




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

Bangladesh Inland Water Transport Authority (BIWTA)

MONTHLY PROGRESS REPORT

JUNE 2023

Bangladesh Regional Waterway Transport Project 1
BRWTP-S1A

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

Jurutera Perunding Zaaba SDN.BHD, Malaysia (JPZ)

Demas Dredging Consultants BV, the Netherlands (DEMAS)

JPZ Consulting Ltd., Bangladesh (JCL)

Table of Contents

Table of Contents 2
List of Figures 4
List of Tables 5
Abbreviation 6
EXECUTIVE SUMMARY 8
CHAPTER 01: INTRODUCTION 9
1.1 Overview: 9
1.2 ES Staffing status 9
1.2.1: Number of ES Consultants and their recruitment status in the PIU, DSC, other packages, and contractors are listed below: 9
1.2.2: Organogram of S1A 10
CHAPTER02: 10
PROJECT DESCRIPTION IN A BRIEF 11
2.1 Background: 11
2.2 Objectives: 12
2.3 Place of Performance 13
CHAPTER 03: 15
ENVIRONMENTAL AND SOCIAL ISSUES 15
3.1 Environmental Assessment/ Environmental Issues 15
3.1.1: Introduction 15
3.1.2 Summary of environmental protection and pollution control/mitigation measures, as recommended in the site-specific EMP and SMP 16
3.1.3 Environmental Quality Measurement: 19
3.1.3.1 LOT 2: GULF COBLA KARNAFULY JV and LOT 3: DHARTI-BANGA JV 19
3.2 Social and Resettlement Aspects: 25
3.2.2 Communication and Public Consultation: 27
3.2.3 Labor/Worker Employment, OHS, and GRM Status: (Emphasis on Social issues) 27
3.2.3.1 Number of Contracts (if any) and labor employed (gender disaggregated) 27
3.2.3.2 ESHS Status and OHS Related Incident: 28
3.2.3.3 GBV/SEA/SH by workers and enforcement of the CoC 28
3.2.4 Grievance Redressal Mechanism (GRM): 28
3.3 Development and Maintenance Dredging Works 29
3.3.2 Lot 2: 29
3.3.4 Status of Navigation Aids Management: 31
CHAPTER 04: 32

PROJECT MANAGEMENT AND PROGRAMME SUPPORT ACTIVITIES 32

4.1 Coordination and Monthly Progress Meetings:.....32

4.1.1 Coordination Meeting with the Representatives of S12/2 Third Party Monitoring team32

4.1.2 Monthly Progress Meeting with the Contractors Team (Lot 3).....32

4.1.3 Progress Meetings with PIU: 32

4.2 Performance Schedule of the Consultant for the Next Month: 32

CHAPTER 05: ISSUES AND CONCERNS 34

5.1 Convenience.....34

5.2 Difficulties.....34

5.3 Moving forward 35

CHAPTER 06: CONCLUSION AND/OR RECOMMENDATIONS 36

CHAPTER 07: ANNEXURE.....37

ANNEX 01: Project location and River Boundary.....37

ANNEX 02:.....42

Participants List of the Coordination Meeting with Third Party Monitoring Team (S12/2)42

ANNEX 03: Field Visit, Survey and Meeting Photos, June 2023.....43

ANNEX 04: Response Against Consultant (S1A) Comments on Monthly Report, June 202346

List of Figures

Figure 1: S1A Team Composition 10
Figure 2: Organogram of S1A Key Staff....10
Figure 3: Air Quality: Char Mithuya Route 16 and Solimganj Route 09 (June 2023) 20
Figure 4: Air Quality Measurement at Route 16 and Route 09 20
Figure 5: Noise monitoring near Bheduria Ferry ghat (R-21) and Solimganj near River Route 09....21
Figure 6: Surface Water Quality: Route 16 and Route 09, June 2023 22
Figure 7: River Bed and Dredge Material Sampling at Lot3 and Lot2 Sites Respectively 23
Figure 8: River Bed Material Quality 24
Figure 9: Consultation with Landowners groups and community people at Bancharampur, Brahmanbaria on 10, 08, 06 and 05 June 2023 (Clockwise) 27
Figure 10: Grievance Box at Dredging Sites of Lot2 29
Figure 11: Coordination Meeting with S12/2 on 1st June 2023 32
Figure 12: Meeting with Lot 3 members and S1A Consultant team (Including international Expert) 32
Figure 13: Project Location (with route) of BRWTP-1 Project, LOT-2 37
Figure 14: Route 07 Water Boundary....38
Figure 15: Route 09 Water Boundary 39
Figure 16: Route 21 River Water Boundary 40
Figure 18: Route 16 Water Boundary 41
Figure 18: Route 16 Water Boundary 41
Figure 19: Meetings of S1A Consultant Team (Having international Expert), June 2023 43
Figure 20: Air Quality Measurement at Route 16 and Route 09....43
Figure 21: River Bed and Dredge Material Sampling at Lot3 and Lot2 Sites Respectively....43
Figure 22: **Noise monitoring near Bheduria Ferry ghat (R-21) and Solimganj near River Route 09** 44
Figure 23: Grievance Box at Dredging Sites of Lot2 44
Figure 24: Consultation with Landowners groups and community people at Bancharampur, Brahmanbaria on 10, 08, 06 and 05 June 2023 (Clockwise) 44
Figure 25: **Photo of dredge material disposal area R09-D7 and R09-D9** 45

List of Tables

Table 1: Contact details of key ES personnel....9
Table 3: Main River navigation routes that are Essential to Passenger and freight transport within Bangladesh....11
Table 4: Summary of the Major Findings in the Reporting Month (June 2023) of Lot 2....16
Table 5: Summary of the Major Findings in the Reporting Month (June 2023) of Lot 3....18
Table 6: Summary findings of in-house air quality monitoring at Lot2 sites.....20
Table 7: Summary findings of in-house air quality monitoring at Lot3 sites....20
Table 8: Noise Level (NL) monitoring Results Lot3: Mithuya: Route 16....21
Table 9: Noise level monitoring results Lot2; Bheduria ferry Ghat: Route 21....21
Table 10: Riverbed Sediment Analysis Results, June 2023 of Lot3....23
Table 11: Dredge Materials Analysis Results, June 2023 of Lot 2....24
Table 12: Good Faith Agreements, Lot 2 (District: Brahmanbaria)....25
Table 13: Employed no. of labor by Type Lot2....28
Table 14: Employed no. of labor by Type Lot3....28
Table 15: Updated Dredging Work at a glance up to June 2023: Lot 2....29
Table 16: Route 09: Dredging Progress June 2023....29
Table 17: Performance Schedule of the Consultant for the Next Month....33

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

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. A comprehensive Environmental and Social Impact Assessment (ESIA) has been prepared for Component1; 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-BANGLA JV herein referred to as Lot-3; under Bangladesh Regional Waterway Transport Project -1(BRWTP-1), Contract Number BRWTPW1A-02 and 03 respectively.

In June 2023, LOT-2 contractor dredged only 255 m on dredging 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 frequent machinery breakdown.

The LOT-3 contractor didn't carry out any dredging work as during monsoon the LADs exist in all the routes under Lot-3. They did the maintenance surveys and environmental quality control activities on Route 16 and Route 21 (Mehendiganj to Bheduria, Tentulia River).

According to the contract, the S1A team provided their services to the contractors to commence works, i.e., mobilization, public consultation, environmental data collection, dredging alignment, dredging section design, pre-dredged survey, dredging quality control and dredged material management and the team visited the sites to monitor the dredging operations.

CHAPTER 01: INTRODUCTION

1.1 Overview:

During the month of June, as the monsoon started, it would be easier for the Lot-02 contractor to work in Route 9 as the better water level in the narrow river helps the dredgers to work efficiently, but the progress was not as expected for their dredgers frequent breakdown.

For Lot-03 contractors, the LADs seem to be alright in the river routes, as a result the Lot-03 contractor have to do only the monitoring activities in the Route 16 and 21.

1.2 ES Staffing status

1.2.1: Number of ES Consultants and their recruitment status in the PIU, DSC, other packages, and contractors are listed below:

Table 1: Contact details of key ES personnel

Entity	Consultant or Staff Number	Consultant or Staff Designation	Contact Details
PIU, BRWTP-1	Md. Mizanur Rahman	Environmental Expert	01713 -12 92 75
	Md. Nazrul Islam Sarker	Social Expert	01719 -54 22 70
	Md. Khandaker Mahbub	GRM Expert	01797 -55 58 01
S1A Consultants	Mohammad Ali Shams	Project Coordinator	01675-922 066
	A.B.M Anwar Haider	Team Leader	01718-161 627
	Dr. S.M.A Rashid	Environmental Expert	01717-31 89 06
	Dr. Monzur Rahman	Resettlement Expert	01785 -99 78 83
GULF COBLA – KARNAFULY JV (Lot 2)	Dr. Mrinal Kanti Saha	EHS Manager	01715-091090
	Amit Kumar Saha	Ecologist/ Environmental Officer	01303-429207
	Aminur Rahman	Social/ Communication Manager	01723-042360
DHARTI- BANGA JV (Lot3)	Captain A. Razzak Bhuiyan	Environmental, health and safety manager	01730029850
	Md. Aftabuzzaman	Social communication officer	017180319378
	Prokhor Aabeer	Environmental officer	01768236508
S12/3 (Third Party Monitoring and Evaluation Consultant for Environmental Safeguards)	Dr. Rezaul Karim	Team Leader	01711-56 57 28
	Shanjana Haider	Consultant	01717-33 36 71
S12/2 {Third party MandE consultant for social safeguards (including midterm and ex-post evaluation of RAP implementation)}	Mr. Julhas Sharkar	Authorized Representative	01707 -570399
	Dewan Mohammad Ali Emran	Team Leader	01712- 691131

1.2.2: Organogram of S1A

As per the basic organogram of S1A, all the key staff have not yet been appointed. However, all kinds of efforts to get everyone on board is moving forward.

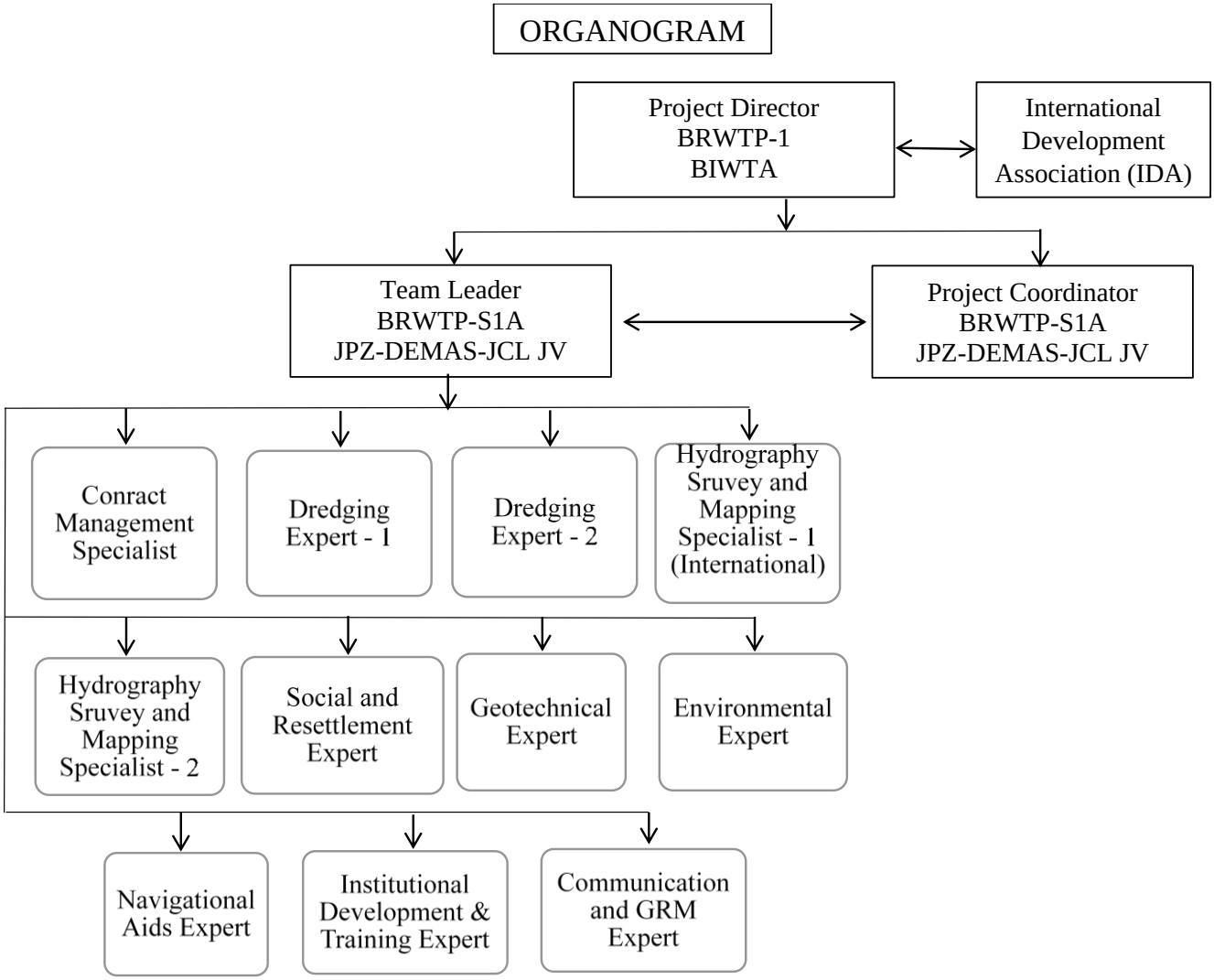


Figure 2: Organogram of S1A Key Staff

CHAPTER02:

PROJECT DESCRIPTION IN A BRIEF

2.1 Background:

Bangladesh lies predominately within the Bengal basin, the world's largest delta formed by the Ganges, Brahmaputra (Jamuna), and Meghna (GBM) river system and its tributaries and distributaries. Bangladesh is a riverine country with some 700 rivers, streams, and canals with a total length of about 24,000 km. Approximately 6,000 km are navigable during the monsoon (wet) period for different-sized vessels, shrinking to about 3,900 km in the dry periods. While the larger rivers are up to 50 meters (m) in depth in places and the Lower Meghna (the main trafficked route on the Dhaka Chittagong Corridor or DCC) is generally 10-25m deep. Navigation is hindered by very shallow depths on bars, especially in the delta area, at the confluences of the major rivers and their tributaries, river bends, and estuaries. Navigation is further complicated by the braided nature of the main rivers. In total, the GBM System annually carries up to one billion tons of sediment and drains into the Bay of Bengal principally through the Shahbazpur and Hatiya estuaries in the Mouths of the Ganges - feeding the Bengal Fan, the largest depositional system in the world.

Inland Water Transport (IWT) carries over 50 percent of all Bangladesh's cargo traffic and one-quarter of all passenger traffic. There are over 22,300 registered vessels engaged in this trade, mainly transporting dry and liquid cargo in bulk or break-bulk form. Investment by the vibrant shipping and inland water transport industry in Bangladesh totals approximately US$ 4 billion. The Government has identified 65 main river navigation routes that are essential to passenger and freight transport within Bangladesh. The routes are categorized as Classes I through IV depending on their advertised depths as given below (Table: 3).

Table 2: Main River navigation routes that are Essential to Passenger and freight transport within Bangladesh

Class	Max Vessel Draft/Least Advertised Depth	Length	%
I	3.65m/3.96m	683 km	11
II	2.13 m/2.43 m	1000 km	17
III	1.52 m/ 1.82 m	1886 km	32
IV	<1.52 m	2400 km	40

The development and control of Inland Water Transport is the responsibility of the Bangladesh Inland Water Transport Authority (BIWTA), under the Ministry of Shipping (MoS). Among its functions for passenger traffic, BIWTA is responsible to:

- Develop, maintain, and operate inland river routes to maintain the advertised Least Available Depth (LAD) and width by necessary surveys and dredging works including maintaining the necessary navigation measures to operate the vessels effectively;
- Develop, maintain, and operate inland river ports, landing ghats, and terminal facilities in such ports or ghats; and,
- Develop the most economical facilities for passenger traffic to ensure comfort, safety, and speed on mechanized craft.

In order to improve key multi-modal transport corridors and networks that would address current transport bottlenecks in Bangladesh, the World Bank is financing the Bangladesh Regional Waterway Transport Project I (BRWTP-1). It is centered on the main Dhaka-Chattogram IWT route, with branches to Ashuganj, Ghorashal and Barishal. Major components of BRWTP-1 include the following:

- Capital and maintenance dredging, installation, and operation of aids to navigation and construction and maintenance of Vessel Storm Shelters (VSS) / Idle Berthing Centers (IBC);
- Development of Cargo Terminals;
- Development of Passenger Terminals; and,
- Development of Landing Ghats.

The above-mentioned works are to be undertaken under an output and performance-based method of contracting. Output and Performance-Based Contracting for Inland Water Navigation (OPBC-IWN) is a results-oriented contracting method that focuses on the outputs, quality, or outcomes and ties at least a portion of a contractor's payment, contract extensions, or contract renewals to the achievement of specific, measurable performance standards and requirements. Supervision of OPBC-IWN contracts is to be done with due care and diligence following the highest professional practices and International Hydrographic Organization (IHO) S-44 5th edition standards and surveys.

2.2 Objectives:

The main objective of this consultancy service is to monitor, supervise, and administer the contracts for performance-based dredging works, installation and operation of aids to navigation along the navigational routes under the BRWTP-WIA package (Lot-2 and Lot 3).

2.3 Place of Performance

The works package on dredging shall operate for 66 (Sixty-six) months on the river routes presented in the box below.

LOT 2: Route 3and4, Route 5, Route 6, Route 7and8, Route 9, Route 10, and Route 11

Route 3and4:	Shitalakshya (Munshiganj to Ghorashal)
Route 5:	Meghna (Munshiganj to Ashuganj)
Route 6:	Meghna (Loop joining Route 5)
Route 7and8:	Meghna (Narshingdi Northern and Southern Approaches)
Route 9:	Meghna (Bancharampur/Homna Loop)
Route 10:	Meghna (Homna to Daudkandi)
Route 11:	Gumti (Meghna to Daudkandi)

LOT 3: Route 12, Route 13, Route 13a, Route 15and16, Route 17, Route 21

Route 12:	Meghna (Chandpur to R140 Bridge)
Route 13:	Meghna Arial Khan Route (Approach from Alubazar North of Batamara up to Hat Hazar)
Route 13a:	Meghna (Looping Route inside Char Hijla)
Route 15 and16:	Meghna (Mehendiganj to Bheduria)
Route 17:	Meghna Tentulia (Bheduria to Route 14)
Route 21:	Tentulia (Bheduria to Laharhat)

2.4 Outputs:

- Baseline hydrological, morphological, and environmental conditions of the project rivers routes
- Prepared hydrological data and hydrographic charts for the project rivers routes
- Best-suited dredging alignments for dredging different navigational routes;
- Dredged material disposal plan
- Development and maintenance of dredging volumes for different river stretches of project rivers routes
- Benefit of dredging maintaining LAD on physical and socio-economic conditions
- Monitoring results on dredging, water availability, navigability, irrigation, erosion, and flood improvement
- Monitoring results on agriculture, fisheries, livelihood, and environmental conditions
- Reports: All work performed by the consultancy team of engineering services shall be documented in written reports submitted to the PIU
- Preliminary charts for delineating dredging alignments and computation of dredging volume
- Different reports that shall highlight the output of survey works through a preliminary estimate of dredging requirement, Volume of dredging needed as per Joint Pre-work Survey and design, Progress of dredging work, the actual volume of dredging performed as per Joint post-work Survey
- Report mentioning the status of the dredged channel after the completion of dredging work. All work performed by the survey team services shall be documented in written reports submitted to the PIU.

In light of the basic information of this project, the S1A consultant arranged the monitoring and supervision program. From the beginning, the supervision was divided into three major parts- dredging works, environmental monitoring, monitoring on social aspects and ESHS. This month's (June 2023) administrative and recruitment process as well as the documentation process has been updated a lot. Coordination between the parties is improving. Site visits were average due to different unavoidable circumstances including Eid holidays.

CHAPTER 03:
ENVIRONMENTAL AND SOCIAL ISSUES

Since the commencement of the project, the contractors of Lot 2 and Lot 3 have been submitting their monthly reports as per their contract. The S1A team prepared this chapter based on their own observation and supervision considering the information submitted by the contractors and the projected output of the project.

This chapter covers hydrological survey data and hydrographic charts for the project river routes. Also, the most suitable dredging alignment for dredging selected navigation routes and dredged material disposal plan.

Development and maintenance of dredging volume of various rivers of the project river routes and benefits of dredging while maintaining LAD on physical and socio-economic conditions are included in this chapter.

Monitoring results of dredging, water availability, navigability, irrigation, erosion, and flood improvements; and

Monitoring results on agriculture, fisheries, and ecological aspects, livelihoods of the riverside people, environmental quality measurement, and other environmental conditions, etc. are illustrated in this chapter. The chapter is mainly divided into three main parts:

3.1 Environmental Assessment/ Environmental Issues;

3.2 Social and Resettlement Issues; and

3.3 Development and Maintenance of Dredging Works.

3.1 Environmental Assessment/ Environmental Issues

3.1.1: Introduction

Monitoring the environmental impact is one of the main tasks of this project. However, social and other issues are closely related to the environment. The issues specifically related to the environment that were observed at the commencement period of the project are included in this part. The S1A team hopes that gradually it will be possible to do more specific and clear documentation. During this month environmental supervision is mostly done on the site visit and by collecting data from the reviewed reports provided by the contractors.

The main objective of this section is to understand the current environmental condition of the project area, and how the project needs to be implemented considering these conditions. This part also provides a standard guideline and approach to preserving key environmental aspects by preventing and controlling environmental pollution and the management of challenges and difficulties, resulting from the Improvement/dredging work of Inland Waterway routes under Bangladesh Regional Water Transport Project-1 (Lot 2 and Lot 3), in accordance with the conditions of contract and clients' requirements. The main objectives of this part are as follows:

- To present the records of monitoring and its mitigation measures, taken thereafter, of the environmental parameters, including noise, air, riverbed sediment, and water quality, for identifying the deviation of environmental quality if any due to construction-related activities.
- To evaluate and confirm whether the Contractor has met the environmental compliance requirement, as was committed in the CEAP to protect the surrounding environment of the construction site.

In this part of the report, S1A has illustrated the monthly quality measurement of different environmental parameters which may be affected by the dredging work according to the environmental management plan (EMP) of the project.

The monitoring includes air, surface water, groundwater quality, dredge material, and noise level testing according to standard procedures.

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

Table 3: Summary of the Major Findings in the Reporting Month (June 2023) of Lot 2

Issues	Present Status (Lot 2)	Mitigation Measures (According to Contractors)	S1A Comments
Aquatic Fauna (Fish)	• During the field visit of June 2023, fishing activities were observed in Nilukhy village (site 3) Dredging Site (Route 9). • Local people informed that a very small number of fishes are found in Ima Nilukhy village (Dredger no. 3) Dredging Site which was approximately 2 km away from the dredging site. Common fishes and crustaceans include Punti, Tengra, Koi, Freshwater Prawn, etc. • There is no visible fish mortality within and around the dredging site location.	No mitigation measure is required	Insert photographs, data sheets, etc., as evidence – in Appendix
Aquatic Fauna (Dolphin, Turtle)	• During the monthly visit of June 2023, the study team did not observe any Ganges River Dolphin. However, consultation with local people confirmed that Ganges River Dolphins are not found in River Route 9 and Route 7. • No direct observation of freshwater turtles in the dredging site, dike area and adjacent local area. In	No mitigation measure is required	Every wetland is a turtle habitat. Presence or absence of turtles depend on various factors.

Issues	Present Status (Lot 2)	Mitigation Measures (According to Contractors)	S1A Comments
	addition, the study team did not observe any visible sign of turtle habitat.		
Air quality	In this month, monitoring of six sites for air quality has been conducted. All the testing parameters were found within the standard limit.	No mitigation measure is required.	Duration of sampling time to be mentioned
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.	Duration of sampling time to be mentioned
Riverbank Erosion	During the reporting month, there were no issue was observed regarding riverbank erosion or flooding.	No mitigation measure is required.	Some erosion of the river bank was observed during our visit due to dyke failure
Drainage congestion	The dredging work in June 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.	Complied
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.	
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.	These are navigational aids, need to be described in detail
Blasting	No such activities have been conducted during the reporting month.	No mitigation measure is required.	No blasting in our areas
Spills from chemical storage	No spills either at land or river section were noticed during the reporting period.	No mitigation measure is required.	No spills from chemical storage
Sediment leakages from pipes	During this reporting month no leakage was found in the dredge pipe.	No mitigation measure is required.	No leakage recorded
Waste Management (Housekeeping)	During the reporting month, waste bins have been placed on the houseboat as well as in dredger. Different color-coded dustbins with 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.	Complied
Water and Swamp Protection	Equipment is inspected and maintained regularly in order to prevent leaks. To check the water quality at the dredging points, six water samples were collected and tested in the laboratory. Adequate toilet facilities have been provided in houseboats and dredgers as well.	No mitigation measure is required.	Complied
Drinking water and sanitation	Safe drinking water is being supplied for the site workers, also toilets were found clean during this reporting month.	Toilet checklists need to be maintained on a regular basis.	Complied

Table 4: Summary of the Major Findings in the Reporting Month (June 2023) of Lot 3

Issues	Present Status (Lot 3)	Mitigation Measures (According to Contractor)	S1A Comments
Aquatic Fauna (Fish)	According to the visual observation, fishing activities by different types of net (sada sutar jal, Poa jal, etc.) were observed. The team did not observe any kind of visible fish mortality within and around the dredging site and disposal areas. Based on discussion with local people and fisherman in the study area confirms the occasional presence of Ganges River Dolphin (*Platanista gangetica*) in River Route 16 and 21.	No mitigation measure is required	Observation sheets, photographs to be attached as Appendix. On-site fish catch to be introduced. Pingers to be procured by the contractors. Contractors have been notified through email.
Aquatic Fauna (Dolphin, Turtle)	However, the study team did not observe any Ganges River Dolphin in and around the dredging location of river route 16 and 21. No signs of turtle habitat were observed by the study team. Furthermore, there were no direct sightings of freshwater turtles in the dredging site, dike area, and the surrounding local area.	No mitigation measure is required	Data sheet on fish catch, fishing gears, etc. and Timesheet for dolphin observation, etc., is absent. Contractors have been notified through email.
Air quality	In this month, monitoring of six Air quality has been conducted. All the testing parameters were found within the standard limit.	No mitigation measure is required.	All parameters are within the approved level
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.	All parameters are within the approved level
Riverbank Erosion	In the reporting month, no riverbank erosion or flooding were reported. As no natural occurrences occurred in the project area, the operation remained stable and safe.	No mitigation measure is required.	
Surface Water	In the month of June 2023, surface water sampling was conducted at 4 locations, specifically in the Tentulia River near Patarhat launch ghat (R-16), as well as near Bheduria ferry ghat (R- 21)		All parameters are within the approved level
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.	
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.	Contractors to liaise with key navigation expert
Blasting	No such activities have been conducted during the reporting month.	No mitigation measure is required.	No blasting in our areas

Issues	Present Status (Lot 3)	Mitigation Measures (According to Contractor)	S1A Comments
Spills from chemical storage	No spills either at land or river section were noticed during the reporting period.	No mitigation measure is required.	No spills from chemical storage
Sediment leakages from pipes	During this reporting month no leakage was found in the dredge pipe.	No mitigation measure is required.	No leakage recorded
Waste Management (Housekeeping)	During the reporting month, waste bins have been placed on the houseboat as well as in dredger. Different color-coded dustbins with 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.		Complied
Dust	During the site visit, no significant air pollution issues were observed. The equipment is regularly inspected and maintained to ensure it is in good working order, preventing air pollution.	No mitigation measure is required.	No significant air pollution was recorded
Water and Swamp Protection	Equipment is inspected and maintained regularly in order to prevent leaks. To check the water quality at the dredging points, water samples were collected and tested in the laboratory. Adequate toilet facilities have been provided in houseboats and dredgers as well.	No mitigation measure is required.	Complied
Drinking water and sanitation	Safe drinking water is being supplied for the site workers, also toilets were found clean during this reporting month.	Toilet checklists need to be maintained on a regular basis.	Complied

3.1.3 Environmental Quality Measurement:

The main objective of this monitoring program is to assess the basic environmental variables in and around the dredging sites considering the possible exposures. Specific environmental and biodiversity conservation clauses are measured for understanding the probable impacts. The monitoring includes air, surface water, groundwater quality, dredge material, waste management, and noise level testing according to standard procedures.

The S1A team documented the quality of current environmental parameters according to the quality measurement results provided by the contractors of Lot 2 and Lot 3. Communicating with the field staff and from the site visits the team illustrated the environmental part of this reporting period.

3.1.3.1 LOT 2: GULF COBLA KARNAFULY JV and LOT 3: DHARTI-BANGA JV

Air Quality

During this month, air quality assessments were conducted at four locations, Patarhat launch ghat (**Route16**) and Bheduria ferry ghat (**Route 21**) of Lot 3 site. Ambient air quality data collected from Route 16 at Char Mithuya opposite of the Patarhat Ferry Ghat are shown in Figure 04. No dredging work was ongoing during this monitoring time. The results show that the concentration of PM10, P2.5 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.

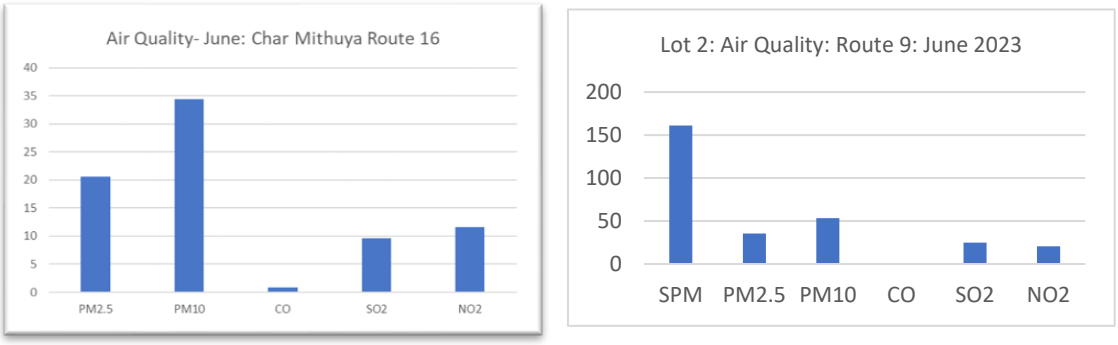


Figure 3: Air Quality: Char Mithuya Route 16 and Solimganj Route 09 (June 2023)

The summary findings of the ambient air quality results are presented in the following tables;

Table 5: Summary findings of in-house air quality monitoring at Lot2 sites.

Monitoring Code	SPM	PM10	PM2.5	SO2	NO2	CO
	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)
AQ1	165.26	74.45	58.84	30.16	22.75	1
AQ2	158.74	71.28	52.39	28.65	25.18	1.1
AQ3	152.47	69.46	54.48	35.66	26.29	0.8
AQ4	161.18	62.49	40.62	28.82	23.95	1.2
AQ5	150.74	57.62	38.91	26.15	19.52	1
AQ6	147.33	53.33	35.49	24.94	20.52	0.9
Duration (Hours)	**8**	**24**	**24**	**24**	**24**	**8**
Weather	**Sunny**					
Bangladesh Standard	**-**	**150**	**65**	**80**	**80**	**5**

Note: Air Pollution (Control) Rules, 2022.
Legend: PM_{10} -Particulate Matter of a diameter of 10 microns or less. $PM_{2.5}$ -Particulate Matter of a diameter of 2.5 microns or less, SO_2 –Sulphur Dioxide; NO_2 –Nitrogen-Dioxide; CO –Carbon Monoxide

Table 6: Summary findings of in-house air quality monitoring at Lot3 sites

Location	Sampling Date	Ambient Air Pollutants' Concentration in µg/m³					CO mg/m3
		SPM	PM_{10}	$PM_{2.5}$	SO_2	NO_2	
AQ1 -Route 16	25/06/2023	51.23	39.05	17.32	10.55	12.22	0.6
AQ 2- Route 16	25/06/2023	53.65	41.77	19.15	12.43	14.48	0.5
AQ-3 Route 21	26/06/2023	62.55	44.36	18.45	11.02	13.87	0.8
AQ-4 Route 21	26/06/2023	68.14	42.86	20.62	9.58	11.61	0.7
Air Pollution (control) rules, 2022		**-**	**150**	**65**	**80**	**80**	**5**
Method of Analysis Instrument Use: Haz-Scanner TM (HIM, 6000)		Particulates Sensor Light Scattering Nephelometer			High Sensitivity Electrochemical		

Note: Air Pollution (Control) Rules, 2022.
Legend: PM_{10} -Particulate Matter of a diameter of 10 microns or less. $PM_{2.5}$ -Particulate Matter of a diameter of 2.5 microns or less, SO_2 –Sulphur Dioxide; NO_2 –Nitrogen-Dioxide; CO –Carbon Monoxide

Noise Level

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 16 and Route 21 of Lot 3 and at Solimganj ghat (Route 09) and Narsingdi Launch Terminal (Route 07) of Lot 2.

The Table 07 and Table 08 summarizes the findings of noise level monitoring in June 2023 of Lot 3 and Lot 2 site respectively.

Table 7: Noise Level (NL) monitoring Results Lot3: Mithuya: Route 16

Location	Noise level (dB(A))				Bangladesh Standard (dB(A))		IFC EHS Guideline (2007)		Location setting
	Leq_{day}	Leq_{night}	L_{max}	L_{min}	Day	Night	Day	Night	
NL1	48.56	33.78	61.32	29.40	-	-	-	-	-
NL2	50.21	34.01	63.57	31.30	-	-	-	-	-
NL3	52.78	35.66	61.79	33.65	-	-	-	-	-
NL4	56.44	40.36	73.22	34.50	-	-	-	-	-

Table 8: Noise level monitoring results Lot2; Bheduria ferry Ghat: Route 21

Location	Noise level (dB(A))				Bangladesh Standard (dB(A))		IFC EHS Guideline (2007)		Location setting
	Leqday	Leqnight	Lmax	Lmin	Day	Night	Day	Night	
NL1	54.2	42.6	74.2	38.2	60	50	70	70	Mixed Area
NL2	53.6	43.8	72.5	37.2	60	50	70	70	
NL3	56.3	46.1	79.5	35.1	60	50	70	70	
NL4	57.5	44.9	78.1	36.6	60	50	70	70	

Underwater Noise Level

Underwater Noise Level monitoring was conducted at Patarhat launch ghat (Route16) and Bheduria ferry ghat (Route 21) of Lot 3 and in the areas of Solimganj ghat (Route 9) of Lot 2 due to ongoing dredging activities.

Surface Water Quality

In the month of June 2023, surface water sampling was conducted at 4 locations, specifically in the Tentulia River near Patarhat launch ghat (Route16), as well as near Bheduria ferry ghat (Route 21) of Lot 3 site. During this month, surface water sampling was conducted at 6 locations in Salimganj ghat (Route 09) and Narsingdi Launch Terminal (Route 07) of Lot 2 site.

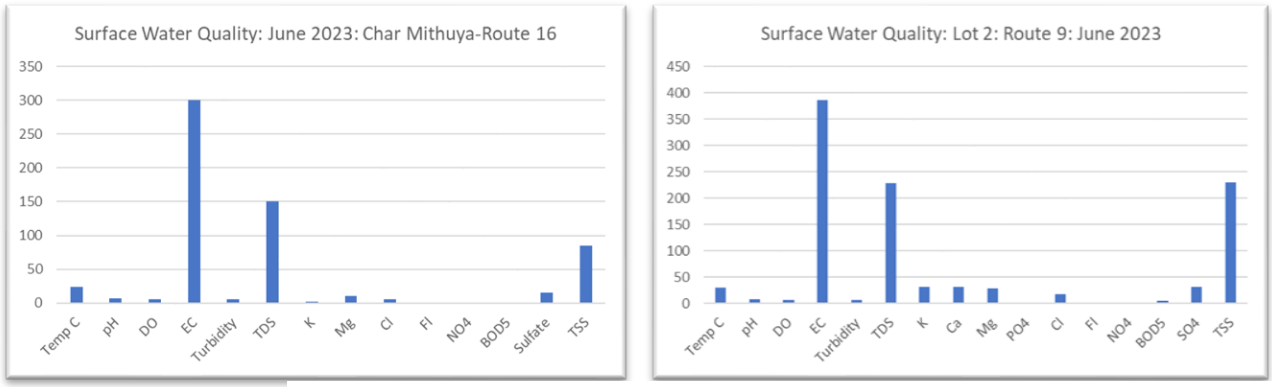


Figure 6: Surface Water Quality: Route 16 and Route 09, June 2023

The conductivity of water (EC) is used to determine the total dissolved solids (TDS) of water. Total dissolved solids are the number of ions in water. The total dissolved solids determine the purity of lakes, rivers, and streams. Conductivity in rivers or lakes, if exceed the approved limit, can be harmful to aquatic plants and animals so necessary precautions need to be taken. The approved limit of Total Suspended Solids (TSS) is 25mg/litre (ECR 2023), whereas the recorded level is quite high - 85 mg/litre. This may be due to the ongoing dredging near the Patarhat Ferry Ghat and suspended solids were being washed down to the sampling site.

Route 9 receives a lot of domestic waste and a diverse form of pollution from land-based sources like the market, saw mills, launch ghat, and also from the choked vegetation. So, values of TDS, TSS are comparatively greater than Route 16.

Nitrate is a form of nitrogen that readily dissolves in water and can travel easily through soil to the water table. As a result, nitrate is common in our groundwater, ponds, streams, and estuaries. The main source of nitrate contamination is fertilizers and manures applied to agricultural lands. Wastewater from sewage treatment, food processing, and other industrial activities are other nitrate sources. The natural level of ammonia or nitrate in surface water is typically low (less than 1 mg/L).

However, the ECR 2023 approved nitrate level is 0.3 mg/litre, while the observed level 0.6 mg/litre. The increased level of nitrates may be caused by the disturbance of the riverbed during dredging. Moreover, other factors like runoffs from the nearby agricultural land, wastes from the ferry ghat, may also be responsible for the increase in nitrate level. It is an indication that the concentration of nitrates in the water is on the rise due to anthropogenic activities.

Dredge Material

To assess the dredge material quality of the project area one sample was collected from the dredging disposal site following the USEPA technical manual. Sampling locations has been given in Table 10.

Table 10: Details of Dredge material sampling locations June 2023 (Lot3 and Lot2)

SI. No.	Sampling Station	Station Code	Sampling Date	GPS Coordinates
1.	Near Char Mithuya (Route16)	DM-9	25/06/2023	22°47'12.36"N 90°31'41.01"E
2.	Solimganj Ghat (Route 09)	DM-1	25.06.2023	23.83680N 90.84130E
3.	Solimganj Ghat (Route 09)	DM-2	25.06.2023	23.83659N 90.84120E
4.	Solimganj Ghat (Route 09)	DM-3	25.06.2023	23.84268N 90.84382E
5.	Solimganj Ghat (Route 09)	DM-4	25.06.2023	23.84263N 90.84375E

The analysis results of physicochemical parameters of riverbed sediment samples of Lot 3 site and the dredge material sample are presented in and Table respectively.

Table 9: Riverbed Sediment Analysis Results, June 2023 of Lot3

Parameter	Unit	Riverbed sediment Lot 3				Methodology/Instrument
		SedQ1	SedQ2	SedQ3	SedQ4	
Lead (Pb)	mg/kg	8.78	9.58	10.23	11.17	ICPMS
Cadmium (Cd)	mg/kg	0.051	0.049	0.050	0.054	ICPMS
Chromium (Cr)	mg/kg	10.21	11.42	14.73	15.70	ICPMS
Zinc (Zn)	mg/kg	23.21	25.20	27.57	29.50	ICPMS
Arsenic (As)	mg/kg	0.74	0.71	1.64	1.88	ICPMS

Note: ICPMS – Inductively coupled plasma mass spectrometry.

Table 10: Dredge Materials Analysis Results, June 2023 of Lot 2

Parameter	Unit	Dredge Material (Route 9)				Methodology/Instrument
		DM1	DM2	DM3	DM4	
Lead (Pb)	mg/kg	14.29	14.35	13.83	12.92	ICPMS
Cadmium (Cd)	mg/kg	0.06	0.08	0.08	0.07	ICPMS
Chromium (Cr)	mg/kg	24	21.85	21.94	22.02	ICPMS
Zinc (Zn)	mg/kg	35.72	35.72	37.52	33.83	ICPMS
Arsenic (As)	mg/kg	1.71	1.64	1.48	1.53	ICPMS

Note: ICPMS - Inductively coupled plasma mass spectrometry

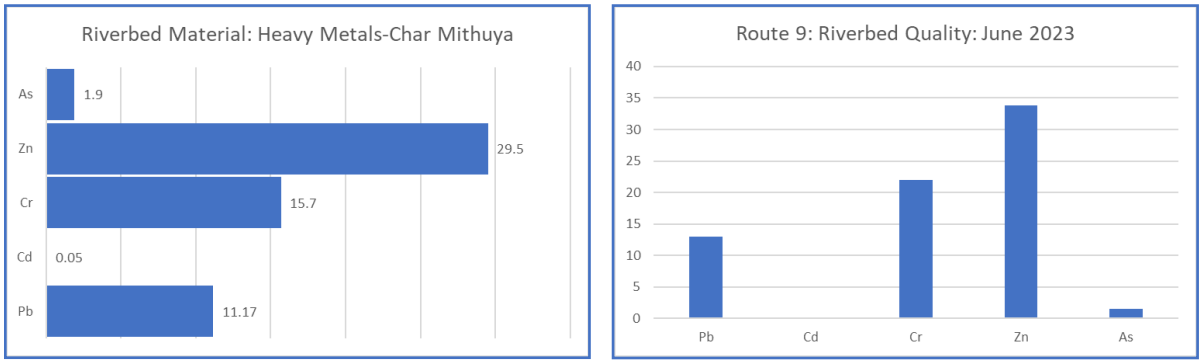


Figure 8: River Bed Material Quality

Using the various pollution indicators, it was found that the river bed sediment is less contaminated by toxic metals during the study but the sediment quality may degrade in the near future due to increasing anthropogenic inputs in the river basin, hence proper management strategies are required to control the direct dumping of wastewater in the river.

The observed concentrations of Zinc (Zn) for both Lot 2 and Lot 3 though within the limits but is of concern. The extent of Zn adsorption increases with an increase of pH. Furthermore, the adsorption of zinc increases with increasing particle size. The important geochemical phases, iron and manganese oxide also act as the active support material for the adsorption of zinc ions. Zn occurs naturally but the concentration increases from several sources like agricultural runoffs, wastes, industrial effluents, etc. At acute concentrations it probably kills fish by destroying gill tissues. The action of zinc undoubtedly differs at different concentrations, it varies with life history, and needs to be monitored.

3.2 Social and Resettlement Aspects:

3.2.1 Land Acquisition/Requisition/Good Faith Agreement/Charity

At present **20** agreements have already been completed and some are ongoing. Most of the places people have willingly done these. A little part of areas some influential people are leading about this matter. General people of the project sites can know the news of river dredging, dredged materials dumping and good faith agreements for 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:

3.2.1.1 Lot2: Gulf Cobla – Karnafuly JV (Bancharampur and Nabinagar, Brahmanbaria).

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	Agricultural Land (Two Crops)	Done
2	9	Siblu Mia NID:1210488091772	Village: Imam Nagar Upazila: Bancharampur	Plot No:158, 155, 166, 147. Mouza: Imam Nagar	270	Agricultural Land (Two Crops)	Done
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	Done (Note: Land Owner is the Chairman of the School committee)
4	9	Md. Monzur Mahabub NID: 1210488092428	Village: Imam Nagar Upazila: Bancharampur	Plot No:3473, 3474 Mouza: Imam Nagar	55	Agricultural land (One crop)	Done
5	9	Jharna Begum NID:5546582981	Village: Barail Upazila: Nabinagar	Plot No: 316, 318, 397, 399, 314, 315, 401 Mouza: Borail.	132	Agricultural land (Two Crops)	Done
6	9	Md. Dostogir NID:7813941536	Village: Barail Upazila: Nabinagar.	Plot No: 326, 353,314, 622, 312, 126, 319, 320, 321, 334 Mouja: Borail,	141	Agricultural land (Two Crops)	Done
7	9	Monir Hossain NID: 12104880921009	Village: Imam Nagar Upazila: Bancharampur	Plot No.127 Mouja: Imam Nagar.	40	Agricultural land (Two Crops)	Done

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
8	9	Abdus Salam NID: 1210488089240	Village: Aka Nagar Upazila: Bancharampur	Plot No.6021, 5622, 5627, 6620, 3277 Mouza: Aka Nagar.	90	Agricultural land (Two Crops)	Done
9	9	Md. Zakir Hossain NID: 2693016135957	Village: Aka Nagar Upazilla: Bancharampur	Plot No. 2611, 2612, 6036 Mouza: Aka Nagar.	139	Agricultural land (Two Crops)	Done
10	9	Md. Alamgir Kabir. NID: 1218575059084	Village: Nilukhy Upazila: Nabinagar	Plot no. 455. Mouza: Borail	52	Agricultural land (Two Crops)	Done
11	9	Md. Kabir Hossain. NID: 10488088336	Village: Aka Nagar Upazilla: Bancharampur	Plot no. 5972/ 5380/5984 Mouja: Aka Nagar, Bancharampur,	139	Agricultural land (Two Crops)	Done
12	9	Md. Nazrul Islam. NID: 8705507518	Village: Aka Nagar Upazila: Bancharampur	Plot no. 3053, Mouja: Aka Nagar.	50	Agricultural land (One Crop)	Done.
13	9	Md. Monirul Islam. NID: 8672153577	Village: Aka Nagar Upazila: Bancharampur	Plot no. 2422, 2423, 2412, 2417, 2424, 2425 Mouza: Aka Nagar.	190	Agricultural land (Two Crops)	Done.

Note: Recently four (04) dykes also been selected under rout No. 9. Papers (*Deed*, *Parcha*) collection are under process. It will take two weeks' time to complete good faith agreements of these new 04 dykes

3.2.1.2 Lot3: Dharti – Banga JV (District: Barishal and Bhola).

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
1	21	Salam Fakir NID:8223014047	Village Ghagoria. Upazila: Mehendiganj District: Barishal	Plot No: B.1901/56	200	Agricultural and (Two Crops)	Done (Note: Near Bheduria Ferry ghat)
2	21	Mizanur Rahman NID: 6850475422	Village and Char Bheduria. Upazila and District: Bhola	Plot No: 1901/28	121	Agricultural land (Two Crops)	Done
3	21	Salam Fakir NID:8223014047	Village: Ghagoria. Bheduria Upazila: Mehendiganj	Plot No: 1901/56	224	Agricultural land (Two Crops)	Done

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
			District: Barishal.				
4	21	Jahingir Hossain NID: 0616213052704	Village: Sripur, Upazila: Mehendiganj District: Barishal.	Plot No: 1501	80	Fellow land	Done
5	21	Mizanur Rahaman Harun NID: 6860475422	Char Bheduria. Upazila and District: Bhola	Plot No: 1107. 1181, 1182, 2123, 2124, 2119, 2125	300	Agricultural land (Two Crops)	Done
6	21	Nur Nabi Vhuya NID: 0616213050970	Village: Seripur Upazila: Mehendiganj, District: Barishal	Plot No: 1468, Mouza: Ghagoria	365	Agricultural land. (Two Crops) (Watermelon, Bitter Gourd)	Done
7	21	Nur Nabi Vhuya NID: 0616213050970	Village: Seripur Upazila: Mehendiganj, District: Barishal	Plot No: 1468, Mouza: Ghagoria	120	Agricultural land (Two Crops) (Watermelon, Bitter Gourd)	Done

3.2.2 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 have communicated with UNOs, ADC and DC, Brahmanbaria.

3.2.3 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 from the direct visual observation during site visits.

3.2.3.1 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 and 52 Labor/workers at the three sites of Lot3. 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 Lot2

Sl.	Designation	Sex	No.
1.	Foreman	Male	02
2.	Pipe Fitter	Male	15
3.	Cook	Male	02
Total		**Male**	**19**

Table 13: Employed no. of labor by Type Lot3

Sl.	Designation	Sex	No.
1.	Leverman	Male	5
2.	Supervisor	Male	4
3.	Electrician	Male	2
4.	Driver	Male	3
5.	Greaser	Male	9
6.	Lascar	Male	23
7.	Night Guard	Male	3
8.	Cook	Male	3
Total			**52**

3.2.3.2 ESHS Status and OHS Related Incident:

Data has been collected through directly observed the working condition of the laborers. No female labors are available in the project sites. Data are collected about working situation, presence of male and female laborers, working environment, wage, first aid, 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.

3.2.3.3 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.

3.2.4 Grievance Redressal Mechanism (GRM):

The BRWTP-1 project has its own GRM system with three stages of mechanism (Field site level, River port level and Project level) and the compensation system follows the World Bank rules. The Consultant assists the Client in monitoring the functioning of the GRM that have been set up by the Client to receive and process project-related feedback, suggestions, concerns and complaints, especially in relation to the dredging activity carried out under the OPBC-IWN contracts and the Vessel Storm Shelters construction contract. This includes the following: (i) continuously checking in the field to ensure that the information on GRM remains publicized in an appropriate manner at the relevant sites and any complaints received by the Contractors and the Consultant himself is forwarded to the Client. (ii) Assisting the Client to prepare and disseminate brochures and signboards containing information of interest to people living close to the project sites.

The dredging contractor ‘DHARTI–BANGA JV’ (Lot 3) has formed two Grievance Redressal Committees (GRC), but no grievance complaints/incidents have yet been reported to be resolved.

The dredging contractor Gulf Cobla-Karnafuly JV reported that Local people are informed about reporting mechanisms of grievance or suggestions if any. However, during the current monitoring, no grievance has been recorded as per the grievance register. Followings are the photos of grievance boxes installed at different places of dredging sites of Lot2:

3.3 Development and Maintenance Dredging Works:

3.3.2 Lot 2:

Two routes were monitored during the monthly site visit of June 2023, Solimganj (**Route-9**) and Narsingdi launch Terminal (**Route-7**). During the monthly site visit dredging activities were not significant.

In the reporting month new dredging site at Narsingdi on Route 7 was selected, but no dredging activities have started yet. Dredged material from Imamnagar dredging site was disposed in Dike No. 7. The status of dredging activity is given on the following Table 20 and 21;

Table 14: Updated Dredging Work at a glance up to June 2023: Lot 2

Dredging Work: Lot-02, Route -09 Progress Up to June 2023							
Sl.	**Location/ Section**	**Dredger**	**Month**	**Chainage**	**Cutting Length (m)**	**Dredged Volume (Cum)**	**Remarks**
1	**Route-09** (Bancharampur - Homna loop) **[Class-III & Priority - C Route]**	Karnafuly-03	June'23	4140 to 4289	149	7,896.01	Dredging Start 23 Mar 2023, Continuing
		Karnafuly-07	June'23	3283 to 3389	106	4319.85	Dredging Start 23 Mar 2023, Continuing
TOTAL (Route -09 of Lot-02)					**256 m**	**12215.86 Cum**	

Table 15: Route 09: Dredging Progress June 2023

Location	Length	Chainage	Dredging Depth	Dredgers
Bancharampur-Homna-Titas River (upper Titas) near Solimgonj bridge, union Tejkhali under Bancharampur upazila in Brahmanbaria district	58km (Ch0+000 to Ch58+000)	Dredging Chainage from Ch0+000 to Ch8+860.	The current progress dredging depth is avg.1.363m	Dredging work was done by two CSD dredgers named Karnafuly-03(18") and Karnafuly-07(18").

3.3.2.1 Survey works up to 30th June:

- Topographic survey/Pre-work:
  Location: Solimganj-Homna Route 09
  Chainage: K0+000 to K8+860
  A survey done dated: 16.01.2023 to 27.01.2023

- Bathymetric survey/Pre-work:
  Location: Solimgonj -Homna Route 09
  Chainage: K0+000 to K8+860
  A survey done dated: 16.01.2023 to 22.01.2023

3.3.2.2 Dredging work up to 30th June 2023:

- Location: Solimgonj -Homna Route 09
  Date: From 5th June, 2023 to 16th June, 2023
  Dredger name: Kornophuly-07
  The number of swings is 1 (one)
  Chainage: K3+283 to K3+389
  Total Length: 106m
  Width: 30m

- Location: Solimgonj -Homna Route 09
  Date: From 5th June, 2023 to 25th June, 2023
  Dredger name: Kornophuly-03
  The number of swings is 1 (one)
  Chainage: K4+140 to K4+289
  Total Length: 149m
  Width: 30m

3.3.2.3 Information on Disposal Areas June 2023:
(Solimganj- Homna Route 09, Disposal area R09-D7, R09-D9 used up to 25th June 2023).

- R09-D7: Area is 3,889 sqm; Height is 3.0m and estimated capacity containing 11,667cum spoils. It is completed.
- R09-D9: Area is 9,409 sqm, Height is 4.0m, and estimated capacity containing 37,636cum spoils.

3.3.3 Lot 3:

Because of the monsoon season, there was no dredging activity observed during the monthly site visit in June 2023. Two dredgers were placed in Route 16 (Opposite side of Patarhat Launch Terminal) and the other one was in Route 21 (near Bheduria Ferry Ghat). No new dikes were constructed for dredged material disposal during this reporting month.

3.3.4 Status of Navigation Aids Management:

Safety of river traffic during and after dredging work is the most important issue of the project. During this time period Navigational Aids Expert observed the navigation condition of the currently finished dredging operation areas.

During the month of June 2023, a good number of discourses were held between the contractor's representatives regarding installation of Aids to Navigation as per International Association of Lighthouse Authorities (IALA) Marine Buoyage System for various routes in Lot 02 and Lot 03. The concerned contractors were asked about the procurement process and the present status of the procurement of the required Buoys (Lighted and Unlighted), Beacon Lights, Day Markers and the leading Lights. Due to the non-availability of IALA buoys in time, the timely completion of project (Lot-02 and Lot 03) would likely be in jeopardy. Contractors were asked to expedite the progress of the installation of necessary components for Aids to Navigation along the river routes as in Lot -02 and Lot 03 as per contract document.

CHAPTER 04:
PROJECT MANAGEMENT AND PROGRAMME SUPPORT ACTIVITIES

To monitor dredging operation progress, resolve Environmental Health and Safety (EHS) concerns, and discuss other pertinent subjects as needed, monthly progress meetings were usually held at Lot 2 and Lot 3 field offices. Other than the meetings with the contractors, several meetings with PIU and Third Party monitoring team were held during the reporting period to assess progress and discuss the updated dredging activities and environmental-Social resettlement- ESHS-related issues. These team sessions enable efficient and smooth project implementation by fostering teamwork and good communication.

4.1 Coordination and Monthly Progress Meetings:

4.1.1 Coordination Meeting with the Representatives of S12/2 Third Party Monitoring team

In this coordination meeting, the S12/2 team shared the information obtained from their field-level monitoring with S1A representatives for the first time. They cited notable observations beginning in January 2023. S1A is currently fully on board and undertakes to look into the observations received and is committed to taking appropriate mitigation measures (Annex 2: Participant List)

4.1.2 Monthly Progress Meeting with the Contractors Team (Lot 3)

In addition to reviewing work progress and addressing EHS concerns, regular progress meetings are held as needed. There was one meeting during the reporting period on 22nd June 2023 to assess progress and discuss on Dredging work and EHS issues with Lot3 representatives. Through this meeting, team members communicate and collaborate, ensuring that the work is conducted safely and efficiently.

4.1.3 Progress Meetings with PIU:

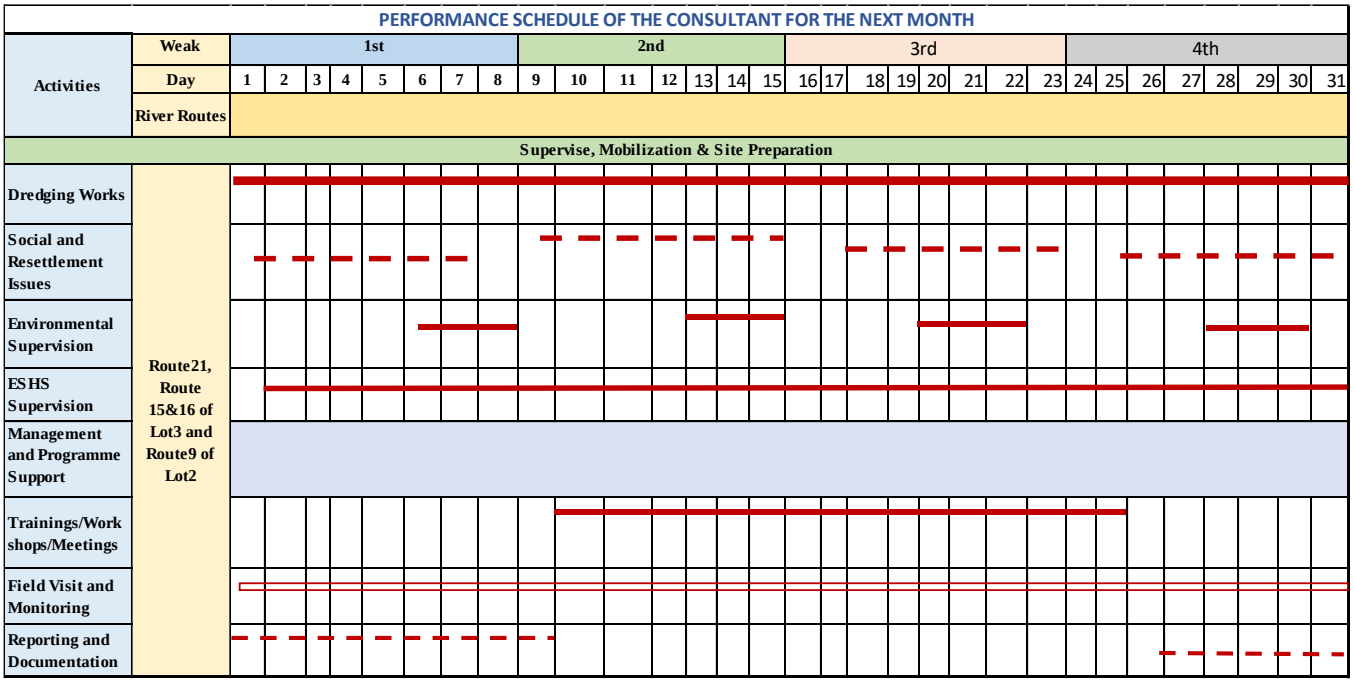
Several informal meetings were held with the PIU members on the progress of the project. The meetings highlighted environmental and safeguard issues. In addition, necessary decisions regarding good faith agreements and dyke preparation, and surveys of both dredging and social resettlements were important issues in these meetings.

4.2 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 16: Performance Schedule of the Consultant for the Next Month



CHAPTER 05:
ISSUES AND CONCERNS

5.1 Convenience

The project is a team work between PIU, Consultant (S1A) and Contractor (Lot 2 and Lot 3) which is noticeable from the beginning. In the month of June several meetings were held with PIU teams which helped the S1A consultants to follow up with the works and updates. Besides, coordination meetings with PIU, BIWTA and contractor have improved the work quality on a functional basis. Moreover, arrival of international consultant has helped progress the field movement, hydrography surveying and coordination with the contractors of both LOT-2 and LOT-3. These regular meetings, coordination and discussions are helping the consultants to work in discipline and thus the progress remains continuous.

5.2 Difficulties

Overall, the project implementation is well, but the dredging progress of Gulf Cobla-Karnafuli JV at Solimganj, Brahmanbaria is not much. Within the time period they completed only one dyke (full), other two are 70% filled at present. Most of the time their 'Dredger' does not work. In Bheduria (Barisal), Dharti-Banga JV has not dumped dredged material properly on dykes. In Brahmanbaria, some influential people have created influence on the local people to provide their land for good faith agreement. The land lease and good faith agreement activities are yet to gain momentum.

Major difficulties faced during the monitoring and supervision in the month of June 2023 are listed down as follows:

- Contractor do not provide any work plan or notification before starting any new work.
- Contractors are forcefully influenced by the local political power making dyke selection difficult, land owners have not been paid yet for their land.
- Prior approval on dyke design not taken by the contractors
- Contractor does not maintain record properly of all sand or sediment extraction.
- Contractors are yet to introduce navigation aids such as buoys, beacon, lights signal and sign board, etc.
- Health and safety issue such as PPE, vest, helmet, hand gloves, safety shoes and life savings equipment are not maintained/utilized properly.
- The contractor is not controlling the discharge of site runoff including excess dredge water by the installation and correct use of containment walls, bunds and weirs.
- Internal monitoring of the contractors needs improvement.
- Unavailability of the surveying instruments cause slow progress.
- Both the land lease process and good faith agreement are going slow and also the

5.3 Moving forward

- The contractor should mobilize all qualified professionals to the project site and take necessary measures in order to solve the above-mentioned issues.
- The Contractors Manager must be a person with enough experience, who can lead the team to carry out the work effectively.
- The contract schedule, standards and specifications need to be adhered by the contractor.
- Prior information, discussion and approval from S1A to commence any major activities is necessary.

CHAPTER 06:
CONCLUSION AND/OR RECOMMENDATIONS

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.

Overdue inception workshops and other necessary training programs will be held by S1A shortly. Further, the field enumerators as well as the contractor's staff will be briefed at regular intervals about the progress and defects, if any. Field workers should be convinced that discussions/conversations with local people (not just local elites) should be extended in determining the location for disposal of dredged materials.
Attendance of regular meetings at upazilla and district level with representatives of contractors will be determined by S1A. Any non-compliance of contractors should be discussed with the contractor and should be reported to the client - PIU.

CHAPTER 07: ANNEXURE

ANNEX 01: Project location and River Boundary

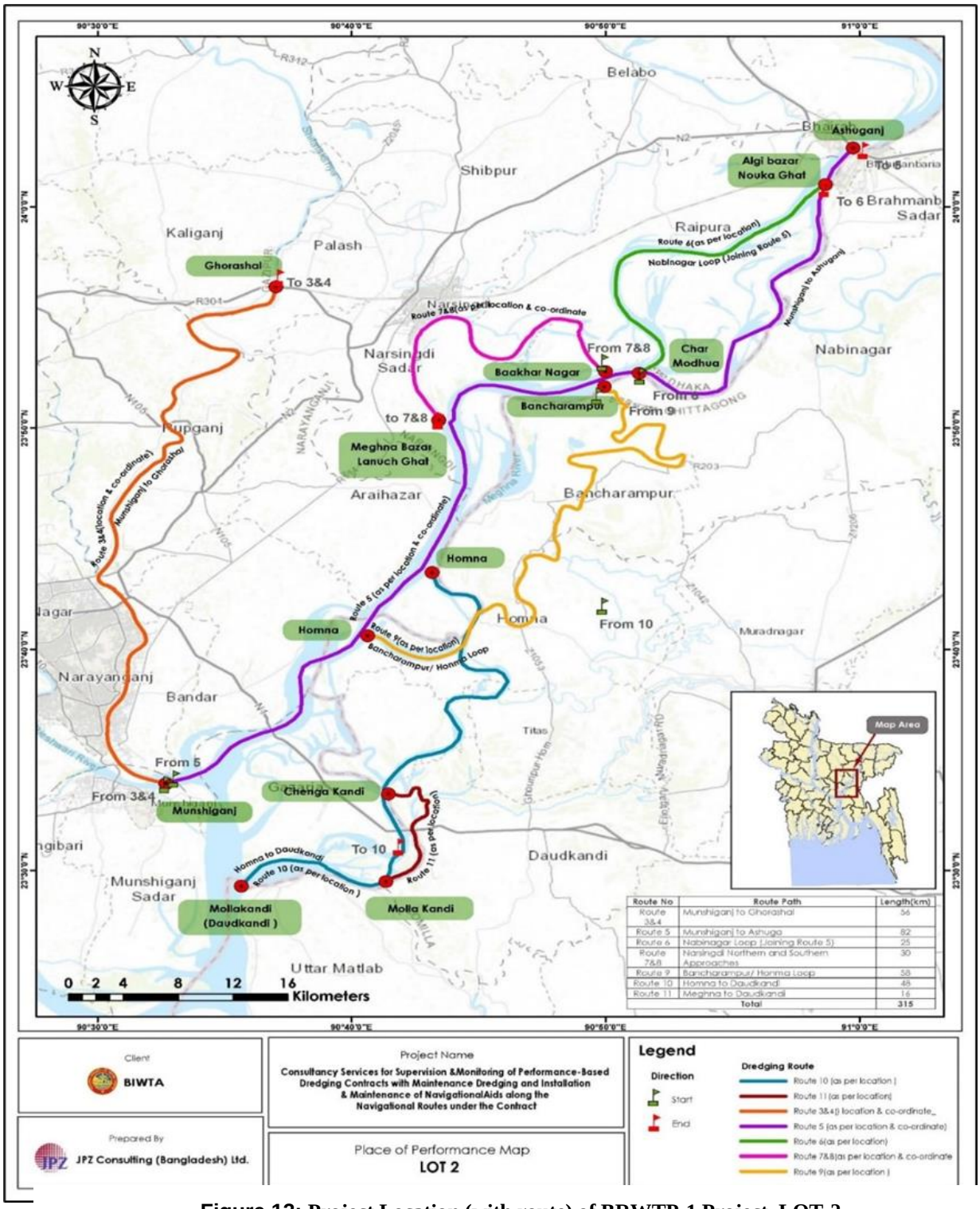


Figure 13: Project Location (with route) of BRWTP-1 Project, LOT-2

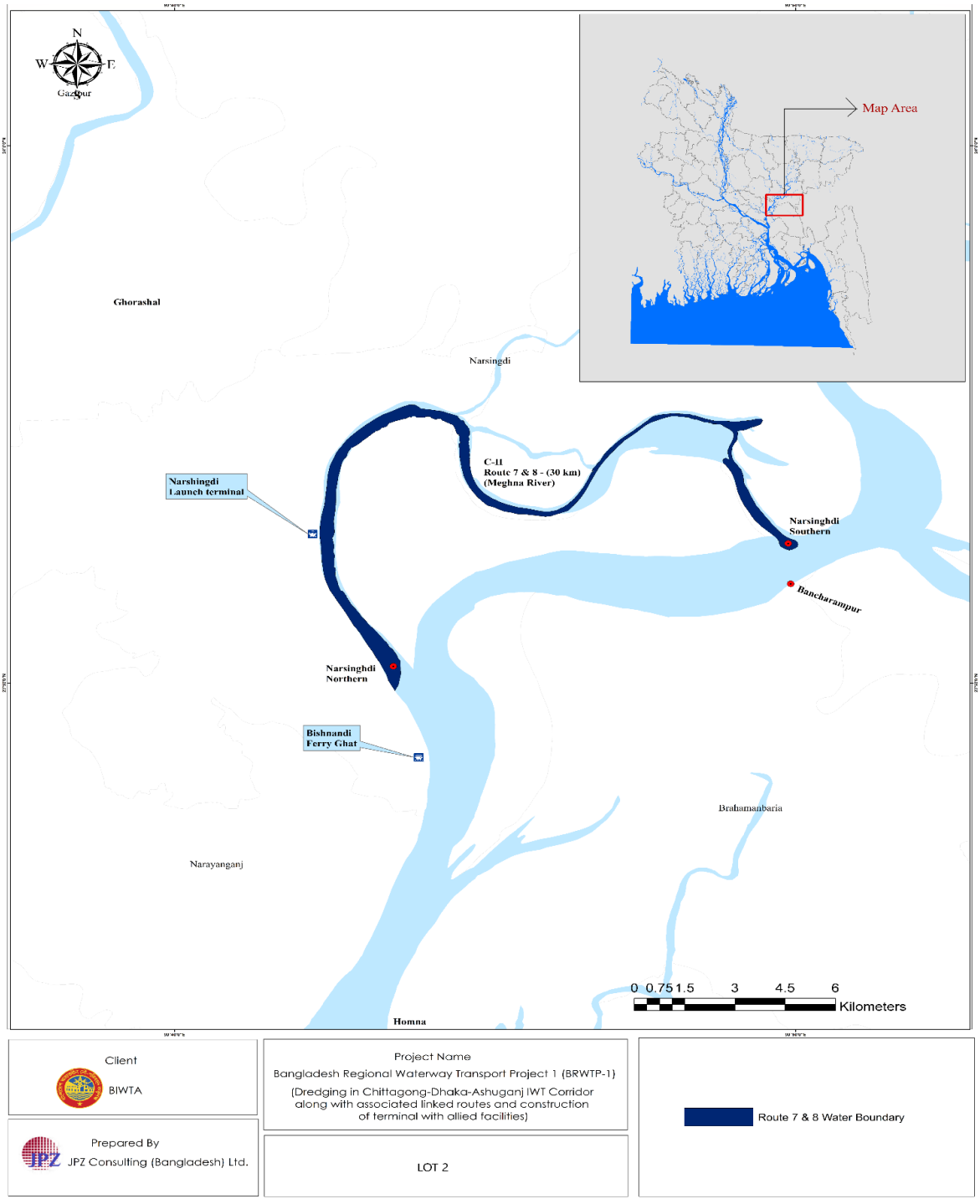


Figure 14: Route 07 Water Boundary

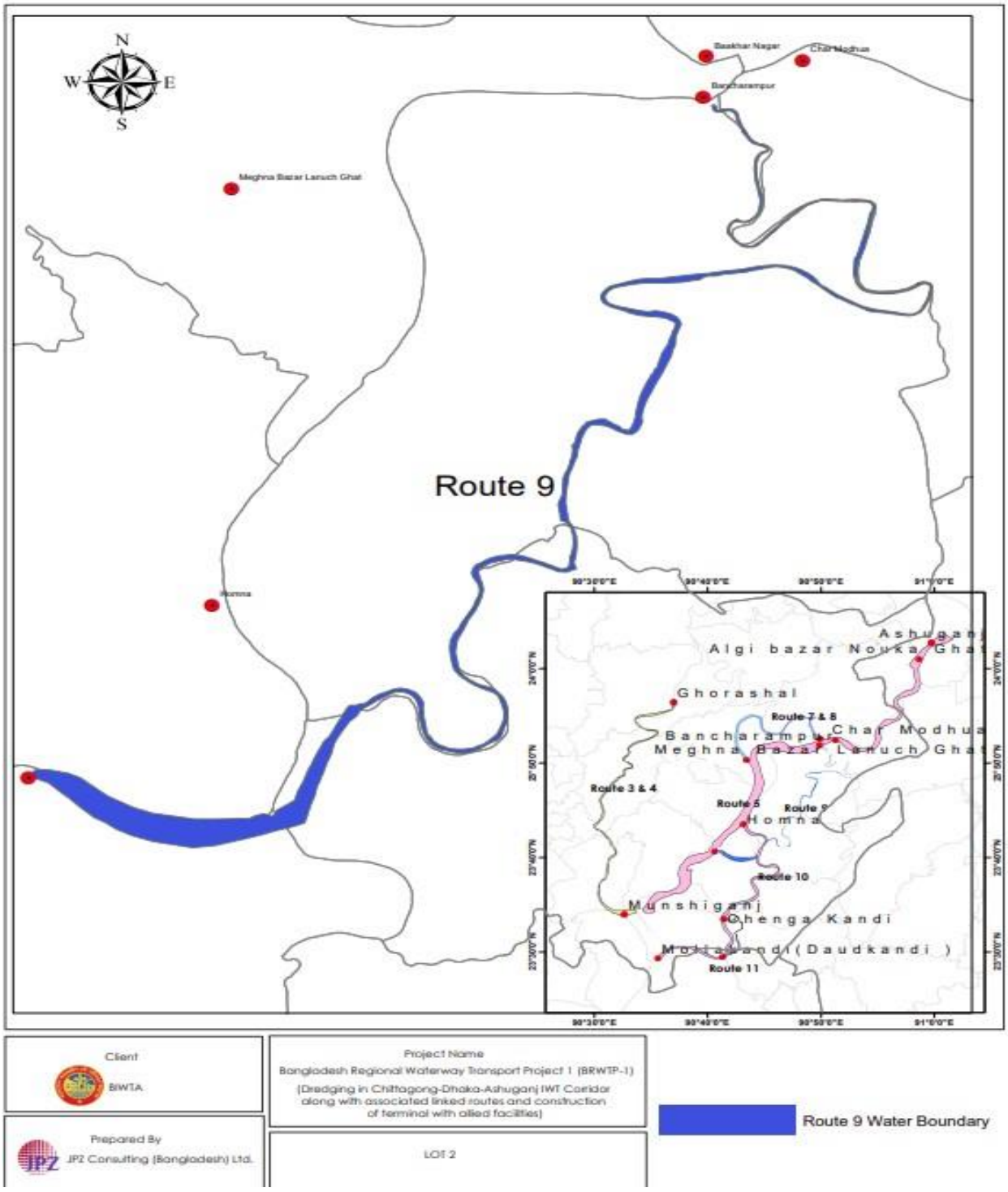


Figure 15: Route 09 Water Boundary

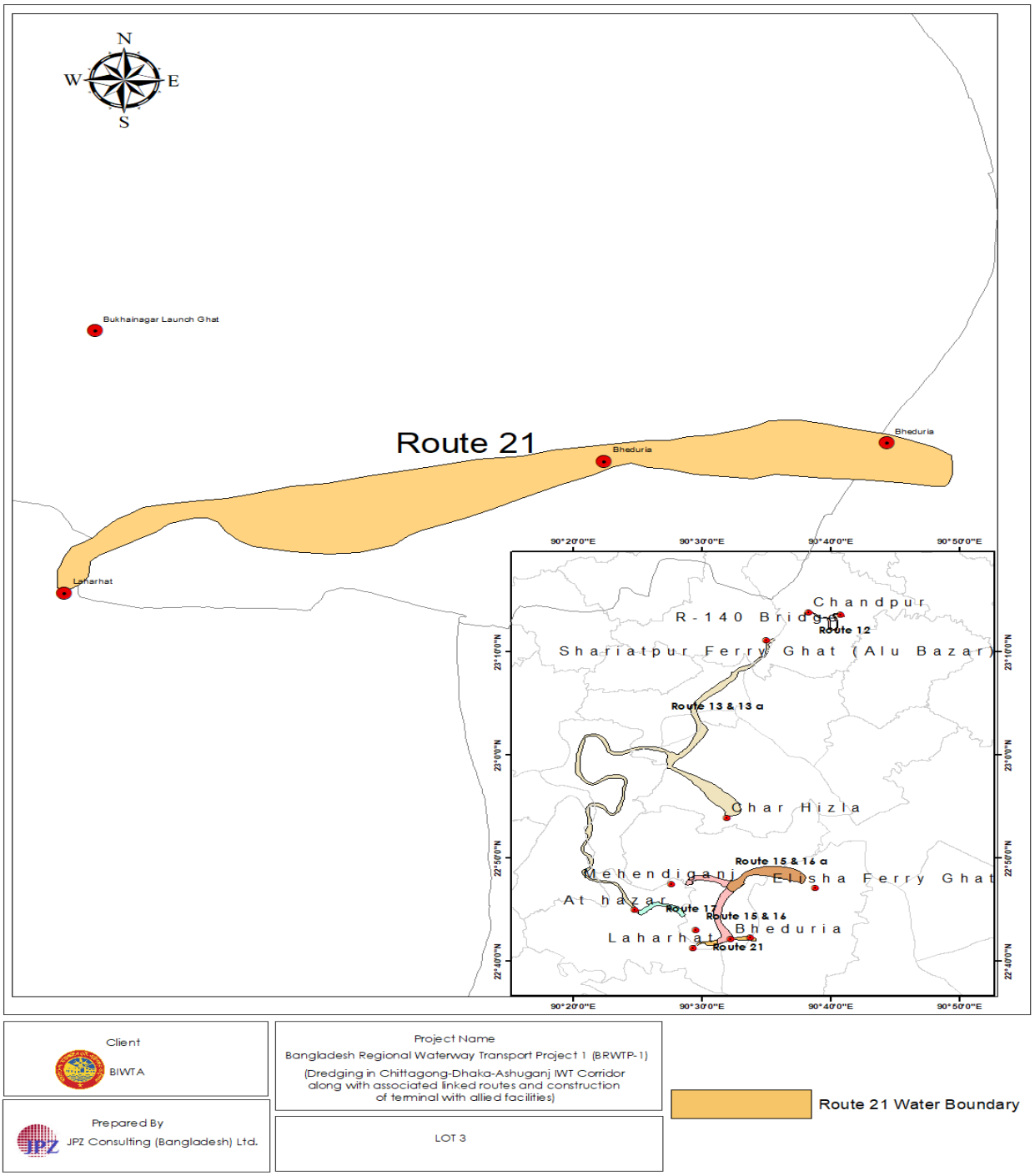


Figure 16: Route 21 River Water Boundary

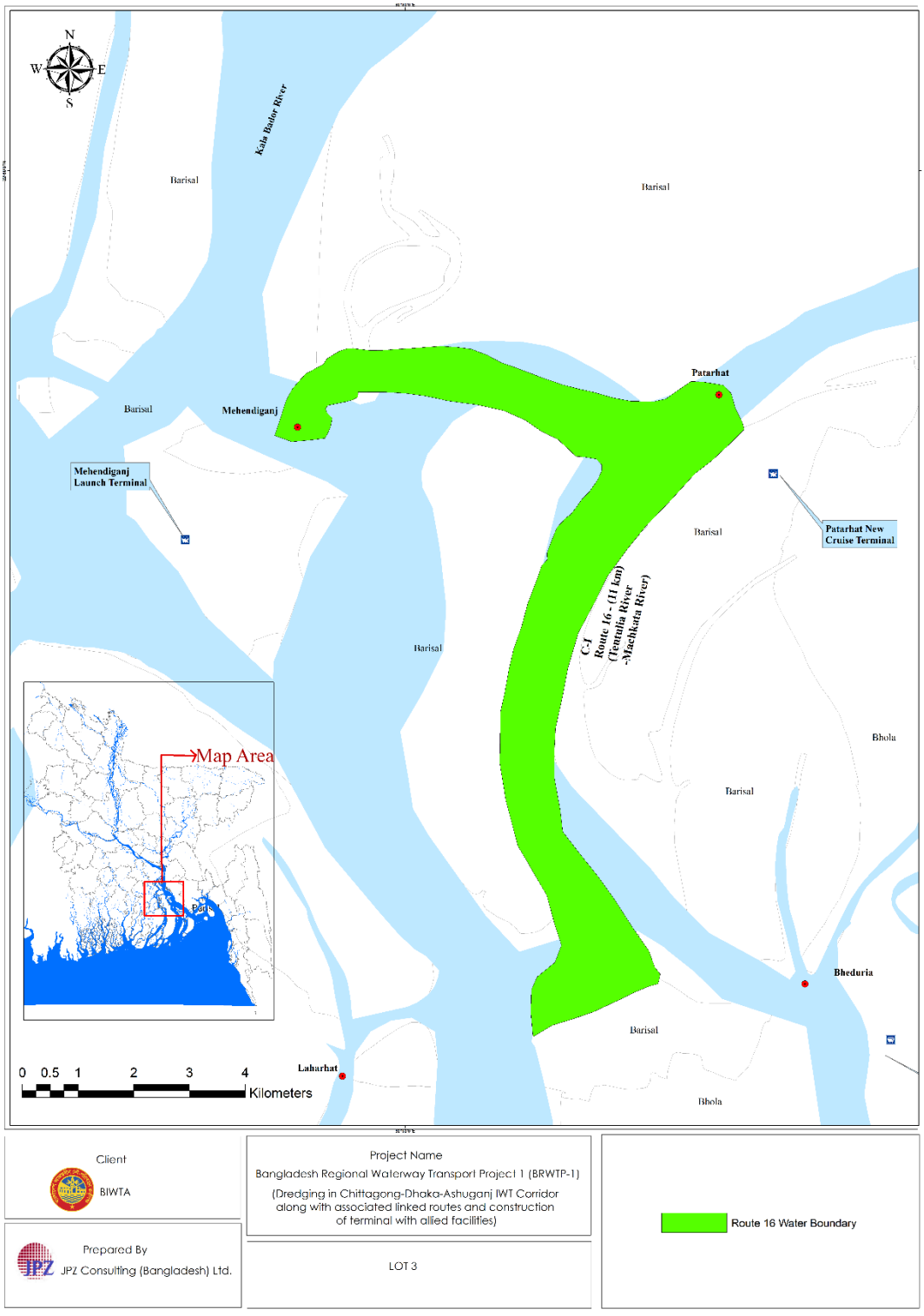
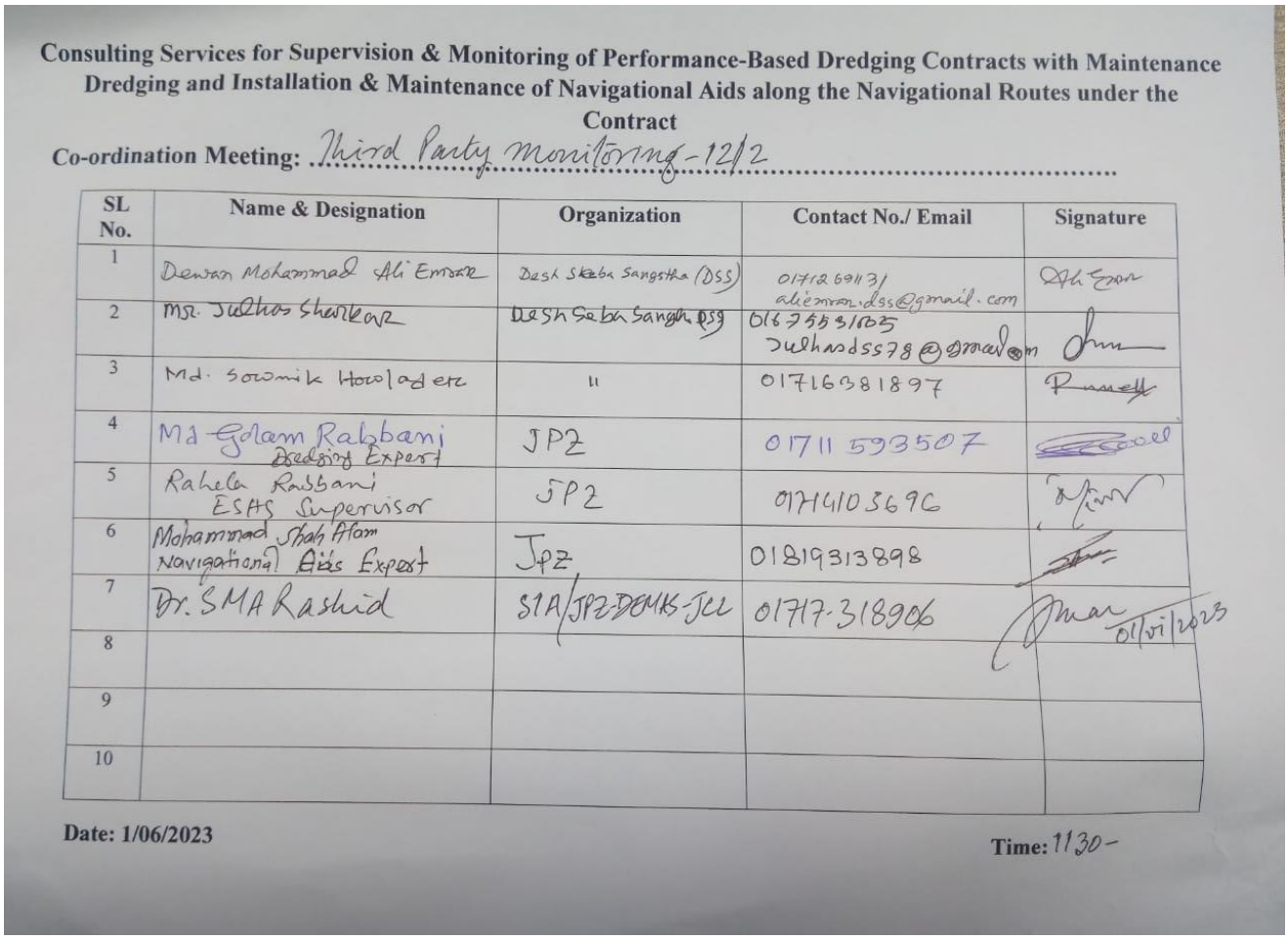


Figure 17: Route 16 Water Boundary

ANNEX 02:
Participants List of the Coordination Meeting with Third Party Monitoring Team (S12/2)



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

Co-ordination Meeting: Third Party monitoring - 12/2

SL No.	Name & Designation	Organization	Contact No./ Email	Signature
1	Dewan Mohammad Ali Emran	Desh Seba Sangstha (DSS)	01712 691131 aliemran.dss@gmail.com	
2	Md. Julhas Sheikder	Desh Seba Sangstha DSS	01675531805 Julhasds578@gmail.com	
3	Md. Soumik Hooladers	"	01716381897	
4	Md Golam Rabbani Dredging Expert	JPZ	01711 593507	
5	Rahela Rabbani ESHS Supervisor	JPZ	01741036906	
6	Mohammad Shah Alam Navigational Aids Expert	JPZ	01819313898	
7	Dr. SMA Rashid	SIA/JPZ-DEMAS-JCL	01717-318906	01/vi/2023
8				
9				
10				

Date: 1/06/2023 **Time:** 1130-

ANNEX 03: Field Visit, Survey and Meeting Photos, June 2023

Figure 19: Meetings of S1A Consultant Team (Having international Expert), June 2023

Figure 20: Air Quality Measurement at Route 16 and Route 09

Figure 21: River Bed and Dredge Material Sampling at Lot3 and Lot2 Sites Respectively

Figure 22: **Noise monitoring near Bheduria Ferry ghat (R-21) and Solimganj near River Route 09**

Figure 23: Grievance Box at Dredging Sites of Lot2

Figure 24: Consultation with Landowners groups and community people at Bancharampur, Brahmanbaria on 10, 08, 06 and 05 June 2023 (Clockwise)

Figure 25: **Photo of dredge material disposal area R09-D7 and R09-D9**

ANNEX 04: Response Against Consultant (S1A) Comments on Monthly Report, June 2023

Response Against Consultant Comments on Monthly Report, June 2023 (Lot2)

SL No.	Page No.	Consultant's Comments	Response	Remarks
1.	ix	Are these different sites from the ones mentioned as new sites along Route 7?	Yes, these are the different sites from Route 7. Dredging routes covered in the study month are: 1. River Route 7: Not yet started 2. River Route 9: Two sites were dredged (Imamnagar and Nilukhi Village). For better understanding, the writings have been updated accordingly.	The dredging activity in the dredging site of Imamnagar village (Darikandi Union) under River Route 9 has been completed, and the dredged material from Imamnagar dredging site was disposed of in Dike 7 (23.8353N, 90.8457E). Another dredging activity has been started at the dredging site of Nilukhy village (Solimabad union) under River Route 9. The dredged materials are being disposed of Dyke No. 9 (23.8368N, 90.8413E).
2.	ix	Evidence of observation is needed like observation sheets, photographs of conversations with the local people showing dolphin photos; names, etc.	The observation sheet and other evidential pictures will be added in the following month as per the scope with in the contract and discussion with you accordingly.	N/A
3.	ix	This is not a valid statement. All wetlands are turtle habitats, whether turtles are not found there is a different issue	The statement has been written accordingly.	In addition, the study team did not observe any turtle species in the study areas.
4.	4-1	Insert photographs, data sheets, etc., as evidence.	Fishing activities were observed near the dredging sites of Nilukhy village (approximately 2 km away from the Dredging site). Fishing activities and photographs of catch fish has been added in **Figure 4-5** (Last two row of the Photoplate) However, the Data sheet will be given in the following month as per the scope of the monitoring.	N/A
5.	4-1	Data sheets of fish catch survey, consultation with the fishermen??	Photographs of fish caught, and consultation pictures were added in **Figure 4-5**. A data sheet on the fish catch survey will be added from the following month as per contract documents and the scope of the work.	N/A
6.	4-1	Observation sheets ?? on no visible fish mortality	With due respect, there was no indication of datasheet in the previous month's report. However, the Data sheet will be given in the following month as per the scope of the work by Contractor Part.	N/A
7.	4-1	Add observation sheets, contacts of people interviewed	The observation sheet and Contracts of the people interviewed will be added accordingly in the following month.	N/A

SL No.	Page No.	Consultant's Comments	Response	Remarks
8.	4-1	Every wetland is a turtle habitat. The presence or absence of turtles depends on various factors. Were the fishermen villages visited? Interviewed showing photographs of the turtles? etc.	The statement has been corrected accordingly. The photograph of interviewed people will be added in the following month as per scope of contractor parts.	In addition, the study team did not observe any visible sign of turtle species.
9.	4-13	See comments made above for fishing activities	Fishing activities were observed near the dredging sites of Nilukhy village (approximately 2 km away from Dredging site). Fishing activities and photograph of catch fish has been added in figure 4-5 (Last two row of the Photoplate) However, Data sheet will be given in the following month as per scope of the monitoring by contractor part.	The writings have been updated accordingly.
10.	4-13	Market survey and catch survey are different. What is needed for the project is the species composition derived from catch survey. For this data sheets are needed to be attached as appendix	The captured fish and crustacean species found 2 km away from the dredging site of Nilukhy village were added in the report. There is no market survey for fish and crustacean species were added. However, Data sheet will be given in the following month as per scope of the monitoring by contractor part.	The writings have been updated accordingly.
11.	4-15	This needs to be substantiated by monitoring fish catch. Supporting observance, data sheets to be attached	Data sheet will be given in the following month as per scope of the monitoring by contractor part.	N/A
12.	4-16	See comments above	Observation sheet and other evidential pictures of interviewed people for dolphin will be added in the following month as per scope with in the contract and discussion with you accordingly.	N/A
13.	4-16	See comments above	Photos of interviewing people about turtle species will be added in the following month.	The statement has been updated and corrected accordingly.
14.	4-16	Photographs of site: before and after disposal of dredged material should be shown	Photograph of disposal site (after and before disposal) will be added in the following month.	N/A
15.	4-19	It does not look clean	Agreed. One toilet was observed to be 'unclean and#39; during the monitoring. Recommendations were made to keep it clean and hygienic immediately. Now we replaced the phot by another toilet.	
16.	5-1	This number is not satisfactory. In the photographs there are more people??	Total number of consultation sessions were 8 and each consultation session was conducted with 6-11 people.	

SL No.	Page No.	Consultant's Comments	Response	Remarks
17.	Comments through mail	Shortage of data on (Benthos) Phytoplankton and Zooplankton	Phytoplankton and Zooplankton data are not included in Monthly monitoring report, rather than the Benthos Phytoplankton and Zooplankton data will be provided in Quarterly monitoring period.	N/A