



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



Bangladesh Inland Water Transport Authority (BIWTA)



# MONTHLY PROGRESS REPORT

August 2023

**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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## Abbreviation

AILA	Association of International Lighthouse Authorities
ASAP	As Soon As Possible
ASCII	American Standard Code for Information Interchange
BDT	Bangladeshi Taka
BELA	Bangladesh Environment Lawyer Association
BIWTA	Bangladesh Inland Water Transportation Authority
BIWTC	Bangladesh Inland Water Transportation Corporation
BIWTMAS	Bangladesh Inland Water Transport Master Plan
BM	Bench Mark
BRAC	Bangladesh Rural Advancement Committee
BRWTP	Bangladesh Regional Waterway Transport Project I
BWDB	Bangladesh Water Development Board
CD	Chart Datum
CEAP	Conservation Effects Assessment Project
CSD	Cutter Section Dredger
DCC	Dhaka Chittagong Corridor
DPD	Deputy Project Director
EIA	Environmental Impact Assessment
EMP	Environment Management Plan
ESHS	Environment, Social, Health and Safety
ESMP	Environment and Social Management Plan
GBM	Ganges, Brahmaputra (Jamuna) And Meghna
GBV	Gender-Based Violence
GIS	Geographic Information System
GPS	Global Positioning System
GRC	Governance, Risk, And Compliance
GRM	Grievance Redress Mechanism
HSE	Health and Safety Expert
IALA	International Association of Marine Aids and Lighthouse Authorities
IBC	Idle Berthing Centre
ID	Identity
IHO	International Hydrographic Organisation
IWT	Inland Water Transport
JPZ	Jurutera Perunding Zaaba
JV	Joint Venture
LAD	Least Available Depth
LLW	Lowest Low Water
MCD	Meters Above Chart Datum
MOEF	Ministry of Environment, Forest and Climate Change.
MSL	Mean Sea Level
NID	National Identity
OPBC	Output and Performance-Based Contract
PD	Project Director

PIU	Project Implementation Unit
RAP	Resettlement Action Plan
RCC	Reinforced Cement Concrete
RTK-GPS	Real-Time Kinematic- Global Positioning System
SE	Senior Engineer
SOB	Survey of Bangladesh
TBM	Temporary Bench Mark
US	United States
UTM	Universal Transverse Mercator
VSS	Vessel Storm Shelter
WB	World Bank
WGS	World Geodetic System

## EXECUTIVE SUMMARY

### Background

The Bangladesh Regional Waterway Transport Project 1 (Chittagong-Dhaka-Ashuganj Corridor) is the 'Project' of the Government of Bangladesh (GoB) to develop Inland Water Transport (IWT) sector and related infrastructure between Dhaka-Chittagong and Dhaka-Ashuganj River corridors and linked corridors. The Project has three major components. Component 1 includes dredging and maintenance of the river corridors and ferry routes within the Project area through a performance-based contract. JPZ-DEMAS-JCL, the consulting firm herein referred to as S1A has started the supervision and monitoring work under this component in December 2022 financed by the World Bank (WB) and implemented by Bangladesh Inland Water Transport Authority (BIWTA), under the Ministry of Shipping (MoS).

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

### Progress of the Contractors during the Reporting Period

In August 2023, Lot-2 contractor dredged 269 m on Route 9 (Class III, length 80km, Titas River). The progress is very poor. The main challenge is failing to provide continuous operation of dredgers due to frequent machinery breakdown. From the month of March 2023 till August 2023, they have cumulatively dredged 1,548 m on Route 9.

During the month of August, 2023, the Lot-3 contractor did not carry out any dredging work due to monsoon and the LADs exist in all the routes under Lot-3. The Lot-3 contractor have done survey on Chandpur Launch Terminal, Route 12. Moreover, they did the maintenance surveys and environmental quality control activities on Route 21 (Laharhat to Bheduria, Tentulia River).

### The Consultants activities during the Reporting Period

During the reporting period the S1A team provided their services to the PIU and supervised & monitored the contractors to commence works such as mobilization, public consultation, supervising environmental data collection, reviewing dredging alignment and dredging section design, monitoring pre-dredge survey, dredging quality control and dredged material management. The team visited the sites in order to carry out the above activities as and when required. In this reporting period, the S1A team has conducted the monitoring survey from 20th August, 2023 to 29th August, 2023 on Route 16 and 21 under Lot-3.

## CHAPTER 01:

### PROJECT DESCRIPTION IN A BRIEF

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#### 2.1 Project 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
Sources of Founding	:	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 66 months
Date of Commencement	:	6 <sup>th</sup> December, 2022; Duration of 66 months
Total Routes	:	13
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



## CHAPTER 02: SALIENT FEATURES & MONTHLY PROGRESS

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### **2.1 PROGRESS OF BRWTP-S1A:**

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

During this reporting period the S1A team has done the monitoring survey from 20<sup>th</sup> August, 2023 to 29<sup>th</sup> August, 2023 on Route 16 and 21 under Lot-3.

The S1A team has reviewed the monthly and other reports submitted by the Lot-2 contractor on Route 9. The S1A team requested the contractor in the coordination meetings to submit dyke design for approval and received them partially from the contractor.

The S1A team also reviewed the monthly and other reports submitted by the Lot-3 contractor. The S1A team visited Route 12 and 13 for monitoring the survey work by Lot-3 contractor at Chandpur Launch Terminal and Alu Bazar.

The S1A team participated in a meeting at World Bank venue on 14<sup>th</sup> August, 2023 regarding Environmental and Safeguard issues.

#### **2.1.2: Environmental Quality Assessment:**

The S1A team is also working on monitoring the environmental assessment of each route every month and reporting all the major findings like air, water, noise pollution levels, riverbed materials report, etc.

#### **2.1.3: Social and Resettlement Aspects:**

The S1A team has been working on the progress of Good Faith Agreement for both Lot-2 and Lot-3. The S1A GRM expert is working on setting up the protocols for reporting the GRM issues at different level in a structured way based on CEAP and Contractual responsibilities. In this regard, S1A organized a number of meetings with PIU and addressed their recommendations.

##### **2.1.3.1 Communication and Public Consultation:**

The social and safeguard team have communicated with local people and conducted consultation meeting on a regular basis. On the other hand, the team also has communicated with UNOs, ADC and DC, Brahmanbaria.

##### **2.1.3.2 Labor/Worker Employment, OHS, and GRM Status: (Emphasis on Social issues)**

The S1A team assessed the Labor/Worker Employment, Labor and Working condition, Occupational Health and Safety, and Grievance Redressal Mechanism (GRM) Status during the reporting period by reviewing the contractors' monthly reports and observations during site visits.

### 2.1.3.3 Number of Contracts (if any) and labor employed (gender disaggregated)

Not Applicable

### 2.1.3.4 ESHS Status and OHS Related Incident:

Data has been collected through field observation of the working condition of the laborers. No female labors are available in the project sites. Data are collected about working conditions, presence of male and female laborers, wage, first aid, and labor shed etc. First-aid medical boxes, safe drinking water, toilet facilities are available in the project areas. No child laborer and no forced laborer have been engaged in the project work. Laborers have received wage in proper time and no harassment / no time lengthening happened. They are satisfied with their work and wages.

### 2.1.3.5 GBV/SEA/SH by workers and enforcement of the CoC

No female laborers are available together with male laborers in the project site. On the other hand, the local people have reported that the dredging workers/ laborers have no congenial or free mixing relationship with the local female. No data have found about the violence against women. Everybody reported that no sexual exploitation, sexual violence, or gender-based violence happened in work sites.

### 2.1.3.6 Grievance Redressal Mechanism (GRM):

There are grievances boxes are installed at different places of dredging sites. However, during the current monitoring, no grievance has been recorded as per the grievance register.

## 2.1.4: Field Activities of S1A Consultant

Table 1: Field Activity of BRWTP-S1A

Date	Activity	Relevant Route/Contractor/Consultant
01 August 2023	Inspection of Dykes 13 & 15 along Route 09	Lot 2
	Survey at Chandpur Launch Ghat	Lot 3
02 August 2023	Survey at Chandpur ghat	Lot 3
	Visit to Dyke 13 at Akanagar, Solimganj	Lot 2
	Meeting with IMED-PIU regarding project's progress	S1A
05 August 2023	Site visit Dyke 14 Riyazul Jannah Jame Masjid	Lot 2
14 August 2023	Meeting with the WB & PIU staff on the environmental issues at the WB office	S1A, S17
	Dyke 15 visit, dyke covered with polythene for protection against rain and to prevent any sliding affecting the riverbank. Additional support to protect the dykes suggested. Karnafuly 7 dredger on trial, Karnafuly 3 slow progress	Lot 2; riverbank eroded
16 August 2023	Visit all dykes and dredging	Lot 2
17 August 2023	Engineering survey at Solimganj	Lot 2 Route 09

Date	Activity	Relevant Route/Contractor/Consultant
20 August 2023	Riverbank along with the adjacent road eroded at Nilukhi, chainage of Route 9. Some tension among the local people. Protection of the riverbank initiated.	Lot 2 Route 09
	Monitoring survey along Route 21; Laharhat - Bheduria	Lot 3, Route 21
21 August 2023	Repair work of the road and riverbank protection	Lot 2, Route 09
	Finished monitoring survey	Route 21, Lot 3
22 August 2023	Monitoring survey at Route 16; Laharhat to Patarhat	Route 16, Lot 3
23 August 2023	Monitoring data processing	Route 16, Lot 3
23 August 2023	Coordination meeting between client and S1A regarding GRM issues	PIU, S1A
	Consultation with the local people, stakeholders	Lot 2
	Monitoring data processing, Route 21	Lot 3
	Sampling and environmental data collection, Route 9 Titas River	Lot 2
26 August 2023	Sound velocity profile checking at Sreepur	Lot 3, Route 21
	Monitoring survey ongoing by single beam	Lot 3, Route 16
27 August 2023	Ongoing monitoring work, checking gauge connections by leveling.	Lot 3, Route 16
28 August 2023	Ongoing survey at Route 16, checking BM at Patarhat with BIWTA team	Route 16, Lot 3
29 August 2023	Consultation with the local people (Land Owner) at Solimganj Bazaar	Route 09, Lot 2
30 August 2023	Repair work of the road and riverbank protection at Nilukhi Route 9	Lot 2

### 2.1.5: Progress and Coordination Meetings of S1A Consultant:

**Table 2: Interaction with Client/Contractors and other stakeholder (August 2023)**

SN	Date	Venue	Meeting Agenda	Participants
1	14/08/23	Conference room of the World Bank Office	Contractors and consultants Reporting. Compliance Text of Reporting Environmental checklist Flora-Fauna aspects ESMP table 10.1 and 10.6	World Bank, PIU, S1A and S17 representatives
2	19/08/23	Conference Room, PIU office	Review of 5 <sup>th</sup> August meetings Find out the gaps for Expediting survey and dredging work of Lot-2 site	PIU, S1A, Lot-2 Representatives
3	23/08/23	Conference Room of S1A office	Coordination meeting on Social and GRM aspects of BRWTP-1	PIU and S1A Representatives
4	29/08/23	Conference Room of S1A office	Understanding GRM: In-house Discussion	S1A Representatives

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

### 2.2.1 Development and Maintenance Dredging Works:

In August 2023, Lot-2 contractor dredged 269 m on Route 9 (Class III, length 80km, Titas River). The progress is very poor. The main challenge is failing to provide continuous operation of dredgers due to frequent machinery breakdown. From the month of March 2023 till August 2023, they have cumulatively dredged 1,548 m on Route 9.

The Lot-2 contractor was supposed to start their work on Route 7 & 8 as discussed in the coordination meeting with S1A, but no development has so far been observed in this regard. The status of dredging activity is given on the following;

**Table 3: Updated Dredging Work at a glance in August 2023 of Lot 2**

Serial No.	Dredger Name	Time Period	Route No.	Place	Cutting Length (m)	Cutting Volume
01.	Karnafuly -07	01 to 31 August	9	Akanagor	131	7,444.80 m <sup>3</sup>
02.	Karnafuly -03	01 to 31 August	9	Nilukhi	138	7,261.95 m <sup>3</sup>

**Table 4: Route 09: Dredging Progress August 2023**

Location	Length	Chainage	Dredging Depth	Dredgers
Solimgonj Union Nilukhi under Nabinogor Upazilla in Brahmanbaria District and Tejkhali Union Akanagor Under Bancharampur Upazilla in Brahmanbaria District	269m	Dredging Chainage from Ch 04+336 to 04+409 and 05+080 to 05+138	The current progress dredging depth is avg. 1.758m	Dredging work was done by two CSD dredgers named Karnafuly- 03(18”) and Karnafuly- 07(18”).

### 2.2.1.1 Information on Disposal Areas August 2023:

Solimgonj - Homna Route 09, Disposal area R09-D15, R-09-D16. Dyke - 15 & 16 were being used to dump the dredge material. Dyke 15 has been filled at the end of August 2023. In order to dispose of the waste water, drainage line has been used.

(1) R09-D15: Area is 2112 sqm.

(2) R09-D16: Area is 1408 sqm.

### 2.2.1.2 Navigational Aids:

The Lot-2 contractor has been asked to update the status of IALA buoys' procurement process. They are also requested to expedite the installation of required buoys along the dredge routes and report on the status of jobs in hand as the procurement process requires a substantial amount of time. If not started at the soonest it will be difficult to accommodate within the scheduled time.

## 2.2.2 Environmental Quality Assessment

### 2.2.2.1 Summary of environmental protection and pollution control/mitigation measures, as recommended in the site-specific EMP and SMP

**Table 5: Summary of the Major Findings in the Reporting Month (August 2023) of Lot 2**

Issues	Present Status	Mitigation Measures	S1A Consultants Comments
Aquatic Fauna (Fish)	<ul style="list-style-type: none"> <li>During the field visit of August 2023, fishing activities were observed near Nilukhi village (approximately 800m away from the dredging site) and Imamnagar area (1.3 km north-east direction) in Route 9.</li> <li>Total of seven (7) species of fish and three (3) crustaceans were observed during fisheries survey. All of those are least concern species according to the IUCN Red List Status of Bangladesh 2015. Moreover, the three observed crustacean species included Monsoon River Prawn (<i>Macrobrachium malcolmsonii</i>), Giant Freshwater Prawn (<i>Macrobrachium rosenbergii</i>), and Kaira River Prawn (<i>Macrobrachium dayanus</i>) under the Palaemonidae family during the. The consultation with the adjacent fishermen was also conducted during the surveys. During the survey period, the team did not observe any visible fish mortality within and around the dredging site location.</li> </ul>	No mitigation measure is required as the observed fish species were found approximately 1 km away from the dredging site.	Data sheets for fish catch observation to be attached as Annex. Observations to be made upstream and downstream as well to check the variation and frequency of species composition
Aquatic Fauna (Dolphin, Turtle)	<ul style="list-style-type: none"> <li>The study team did not observe any Ganges River dolphins during the monthly visit in August 2023. However, after consulting with fishermen from the villages of Akanagar, Nilukhy, and Imamnagar, the survey's findings confirmed that Ganges River</li> </ul>	No mitigation measure is required	Fishermen need to be interviewed intensively, showing them turtle photographs.

Issues	Present Status	Mitigation Measures	S1A Consultants Comments
	<p>Dolphins are not found in the dredging adjacent areas of Route 9.</p> <ul style="list-style-type: none"> <li>During the capture fishery survey utilizing observation sheets and showing pictures of dolphin and turtles' species from various areas to gather information regarding the existence of dolphin and turtle species.</li> </ul> <p>No direct observation of freshwater turtles in the dredging site, dike area and adjacent local area. In addition, the study team did not observe any visible sign of turtle species.</p>		narration of stories by the fishermen are important to assume the availability or occurrence of turtles, otters and dolphins
Air quality	In this month, monitoring of four Air quality has been conducted. All the testing parameters were found within the standard limit.	No mitigation measure is required.	Air samples to be collected when the dredger is in operation. Emission from the dredger too.
Noise level	Monthly monitoring of noise level has been conducted in this reporting month. Results were found within the standard limit.	No mitigation measure is required.	Noise to be collected for night as well. Also, when the dredger is in operation
Riverbank Erosion	During the reporting month, there were no issue was observed regarding riverbank erosion or flooding.	No mitigation measure is required.	Such incidents should be reported and resolved in consultation with the local people, administration and S1A team
Drainage congestion	The dredging work in August 2023 is being carried out in Solimganj Ghat (Route-9) area. During site observation, the outline for water passing from the dredge material was found to be functional.	No mitigation measure is required.	Out-flow pipes should be placed at suitable places for effective drainage and no silt or sand should settle at the release point
Quarries, borrow areas, spoil areas, asphalt plants, batch plants	No such activities and issues were observed during this reporting month.	No mitigation measure is required.	Not applicable
River transport	River traffic related sign boards have been observed in this reporting month to ensure a safe river traffic movement.	No mitigation measure is required.	Signboards should be visible from a distance and placed at strategic locations
Blasting	No such activities have been conducted during the reporting month.	No mitigation measure is required.	Not applicable
Spills from chemical storage	No spills either at land or river section were noticed during the reporting period.	No mitigation measure is required.	Not applicable

Issues	Present Status	Mitigation Measures	S1A Consultants Comments
Sediment leakages from pipes	During this reporting month no leakage was found in the dredge pipe.	No mitigation measure is required.	Needs regular check-up and maintenance
Waste Management	During the reporting month, waste bins have been placed on the houseboat as well as in dredger. Different color-coded dustbins with signs of specific waste category levels on the waste bins have been installed at the dredging site. No wastewater and solid waste are discharged into the rivers.	Oil cleaning cloths need to be disposed of in hazardous waste bins.	Dredger staff, laborers and other workers should be reminded every day not to pollute the rivers
Water and Swamp Protection	Equipment is inspected and maintained regularly in order to prevent leaks. To check the water quality at the dredging points, four water samples have been collected and tested in the laboratory. Adequate toilet facilities have been provided in houseboats and dredgers as well.	No mitigation measure is required.	Water samples to be collected from upstream and downstream of the dredging site
Drinking water and sanitation	Safe drinking water is being supplied for the site workers also toilets were found clean during this reporting month. The picture is attached in the Annex.	Toilet checklists need to be maintained on a regular basis.	Log book to be kept updated

### 2.2.2.2 Environmental Quality Measurement

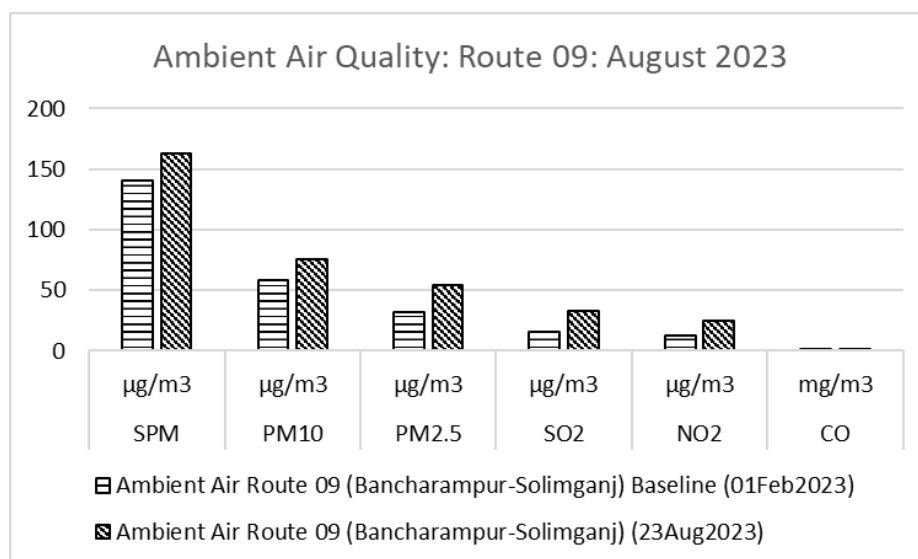
The S1A team documented the quality of current environmental parameters according to the quality measurement results provided by the contractors of Lot -2. Communicating with the field staff and from the site visits the team illustrated the environmental quality assessment.

#### a. Air Quality:

During this month, air quality assessments were conducted at Bancharampur-Solimganj area of Route-9. In order to determine the source of air pollution generated from two dredgers, AQ3 and AQ4 were monitored. Meanwhile, AQ1 and AQ2 locations were set to determine pollution levels that could affect the environment.

**Table 6: Sampling locations of air quality (Lot-2)**

SI. No.	Sampling Station	Station Code	GPS Coordinates	Sampling Date
1.	Beside of Jamiatul Sunna Mohila Madrasa (Route- 9)	AQ-1	23°50'51.79"N 90°50'42.67"E	23/08/23
2.	Emamnagar Side (Route- 9)	AQ-2	23°50'23.68"N 90°50'39.70"E	23/08/23
3.	Near Jannatul Baki Jame Mashjid (Route-9)	AQ-3	23°49'53.00"N 90°50'41.93"E	24/08/23
4.	Akanagar South Para Central Mosque (Route-9)	AQ-4	23°49'39.915"N 90°50'23.882"E	24/08/23



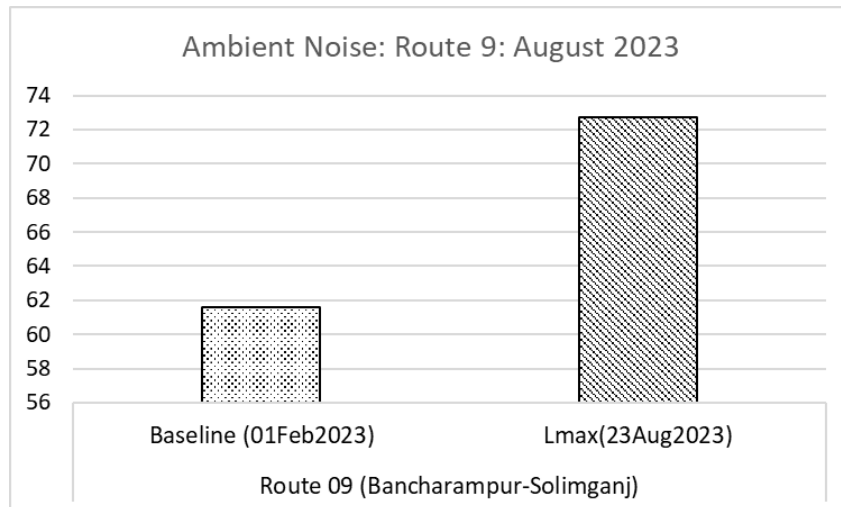
**Figure 1: Ambient air quality of Route 09, Lot 2: comparison of August 2023 data with the baseline.**

As seen from the graph above (Fig. 1) that the August values fall within the ECR 2023 approved ranges for all the air quality parameters (SPM, PM10, PM2.5, SO2, NO2), but are higher than the baseline indicating that there have been some changes in the ambient environment of the dredging sites. However, in this respect dredging may not be the lone factor as the area is near the growth center and human habitation with busy traffic and dusty herring-bone/kutchra roads, which may also have a bearing on the air quality results.

#### **b. Noise Level Quality analysis:**

The results of the noise level monitoring indicate that the noise levels at the monitoring locations are in compliance with the International Finance Corporation's Environmental, Health, and Safety guidelines. However, it is noted that the level was within the standards set by Bangladesh. The maximum noise level (Lmax) at Route 9 was significantly high than the baseline value. This may be due to the fact that when the baseline data was collected in February the dredgers were not operating while in August the dredgers were active.





**Figure 2: Assessment of Noise Level Measurement**

**Table 7: Sampling locations of Noise level quality measurements (Lot-2)**

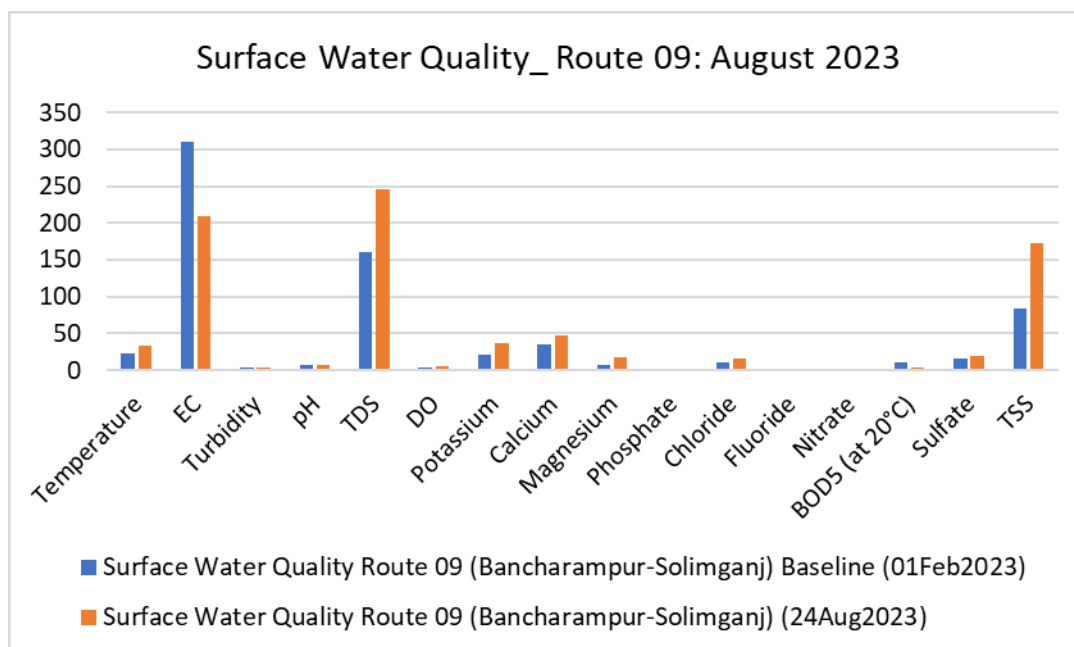
Sl. No.	Sampling Station	Station Code	Geographic location	Monitoring date	Location setting (DOE/IFC)
1.	Beside Jamiatus Sunna Mohila Madrasa (Route- 9)	NL-1	23°50'51.86"N 90°50'42.75"E	23.08.2023	
2.	Emamnagar Side (Route- 9)	NL-2	23°50'23.57"N 90°50'39.82"E	23.08.2023	
3.	Near Jannatul Baki Jame Mashjid (Route-9)	NL-3	23°49'52.88"N 90°50'42.15"E	24.08.2023	
4.	Akanagar South Para Central Mosque (Route-9)	NL-4	23°49'39.915"N 90°50'23.882"E	24.08.2023	

### c. Surface Water Quality Measurement:

In the month of August 2023, surface water sampling was conducted at 4 locations in Bancharampur-Solimganj area of Route-9. As part of the monitoring locations, SW1 and SW2 were set respectively from downstream and upstream in accordance with the location of Dredger no.7. However, according to the location of Dredger no.3, monitoring locations SW3 and SW4 were set downstream and upstream, respectively.

**Table 8: Surface water quality sampling locations**

SI. No.	Sampling Station	Station Code	Geographical Location	Sampling Date	Type of Source
1.	Bancharampur-Salimganj Now Path (Route-9)	SW-1	23°50'19.73"N 90°50'42.41"E	24.08.2023	River
2.	Bancharampur-Salimganj Now Path (Route-9)	SW-2	23°50'8.46"N 90°50'44.33"E	24.08.2023	
3.	Bancharampur-Salimganj Now Path (Route-9)	SW-3	23°49'51.82"N 90°50'37.63"E	24.08.2023	
4.	Bancharampur-Salimganj Now Path (Route-9)	SW-4	23°49'47.80"N 90°50'29.80"E	24.08.2023	



**Figure 3: Assessment of Surface Water Quality**

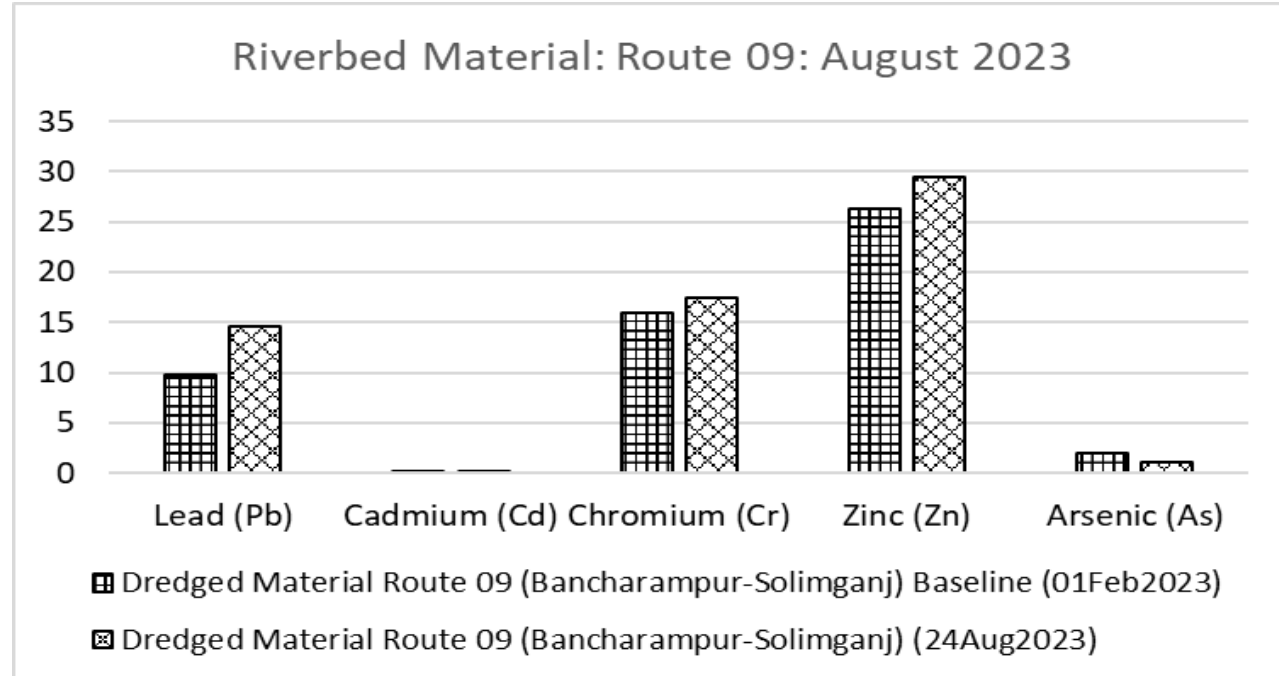
#### d. Riverbed Materials Quality Assessment:

This monthly report focuses on determining the levels of various contaminants in dredged material. Lead, an element with a concentration ranging from 14.59 to 19.33 mg/kg, was found in the samples. Cadmium, another contaminant, was detected within the range at 0.05 to 0.07 mg/kg. The presence of chromium, zinc, and arsenic were also identified. Chromium concentrations varied from 17.4 to 20.2 mg/kg, while zinc content ranged from 25.62 to 29.42 mg/kg. Arsenic, on the other hand, was found at levels of 0.98 to 1.2 mg/kg in the samples. These results indicate the composition of the dredge material and provide valuable information regarding the presence of these specific contaminants.

**Table 9: Dredge Materials Analysis Results**

Parameter	Unit	Dredge Material – Route 9				Methodology/Instrument
		DM1	DM2	DM3	DM4	
Lead (Pb)	mg/kg	16.84	14.59	18.71	19.33	ICPMS
Cadmium (Cd)	mg/kg	0.06	0.05	0.07	0.05	ICPMS
Chromium (Cr)	mg/kg	18.6	17.4	20.2	18.8	ICPMS
Zinc (Zn)	mg/kg	28.27	29.42	27.73	25.62	ICPMS
Arsenic (As)	mg/kg	0.98	1.1	1.2	1	ICPMS

Note: ICPMS - Inductively coupled plasma mass spectrometry



**Figure 4: Riverbed Material Assessment of Route 9**

There are no approved levels for the heavy metals mentioned in the ECR 2023. However, the mere presence of these heavy metals indicates some toxic effects on the environment, and in particular the human beings using the aquatic resources. The area being in the vicinity of the growth center and human

habitation support several possible sources of environmental contamination like smelting, manufacturing and recycling activities.

**Table 10: Compliance Status of Lot-2 based on the monthly report for August 2023 submitted by the contractor.**

Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Remarks/ Recommendation	Recommended deadline for implementing the corrective measures
				C	P	N		
Dredging of IWT Corridor								
Analytical Monitoring Compliance								
Air Quality	SPM, PM10, PM2.5, CO, NO2, SO2 data provided in the report	Mitigation measures not required	Not applicable	C	-	-	Within ECR2023 approved levels. recommended to sample during dredger operation	September 2023
Noise & Vibration	Only day data provided in the report	Mitigation measures taken, results within ECR 2023 approved level	Engine rooms closed, and covered	-	P	-	Within ECR2023 approved levels	Recommended night data to be collected from September. Also, when dredger is operating
Underwater Noise Level	Data provided in the report	Mitigation measures not required. No approved limits under ECR 2023	Not applicable	-	P	-	Two hydrophones to be used at dredging sites (at present only one hydrophone used)	Two (02) hydrophones to be used as per contract during dredging operation from September.
Surface Water Quality	Temp, pH, Turbidity, EC, DO, TDS, Ca, Mg, K, Cl, SO4, PO4 data provided in the report	Mitigation measures not required, results within ECR 2023 approved level	Not applicable	C	-	-	Sampling from both upstream and downstream of the dredging sites recommended	Suspended sediment concentration to be measured near dredger from September 2023
Drinking Water Quality	x	x	x	x	x	x	x	x
Soil Pollution	x	x	x	x	x	x	x	x
Visual Monitoring Compliance								
Aquatic Flora and Fauna including Plankton, Benthos, fish, dolphin	Data provided	Mitigation measures not required	No mitigation measure is required	-	P	-	Common fishes and crustaceans have been recorded; one endangered fish species recorded according to the IUCN Red List-Bangladesh, 2015.	Advised regular monitoring of the habitat and intensive, repeated visits to establish an inventory of the floral and faunal species
Sediment Dispersion	Not measured	-	-	-	-	N	Contractors were notified to measure sediment plume on 1 <sup>st</sup> March 2023	No action taken or data provided by the contractors yet. Will be reminded again
River Bank Erosion	Usually mentioned in the report if any case of erosion is observed	Dredger stopped and relocated	Dredger stopped and relocated; some protection measures taken	C	-	-	Stop dredging and relocate	Recommended to report to the authority and stop dredging
Hydrological Conditions	Surveyed prior to dredging	x	x	x	P	x	x	x
Drainage Congestion	No complaints received on congestion			-	P	-	No reports of any drainage congestion	Keep clear all drainage channels
River Traffic/Transport	No complains		No mitigation measure is		P	-	Install river traffic and navigation-	

Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Remarks/ Recommendation	Recommended deadline for implementing the corrective measures
				C	P	N		
Dredging of IWT Corridor								
Analytical Monitoring Compliance								
			required				related sign boards	
Accidental Spillage	No reports yet		-		P	-	Log book to be maintained, in case of any incident, report to authority	
Sediment leakages from pipes and sediment disposal	No reports on any leakage	Maintain pipes	Pipes regularly checked	-	P	-	Stop dredging, fix the problem prior to resumption; report to authority	
Dredging of IWT Corridor								
Visual Monitoring Compliance								
Drinking water & sanitation			-	-	C	-	-	-
Safety of workers	Occupational safety		PPEs provided	-	-	P	Monitor use of PPEs	-
Waste management			-	-	C	-	Colored collection bins for organic and non-organic solid wastes; no wastes in the river	
Cultural and archeological Sites	Preservation of such sites		x	-	x	x	Stop dredging, report to the authorities	-
Reinstatement of Work Sites			x	-	x	x	-	-
Emissions from vehicles and vessels	x	x	x	x	x	x	x	x
River bed sediments	Samples collected, analyzed, data in the report		-	-	-	N	Sampling from upstream and downstream of dredging sites	from September
Waste water			-	-	-	P	-	-
Grievances Redress Mechanism (GRM)			-	-	-	P	Form GRM Committees	-
Incident Management System			x	-	x		x	x

## 2.2.3 Social and Resettlement Aspects:

### 2.2.3.1 Land Acquisition/Requisition/Good Faith Agreement/Charity

At present 16 agreements are on process. Most of the places people have willingly agreed to allow using their lands. General people of the project sites can get the news of river dredging, dredged materials dumping and good faith agreements through several consultation meetings with local people in local Bazars, Union Council, villages and the local Schools. Progress of Dykes and Good Faith Agreements of the both Lots are illustrated in the following tables:

**Table 11: Good Faith Agreements, Lot 2 (District: Brahmanbaria)**

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
1	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)	Under process
2	9	Siblu Mia NID:1210488091772	Village: Imam Nagar Upazila: Bancharampur	Plot No:158, 155, 166, 147. Mouza: Imam Nagar	270	Agriculture Land (Two Crops)	Under process
3	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	Under process
4	9	Md. Monzur Mahabub NID: 1210488092428	Village: Imam Nagar Upazila: Bancharampur	Plot No:3473, 3474 Mouza: Imam Nagar	55	Agriculture land (One crop)	Under process
5	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)	Under process
6	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)	Under process
7	9	Monir Hossain NID:12104880921009	Village: Imam Nagar Upazila: Bancharampur	Plot No.127 Mouza: Imam Nagar.	40	Agriculture land (Two Crops)	Under process
8	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)	Under process
9	9	Md. Zakir Hossain NID: 2693016135957	Village: Aka Nagar Upazilla: Bancharampur	Plot No. 2611, 2612, 6036 Mouza: Aka Nagar.	139	Agriculture land (Two Crops)	Under process
10	9	Md. Alamgir Kabir. NID: 1218575059084	Village: Nilukhi Upazila: Nabinagar	Plot no. 455. Mouza: Borail	52	Agriculture land (Two Crops)	Under process
11	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)	Under process

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
12	9	Md. Nazrul Islam. NID: 8705507518	Village: Aka Nagar Upazila: Bancharampur	Plot no. 3053, Mouza: Aka Nagar.	50	Agriculture land (One Crop)	Under process
13	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)	Under process
16	9	Md. Riazul Islam NID: 5533130141	Village: Joykalipur Upazila: Bancharampur	Plot no. CS 1370, BS 3002-3003, mouza: Borail	52	Agriculture land (One Crop)	Under process

#### 2.2.3.2 Communication and Public Consultation:

Not reported for this month.

#### 2.2.3.3 Labor/Worker Employment, OHS, and GRM Status: (Emphasis on Social issues)

The monitoring team assessed the Labor/Worker Employment, Labor and Working condition, Occupational Health and Safety, and Grievance Mechanism (GM) Status during the current monitoring study. More specifically, labor/worker's employment status, number employed workers/labor, health facilities, safety issues, and security such as accommodation facilities, working condition, sanitation, safety, and security, drinking water supply, reporting accidents, dust control, noise control, waste management, emergency response facilities, and grievance mechanism were observed through direct visual observation, site visit, consultation with workers and respective officers of the project. To assess the employment, OHS, GRM and other relevant issues, the monitoring team conducted visits to workplace/sites, accommodation facilities, consultation were held with workers and project staffs. The monitoring team also checked different records and registers as part of the monitoring activity.

#### 2.2.3.4 Number of Contracts (if any) and labor employed (gender disaggregated)

During the current monitoring, the number of employed workers/labors remained the same as that of the previous monitoring period, which is 19 Labor/workers at Lot2 sites. All of them were employed based on the written appointment. All employed labors are male. An attendance sheet has been found to be maintained to keep record of the presence and activities of the employed labor. The following table illustrates the number of labors by type:

**Table 12: Employed no. of labor by Type Lot-2**

Sl.	Designation	Sex	No.
1.	Foreman	Male	02
2.	Pipe Fitter	Male	18
3.	Cook	Male	04
4.	Greaser	Male	12
<b>Total</b>		<b>Male</b>	<b>36</b>

#### **2.2.3.5 ESHS Status and OHS Related Incident:**

An accident record/register book has been found to keep records of any accidents. Designated personnel have been assigned to maintain the safety book and datasheet with collaborating checklists. Dedicated first aid boxes are also available at the project site office for ensuring emergency response to any accidents/incidents and first aid requirement by workers and other staff.

#### **2.2.3.6 GBV/SEA/SH by workers and enforcement of the CoC**

The issues of gender-based violence (GBV), Sexual Exploitation and Abuse, Sexual Harassment and other violence against or by the employed workers have considered as important issue. Employed labor and other project staff have been informed about how to raise concern or how to submit grievance if they face/notice any issue related to Sexual Exploitation and Abuse (SEA), Sexual Harassment (SH), and Violence Against Women and Children (VAWC).

#### **2.2.3.7 Grievance Redressal Mechanism (GRM):**

Local community people, labors and other stakeholders have a ground to report their concern, grievance, and suggestion to the contractors by submitting their grievance through the proposed mechanism. The monitoring team found that grievance mechanism is being followed during the dredging activities.

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

#### **2.3.1 Development and Maintenance Dredging Works:**

During the month Lot-3 contractor have not done any dredging due to the monsoon season as the LADs exist in the river, but they have surveyed Route 12 and monitored Route 21 whether any dredging works are needed or not.



### 2.3.1.1 Hydrographic survey 31<sup>st</sup> August, 2023:

Hydrographic Pre survey work;

Location: Chandpur-R140 Bridge Route 12

Chainage: Ch.0+000 to Ch.1+000

Survey done on dated: from 01.08.2023 to 03.08.2023

### 2.3.1.2 Disposal Area:

(1) R16-D1: Area is 17,633sqm, Height is 3.5m (approx.) and estimated capacity containing 61,715.5cum spoils.

(2) R16-D2: Area is 11,596sqm, Height is 3m (approx.) and estimated capacity containing 34,788cum spoils.

### 2.2.1.3 Navigational Aids:

The Lot-3 contractor has been asked to update the status of IALA buoys' procurement process. They are also requested to expedite the installation of required buoys along the dredge routes and report on the status of jobs in hand as the procurement process requires a substantial amount of time. If not started at the soonest it will be difficult to accommodate within the scheduled time.

### 2.3.2 Environmental Quality Assessment:

#### 2.3.2.1 Summary of environmental protection and pollution control/mitigation measures, as recommended in the site-specific EMP and SMP

**Table 13: Summary of the Major Findings in the Reporting Month (August 2023) of Lot 3**

Issues	Present Status	Mitigation Measures	SIA Consultants Comments
Aquatic Fauna (Fish)	<ul style="list-style-type: none"> <li>During the field visit of August 2023, fishing activity with small mechanized, medium mechanized and non-mechanized boats were observed in Route 12, 13 and 13a.</li> <li>Thirteen (13) species of fish were observed to be caught in the river Routes 12, 13 and 13a. In addition, five (5) species of crustaceans (prawn) were caught in the river</li> <li>There was no visible fish mortality within and around the dredging site location of route 16 and 21.</li> </ul>	No mitigation measure is required	Regular surveillance and consultation with local people for information
Aquatic Fauna (Dolphin, Turtle)	<ul style="list-style-type: none"> <li>During the month of August 2023, three sightings (Sightings 1: 23°13'56.87"N, 90°38'6.82"E; Sightings 2: 23°13'28.87"N, 90°37'41.96"E; and Sightings 3: 23°12'52.53"N, 90°37'52.42"E) of Ganges River Dolphin (<i>Platanista gangetica</i>) near the river route 12 (Boro station of Chandpur). Two more dolphins were sighted (approximately 400-500m distant from the dredger of Patarhat in the north-south direction) on August 8 (Sighting GPS:</li> </ul>	<p>No mitigation measure related to dolphin is required because dredging activity is temporarily stopped due to monsoon.</p> <p>Regular monitoring to be resumed during the dredging operation.</p>	Location of dolphin, turtle sightings to be plotted on a map and attached in the report

Issues	Present Status	Mitigation Measures	SIA Consultants Comments
	<p>22°47'29.14"N, 90°31'46.44"E) and August 21 (Sighting GPS: 22°47'37.53"N, 90°31'24.37"E), 2023, respectively</p> <ul style="list-style-type: none"> <li>No direct observation of freshwater turtle species in the dredging site, dike area and adjacent local area. Fishermen on river route 13 addressed that, sometimes freshwater turtle was seen in Ibrahimpur char land area (opposite of Alubazar).</li> </ul>		
Air quality (Dust and others)	<p>There were no significant air pollution issues observed during the site visit. EHS representatives monitor air quality on a regular basis.</p> <p>This month, four samplings to monitor air quality have been conducted. There was no deviation from the standard limit for any of the testing parameters</p>	No mitigation measure is required.	Monitor day and night
Noise level	Monthly monitoring of noise level has been conducted in this reporting month. Detail has been discussed in 4.3	No mitigation measure is required.	Monitor day and night
Erosion control	There were no reports of riverbank erosion or flooding during the reporting month. The operation remained stable and safe because no natural occurrences occurred in the project area.	No mitigation measure is required.	Report to authority, where possible protect the river bank
Drainage congestion	During the rainy season in August 2023, no dredging took place in Lot 3.	No mitigation measure is required.	Keep channels clear
River transport	During this reporting month, river traffic related sign boards were observed to ensure a safe river traffic flow.	No mitigation measure is required.	
Spills cleanups	During the reporting period, there had been no spills observed or reported in land or river sections.	No mitigation measure is required.	Monitoring and maintenance of dredgers
Sediment leakages from pipes	As of this reporting month, there was no evidence of dredge pipe leaks.	No mitigation measure is required.	Maintenance of pipes
Waste Management	The vessels and dredgers were equipped with color coded waste bins and labels to demarcate waste collection sites, rivers were not polluted by wastewater or solid waste.	Solid wastes including oil cleaning cloths to be disposed of in waste bins.	Maintenance of the overall dredgers, houseboat, labor camps, etc.
Drinking water and sanitation	The site workers were provided with safe drinking water and the toilets were clean.	Toilet checklists need to be maintained on a regular basis.	Monitoring and maintenance
Tree plantation	No plantation activities initiated during the reporting month.	Monsoon season good for plantation	Additional task

### 2.3.2.2 Environmental Quality Measurement

The S1A team documented the quality of current environmental parameters according to the quality measurement results provided by the contractors of Lot -3. Communicating with the field staff and from the site visits the team illustrated the environmental quality assessment.

#### a. Air Quality:

During this month, air quality assessments were conducted at two (2) locations on Route 13, one location on Route 13a, and one location on Route 12.

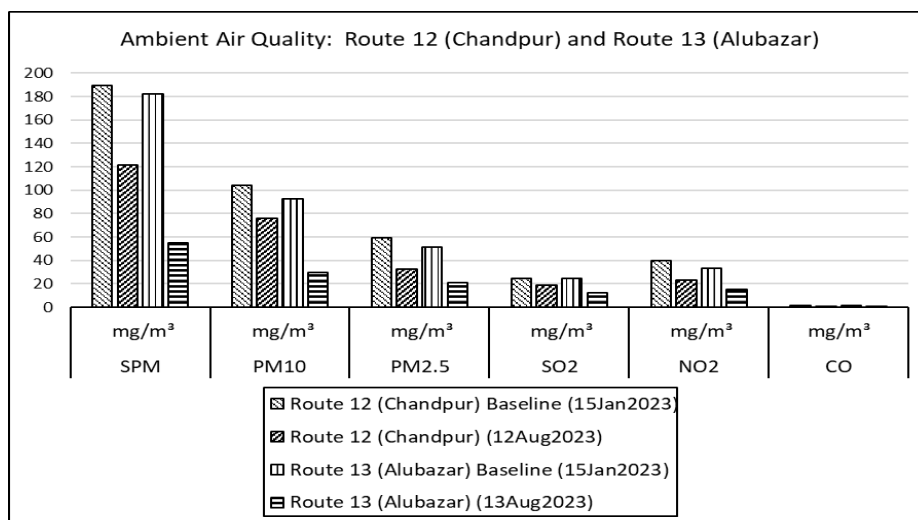
The results show that the concentration of PM10, PM2.5 and SPM were found within the standard limits in all locations. Also, the concentration of gaseous substances like CO, NO2, and SO2 are found below-standard in all monitoring locations.

**Table 14: Sampling locations of air quality**

Sl. No.	Sampling Station	Station Code	GPS Coordinates	Sampling Date
1.	Route 12	AQ-1	23°13'51.23" N 90°38'28.12" E	12/08/2023
2.	Route 13	AQ-2	23°10'38.84" N 90°34'57.27" E	13/08/2023
3.	Route 13	AQ-3	23° 9'29.71" N 90°34'25.69" E	13/08/2023
4.	Route 13a	AQ-4	22°59'37.26" N 90°28'22.52" E	14/08/2023

Source: Field Visit, 2023

For Lot 3 ambient air quality was measured during the month of August 2023 for Routes 12 and 13 and compared with the baseline data respectively (Fig. 6). The results complied with the ECR 2023 approved values. Values of all the parameters for both the routes were lower than the baseline values. The reason may be due to the frequent spells of precipitation close to the dates of sampling when the air quality improved because of the natural process.



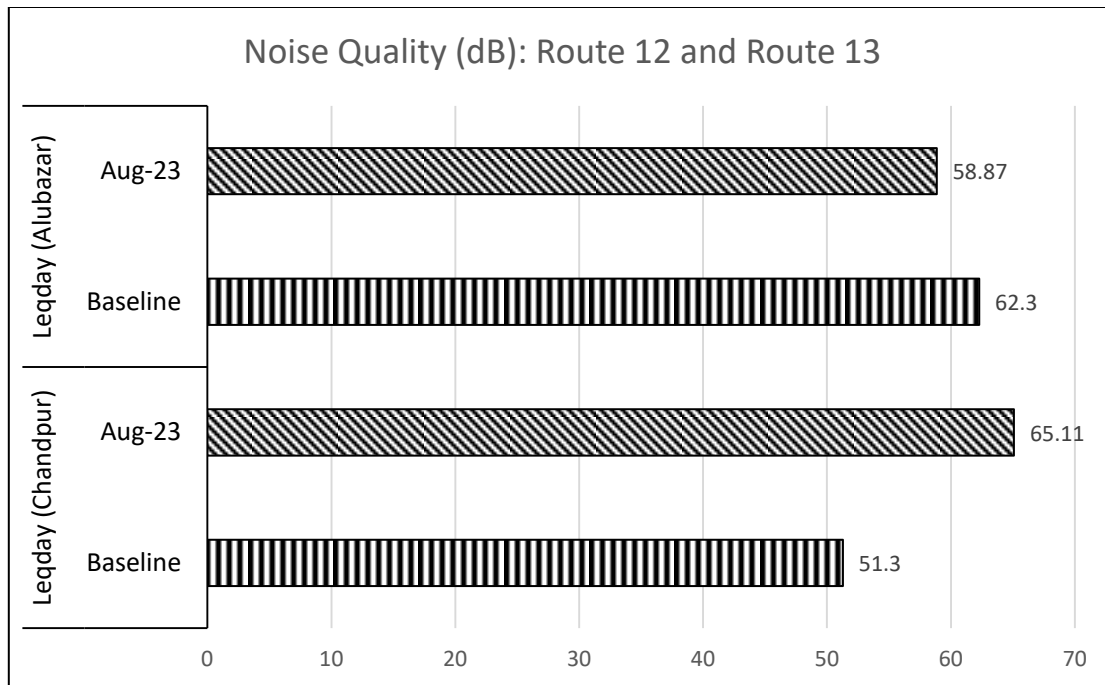
## b. Noise Level Monitoring:

Construction-related environmental impacts on sensitive areas include noise, which is a significant aspect to consider. The ambient noise level has been measured within the project area. Noise level monitoring was conducted at Route 12 and Route 13 of Lot 3. Monitoring was conducted on Route-13, Route-13a, and Route-12. Each location was assessed for noise levels for one hour. These assessments were conducted to measure and evaluate the levels of noise generated. The highest noise levels measured near Chandpur boro station (R-12), 65.11 dBA exceeded the standard because there were a lot of ongoing works, including human movement, river vehicle movement, mills, factories, and as a whole, and it was a tourist destination.

**Table 15: Noise quality sampling locations**

SI. No.	Route	Station Code	Geographic location	Monitoring date
1.	Route 12	NL- 1	23°13'50.79"N 90°38'25.51"E	12/08/2023
2.	Route 13	NL- 2	23°10'35.75"N 90°34'57.36"E	13/08/2023
3.	Route 13	NL- 3	23° 9'24.86"N 90°34'24.19"E	13/08/2023
4.	Route 13a	NL- 4	22°59'22.38"N 90°28'4.46"E	14/08/2023

Source: Field Visit, 2023



**Figure 6: Noise monitoring in Chandpur Boro station (R-12)**

Comparison of August 2023 ambient noise levels (Fig. 08). at Lot 2 and Lot 3 sites with the baseline data. In Route 12 (Chandpur), the site is quite busy with the hustle and bustle of the ferry ghat as a result the noise level was higher (dB 65.11) than the baseline (dB51.3). While Route 13 (Alubazar) is comparatively less busy than Route 12. Correspondingly the noise level at Route 13 (dB 58.87) was lower than the baseline data (dB 67.3). All the measurements were within the ECR2023 approved limits

### c. Surface Water Quality:

In the month of August 2023, surface water sampling was conducted at 4 locations, specifically near Chandpur Boro station (R-12), near Alu Bazar ferry ghat (R-13) as well as near Sholanath Bazar (R-13a).

**Table 16: Surface water quality Sampling locations**

SI. No.	Sampling Station	Station Code	Geographical Location	Sampling Date	Type of Source
1.	Route 13	SW-1	23°13'27.18"N 90°38'50.70"E	12/08/2023	River
2.	Route 13	SW-2	23°10'46.32"N 90°35'6.95"E	13/08/2023	River
3.	Route 13a	SW-3	23° 9'14.09"N 90°34'18.42"E	13/08/2023	River
4.	Route 12	SW-4	22°59'49.83"N 90°28'22.59"E	14/08/2023	River

Source: Field Visit, 2023

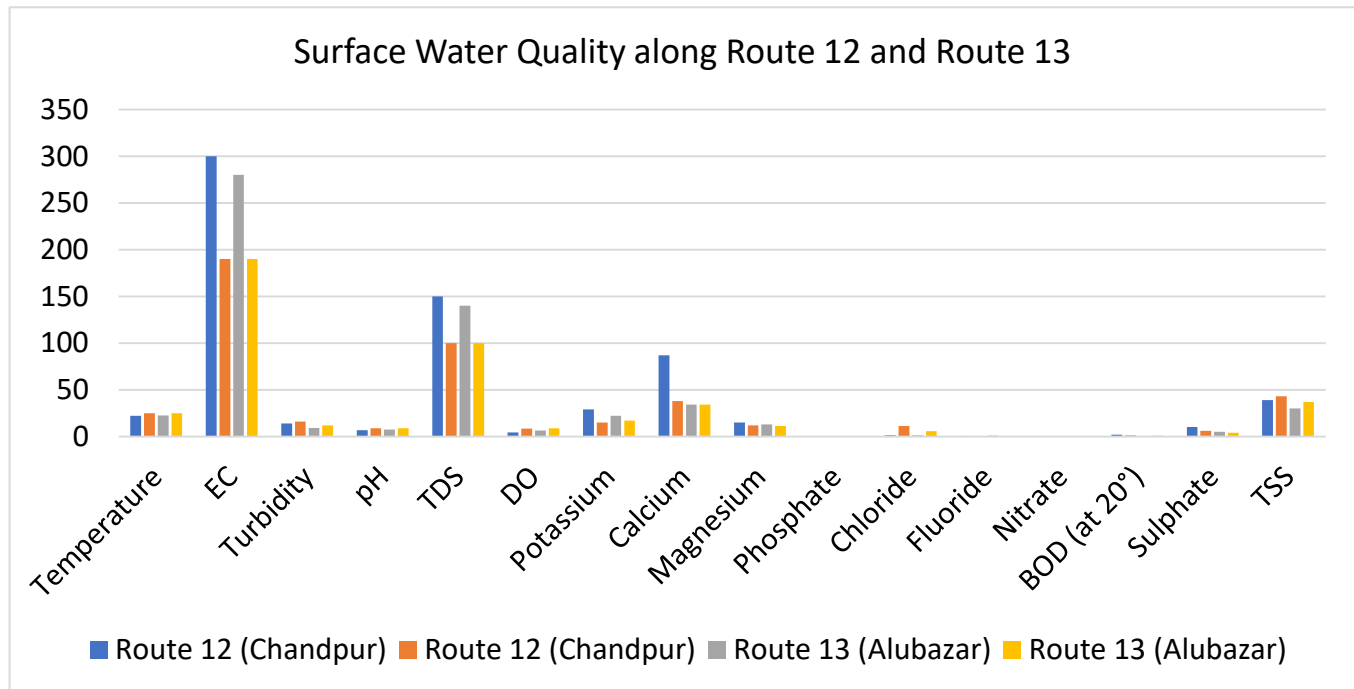


Figure 7: Surface Water Quality along Route 12 and Route 13

#### d. Riverbed Material Assessment:

To assess the riverbed sediment quality of the project area, four sediment samples were collected from R-12, R-13 & R-13a. Sampling locations of riverbed sediment have been given below:

Table 17: Details of riverbed sampling locations

Sl. No.	Sampling Station	Station Code	Sampling Date	GPS Coordinates
1.	Route 12	SedQ1	12/08/2023	23°13'34.23"N 90°38'45.84"E
2.	Route 13	SedQ2	13/08/2023	23°10'45.52"N 90°35'0.09"E
3.	Route 13	SedQ3	13/08/2023	23° 9'9.45"N 90°34'11.09"E
4.	Route 13a	SedQ4	14/08/2023	22°59'33.25"N 90°28'2.42"E

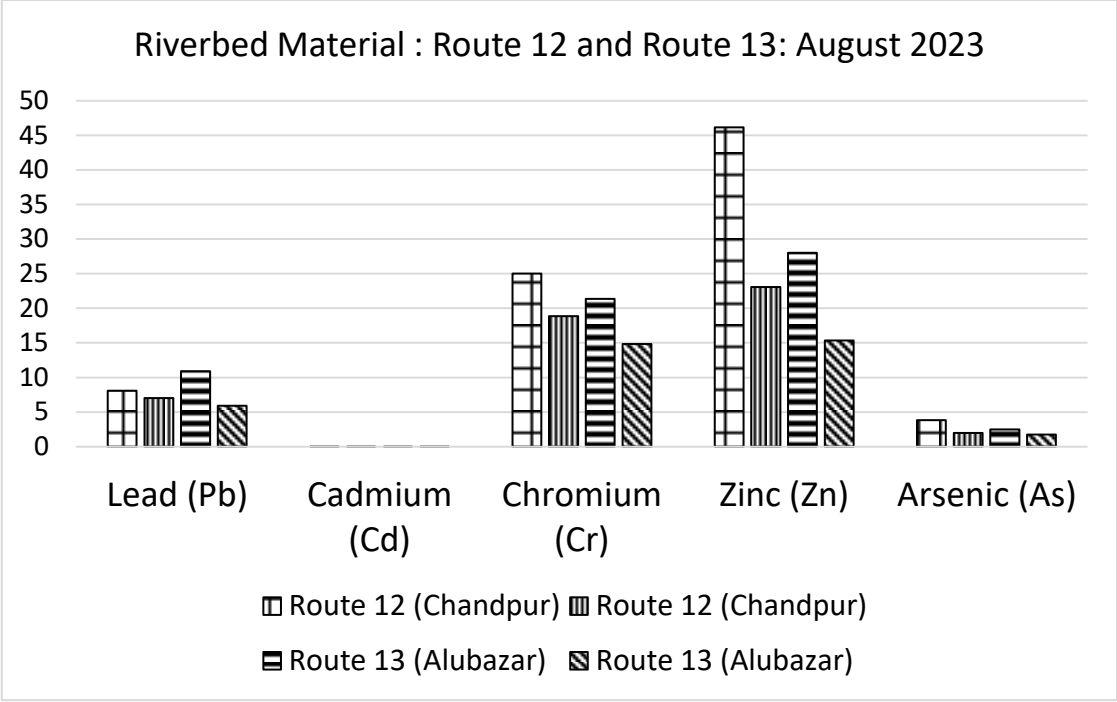


Figure 8: Riverbed Material Assessment

**Table 18: Recommendation for Updating Compliance Status of Lot-3 (August 2023)**

Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Remarks/ Recommendation	Recommended deadline for implementing the corrective measures
				C	P	N		
Dredging of IWT Corridor								
Analytical Monitoring Compliance								
Air Quality	SPM, PM10, PM2.5, CO, NO2, SO2 data provided in the report	Mitigation measures not required, results within ECR 2023 approved level	Not applicable	C	-	-	Within ECR2023 approved levels	Not applicable
Noise & Vibration	Only day data provided in the report	Mitigation measures taken, results within ECR 2023 approved level	Engine rooms closed, and covered	-	P	-	Within ECR2023 approved levels	Only day data collected; recommended night data to be collected from September. Also, when dredger is operating
Under Water Noise Level	Data provided in the report	Mitigation measures not required. No approved limits under ECR 2023	Not applicable	-	P	-	No approved limits mentioned in ECR 2023. Two hydrophones to be used at dredging sites (at present only one hydrophone used)	Two (02) hydrophones to be used as per contract during dredging operation from September
Surface Water Quality	Temp, pH, Turbidity, EC, DO, TDS, Ca, Mg, K, Cl, SO4, PO4 data provided in the report	Mitigation measures not required, results within ECR 2023 approved level	Not applicable	C	-	-	Within ECR2023 approved levels; sampling from both upstream and downstream of the dredging sites recommended	Suspended sediment concentration to be measured near dredger from September 2023
Drinking Water Quality			During this reporting month, safe drinking water has been provided to the site workers, and the toilets were found clean.	-	P	-	Toilet checklists need to be maintained on a regular basis.	September 2023
Soil Pollution	x	x	x	x	x	x	x	x
Visual Monitoring Compliance								
Aquatic Flora and Fauna including Plankton, Benthos, fish, dolphin	Data provided	Mitigation measures not required	No mitigation measure is required in the reporting period	-	P	-	Common fishes and crustaceans have been recorded	Advised regular monitoring of the habitat
Sediment Dispersion	Not measured	x	No mitigation measure is required in the reporting period	-	-	N	Contractors were notified to measure sediment plume on 1 <sup>st</sup> March 2023	No action taken or data provided by the contractors yet. Will be reminded again
River Bank Erosion	Usually mentioned in the report if any erosion is observed	Dredger stopped and relocated	Dredger stopped and relocated; some protection measures taken	x	x	x	Regular monitoring	x
Hydrological Conditions	Surveyed prior to dredging	x	x	x	x	x	x	x



Drainage Congestion	No action taken or data provided by the contractors yet. Will be reminded again				P	-	No reports of any drainage congestion	-
River Traffic/Transport	No complaints received				P	-	River traffic related sign boards observed	
Accidental Spillage	No reports yet		No spills from chemical storage -		P	-	-	-
Sediment leakages from pipes and sediment disposal	No reports on ant leakage	Maintain pipes	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 prior to resumption; report to authority

Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Remarks/ Recommendation	Recommended deadline for implementing the corrective measures
				C	P	N		
Dredging of IWT Corridor								
Visual Monitoring Compliance								
Drinking water & sanitation	Data provided	Followed	-	C	-	-	safe drinking water has been provided to the site workers	-
Safety of workers	Data provided	Followed	-	-	P	-	-	-
Waste management	Data provided	Followed	-	-	P	-	-	-
Cultural and archeological Sites	x	x	x	x	x	x	-	-
Reinstatement of Work Sites	x	x	x	x	x	-	-	-
Emissions from vehicles and vessels	Data provided	Followed	-	-	-	-	-	-
River bed sediments	Samples collected, analyzed, data in the report	Followed	-	-	P	-	-	-
Waste water	Data provided	Followed	-	-	P	-	-	-
Grievances Redress Mechanism (GRM)	Data provided	Followed	-	-	P	-	-	-
Incident Management System	x	x	x	x		-	x	x

### 2.3.3 Social and Resettlement Aspects:

At present 7 agreements are on process. Most of the places people have willingly agreed to allow using their lands. General people of the project sites can get the news of river dredging, dredged materials dumping and good faith agreements through several consultation meetings with local people in local Bazars, Union Council, villages and the local Schools. Progress of Dykes and Good Faith Agreements of the both Lots are illustrated in the following tables:

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
R21-D1	R21	Md. Salam Fakir NID:8223014047	Village: Ghagoria Upazila: Mehendiganj	Plot no. 1901/56 Mouza: Ghagoriya.	200	Agriculture Land (Two Crops)	Under Process
R21-D2	R21	Md. Mizan Fakir NID:6860475422	Village: Bheduria Upazila: Bhola Sadar	Plot no. 1901/28 Mouza: Bheduria	121	Agriculture Land (Two Crops)	Under Process
R21-D3	R21	Md. Salam Fakir NID:8223014047	Village: Ghagoria Upazila: Mehendiganj	Plot no. 1901/56 Mouza: Ghagoriya.	224	Agriculture Land (Two Crops)	Under Process
R21-D4	R21	Md. Jahangir Hossain NID:	Village: Sreepur Upazila: Mehendiganj	Plot no. 1501 Mouza: Ghagoriya.	80	Fallow Land	Under Process
R21-D5	R21	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
R21-D6	R21	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
R21-D7	R21	Md. Nur Nabi Vhuya NID: 0616213050970	Village: Shreepur Upazila: Mehendiganj	Plot no. 1479 (DP Khotiyan-385, DP Plot: 4662) Mouza: Ghagoriya.	195	Agriculture Land (Two Crops)	Under Process

### 2.2.3.2 Communication and Public Consultation:

Dharti – Banga JV inspects all fire extinguishers located in critical areas every month to ensure that they are in good working condition. Furthermore, the first aid boxes have been fully stocked with medical supplies so that any medical emergency can be handled. Handwashing facilities are available to employees and workers to ensure proper hygiene.

### 2.2.3.3 Labor/Worker Employment, OHS, and GRM Status: (Emphasis on Social issues)

A comprehensive assessment was conducted during the current monitoring study focusing on Labor/Worker Employment, Labor and Working Conditions, Occupational Health and Safety (OHS), and Grievance Mechanism Status (GM). The monitoring team visited workplaces and accommodation facilities to assess employment, OHS, and GRM. Workers and project staff were engaged in constructive

discussions, which provided valuable insights. For accurate reporting and comprehensive monitoring, the team reviewed additional records and registers.

#### 2.3.4 Number of Contracts (if any) and labor employed (gender disaggregated)

A total of 58 laborers were engaged in the reporting month. No female workers and child labors were recruited in this project. The table below shows the number of labors by category.

**Table 19: Employed no. of labor by Type Lot3**

Sl.	Designation	Sex	No.
1.	Civil Engineer	Male	1
2.	Sub. Asst. Engineer	Male	1
3.	Leverman	Male	5
4.	Supervisor	Male	1
5.	Electrician	Male	1
6.	Asst. Electrician	Male	1
7.	Mechanical Engineer	Male	1
8.	Mechanical Supervisor	Male	3
9.	Driver	Male	3
10.	Greaser	Male	9
11.	Welder	Male	3
12.	Lascar	Male	23
13.	Night Guard	Male	3
14.	Cook	Male	3
<b>Total</b>			<b>58</b>

#### 2.2.3.5 ESHS Status and OHS Related Incident:

In order to meticulously document any potential accidents, detailed accident records/register books have been established. Personnel designated to manage the accident reporting process maintain safety books and datasheets. In case of accidents or incidents, first aid boxes are readily available at the project site office for workers and other staff members.

#### 2.2.3.6 GBV/SEA/SH by workers and enforcement of the CoC

No grievances issues were found during the reporting period. In the event of a grievance during the project, it will be addressed according to the grievance redress process outlined in the CEAP (Contractor's Environmental Action Plan). Grievances are rare, indicating the company has taken proactive measures to resolve any potential problems, resulting in a favorable and cooperative working environment.

#### **2.2.3.7 Grievance Redressal Mechanism (GRM):**

Field observations, site visits, and consultations with workers and project officers were all part of the evaluation process. As a result, the team examined aspects such as the employment status of labor/workers, the number of employed workers, health facilities, safety measures, and security arrangements, including accommodation facilities. Furthermore, they examined working conditions, sanitation, safety protocols, drinking water supplies, accident reporting procedures, dust and noise control, waste management, emergency response facilities, and grievance procedures.

## CHAPTER 03: NEXT MONTH PLAN

### 3.1 Performance Schedule of the Consultant for the Next Month:

A tentative monitoring and supervision plan for the next month is shown in the table below. The contractor did not provide any plans in their reports. So, it is very difficult to make a monitoring plan without information. S1A asked the Contractors of both Lot 2 and Lot 3 to provide a monthly plan. Hopefully, the team will be able to include the monthly plan in the right way.

The schedule for the next month is organized based on last month's work as well as considering the activities going on at the field level. This plan will be updated or changed depending on the pace of field activities and immediate needs.

**Table 20: Performance Schedule of the Consultant for the Next Month**

Performance Schedule of The S1A Consultant for The Month of September, 2023						
Activities	Months	Sep-23				
	Week	1	2	3	4	
	River Routes					
		Supervise, Mobilization & Site Preparation				
Dredging Works	Route 9 of Lot-02, TBM & Gauge will be placed in all routes of Lot-03 and Route 21 will be surveyed whether any dredging work is necessary					
Routine Survey	Route 3 & 4 and Route 7 & 8 of Lot-02					
Social and Resettlement Activities (Good Faith Agreement)	Route 16 of Lot-3					
Environmental Supervision	Route 9 of Lot-02 Route-16 & 21 of Lot-03					
ESHS Field Supervision	Route 9 of Lot-02 Route-16 & 21 of Lot-03					
Field Visit, Supervision & Monitoring of GRM Components	Route 9 of Lot-02 Route-16 of Lot-03					
Reporting & Documentation	Monthly, Quarterly					

## CHAPTER 04: CONCLUSION AND/OR RECOMMENDATIONS

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Most important part of the dredging is to follow and maintain the rules provided by the GoB and World Bank. Maintaining the rules are very necessary since every progress on the project have direct impact on the environment. Besides, the contractors should not be oblivion about the dyke maintenance, durability maintaining and constant monitoring of the work progress. Moreover, contractors need to be cooperative with the consultant about the working progresses and provide work plans for constant update of work progress. Adequate surveying instruments and dredging materials need to be ensured in the site.

Dialogue and consultation with contractors and PIUs are important for the implementation of project activities. Documentation of meetings held with contractors or PIU members, in-house, or with any other stakeholders should be properly documented and circulated among stakeholders/participants. S1A is already maintaining these activities in a structured process. The S1A team is preparing a regular meeting schedule with contractors and other stakeholders that will be publicized and adhered to.

In August 2023, Lot-2 contractor dredged 269 m on Route 9 (Class III, length 80km, Titas River). The progress is very poor. The main challenge is failing to provide continuous operation of dredger due to the monsoon season and also frequent machinery breakdown.

During the month of August, 2023, the Lot-3 contractor didn't carry out any dredging work due to monsoon and the LADs exist in all the routes under Lot-3. The Lot-3 contractor have done survey on Chandpur Launch Terminal, Route 12. Moreover, they did the maintenance surveys and environmental quality control activities on Route 21 (Laharhat to Bheduria, Tentulia River).

In the following month, the Lot-2 contractor will expedite their work in Route 9 and also give a work plan for other routes as well. The Lot-3 contractor will start working on Route 12 Chandpur Launch Ghat Area.

Lastly, the procurement process for the navigational aids needs to be expedited by the Lot-2 and Lot-3 contractor.

## CHAPTER 05: ANNEXURE

### ANNEX 01: Project location and River Boundary

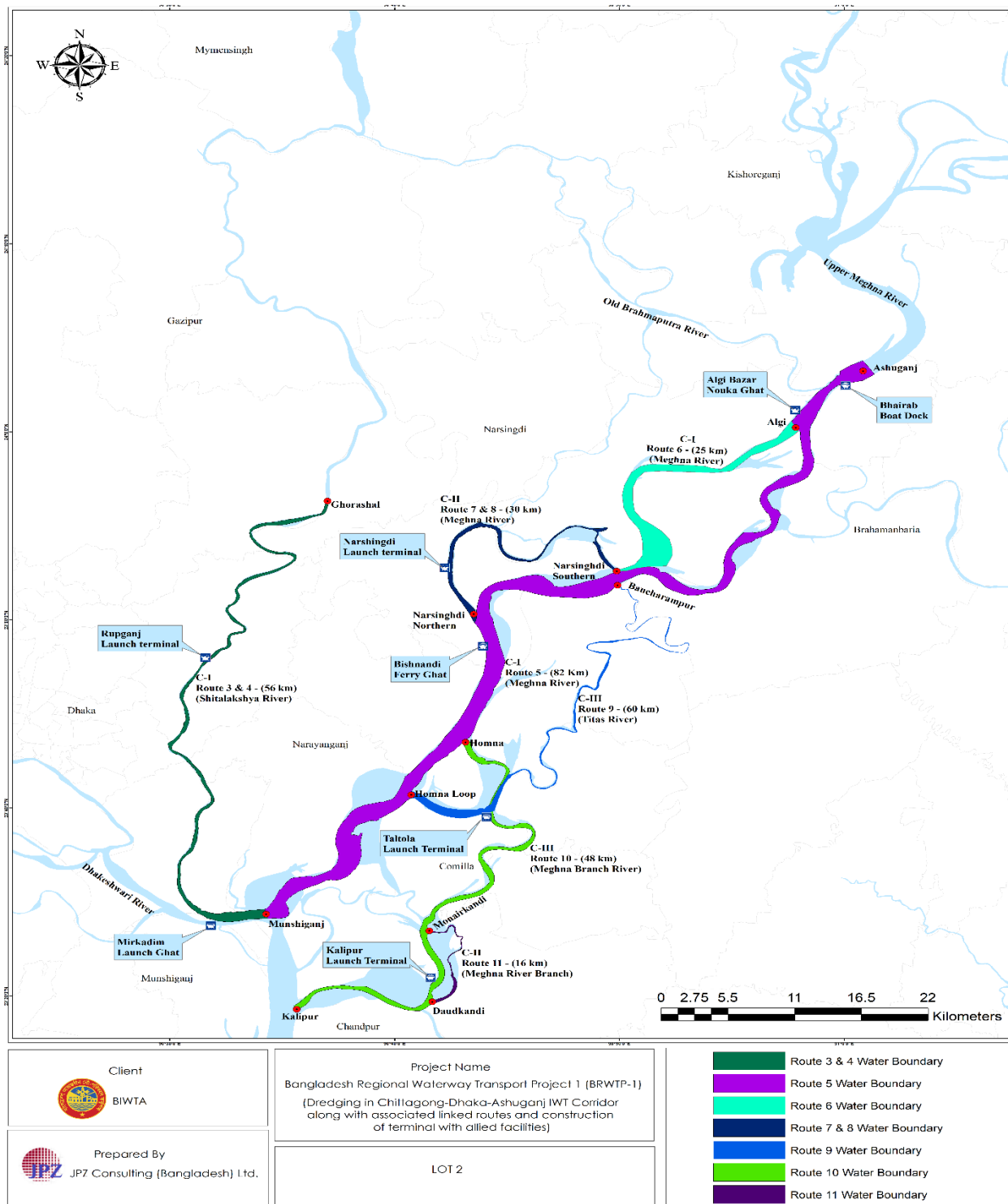


Figure 9: Project Location (with route) of BRWTP-1 Project, LOT-2

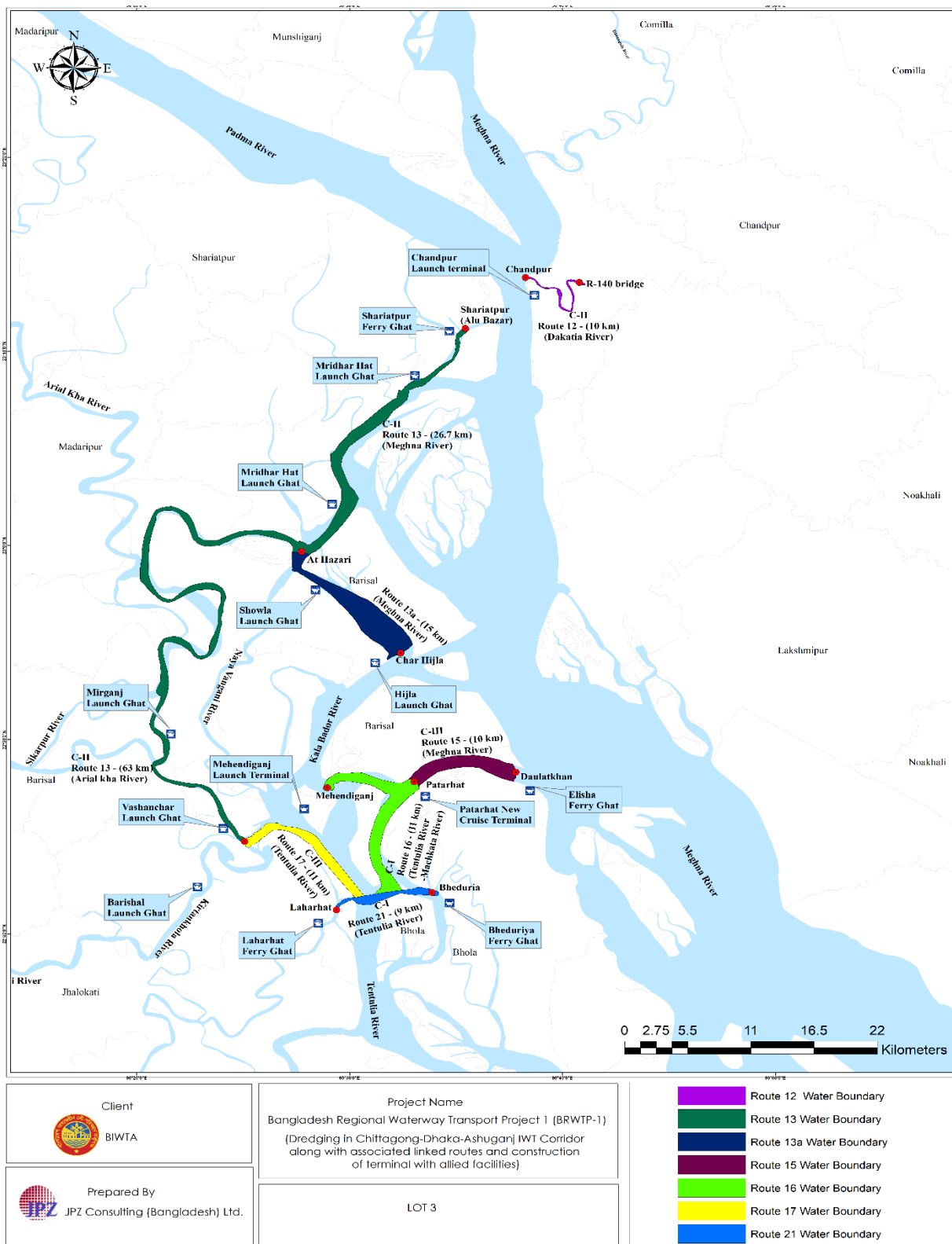


Figure 10: Project Location (with route) of BRWTP-1 Project, LOT-3



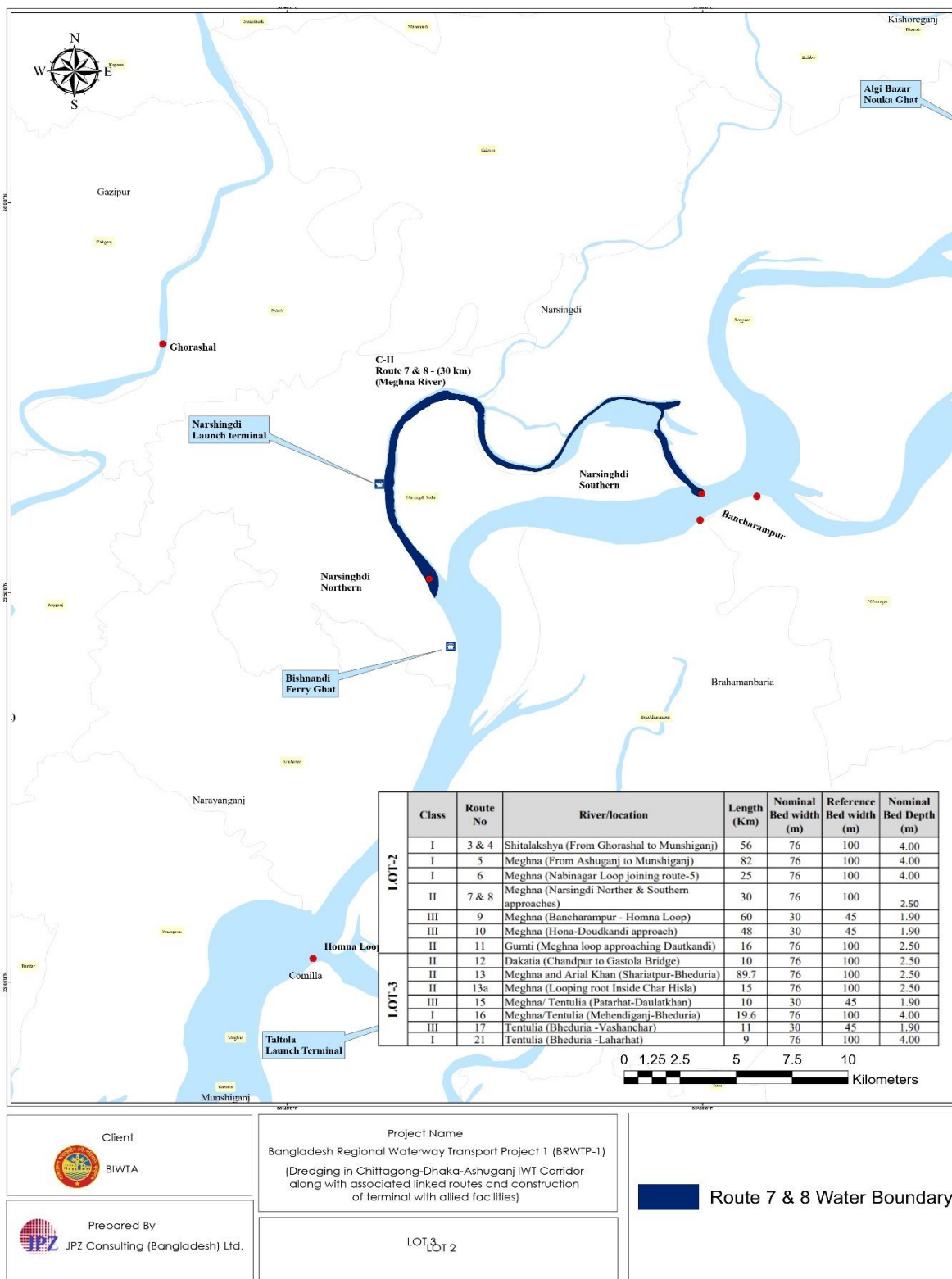


Figure 11: Route 7 & 8 Water Boundary

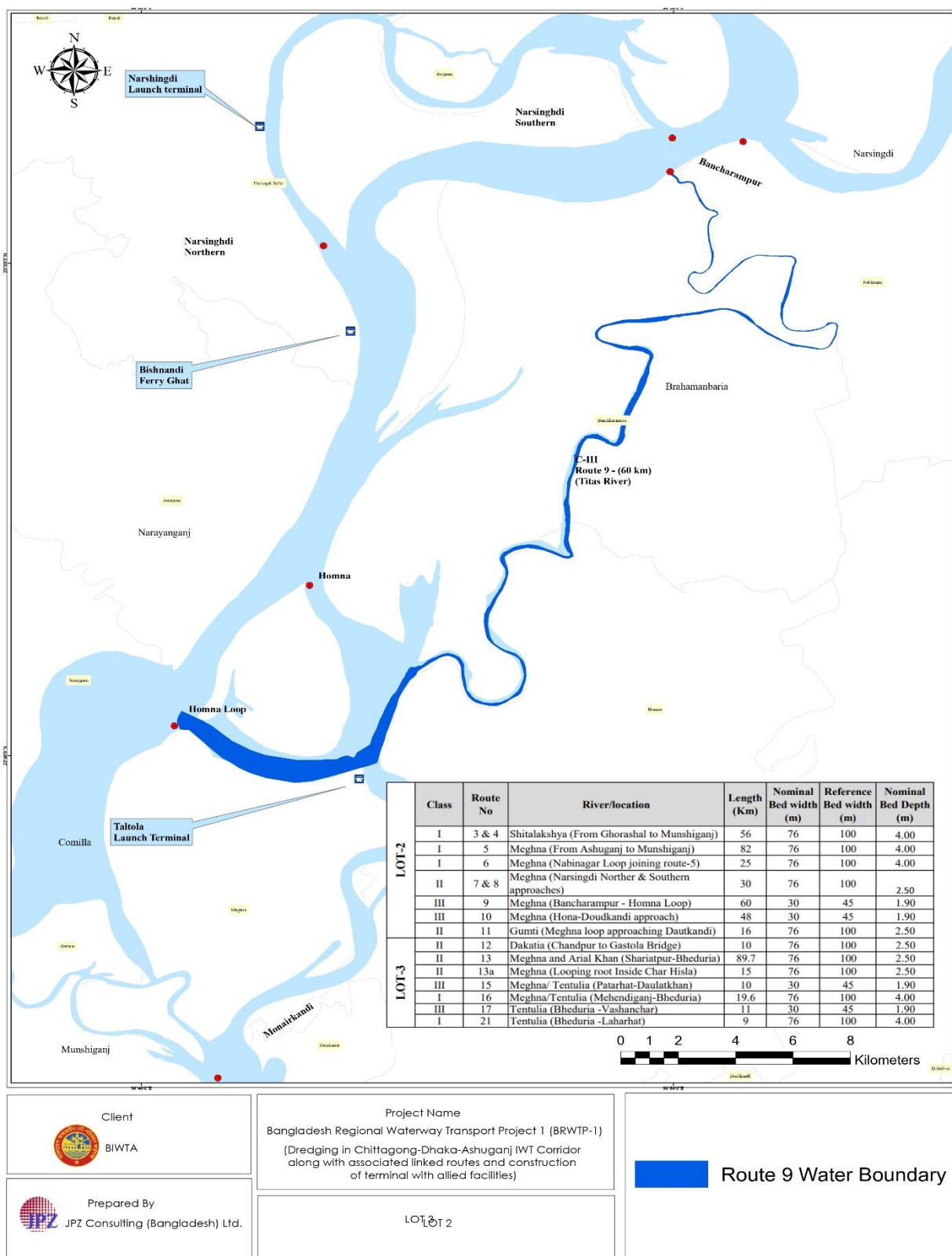


Figure 12: Route 9 Water Boundary

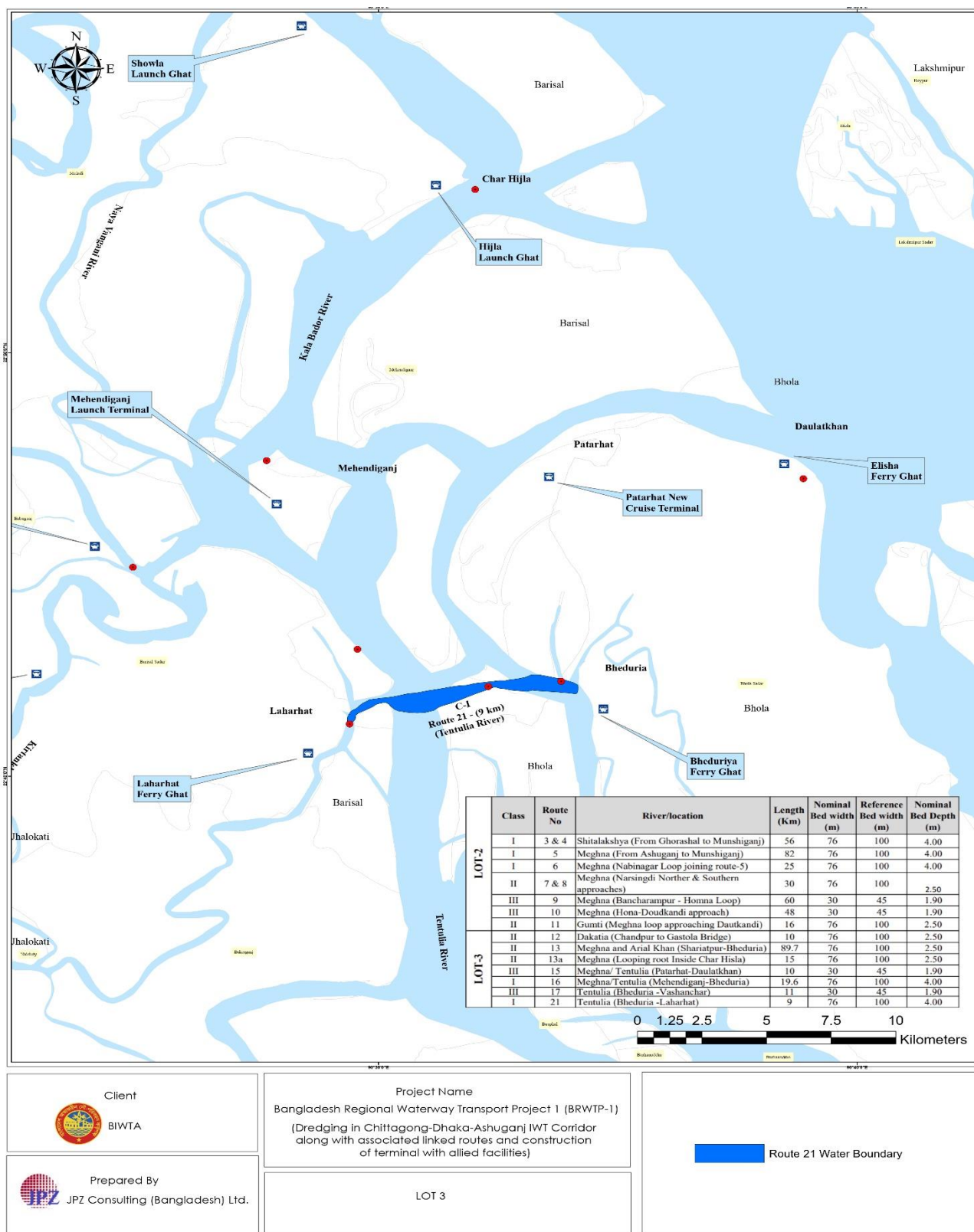


Figure 13: Route 21 Water Boundary

## ANNEX 02: Participants List of the Coordination Meeting

### Attendance Sheet

Subject: **Coordination Meeting on Social and GRM Aspects of BRWTP-1**

Venue: S1A Consultant Conference Room, Level-20, BSC Tower, 2-3 Motijheel, Dhaka-1000

Time: 03.30 PM

Date: 23/08/202

	Name & Designation	Company	Signature
1.	Engr Mohammad Ali Shams	JPZ-DEMAs-JCL JV BRWTP-S1A	M.A. Shams
2.	Abdullah Zaid	"	
3.	Mr. Nazrul Islam Sarkar Social Expert	BRWTP-1 BIN TA	Nizam
4.	Asheque Ahmed GRM Expert	JPZ-DEMAs-JCL JV BRWTP-S1A	Ahmed
5.	Rahela Rabbani EHS Supervisor	JPZ(S1A)	Rahela
6.	MD. MOSTOFA KAMAL	JPZ	
7.	Jabeda Khatun	JPZ(S1A)	Jabeda

**Figure 14: Coordination Meeting on Social and GRM Aspects of BRWTP-1**



### Attendance Sheet

Bangladesh Regional Waterway Transport Project 1 (BRWTP-1)

Subject: *Understanding GRM: Inhouse Discussion*

Venue: S1A Consultant Conference Room, Level-20, BSC Tower, 2-3 Motijheel, Dhaka-1000

Time: *03:00 PM*

Date: *29.08.23*

	Name & Designation	Company	Signature
1	<i>Engr. Mohammad Ali Shah</i> <i>Project Coordinator</i> <i>BRWTP-S1A</i>	<i>BRWTP-S1A</i> <i>JPZ-DEMAS-JCL</i> <i>JV</i>	<i>M. A. Shah</i> <i>29.8.23</i>
2	<i>Md. Golam Rabbani</i> <i>Team Leader</i>	<i>JPZ</i>	<i>[Signature]</i>
3	<i>Mr. Ayub Hossain</i>	<i>"</i>	<i>[Signature]</i>
4	<i>MR SHAH AZAM</i> <i>NAVIGATIONAL AIDS EXPERT</i>	<i>JPZ</i>	<i>[Signature]</i>
5	<i>Dr SMA Rashid</i> <i>Env. Spt.</i>	<i>JPZ</i>	<i>[Signature]</i> <i>29/08/2023</i>
6	<i>Astique Ahmed</i> <i>GRM Expert</i>	<i>JPZ</i>	<i>A Ahmed</i>
7	<i>Rahela Rabbani</i> <i>ESHS Supervisor</i>	<i>JPZ</i>	<i>[Signature]</i>
8	<i>Mahadi Hasan</i>	<i>JPZ</i>	<i>Mahadi</i>
9	<i>Tabeda Khatun</i>	<i>JPZ</i>	<i>[Signature]</i>
10	<i>Shabab Akshan</i>	<i>JPZ</i>	<i>[Signature]</i>

Figure 15: Inhouse Discussion on understanding of GRM

## ANNEX 03:

### Field Visit, Survey and Meeting Photos, August 2023



**Figure 16: Meetings of SIA Consultant Team with PIU, IMED and World Bank on August 2023**



**Figure 17: Air Quality Measurement at Bancharampur-Solimganj area of Lot-2 and Route 12 of Lot-3**





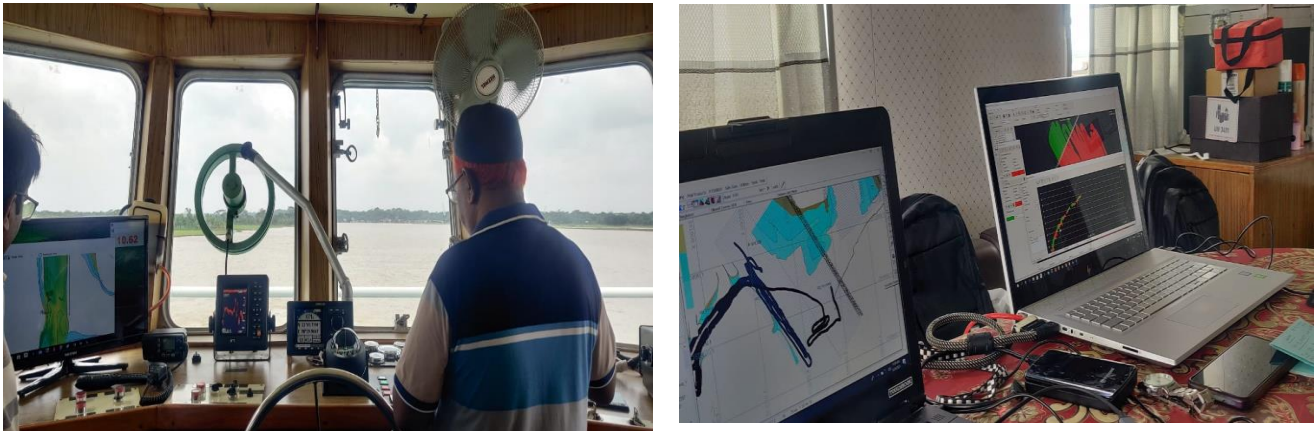
**Figure 18: River Bed and Dredge Material Sampling at Lot3 and Lot2 Sites Respectively**



**Figure 19: Noise monitoring of Lot-2 and Lot-3**



**Figure 20: Grievance Box at Dredging Sites of Lot2**



**Figure 21: Monitoring Survey going on by S1A team on Route 16 and Route 21**



**Figure 22: Photo of dredge material disposal area R09-D15**





**Figure 23: Road Sliding and Road Repairing of Nilukhi**



**Figure 24: Survey Ongoing by S1A team with BIWTA on Lot-3**

ANNEX 04:

Checklists of August 2023

Table 21: ESHS Checklist for Lot-2

Factors	Checklist Items		Dredging Activity			Comments/Compliance
			Daily	Monthly	Quarterly	
1. Permits and Explanation	1	EIA and Environmental Permits	○	○	○	EIA approval from DOE annually
	2	Explanation to the Local Stakeholders	○	✓	○	Meeting with the stakeholders as and when required
	3	Signboards, Notice Boards	○	✓	○	Project information displayed
2. Physical Environmental Parameters Monitoring	1	Air Quality	○	○	✓	Complied
	2	Surface Water Quality	○	✓	✓	Complied
	3	Solid Wastes	✓	○	○	Complied
	4	Liquid Wastes	✓	○	○	Complied
	5	Soil Contamination	○	○	○	
	6	Noise and Vibration	○	✓	○	Complied
	7	Underwater Noise	○	✓	○	Complied
	8	Odor	○	○	○	
	9	Riverbed Sediment	○	○	✓	Complied
	10	Groundwater	○	○	✓	Complied
3. Natural Environment	1	Protected Areas	○	○	○	No protected area in the vicinity of the site
	2	Habitat Type	○	✓	○	Described
	3	Hydrology	○	○	✓	Surveyed prior to dredging
	4	Topography and Geology	○	○	○	
	5	Dolphin Observation	✓	○	○	Conducted during field visits
	6	Fish Catch Examination	○	✓	○	Conducted during field visits
	7	Flora (Aquatic & Terrestrial)	○	✓	○	Conducted during field visits
	8	Benthos (Micro & Macro)	○	✓	○	Complied
	9	Phyto- & Zoo-planktons	○	○	✓	Complied
4. Social Environment	1	Resettlement	○	○	○	
	2	Living and Livelihood	○	○	○	
	3	Heritage	○	○	○	
	4	Landscape	○	○	○	
	5	Ethnic Minorities and Indigenous Peoples	○	○	○	
5. Occupational	1	Work Permit/Contract	✓	○	○	Local labors with formal contracts
	2	Daily Toolbox Meeting - OHS	✓	○	○	Complied

Factors	Checklist Items		Dredging Activity			Comments/Compliance
Health Safety	3	Working Conditions	✓			Complied
	4	Impact/Precaution during Dredging	✓	○	○	Complied
	5	Accident Prevention Measures	✓	○	○	Complied
	6	Working Condition	✓	○	○	Complied
	7	Accommodation	✓	○	○	Complied
	8	Personal Protection Equipment	✓	○	○	Complied
	9	Sanitary Condition	✓	○	○	Complied
6. Dredged Material Disposal Area	1	Agreement with Land Owner	○	○	○	Complied
	2	Land Use Type	○	○	○	Mostly privately-owned fallow land
	3	Dyke Design Approval	○	○	○	Design submitted, under process of approval
	4	Dyke Setback Distance	○	○	○	Should be within 300m of the riverbank, but usually close to the riverbank
	5	Disposal Area Dyke Height	○	○	○	Design submitted, under process of approval
	6	Dyke Strengthened/Material Used*	○	○	○	Plastic, gunny sacks
7. Dredger	1	Carbon Emission	○	○	○	Not measured, no in BOQ
	2	Leakage	✓	○	○	Routine checks daily
	3	Oil Spill	✓	○	○	Routine checks daily
	4	Onboard Waste Management	✓	○	○	Routine checks daily
	5	Noise and Vibration	○	✓	○	Daily measured, complied

**Table 22: Dredging Checklist for Lot-2**

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;					
	a	Dredging Hours	○	√	○	No Dredging activity for the month of August, 2023
	b	Cutting Length	○	√	○	No Dredging activity for the month of August, 2023
	c	Cutting Depth	○	√	○	No Dredging activity for the month of August, 2023
	d	Cutting Width	○	√	○	No Dredging activity for the month of August, 2023
	e	Dredged Volume	○	√	○	No Dredging activity for the month of August, 2023
7	Supervising Dredged Material Disposal Area whether the Dykes are designed as per Design		○	○	√	
8	Supervising Dredged Material Disposal Area whether the Dykes are capable to resist the pressure of disposed materials		○	○	√	
9	Checking outlet of the compartment		○	○	√	
10	Check whether the dykes are being constructed at safe distance from river bank				√	
11	Check construction of the pipe line whether there is any leakage 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.		○	○	√	
13	Check Survey Activities		○	○	√	1. Pre survey work done for Route 12 from 01.08.2023 to 03.08.2023 2. Monitoring survey (pre work & post work) done for route 16 and route 21 from 20.08.2023 to 28.08.2023

**Table 23: GRM Checklist for Lot-2**

Sl nos.	Factors	Checklist Items		Dredging Activity			Comments/Compliance
				Daily	Monthly	Quarterly	
1	Legal and Regulatory Compliance	1	GRM clearly communicated to all stakeholders.	○	○	√	
		2	Contact details for lodging grievance easily accessible.	○	○	√	
		3	The mechanism aligns with World Bank's social and environmental safeguard policies.	○	○	√	
2	Community Engagement	1	Information about the river dredging project, its purpose and potential impacts readily available.	○	○	√	
		2	Consultations been conducted with local communities, dredging contractors to gather their input on the GRM design.	○	○	√	
		3	The preferences and cultural sensitivities of the affected communities' taken into consideration.	○	○	√	
3	Clear Grievance Channels	1	The multiple accessible channels available for stakeholders to submit grievances. (e.g., toll-free hotline, local offices, online platform).	○	○	√	
		2	Information about these channels clearly communicated to all stakeholders in local languages.	○	○	√	
4	Processing of GFA (Good Faith Agreement)	1	Dyke/Land selection survey,	○	√	○	On-going
		2	Opinion meeting with land owner along with inform to the contractor and S1A team for justifying land as dyke,	○	√	○	Conducted
		3	Documentation collection,	○	√	○	Collected
		4	Preparation of GFA collection,	○	○	√	On-going
		5	Arrange contract/signing meeting & will be submitted to S1A H/O	○	√	○	

		6	Send the all documents to the PIU for approval.	<input type="radio"/>	√	<input type="radio"/>	
5	Constitution of GRM Committee	1	Preparation of GRM Committee Constitution	<input type="radio"/>	<input type="radio"/>	√	
6	Establish a Complain Box	1	Nos. of Feedback, concerned, suggestions and complain letters.	<input type="radio"/>	<input type="radio"/>	√	
7	Establish a Signboard	1	The size (5/15) of signboard will according the BOQ	<input type="radio"/>	<input type="radio"/>	√	
		2	Name, Mobile number and email of the focal person will be included in the signboard.	<input type="radio"/>	√	<input type="radio"/>	
8	Three tiers of the GRM Committee will be formed	1	Local level [In a five (5) members committee meeting Three (3) members participation will be the quorum]	<input type="radio"/>	<input type="radio"/>	√	
		2	Port level [In a five (5) members committee meeting Three (3) members participation will be the quorum]	<input type="radio"/>	<input type="radio"/>	√	
		3	Project level [In a five (5) members committee meeting Three (3) members participation will be the quorum]	<input type="radio"/>	<input type="radio"/>	√	
9	Capacity Building	1	Project staffs and local institutions have received training on the grievance redress mechanism and its operation.	<input type="radio"/>	<input type="radio"/>	√	
		2	There is an effort to enhance the capacity of stakeholders to engage effectively in the process.	<input type="radio"/>	<input type="radio"/>	√	
10	Leaflet/ Brochure	1	Leaflet/ Brochure will be published for dissemination. The leaflets should be available in the website of BIWTA and the SIA website.	<input type="radio"/>	<input type="radio"/>	√	
11	Monitoring and Reporting	1	The regular reports generated to document the number, nature, and resolution of grievances.	<input type="radio"/>	√	<input type="radio"/>	

12	Language and Accessibility	1	Grievance-related materials and communications provided in languages understood by the affected communities.	○	○	√	
		2	Provisions in place to accommodate the needs of differently abled individuals.	○	○	√	
13	Budget and Resources	1	Allocate resources, including budget and personnel, to support the implementation of the GRM	○	○	√	
		2	Ensure that the resources are sufficient to handle various types and volumes of grievances.	○	○	√	
14	Social Consultation	1	Local Community	○	○	√	Social Consultation conducted
		2	Land Owner	○	√	○	Do
		3	Local Government Authority	○	○	√	

**Table 24: ESHS Checklist for Lot-3**

Factors	Checklist Items		Dredging Activity			Comments/Compliance
			Daily	Monthly	Quarterly	
1. Permits and Explanation	1	EIA and Environmental Permits	○	○	○	EIA approval from DOE annually
	2	Explanation to the Local Stakeholders	○	✓	○	Meeting with the stakeholders as and when required
	3	Signboards, Notice Boards	○	✓	○	Project information displayed
2. Physical Environmental Parameters Monitoring	1	Air Quality	○	○	✓	Complied
	2	Surface Water Quality	○	✓	✓	Complied
	3	Solid Wastes	✓	○	○	Complied
	4	Liquid Wastes	✓	○	○	Complied
	5	Soil Contamination	○	○	○	
	6	Noise and Vibration	○	✓	○	Complied
	7	Underwater Noise	○	✓	○	Complied
	8	Odor	○	○	○	
	9	Riverbed Sediment	○	○	✓	Complied
	10	Groundwater	○	○	✓	Complied
3. Natural Environment	1	Protected Areas	○	○	○	No protected area in the vicinity of the site
	2	Habitat Type	○	✓	○	Described
	3	Hydrology	○	○	✓	Surveyed prior to dredging
	4	Topography and	○	○	○	

Factors	Checklist Items		Dredging Activity			Comments/Compliance
		Geology				
	5	Dolphin Observation	✓	○	○	Conducted during field visits
	6	Fish Catch Examination	○	✓	○	Conducted during field visits
	7	Flora (Aquatic & Terrestrial)	○	✓	○	Conducted during field visits
	8	Benthos (Micro & Macro)	○	✓	○	Complied
	9	Phyto- & Zoo-planktons	○	○	✓	Complied
4. Social Environment	1	Resettlement	○	○	○	
	2	Living and Livelihood	○	○	○	
	3	Heritage	○	○	○	
	4	Landscape	○	○	○	
	5	Ethnic Minorities and Indigenous Peoples	○	○	○	NA
5. Occupational Health Safety	1	Work Permit/Contract	✓	○	○	Local labors with formal contracts
	2	Daily Toolbox Meeting - OHS	✓	○	○	Complied
	3	Working Conditions	✓			Complied
	4	Impact/Precaution during Dredging	✓	○	○	Complied
	5	Accident Prevention Measures	✓	○	○	Complied
	6	Working Condition	✓	○	○	Complied
	7	Accommodation	✓	○	○	Complied
	8	Personal Protection Equipment	✓	○	○	Complied
	9	Sanitary Condition	✓	○	○	Complied
6. Dredged Material Disposal Area	1	Agreement with Land Owner	○	○	○	Complied
	2	Land Use Type	○	○	○	Mostly privately-owned fallow land
	3	Dyke Design Approval	○	○	○	Design submitted, under process of approval
	4	Dyke Setback Distance	○	○	○	Should be within 300m of the riverbank, but usually close to the riverbank
	5	Disposal Area Dyke Height	○	○	○	Design submitted, under process of approval
	6	Dyke Strengthened/Material Used*	○	○	○	Plastic, gunny sacks
7. Dredger	1	Carbon Emission	○	○	○	Not measured, no in BOQ
	2	Leakage	✓	○	○	Routine check daily
	3	Oil Spill	✓	○	○	Routine check daily
	4	Onboard Waste Management	✓	○	○	Routine check daily



Factors	Checklist Items		Dredging Activity			Comments/Compliance
	5	Noise and Vibration	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Daily measured, complied

**Table 25: Dredging Checklist of Lot-3**

Checklist Items		Dredging Activity			Comments/Compliance
		Daily	Monthly	When and As Required	
1	Gauge reading & Water level (WL)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
2	Connectivity with BM & TBM	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
3	Study Hydrographic Chart	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
4	Fixing Cutting Depth respect to existing WL as per design depth	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
5	Checking Dredging Alignment	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
6	Checking Dredged Activities as below;				
	a Dredging Hours	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	No Dredging activity for the month of August, 2023
	b Cutting Length	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	No Dredging activity for the month of August, 2023
	c Cutting Depth	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	No Dredging activity for the month of August, 2023
	d Cutting Width	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	No Dredging activity for the month of August, 2023
	e Dredged Volume	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	No Dredging activity for the month of August, 2023
7	Supervising Dredged Material Disposal Area whether the Dykes are designed as per Design	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
8	Supervising Dredged Material Disposal Area whether the Dykes are capable to resist the pressure of disposed materials	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
9	Checking outlet of the compartment	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	

10	Check whether the dykes are being constructed at safe distance from river bank			√	
11	Check construction of the pipe line whether there is any leakage 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/buiding.	○	○	√	
13	Check Survey Activities	○	○	√	1. Pre survey work done for Route 12 from 01.08.2023 to 03.08.2023 2. Monitoring survey (pre work & post work) done for route 16 and route 21 from 20.08.2023 to 28.08.2023

**Table 26: GRM Checklist for Lot-3**

Sl nos.	Factors	Checklist Items		Dredging Activity			Comments/Compliance
				Daily	Monthly	Quarterly	
1	Legal and Regulatory Compliance	1	GRM clearly communicated to all stakeholders.	○	○	√	
		2	Contact details for lodging grievance easily accessible.	○	○	√	
		3	The mechanism aligns with World Bank's social and environmental safeguard policies.	○	○	√	
2	Community Engagement	1	Information about the river dredging project, its purpose and potential impacts readily available.	○	○	√	
		2	Consultations been conducted with local communities, dredging contractors to gather their input on the GRM design.	○	○	√	
		3	The preferences and cultural sensitivities of the affected communities' taken into consideration.	○	○	√	

Sl nos.	Factors	Checklist Items	Dredging Activity			Comments/Compliance
3	Clear Grievance Channels	1 The multiple accessible channels available for stakeholders to submit grievances. (e.g., toll-free hotline, local offices, online platform).	<input type="radio"/>	<input type="radio"/>	√	
		2 Information about these channels clearly communicated to all stakeholders in local languages.	<input type="radio"/>	<input type="radio"/>	√	
4	Processing of GFA (Good Faith Agreement)	1 Dyke/Land selection survey,	<input type="radio"/>	√	<input type="radio"/>	On-going
		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"/>	Conducted
		3 Documentation collection,	<input type="radio"/>	√	<input type="radio"/>	
		4 Preparation of GFA collection,	<input type="radio"/>	<input type="radio"/>	√	
		5 Arrange contract/signing meeting & will be submitted to S1A H/O	<input type="radio"/>	√	<input type="radio"/>	
		6 Send the all documents to the PIU for approval.	<input type="radio"/>	√	<input type="radio"/>	
5	Constitution of GRM Committee	1 Preparation of GRM Committee Constitution	<input type="radio"/>	<input type="radio"/>	√	
6	Establish a Complain Box	1 Nos. of Feedback, concerned, suggestions and complain letters.	<input type="radio"/>	<input type="radio"/>	√	
7	Establish a Signboard	1 The size (5/15) of signboard will according the BOQ	<input type="radio"/>	<input type="radio"/>	√	
		2 Name, Mobile number and email of the focal person will be included in the signboard.	<input type="radio"/>	√	<input type="radio"/>	
8	Three tiers of the GRM Committee will be formed	1 Local level [In a five (5) members committee meeting Three (3) members participation will be the quorum]	<input type="radio"/>	<input type="radio"/>	√	
		2 Port level [In a five (5) members committee meeting Three (3) members participation will be the quorum]	<input type="radio"/>	<input type="radio"/>	√	

Sl nos.	Factors	Checklist Items	Dredging Activity			Comments/Compliance
		3 Project level [In a five (5) members committee meeting Three (3) members participation will be the quorum]	<input type="radio"/>	<input type="radio"/>	√	
9	Capacity Building	1 Project staffs and local institutions have received training on the grievance redress mechanism and its operation.	<input type="radio"/>	<input type="radio"/>	√	
		2 There is an effort to enhance the capacity of stakeholders to engage effectively in the process.	<input type="radio"/>	<input type="radio"/>	√	
10	Leaflet/ Brochure	1 Leaflet/ Brochure will be published for dissemination. The leaflets should be available in the website of BIWTA and the S1A website.	<input type="radio"/>	<input type="radio"/>	√	
11	Monitoring and Reporting	1 The regular reports generated to document the number, nature, and resolution of grievances.	<input type="radio"/>	√	<input type="radio"/>	
12	Language and Accessibility	1 Grievance-related materials and communications provided in languages understood by the affected communities.	<input type="radio"/>	<input type="radio"/>	√	
		2 Provisions in place to accommodate the needs of differently abled individuals.	<input type="radio"/>	<input type="radio"/>	√	
13	Budget and Resources	1 Allocate resources, including budget and personnel, to support the implementation of the GRM	<input type="radio"/>	<input type="radio"/>	√	
		2 Ensure that the resources are sufficient to handle various types and volumes of grievances.	<input type="radio"/>	<input type="radio"/>	√	
14	Social Consultation	1 Local Community	<input type="radio"/>	<input type="radio"/>	√	Social Consultation conducted
		2 Land Owner	<input type="radio"/>	√	<input type="radio"/>	Do
		3 Local Government Authority	<input type="radio"/>	<input type="radio"/>	√	