cutting Width Route 21 & 16 is 76m and Route 13 is 76m

**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	When and As Required	
	e	Dredged Volume	○	√	○	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	○	√	○	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	○	√	○	It's observed that new dyke boundary wall maintained proper design thickness, slope, layer of compaction, 20m/30m safe distance from river bank.
9		Checking outlet of the compartment	○	√	○	Using 5rs/4nrs of outlet of this compartment
10		Check whether the dykes are being constructed at safe distance from river bank	○	√	○	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	○	√	○	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.	○	√	○	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	○	√	○	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	○	○	√	
2	Explanation to the Local Stakeholders	○	○	√	
3	Signboards, Notice Boards	○	○	√	Not found/observed at site for all route in lot_3
1	Air Quality	○	√	○	All Test done for Route no. 21 only
2	Surface Water Quality	○	√	○	
3	Solid Wastes	○	√	○	
4	Liquid Wastes	○	√	○	
5	Soil Contamination	○	√	○	
6	Noise and Vibration	○	√	○	
7	Underwater Noise	○	√	○	
8	Odor	○	√	○	
9	Riverbed Sediment	○	√	○	
10	Groundwater	○	√	○	
1	Protected Areas	○	√	○	
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	○	○	√	

**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	
1	Work Permit/Contract	○	○	√	
2	Daily Toolbox Meeting - OHS	○	○	√	
3	Working Conditions	○	√	○	Fair
4	Impact/Precaution during Dredging	○	○	√	Not any major issue observed
5	Accident Prevention Measures	○	√	○	not found
6	Working Condition	√	○	○	Fair
7	Accommodation	√	○	○	House Boat
8	Personal Protection Equipment	√	○	○	Safety helmet, Safety vest, safety shoes, Hand gloves etc. store at site but do not wear or maintain properly
9	Drinking Water	√	○	○	Freshwater daily collect from tube well of nearby village
10	Sanitary Condition	√	○	○	Good arrangement kept in House boat
1	Agreement with Land Owner	○	○	√	Process on going
2	Land Use Type	○	√	○	Once or twice cultivated land in a year and also some non-cultivated fellow land
3	Dyke Design Approval	○	√	○	Dyke no.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 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**

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?	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, reed land, mangroves, or tidal flats)?	N
	(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?	N
	(c) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?	N
	(d) Is there a possibility that the amount of water (e.g., surface water, groundwater) used by the project will adversely affect aquatic environments?	N
	(e) Are adequate measures taken to reduce the impacts on aquatic environments, such as aquatic organisms?	N
(3) Topography and Geology	(a) Is the stability of the existing topographic conditions adequately considered for alteration of topographic features, such as cut and fill operations?	N
	(b) Is there a possibility that soil runoffs will result from cut and fill areas, waste soil disposal sites, and borrow sites?	N
	(c) Are adequate mitigation measures taken to prevent soil runoffs?	N
	(d) Is there any possibility that the project will erode natural river bank, foreshore area, beaches?	N
(4) Dolphin Observation	(a) Exclusive time spent for observing dolphins?	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



Environmental Item	Main Check Items	Yes: Y No: N
	(b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement?	N
	(c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?	N
	(d) Are the compensations going to be paid prior to the resettlement?	N
	(e) Are the compensation policies prepared in document?	N
	(f) Does the resettlement plan pay particular attention to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?	N
	(g) Are agreements with the affected people obtained prior to resettlement?	N
	(h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan?	N
	(i) Are any plans developed to monitor the impacts of resettlement?	N
	(j) Is the grievance redress mechanism established?	N
(2) Living and Livelihood	(a) Is there a possibility that the project will adversely affect the living conditions of inhabitants? Are adequate measures considered to reduce the impacts, if necessary?	N
	(b) Is sufficient infrastructure (e.g., hospitals, schools, and roads) available for the project implementation? If the existing infrastructure is insufficient, are any plans developed to construct new infrastructure or improve the existing infrastructure?	N
	(c) Is there a possibility that large vehicles traffic for transportation of materials, such as raw materials and products will have impacts on traffic in the surrounding areas, impede the movement of inhabitants, and cause any risks to pedestrians?	N
	(d) Is there a possibility that diseases, including infectious diseases, such as HIV, will be brought due to the immigration of workers associated with the project? Are adequate considerations given to public health, if necessary?	N
(3) Heritage	(a) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage sites? Are adequate measures considered to protect these sites in accordance with the country's laws?	N
(4) Landscape	(a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?	N
(5) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples?	N
	(b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	N
(6) Working Conditions	(a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project?	N
	(b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials?	N
	(c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public sanitation) for workers etc.?	N



**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
	(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
(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.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	√	
		2	Contact details for lodging grievance easily accessible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	√	
2	Community Engagement	1	Consultations 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"/>	√	
		2	The preferences of social customs and cultural sensitivities of the project affected communities taken into consideration.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	√	
		3	FGD on GRM with the Project Affected Persons (PAPs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	√	
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 type="radio"/>	<input type="radio"/>	√	
4	Processing of GFA (Good Faith Agreement)	1	Dyke/Land selection survey.	<input type="radio"/>	<input type="radio"/>	√	<input type="radio"/>	Route no.21 & 16
		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 type="radio"/>	
		3	GFA documentation collection.	<input type="radio"/>	<input type="radio"/>	√	<input type="radio"/>	
		4	GFA will be submitted to S1A.	<input type="radio"/>	<input type="radio"/>	√	<input type="radio"/>	
		5	FGD on GFA with the Locals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	√	
5	Constitution of GRM Committee	1	Preparation of GRM Committee Constitution by the Contractors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	√	
6	Establish a Complaint Box	1	Nos. of Feedback, concerned, suggestions and complain letters.	<input type="radio"/>	<input type="radio"/>	√	<input type="radio"/>	Not found/observed at site for all route in lot_3

**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	
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 Violence (GBV)	1 Sex Violence by an intimate partner	○	○	○	√	None of these has been found/observed for the month of June, 2024
		2 Sexual violence by a non-peer	○	○	○	√	
		3 Child sexual abuse& forced marriage	○	○	○	√	
		4 Sexual exploitation & abuse	○	○	○	√	
		5 Sexual harassment	○	○	○	√	
		6 In case of emergency, the local level GRC will address the matter within 4 -12 hours.	○	○	○	√	When required