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Ministry of Shipping



Bangladesh Inland Water Transport Authority (BIWTA)



The World Bank



MONTHLY PROGRESS REPORT

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

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 December 2023, Lot-2 contractor dredged 480 m on Route 9 (Class III, length 80km, Titas River) and 305 m on Route 7 & 8 (Class III, Length 30 km, Upper Meghna River). From the month of March 2023 till December 2023, they have cumulatively dredged 4.35 km on Route 9. Moreover, they have mobilized one dredger on Route 7 & 8 and dredged 305 m since 13th December. The progress on Route 9 is still very poor. The main challenge is failing to provide continuous operation of dredgers due to frequent machinery breakdown and lower draft on the river. Besides, the Lot-2 contractor has done environmental quality control surveys on route 7 & 8 and 9.

During the month of December, 2023, the Lot-3 contractor carried out 1.44 km of emergency dredging on Route 21 on the same alignment they dredged on March 2023 as it got siltation during this period and also 157.7 m of dredging on Route 16. Besides, they have done Hydrographic Baseline Survey on Route 13 and 16. Moreover, they did the maintenance surveys and environmental quality control surveys on Route 16 and 21.

The Consultants activities during the Reporting Period

On the month of December 2023, the S1A consultant and PIU have visited Route 9 Salimganj in order to expedite the dredging work and monitor dyke selection on 10th December, 2023. From 11th-12th December, 2023 the S1A consultant have visited Barisal Route 21 for dyke selection. On 18th December, 2023 the S1A consultant have visited Route 16, Patarhat for dyke selection. On 24th December, 2023 S1A and PIU have visited along with the representatives of Planning Ministry to Salimganj Route 9, in order to monitor the dredging, environmental and social activities of the project area. On 27th December, 2023 the S1A consultant have visited Route 9 for good faith agreement with the local land owners and also to supervise the GRM activities of the project area.

CHAPTER 01: PROJECT DESCRIPTION IN A BRIEF

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

CHAPTER 02: SALIENT FEATURES & MONTHLY PROGRESS

2.1 PROGRESS OF BRWTP-S1A:

2.1.1: Development and Maintenance Dredging Works:

Lot-2:

In December 2023, Lot-2 contractor dredged 480 m on Route 9 (Class III, length 80km, Titas River) and 305 m on Route 7 & 8 (Class III, Length 30 km, Upper Meghna River). From the month of March 2023 till December 2023, they have cumulatively dredged 4.35 km on Route 9. Moreover, they have mobilized one dredger on Route 7 & 8 and dredged 305 m since 13th December. The progress on Route 9 is still very poor. The main challenge is failing to provide continuous operation of dredgers due to frequent machinery breakdown and lower draft on the river. Besides, the Lot-2 contractor has done environmental quality control surveys on route 7 & 8 and 9. On the month of December 2023, the S1A consultant and PIU have visited Route 9 Salimganj in order to expedite the dredging work and monitor dyke selection on 10th December, 2023. On 24th December, 2023 S1A and PIU have visited along with the representatives of Planning Ministry to Salimganj Route 9, in order to monitor the dredging, environmental and social activities of the project area. On 27th December, 2023 the S1A consultant have visited Route 9 for good faith agreement with the local land owners and also to supervise the GRM activities of the project area.

Lot-3:

During the month of December, 2023, the Lot-3 contractor carried out 1.44 km of emergency dredging on Route 21 on the same alignment they dredged on March 2023 as it got siltation during this period and also 157.7 m of dredging on Route 16. Besides, they have done Hydrographic Baseline Survey on Route 13 and 16. Moreover, they did the maintenance surveys and environmental quality control surveys on Route 16 and 21. From 11th-12th December, 2023 the S1A consultant have visited Barisal Route 21 for dyke selection. On 18th December, 2023 the S1A consultant have visited Route 16, Patarhat for dyke selection.

2.1.2: Environmental Quality Assessment:

The S1A team reviewed the environmental data of Route 9, 7 & 8 under Lot-2 and Route 15 & 16 and 21 under Lot-3, for the month of December, 2023 consisting of air, water, noise pollution levels, riverbed materials report, etc. In the month of December 2023, monthly monitoring was conducted at Bancharampur-Salimganj area of Route-9 as well as Khodadila of Narshingdi (Route-7). As of the monitoring period, dredging has not begun along route 16. During this month, environmental quality assessments were conducted at four locations on route 16.

The map (Figure 1&2) shows the location of the dredger and the sampling points in this month for environmental quality assessments of Lot-2 and Lot-3.

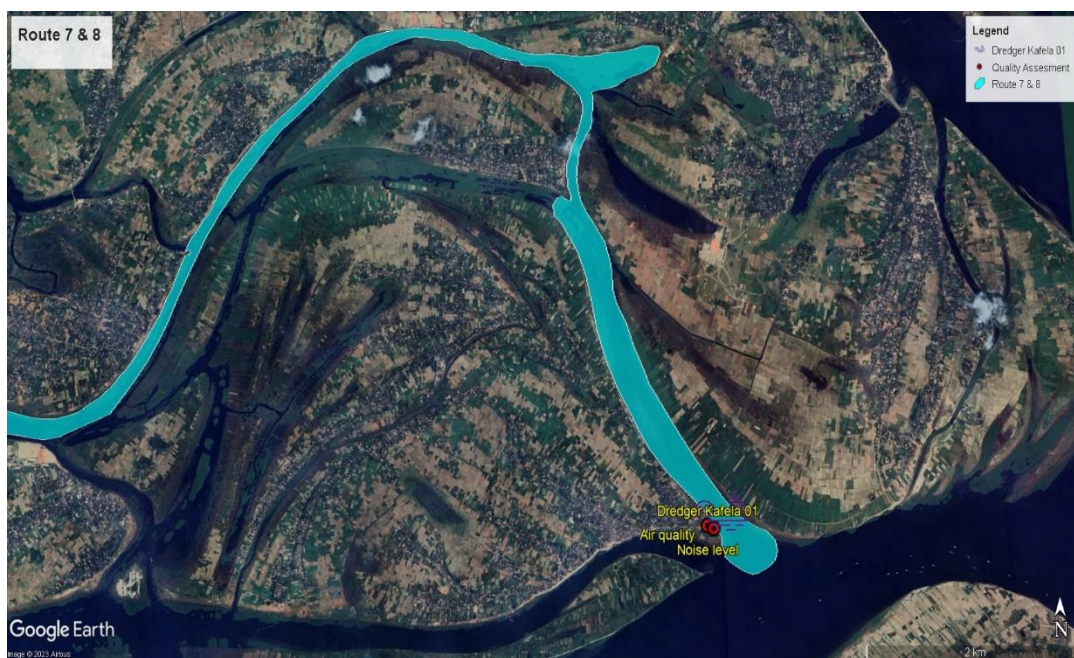


Figure 1: Location of the sampling points in December for environmental quality assessments of River Route 7 & 8 under Lot-2

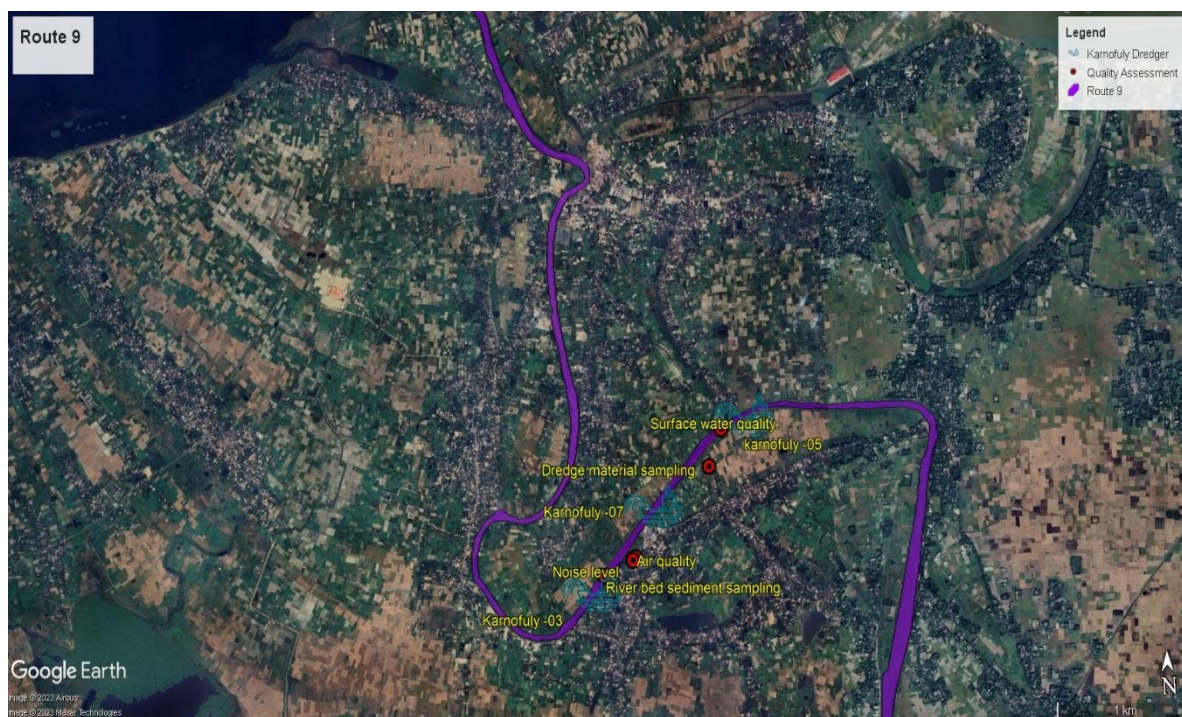


Figure 2: Location of the Dredger and sampling points in December for environmental quality assessments of River Route 9 under Lot-2



Figure 3: Location of the Dredger and sampling points in December for environmental quality assessments of River Route 16 under Lot-3

Table 1: Environmental Quality Assessment for December 2023 for Lot-2

SI No.	Item	Para meters	Baseline Data of Route 09	Route 7 Khodadila Narsingdi 23°52'40.78"N 90°49'39.78"E	Route 9 Beside of Bishnurampur Eidgah Ground 23°49'39.11"N 90°50'59.06"E	S1A Remarks December 2023
			February 2023	December 2023		
1	Air Quality	SPM	168.64	132.83	164.37	Within Approved Limit
		PM10	78.42	62.46	82.32	Within Approved Limit
		PM2.5	53.46	50.38	62.19	Within Approved Limit
		SO2	30.58	22.66	28.44	Within Approved Limit
		NO2	26.15	29.21	31.93	Within Approved Limit
		CO	0.6	0.6	0.7	Within Approved Limit
2	Noise Level	LEQ day	58.4	49.2	58.2	Within Approved Limit
		L _{max}	69.6	55.2	69.9	Within Approved Limit
		L _{min}	40.5	38.7	45.4	Within Approved Limit
3	Surface Water Quality 23°50'5.06"N 90°51'22.64"E	Temperature	31.9	-	30.2	Within Approved Limit
		EC	208	-	138	Within Approved Limit
		pH	6.92	-	7.71	Within Approved Limit
		TDS	235	-	297	Within Approved Limit
		DO	6.1	-	5.4	Within Approved Limit
		BOD5	5.4	-	4.9	Within Approved Limit
		TSS	162	-	180	Within Approved Limit
4	Riverbed Sediment 23°49'57.35"N 90°51'19.08"E	Lead (Pb)	11.58	-	15.92	Within Approved Limit
		Cadmium (Cd)	0.082	-	0.07	Within Approved Limit
		Chromium (Cr)	13.98	-	16.28	Within Approved Limit
		Zinc (Zn)	24.54	-	20.89	Within Approved Limit
		Arsenic (As)	2.4	-	1.5	Within Approved Limit

N.B. The test results are given in the annex part.

Table 2: Environmental Quality Assessment for December 2023 for Lot-3

SI No.	Item	Parameters	Baseline Data of Route 16	River Route 16	S1A Remarks December 2023
			December 2022	December 2023	
1	Air Quality	SPM	165.2	70.78	Within Approved Limit
		PM10	13.69	75.34	Within Approved Limit
		PM2.5	47.28	69.57	Within Approved Limit
		SO2	72.15	98.56	Within Approved Limit
		NO2	22.18	17.21	Within Approved Limit
		CO	1.5	0.9	Within Approved Limit
2	Noise Level	LEQ day	68.6	61.15	Within Approved Limit
		L _{max}	84.4	56.45	Within Approved Limit
		L _{min}	37.3	59.87	Within Approved Limit
3	Surface Water Quality	Temperature	22.1	24.7	Within Approved Limit
		EC	300	285	Within Approved Limit
		pH	7.89	7.62	Within Approved Limit
		TDS	150	155	Within Approved Limit
		DO	6.2	6.4	Within Approved Limit
		BOD5	0.4	2.8	Within Approved Limit
		TSS	93	41	Within Approved Limit
4	Riverbed Sediment	Lead (Pb)	11.6	7.13	Within Approved Limit
		Cadmium (Cd)	0.082	0.058	Within Approved Limit
		Chromium (Cr)	13.29	17.67	Within Approved Limit
		Zinc (Zn)	32.58	37.86	Within Approved Limit
		Arsenic (As)	2.4	1.92	Within Approved Limit

N.B. The test results are given in the annex part.

Table 3: Compliance Status for December 2023 for Lot-2

Visual Monitoring Compliance								
Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Remarks/ Recommendation	Recommended deadline for implementing the corrective measures
				C	P	N		
Aquatic Flora and Fauna including Plankton, Benthos, fish, dolphin	A very few fishing activities were observed at Satpara village (approximately 1.1 km away from the dredger point) in Route 7. Ganges River Dolphins are not found in the dredging adjacent areas of Route 9.	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 st March 2023	No action taken or data provided by the contractors yet. Will be reminded again
River Bank Erosion	There were no issues regarding riverbank erosion or flooding.	Dredger stopped and relocated	Dredger stopped and relocated; some protection measures taken	C	-	-	Stop dredging and relocate	Recommended to report to the authority and stop dredging
Hydrological Conditions	Surveyed prior to dredging	x	x	x	P	x	x	x
Drainage Congestion	The dredging work in December 2023 is being carried out at Salimganj Ghat (Route-9) area. During site observation, the outline for water passing from the dredge material was found to be functional.			-	P	-	No reports of any drainage congestion	Keep clear all drainage channels
River Traffic/Transport	River traffic related sign boards have already been fixed to ensure a safe river traffic movement		No mitigation measure is required		P	-	Install river traffic and navigation-related sign boards	
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	
Drinking water & sanitation	Safe drinking water is being supplied		-	-	C	-	-	-
Safety of workers	Occupational safety		PPEs provided	-	-	P	Monitor use of PPEs	-
Waste management	Waste bins have been placed on the houseboat as well as in dredger and maintained		-	-	C	-	Colored collection bins for organic and non-organic solid wastes; no wastes in the river	
Cultural and archeological Sites	Preservation of such sites		x	-	x	x	Stop dredging, report to the authorities	-
Waste water			-	-	-	P	-	-

Table 4: Compliance Status for December 2023 for Lot-3

Visual Monitoring Compliance								
Potential Aspects	Description	EMP Measures as Proposed in the EIA	Measures Already Implemented	Compliance Status			Remarks/ Recommendation	Recommended deadline for implementing the corrective measures
				C	P	N		
Aquatic Flora and Fauna including Plankton, Benthos, fish, dolphin	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 st 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

2.1.3: Social and Resettlement Aspects:

In Lot-2 and Lot-3, total 8 disposal areas have been selected. The GRM expert of S1A is working on setting up the protocols for reporting the GRM issues at different level in a structured way based on CEAP and Contractual responsibilities.

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

Lot-02: At present **39** agreements are on process. Most of the places people have willingly agreed to allow using their lands. General people of the project sites can get the news of river dredging, dredged materials dumping and good faith agreements through several consultation meetings with local people in local Bazars, Union Council, villages and the local Schools. Progress of Dykes and Good Faith Agreements during this reporting period of Lot-2 is illustrated in the following tables:

Table 5: Good Faith Agreements (GFA), Lot 2, Route-09, Route 07&08 (District: Brahmanbaria and Narsingdi).

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement (GFA)
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
27	09	Ilias Miazi NID: 199212164880001 30 Mbl: 01985728652	Village: Bishnursmpur Union: Tezkhal Upazila: Bancharampur District: Brahman Baria	Mouza: Bishnursmpur SA Khatian: 172, Plot no: 1308,1497,1448,427,1105 Bishnurampur JL No 43	174	Agriculture land (One Crop)	Under Processing
28	09	1. Gazi Kawsar NID: 3298455597 Mbl: 01713685001 2. Gazi abdu Salam NID: 2398479119 Mbl: 01740956081 3. Md. Zakir Hossain NID: 7348561049 Mbl: 01713585112 4. Chandra Kumar Das NID: 1210488090007 Mbl: 01740968121	Village: Aka Nagar Union: Tezkhal Upazila: Bancharampur District: Brahman Baria.	Mouza No: Aka Nagar SA Khatian: 3921,4096,3941 Plot No: 5760,5705,5707,5790,6370,6698,5744,5711,5384,5715 J L No 13	310	Agriculture land (One Crop)	Under Processing
30	09	Md. Hanif NID: 5501395304 Mbl: 01717531207	Village: Bishnurampur Union: Bishnurampur Upazilla: Bishnurampur District: Brahman Baria.	Mouza: Bishnurampur SA Khatian: 894, Plot no. 108,111 Khatian No. 860/380 JL No. 41	154	Agriculture land (One Crop)	Under Processing
34	09	Habib Ulla NID: 2398391876 Mbl: 01817506254	Village: Bahirchar Union: Bishnurampur Upazila: Bancharampur District: Brahman Baria.	Mouza No. Bahirchar 603,714,1152,1545 Bishnurampur Khatian No: 92 JL No: 41	79	Agriculture land (One Crop)	Under Processing

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01	7&8	1.Hanif Mia NID: 6816020733136 2.Abu Kashed Mia NID: 6816020432149 3.Abul Kashem NID: 5501734684 4.Nuru Mia NID: 8218914904 5.Sushil Chandra Sutradhar NID: 6816020732471 Mbl: 01794391918, 01712766109	Village: Birgaon Union: Alokbal Upazila:Narsingdi Sadar District: Narsingdi	Mouza: Char Madhobpur SA Khatian No: 425/2010/2051 CS Plot No: 4212, 4219, 4262, 4341, 10070, 10037, 13062, 10064, 10062, 10061, 10091, 10204, 9689, 9690, 9653, 10079, 10056, 10205, 9798, 10118, 10111, 10114 JL No: 73, 62, 52	677	About 70% Fallow Land and 30% Agriculture land (One Crop)	Under Processing
02	7&8	Md. Delwar Hossain NID: 9550769062 Mbl: 01712766109	Village: Bakhor nagar Union: Alokbal Upazila:Narsingdi Sadar District: Narsingdi	Mouza: Char Madhobpur SA Khatian No: 8723/4356/4126/4247 SA Plot No: 7879,7915,7880,8793,7891,7960,7961,9730,9731,9732,8730,896,7496,7494,9756, 9757, 9727,9730, 9731, 9732,8726, 8743, 7891, 8793,7886, 7496,7494,9622,7915 JL No: 62	328	Fallow Land	Under Processing

Lot-03: At present **09** 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 (GFA) through several consultation meetings with local people in local Bazaars, Union Council, villages and the local Schools.

Good Faith Agreements (GFA), Lot-03, Route 21, (District: Bhola & Barisal).

Dyke No.	Route No	Land Owner		Land			Good Faith Agreement (GFA)
		Name and NID	Address	Description	Quantity (Decimal)	Quality of Land	
10	21	Johurul Islam NID:4192286039 Mbl: 01711320785	Village: Bheduriya Union: Bhola Sadar Upazila: Bhola Sadar District: Bhola.	Mouza No. Char Bheduriya Khatian No: 1319 JL No: 56	405	Agriculture land (Two Crops)	Under Processing
11	21	Md. Kabir Hossain Mridha NID:6878485082 Mbl: 01735802399	Village: Sreepur Union: Mehendiganj Upazila: Mehendiganj District: Barishal.	Mouza No. Ghagoria Khatian No: 296 JL No: 118	700	Agriculture land (Two Crops)	Under Processing

2.1.3.2 Communication and Public Consultation:

The social and safeguard team have communicated with local people and conducted consultation meeting on a regular basis.

Table 6: Consultation with Local Stakeholders (December 2023)

Sl. No.	Date	Meeting Agenda and Participants	Meeting Location
1	04 December, 2023	Monitoring visit to observe and discuss on the field level progress of Lot-2 Contractor's site regarding Route 09 and Route 7&8 Dyke selection and preparation. Stakeholder Consultation for selecting dyke for route 09 and Route 7&8.	Meeting room of Lot- 2 contractor's field office, Solimganj, Brahmanbaria.
2	06 December, 2023	Consultation with representatives of Local Government , land owner about dyke boundary wall/height construction issues	Patarhat ghat, Route no.16 Lot-3
3	19 December, 2023	Consultation with Local People for dyke selection.	Route no. 7&8

2.1.3.3 ESHS, Worker Employment and OHS Status:

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

Table 7: ESHS Status at a Glance in December 2023

ESHS Issues	Parameters	Lot-2	Lot-3
Occupational Health and Safety (OHS)	Set up a first aid clinic room, equipped with a medical treatment registration card for each employee.	First aid facilities available at project sites.	First aid facilities available at project sites.
	Kitchen sanitation and cleanness and Food Quality	Satisfactory	Satisfactory
	Sewage and wastewater discharge and Solid Waste Management	Good arrangement kept in House boat	Good arrangement kept in House boat
	Gas cylinder storage and maintenance	Maintained	Maintained
	Fire Extinguisher	Available	Available
	Safe Drinking Water	Accessible. Freshwater is collecting daily from tube well of nearby villages	Accessible. Freshwater is collecting daily from tube well of nearby villages
	Toilet facilities	Good	Good
Workers Condition and Employment situation	Total Employment (person)	36	58
	Male Female Ratio	All employees are Male	No Female Employee
	Wage Status	Good arrangement kept in House boat	Good arrangement kept in House boat
	Force Labor/ Child Labor	Not Applicable in this month	Not Applicable in this month
Personal Protection Equipment (PPE) for all staff/workers working in the site.	Wearing of appropriate PPE like helmets, safety goggles, hand and arm protection, elbow protection gloves, safety shoes, life jacket/vests for protection while working in the river, use of hearing protection in case of loud noise for all officers/employees and laborers engaged in project work.	Safety helmet, Safety vest, safety shoes, Hand gloves etc. observed at site.	Available in site level but need awareness for using PPE
Traffic management	Provision for preventing accident including night time.	Contractors ESHS team visiting site and concerning all the Manpower	Contractors ESHS team visiting site and concerning all the Manpower

	Dredging sites clearly demarcated and protected to ensure community safety.	Demarcated and Processing for installation required Aids to navigation	Demarcated and Processing for installation required Aids to navigation
--	---	--	--

2.1.3.4 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 illicit sexual relationship with the local inhabitants. No data have found about the violence against women. Everybody reported that no sexual exploitation, sexual violence, or gender-based violence happened in work sites.

2.1.3.5 Grievance Redressal Mechanism (GRM):

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

2.1.4: Update information on Navigational Aids in December 2023

S1A team visited along the Inland Waterway Routes in Lot-02and Lot-03 a good number of time on various dates to observe the development and performance of the contractors BRWTP-W1A -02and Lot-03 activities on installations of Aids to Navigation. During the last visit on 25 December along route 07&08and route 09 with Joint Chief IMED, PIU Team BRWTP-1, S1A Team BRWTP & Contractor Team BRWTP-W1A-02, Led by Cmdre Rtd. Arif, Inland Manager for Gulf-Kobla Karnafuly JV, found their progress improved a bit on the installation of approved required Navigational Aids. i.e., placing of cautionary boards contained safety signals & signs to avoid any unwanted accident/endanger.

2.1.5: Field Activities of S1A Consultant in December 2023

Table 8: Field Activity of BRWTP-S1A at Lot-2 Site

Serial No	Date	Activity	Route name & Route number	Remarks
1	28, December, 2023	Site visited to observe on going dredging work	Lot-2, Route:7&8 (monipura bazar - Baharnagar, Meghna river, Narsingdi),	Dyke-01 (0.55 acre) dredging work (progress 70%) is going on.
2	25, December, 2023	Inspection of dyke construction and observed the ongoing dredging work.	Lot-2 River route – 7&8 and route 09. Brahmanbaria	Representatives from Planning Commission and BIWTA were Present
3	19, December, 2023	Dyke Selection for route no. 7&8	Lot-2, Route: 7&8	
4	18, December, 2023	Dyke Selection for route no. 7&8	Lot-2, Route: 7&8 Monipura bazar - Baharnagar, Meghna river, Narsingdi	

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

5	17, December, 2023	Dyke Selection for route no. 11	Lot-2, Route: 11 Dautkandi, Cumilla	
6	15, December, 2023	Visited selected Dyke and discussed with Land Owner, Baharnagar.	Lot-2. Route: 7&8	
7	11, December, 2023	Site visited and discussed with local people on dredging work continuation.	Route no. 6 Derar Char, Raypura, Narsingdi. Lot-2	
8	10, December, 2023	Visited for selecting Dykes	Route no. 6 Derar Char, Raypura, Narsingdi. Lot-2	
9	09, December, 2023	Visited for selecting Disposal Areas	Route no. 11 Lot-2	
10	06, December, 2023	Environmental sample collection	Route no. 7&8 Lot-2	
11	06, December, 2023	Consultation with local people on Dyke selection, Baherchar, Tezkhali	Route no. 09 Lot-2	
12	05, December, 2023	Environmental sample collection	Route no. 09	
14	04, December, 2023	Visited route 9, route 7&8 for observing river dredging activities, dykes' selection, preparation and stakeholder (CSO) consultation.	Route no. 09 Lot-2	BRWTP-PIU and Lot 2 team accompanied

Table 9: Field Activity of Lot-3

Serial No	Date	Activity	Route name & Route number	Remarks
1	03, December, 2023	Inspection and Land paper collection from the land owner.	Lot-3, Route-21, Dyke no-09 & 10	
2	06, December, 2023	Patarhat Councilor and Land Owners to resume the suspended work of No. 1 dyke	Lot-3, River route - 16 Patarhat	
3	09, December, 2023	Site visit and engineering survey carried out jointly by S1A consultant with BIWTA and contractor representative.,	Route no.21, Lot-3,	
4	10, December, 2023	Site visit and Hydrography survey carried out jointly by S1A consultant with BIWTA and contractor representative., 2023	Route no.16 (Patarhat), Lot_3	
5	16, December, 2023	Hydrographic detail Survey ongoing at Patarhat carried out jointly by S1A consultant with BIWTA and contractor representative.17, November, 2023	Route No: 16, Lot_3.	
6	16, November, 2023	S1A consultant with BIWTA and contractor representatives visited ongoing hydrographic detail survey at Patarhat.	Lot-3. Route No: 16.	
7	17, December, 2023	Hydrographic detail Survey finished at Patarhat carried out jointly by S1A consultant with BIWTA and contractor representative	Route: 16, Lot_3.	
8	17, December, 2023	Veduria Site Visit and Seeking Documents from owner of No. 10 dyke	Lot-03, Route No- 21.	
9	18, December, 2023	Hydrographic detail pre-survey ongoing at Alubazar ghat carried out jointly by S1A consultant with contractor representative.	Lot_3, Route: 13(Alubazar ghat)	
10	19, December, 2023	Hydrographic detail pre-survey finished today at Alubazar ghat carried out jointly by S1A consultant with contractor representative.	Lot_3, Route: 13(Alubazar ghat)	
11	27, December, 2023	Inspect the ongoing work and collect photograph of the owner of the No. 6 and No. 7 dyke	Lot-03, Route No-21,	
12	27, December.2023,	Dredging work start and ongoing from patarhat ghat area.	Lot_3, Route: 16(Patarhat-Bheduria)	
13	30, December, 2023	Site visit with construction supervision for disposal area and new disposal area selection at Sreepur, Barishal.	Lot_3, Route: 21(Laharhat-Bheduria)	

2.1.6: Progress and Coordination Meetings of S1A Consultant:

Table 10: Interaction with Client/Contractors and other stakeholder (December, 2023)

SN	Date	Venue	Meeting Agenda	Participants
1	04 December, 2023	Meeting room of Lot- 2 contractor's field office, Solimganj, Brahmanbaria.	Monitoring visit to observe and discuss on the field level progress of Lot-2 Contractor's site regarding Route 09 and Route 7&8 Dyke selection and preparation. Stakeholder Consultation for selecting dyke for route 09 and Route 7&8.	Project Director and other representatives of PIU, Project Coordinator and dredging expert of S1A Consultants. Lot-2 Contractors Representatives were present.
2	06 December, 2023	Conference Room, PIU Motijheel, Dhaka	Progress meeting with Planning Commission.	Representatives of Planning Commission, PIU, Lot-2, Lot-3 contractors and S1A Consultant.
3	11 December, 2023	Meeting Room of BRWTP-PIU, Motijheel, Dhaka.	Progress meeting on Safeguard Issues.	Representatives of Safeguard Team , PIU and S1A Consultant
4	17 December, 2023	Meeting Room of BRWTP-S1A, Motijheel, Dhaka	Coordination meeting Dredging team, JPZ	JPZ Executive Director and Dredging team

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

2.2.1 Development and Maintenance Dredging Works:

In December 2023, Lot-2 contractor dredged 480 m on Route 9 (Class III, length 80km, Titas River) and 305 m on Route 7 & 8 (Class III, Length 30 km, Upper Meghna River). From the month of March 2023 till December 2023, they have cumulatively dredged 4.35 km on Route 9. Moreover, they have mobilized one dredger on Route 7 & 8 and dredged 305 m since 13th December. The progress on Route 9 is still very poor. The main challenge is failing to provide continuous operation of dredgers due to frequent machinery breakdown and lower draft on the river.

Sl No	Dredger Name	Time Period	Route No. 9 and Class	Place	Chainage	Least Available Depth	Cutting Length (m)	Cutting Volume
01.	Karnafuly-07	01 to 31 December	Class-III	Nilukhi	07+159 to 07+421	1.9 m	262	13577.2 m ³
02.	Karnafuly-03	01 to 31 December	Class-III	Akanagar	06+875 to 07+159		284	13638.45 m ³
03.	Karnafuly-05	01 to 31 December	Class-III	Imamnagar	08+198 to 08+416		218	11608.1 m ³
Sl No	Dredger Name	Time Period	Route No. 9 and Class	Place	Chainage		Cutting Length (m)	Cutting Volume
01.	Kafela-01	01 to 31 December	Class-III	Baharnogor	00+77 to 00+382		305	18109.2 m ³

2.2.1.1 Information on Disposal Areas December 2023:

Dyke 24, 27, 28, 30 and 34 of Route 9 has been used for the disposal of dredge material during this reporting period.

Disposal Point	District	Upazila	Village /Mouza	Qty (Ha)	Land Type	Chainage	Easting	Northing	Location w.r.t Stream	Present Status
R09-D24	Brahmanbaria	Bancharampur	Bishnurampur	0.4858	Private	06+700	280698	2636450	Right	70% filled
R09-D27	Brahmanbaria	Bancharampur	Bahirachor	0.4485	Private	06+600	281211	2636568	Right	38% filled
R09-D28	Brahmanbaria	Bancharampur	Imamnagor	0.1326	Private	07+900	281573	2637345	Right	18% filled
R09-D30	Brahmanbaria	Bancharampur	Bahirachor	0.2178	Private	07+200	281340	2636557	Right	34% filled
R09-D34	Brahmanbaria	Bancharampur	Bishnurampur	0.2340	Private	08+100	281533	2637085	Left	22% filled

Dyke 01 of Route 07&08 has been used for the disposal of dredge material during this reporting period.

Disposal Point	District	Upazila	Village /Mouza	Qty (Ha)	Land Type	Chainage	Easting	Northing	Location w.r.t Stream	Present Status
R07&08-D1	Narshingdi	Narshindi Sadar	Alokbali	1.280	Private	00+100	278500	2642382	Right	60% filled

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

2.3.1 Development and Maintenance Dredging Works:

During the month of December, 2023, the Lot-3 contractor carry out 1,383 m of emergency dredging work on Route 21. Besides, they have completed Hydrographic Baseline Survey on Route 12, 13, 13a, 16 and 21. Moreover, they did the maintenance surveys and environmental quality control activities on Route 16 and 21.

Sl No	Dredger Name	Time Period	Route No. 9 and Class	Place	Chainage	Least Available Depth	Cutting Length (m)	Cutting Volume (m³)
01.	Banga Padma	01 to 31 December	Class-I	Bheduria	1 st cut:08+220 to 07+750 and 07+340 to 07+776 2 nd cut: 08+468 to 08+220 and 06+850 to 06+644	4	1515	66323.7
02	Banga Jamuna	01 to 31 December	Class-I	Bheduria	Ch. 00+000 to Ch.00+157	4		

2.3.1.1 Information on Disposal Areas December 2023:

Dyke 1 of Route 16 has been used for the disposal of dredge material during this reporting period.

Disposal Point	Distri ct	Upazila	Village /Mouza	Qty (Ha)	Land Type	Chainage	Easting	Northing	Locatio n w.r.t Stream	Present Status
R16-D1(new)	Barisal	Mehandiganj	Sadquepur	1.97	Private	00+700	246088	2523301	Left	50% Filled

CHAPTER 03:

ACHIEVEMENT OF LAST MONTH PLAN AND NEXT MONTH PLAN

3.1 ACHIEVEMENT OF LAST MONTH:

➤ **S1A**

- a) Submitted Daily Survey and Dredging Monitoring Sheet to PIU.
- b) Submitted four weekly reports of survey and dredging progress of both Lot-2 and Lot-3 contractors to PIU.
- c) Conducted Supervision and Monitoring of Dredging activities on Route 9, Route 7 & 8 of Lot-2, Route 16 and 21 of Lot-3 on daily basis and related ESHS and GRM activities of Lot-2 and Lot-3

➤ **Lot-2**

- a) Completed 4.35 km of dredging of 20 km on Route 9, which is 21.75% dredging progress on Route 9.
- b) Completed 305 m of dredging of 2 km on Route 7 & 8, which is 15.25%
- c) Related Environmental, Social and GRM Activities have been conducted.

➤ **Lot-3**

- a) Conducted Bathymetric Line Survey on all routes.
- b) Completed 1.44 km of emergency dredging on Route 21
- c) Completed 157.67 m of dredging on Route 16
- d) Related Environmental, Social and GRM Activities have been conducted.

3.2 NEXT MONTH PLAN:

➤ **S1A**

- a) Reviewing the Volume data with the submitted data by the contractor.
- b) Supervision and Monitoring of Surveying, dredging activities, ESHS and GRM activities of Lot-2 and Lot-3 as mentioned below.
- c) Conducting Good Faith Agreement on Route 6, 9, 7 & 8 and 11 under Lot-2 and on Route 21 under Lot-3.
- d) Expediting navigational aid installation work plan from the Lot-2 and Lot-3 contractors.

➤ **Lot-2**

- a) Expediting dredging work on Route 9.
- b) Dredging Route 6, 7 & 8, 11.
- c) Related Environmental, Social and GRM Activities

➤ **Lot-3**

- a) Dredging work on Route 21, 16, 13 and 13a
- b) Related Environmental, Social and GRM Activities.

CHAPTER 04: CONCLUSION AND/OR RECOMMENDATIONS

The Lot-2 contractors dredging activities is falling far behind the schedule. Out of 6 routes they are working on Route 9 and 7 & 8. They have finished doing hydrographic and topographic survey. They have completed Baseline Hydrographic survey on all the routes. The Phase-I (First 18 months) will end on May 5, 2024. The Lot-2 contractor need to expedite their dredging work in order to meet the 1st Phase deadline.

Both the Lot-2 and Lot-3 contractors need to expedite the installation of navigational aids so that they complete the work by the end of Phase-I (May 5, 2024).

Lastly, the S1A consultant is working on reviewing the volume assessed by the Lot-2 and Lot-3 contractors.

CHAPTER 05: ANNEXURE

ANNEX 01: Project location and River Boundary

LOT-2:

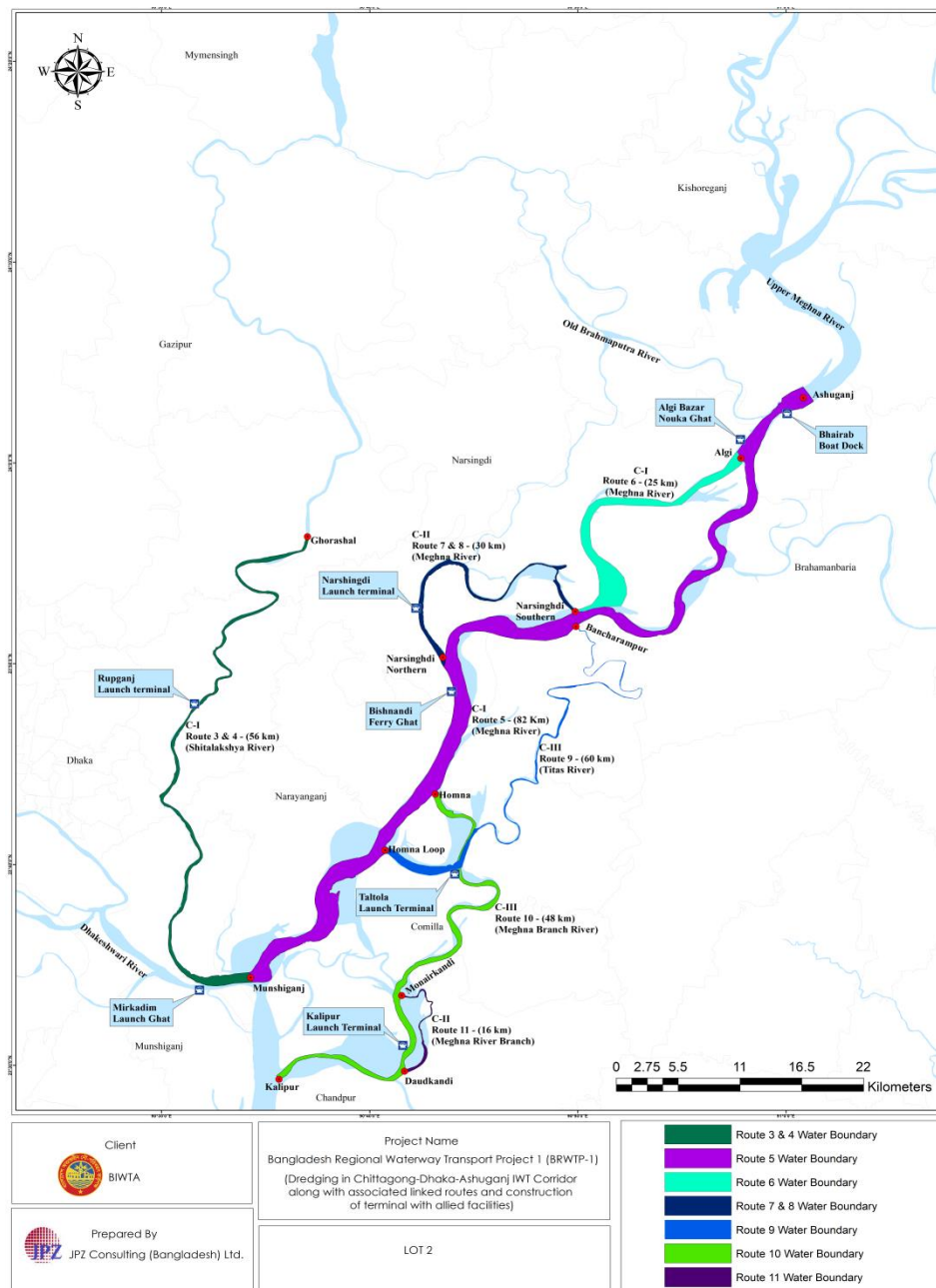


Figure 4: Water Boundary of All Routes under Lot-2

LOT-3:

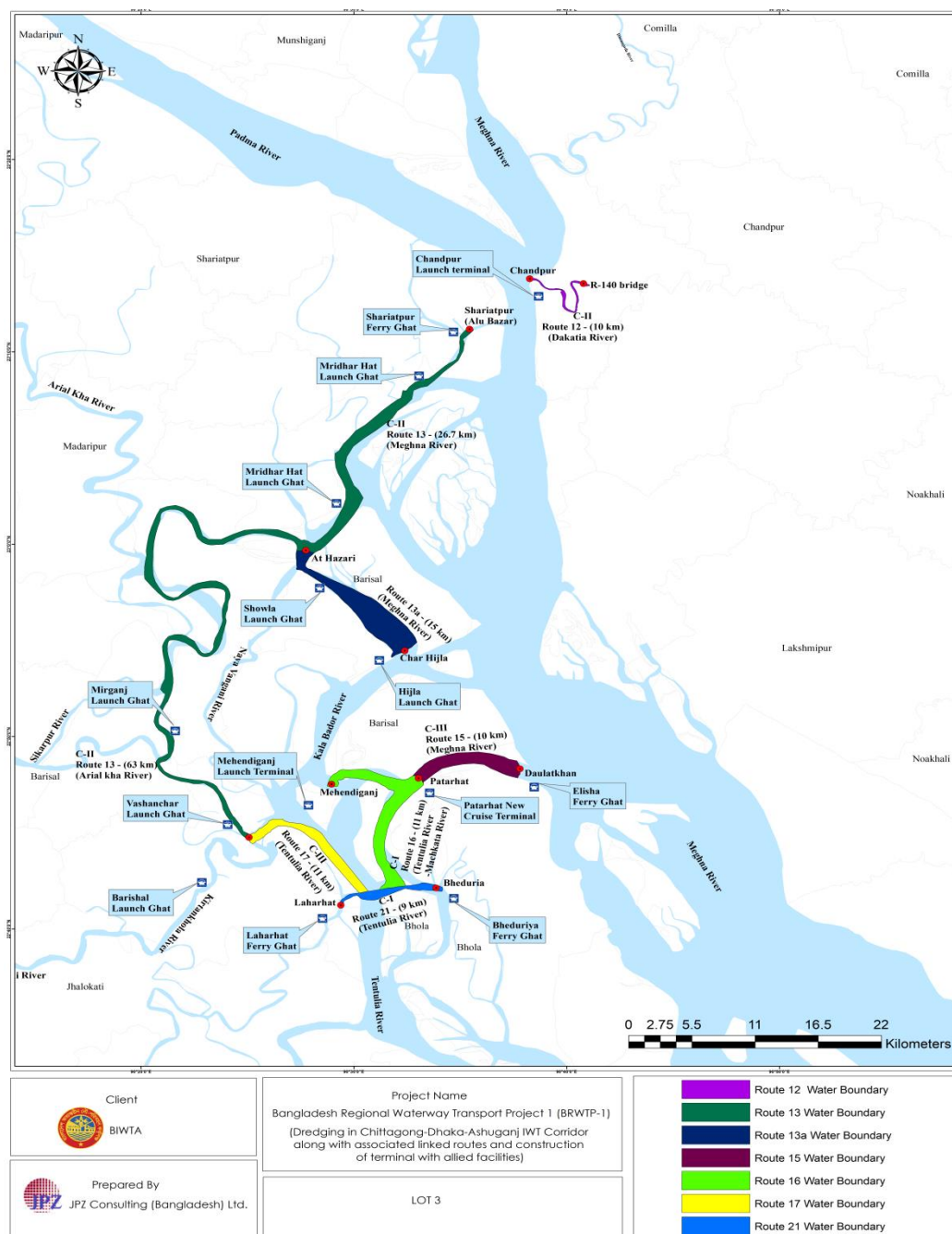


Figure 5: Water Boundary of All Routes under Lot-2

ANNEX 02:
Photos: December Activities in Pictures



Figure 7: December 2023 Social Consultations at Lot-2 and Lot- 3 sites for dyke selection and other dredging work



Figure 8: Coordination Meetings in December 2023. Meeting with the Planning Commission representatives (Up), at Lot-2 site (under-Left) and Meeting with PIU Safeguard Team (Under-Right).



Figure 9: Monitoring Visits December 2023 (observed Hydrographic Survey, Dredger Placement, and Environmental Sample Collection, Dyke preparation, Navigational Aids, etc.)

Ref: EQMS/Air Quality/ 202401010001

EQMS

EQMS ENVIRONMENTAL LABORATORY

Monitoring Results of Ambient Air Quality

Project Name : BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 &16, 17 and 21

Monitoring Activity : Ambient Air Quality

Monitoring Personnel : K.M. Shakik ahmed walid

Monitoring Date : 08.12. 2023

Monitoring Location : Route-16 (AQ1, AQ2, AQ3, & AQ4)

Description of Analysis:

Code	GPS Location	Ambient Air Pollutants' Concentration in µg/m ³					CO mg/m ³
		SPM	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	
AQ1	22°47'16.64"N 90°31'32.30"E	70.78	42.45	21.56	14.60	17.21	0.9
AQ2	22°47'34.88"N 90°31'6.22"E	75.34	45.41	23.20	17.18	19.91	0.8
AQ3	22°47'44.20"N 90°30'27.86"E	69.57	43.10	20.87	13.31	15.55	0.9
AQ4	22°47'54.33"N 90°31'44.62"E	98.56	60.90	24.98	15.71	22.88	1.0
Air Pollution (control) rules, 2022*		-	150	65	80	80	5
Method of Analysis Instrument Use: Haz-Scanner TM (HIM, 6000)		Particulates Sensor Light Scattering Nephelometer			High Sensitivity Electrochemical		


Note: * Air Pollution (Control) Rules, 2022

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


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Ref: EQMS/Noise Level/ 202401010002

EQMS

EQMS ENVIRONMENTAL LABORATORY Monitoring Results of Noise Level Measurement

Project Name : BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 &16, 17 and 21

Monitoring Activity : Noise Level

Monitoring Personnel : K.M. Shakik ahmed walid

Location : **Route-16(NL1, NL2, NL3, & NL4)**
NL1 22°47'11.27"N 90°31'34.41"E
NL2 22°47'31.49"N 90°31'11.62"E
NL3 22°47'42.43"N 90°30'39.91"E
NL4 22°47'54.21"N 90°31'42.51"E

Monitoring Date : 08.12. 2023

Description of Analysis:

Location	Noise level (dB(A)) ¹			Bangladesh Standard (dB(A)) ²	IFC EHS Guideline (2007) ³	Location setting
	Leq _{day}	L _{max}	L _{min}	Day	Day	
NL1	61.15	78.44	44.40	-	-	-
NL2	56.45	72.58	39.77	-	-	-
NL3	59.87	76.99	38.25	-	-	-
NL4	68.48	82.70	40.78	60	70	Mixed area

Note:

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

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

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

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

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



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Ref: EQMS/Water Quality/ 202401010003

EQMS

EQMS ENVIRONMENTAL LABORATORY

Test Results of Surface Water Quality

Project Name : BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 &16, 17 and 21

Description of Sample : Surface Water

Monitoring Personnel : K.M. Shakik ahmed walid

Location : Route-16(SW1, SW2, SW3, & SW4)
SW1 - 22°47'15.81"N 90°32'0.40"E
SW2 - 22°47'34.13"N 90°31'21.19"E
SW3 - 22°47'59.53"N 90°29'59.78"E
SW4 - 22°47'47.88"N 90°31'47.51"E

Sampling Date : 08.12.2023

Description of Analysis:

Parameters	Unit	Concentration Present Route-16 (SW1, SW2, SW3, & SW4)				Bangladesh Standard*
		SW-1	SW-2	SW-3	SW-4	
Temperature	°C	24.7	24.5	24.3	24.9	-
EC	µS/cm	285	295	300	290	-
Turbidity	NTU	6.5	5.5	6.6	5.2	-
pH	-	7.62	7.85	7.78	7.85	6 - 9
TDS	ppm	155	150	145	150	1000
DO	mg/L	6.4	6.2	6.1	6.3	5 or more
Potassium	mg/L	2.8	2.3	2.4	2.7	-
Calcium	mg/L	<0.01	<0.01	<0.01	<0.01	-
Magnesium	mg/L	11	13	12	15	-
Phosphate	mg/L	<0.01	<0.01	<0.01	<0.01	0.5
Chloride	mg/L	6.3	6.2	6.1	6.0	-
Fluoride	ppm	0.8	0.9	0.7	0.9	-
Nitrate	mg/L	0.6	0.7	0.6	0.7	7.0
BOD5 (at 20°C)	mg/L	0.6	0.8	0.8	0.7	6 or less
Sulfate	mg/L	10	14	12	11	-
TSS	mg/L	41	33	37	33	-

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



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Ref: EQMS/Underwater Noise Level/ 202401010004

EQMS ENVIRONMENTAL LABORATORY

Monitoring Results of Underwater Noise Level Measurement

Project Name : BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 &16, 17 and 21

Monitoring Activity : Underwater Noise Level

Monitoring Personnel : K.M. Shakik ahmed walid

Location : **Route-16 (UWNL-1, UWNL-2, UWNL-3, & UWNL-4)**
UWNL1 22°47'18.91"N 90°31'49.10"E
UWNL2 22°47'40.06"N 90°31'6.94"E
UWNL3 22°47'56.00"N 90°30'16.12"E
UWNL4 22°47'50.19"N 90°31'35.77"E

Monitoring Date : 08.12.2023

Description of Analysis:

Code	Location	Lavg [dB (A)]	*Standard
		[dB (A)]	
UWNL1	Route 16	54.7	No standard of International/GoB
UWNL2		56.4	
UWNL3		53.8	
UWNL4		60.2	

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Toronto Office: 7 Arnot Street, Scarborough Ontario, M1K4B5 Canada



Ref: EQMS/Riverbed sediment/ 202401010005

EQMS

EQMS ENVIRONMENTAL LABORATORY

Test Results of Riverbed sediment

Project Name : BIWTP -1, LOT-3: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 12,13,13a, 15 &16, 17 and 21

Description of Sample : Riverbed sediment – Lot 3

Monitoring Personnel : K.M. Shakik ahmed walid

Sampling Date : 08.12.2023

Location Details:

Code	Route No.	GPS Location
SedQ1	Route 16	22°47'16.29"N 90°31'38.75"E
SedQ2		22°47'35.30"N 90°31'10.29"E
SedQ3		22°47'49.67"N 90°30'21.05"E
SedQ4		22°47'50.13"N 90°31'42.75"E

Description of Analysis:

Riverbed sediment-Lot 3							Dutch Environmental Standard (mg/kg)
Parameter	Unit	SedQ1	SedQ2	SedQ3	SedQ4	Methodology	
Lead	mg/kg	7.13	7.98	8.20	7.55	ICPMS	85
Cadmium	mg/kg	0.058	0.052	0.059	0.055	ICPMS	0.8
Chromium	mg/kg	17.67	18.03	17.01	17.88	ICPMS	100
Zinc	mg/kg	37.86	37.05	38.34	37.07	ICPMS	140
Arsenic	mg/kg	1.92	1.88	1.96	1.99	ICPMS	29


Note: ICPMS - Inductively coupled plasma mass spectrometry

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Ref: EQMS/Noise Level/ 202411202518

EQMS ENVIRONMENTAL LABORATORY
Monitoring Results of Noise Level Measurement

Project Name	: BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11.
Monitoring Activity	: Noise Level
Monitoring Personnel	: Amit Kumar Saha
Location	: NL1: 23°52'40.03"N 90°49'41.87"E; Khodadila Narsingdi (Route- 7)
	: NL2: 23°49'38.47"N 90°50'58.32"E; In front of Bishnurampur Eidgah Ground (Route- 9)
	: NL3: 23°49'42.80"N 90°51'1.83"E; Bishnurampur Bazar (Route-9)
	: NL4: 23°49'43.61"N 90°51'9.36"E; Tejkhal union High School (Route-9)
Monitoring Date	: (5-6).12.2023
Reporting Date	: 02.01.2024

Description of Analysis:

Location	Noise level (dB(A))			Bangladesh Standard (dB(A)) *	IFC EHS Guideline (2007)	Location setting
	Leq _{day}	L _{max}	L _{min}	Day	Day	
NL1	49.2	55.2	38.7	60	70	Mixed area
NL2	58.2	69.9	45.4	60	70	
NL3	56.1	67.3	48.2	60	70	
NL4	53.8	62.9	44.7	60	70	

Note:

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

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

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Ref: EQMS/Noise Level/ 202411202518

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Monitoring Results of Noise Level Measurement

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Monitoring Personnel	: Amit Kumar Saha
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	NL3: 23°49'42.80"N 90°51'1.83"E; Bishnurampur Bazar (Route-9)
	NL4: 23°49'43.61"N 90°51'9.36"E; Tejkhal union High School (Route-9)
Monitoring Date	: (5-6).12.2023
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Description of Analysis:

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	Leq _{day}	L _{max}	L _{min}	Day	Day	
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NL3	56.1	67.3	48.2	60	70	
NL4	53.8	62.9	44.7	60	70	

Note:

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

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Ref: EQMS/Water Quality/ 202411202520

EQMS WET LABORATORY
Test Results of Surface Water Quality

Project Name	:	BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11.
Description of Sample	:	Surface Water – Lot 2
		SW1- 23°50'5.06"N 90°51'22.64"E - Bancharampur-Salimganj Now Path (Route-9)
		SW2 - 23°50'7.03"N 90°51'25.75"E - Bancharampur-Salimganj Now Path (Route-9)
		SW3 - 23°50'8.22"N 90°51'29.81"E - Bancharampur-Salimganj Now Path (Route-9)
		SW4 - 23°50'9.43"N 90°51'33.89"E Bancharampur-Salimganj Now Path (Route-9)
Sample Collector	:	Amit Kumar Saha
Sampling Date	:	06.12.2023
Reporting Date	:	02.01.2024

Description of Analysis:

Parameters	Unit	Concentration Present				Bangladesh Standard
		SW1	SW2	SW3	SW4	
Temperature	°C	30.2	30.8	30.4	30.9	-
EC	µS/cm	138	142	139	135	-
Turbidity	NTU	6.3	6.1	6.4	6.7	-
pH	-	7.71	7.69	7.73	7.67	6-9
TDS	ppm	297	299	298	287	1000
DO	mg/L	5.4	5.7	5.6	5.3	5 or more
Potassium	mg/L	30	34	38	36	-
Calcium	mg/L	50	53	51	49	-
Magnesium	mg/L	25	28	22	26	-
Phosphate	mg/L	0.5	0.6	0.7	0.6	0.5
Chloride	mg/L	33	36	31	38	-
Fluoride	ppm	0.6	0.7	0.5	0.9	-
Nitrate	mg/L	0.7	0.8	0.6	0.5	7
BOD5 (at 20°C)	mg/L	4.9	4.8	5.0	5.1	6 or less
Sulfate	mg/L	26	22	25	28	-
TSS	mg/L	180	190	185	187	-

Note: Bangladesh Environment Conservation Rules, 2023(Standards for Inland Surface Water). DO: Dissolved Oxygen; BOD: Biological Oxygen Demand; EC: Electric Conductivity; TDS: Total Dissolved Solids; TSS: Total Suspended Solids

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Ref: EQMS/ Dredge Material / 202411202521

EQMS WET LABORATORY Test Results of Dredge Material

Project Name	:	BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11.
Description of Sample	:	Dredge Material – Lot 2
		DM1 - 23°49'57.35"N 90°51'19.08"E - (Route-9)
		DM2 - 23°49'57.32"N 90°51'18.96"E - (Route-9)
Sample Collector	:	Amit Kumar Saha
Sampling Date	:	06.12.2023
Reporting Date	:	02.01.2024

Description of Analysis:

Parameter	Unit	Dredge Material – Lot 2		Methodology	Dutch Environmental Standard (mg/kg)
		DM1	DM2		
Lead	mg/kg	15.92	16.72	ICPMS	85
Cadmium	mg/kg	0.07	0.09	ICPMS	0.8
Chromium	mg/kg	16.28	14.58	ICPMS	100
Zinc	mg/kg	20.89	23.71	ICPMS	140
Arsenic	mg/kg	1.5	1.4	ICPMS	29

Note: ICPMS - Inductively coupled plasma mass spectrometry

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Ref: EQMS/Riverbed Sediment/202411202522

EQMS WET LABORATORY Test Results of Riverbed Sediment

Project Name	: BRWTP-1, LOT-2: OPBC Works of Development Dredging with maintenance and Aids to Navigation with installation along inland waterway Routes- 3 & 4, 5, 6, 7 & 8, 9,10, and 11.
Description of Sample	: Riverbed Sediment – Lot 2
	SedQ1 - 23°49'35.46"N 90°50'50.85"E - (Route-9) SedQ2 - 23°50'9.00"N 90°51'32.23"E - (Route-9)
Sample Collector	: Amit Kumar Saha
Sampling Date	: 06.12.2023
Reporting Date	: 02.01.2024

Description of Analysis:

Testing Specification	Method	Unit	SedQ1	SedQ2	Dutch Environmental Standard (mg/kg)
Pb	Inductively Coupled Plasma Mass Spectrometry (ICPMS)	mg/kg	12.73	14.08	85
Cadmium		mg/kg	0.082	0.063	0.8
Cr		mg/kg	14.82	13.73	100
Zn		mg/kg	20.66	22.82	140
As		mg/kg	1.6	1.8	29

Note: ICPMS - Inductively coupled plasma mass spectrometry

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**ANNEX 04:
Checklists**

ESHS Checklist of Lot-2

Factors	Checklist Items		Dredging Activity			Comments/Compliance
			Daily	Monthly	Quarterly	
1. Permits and Explanation	1	EIA and Environmental Permits	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	2	Explanation to the Local Stakeholders	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	3	Signboards, Notice Boards	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
2. Physical Environmental Parameters Monitoring	1	Air Quality	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
	2	Surface Water Quality	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
	3	Solid Wastes	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
	4	Liquid Wastes	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
	5	Soil Contamination	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
	6	Noise and Vibration	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
	7	Underwater Noise	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
	8	Odor	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
	9	Riverbed Sediment	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
	10	Groundwater	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Supervised in 6 December at solimgonj site.
3. Natural Environment	1	Protected Areas	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Route no. 09
	2	Habitat Type	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Route no. 09
	3	Hydrology	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Route no. 09
	4	Topography and Geology	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Route no. 09
	5	Dolphin Observation	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Route no. 09
	6	Fish Catch Examination	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Route no. 09
	7	Flora (Aquatic & Terrestrial)	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Route no. 09
	8	Benthos (Micro & Macro)	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Route no. 09
	9	Phyto- & Zoo-planktons	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Route no. 09
4. Social Environment	1	Resettlement	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	2	Living and Livelihood	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	3	Heritage	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	4	Landscape	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	

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

	5	Ethnic Minorities and Indigenous Peoples	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
5. Occupational Health Safety	1	Work Permit/Contract	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	2	Daily Toolbox Meeting - OHS	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	3	Working Conditions		<input checked="" type="checkbox"/>		Fair
	4	Impact/Precaution during Dredging	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	Not any major issue observed
	5	Accident Prevention Measures	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Contractors ESHS team visiting site and concerning all the Manpower
	6	Working Condition	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	Fair
	7	Accommodation	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	House Boat
	8	Personal Protection Equipment	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	Safety helmet, Safety vest, safety shoes, Hand gloves etc observed at site.
	9	Drinking Water	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	Freshwater daily collect from tube well
	10	Sanitary Condition	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	Good arrangement kept in House boat
6. Dredged Material Disposal Area	1	Agreement with Land Owner	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	2	Land Use Type	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	
	3	Dyke Design Approval	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	
	4	Dyke Setback Distance	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	
	5	Disposal Area Dyke Height	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	
	6	Dyke Strengthened/Material Used*	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	When required then used.
7. Dredger	1	Carbon Emission	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	Not found/observed at site for all route in lot-2
	2	Leakage	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	3	Oil Spill	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	4	Onboard Waste Management	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
	5	Noise and Vibration	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	

Dredging Checklist of Lot-2

Checklist Items		Dredging Activity			Comments/Compliance
		Daily	Monthly	When and As Required	
1	Gauge reading & Water level (WL)	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	Average water level is 1.568 m
2	Connectivity with BM & TBM	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	

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

3	Study Hydrographic Chart	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	Chart is prepared for route 09 and 7 &8
4	Fixing Cutting Depth respect to existing WL as per design depth	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	Average cutting depth is 1.816 m
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"/>	
b	Cutting Length	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Total cutting length 3684 m
c	Cutting Depth	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Average cutting depth is 1.816m
d	Cutting Width	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	25 m
e	Dredged Volume	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	Total volume 1,63,337.038m3
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 checked="" type="checkbox"/>	<input type="radio"/>	
9	Checking outlet of the compartment	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	
10	Check whether the dykes are being constructed at safe distance from river bank	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	
11	Check construction of the pipe line whether there is any leakage in the Joints of Floating Pipe/Shore pipe lines	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	

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

12	Check whether dredging work exacting Keeping Safety distance of River side installations like Road/houses/buiding.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13	Check Survey Activities	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

GRM Checklist of Lot-2

Sl no.	Factors	Checklist Items	Dredging Activity				Comments/Compliance
			Daily	Weekly	Monthly	Quarterly	
1	Legal and Regulatory Compliance	1 The contractors communicate to all the stakeholders regarding GRM processing and lodging complaints.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are a GRM committee with 5 persons here.
		2 Contact details for lodging grievance easily accessible.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	Community Engagement	1 Consultations/ FGD have been conducted with local communities, dredging contractors to collect their input on the GRM design.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3	Grievance Channels	1 The multiple accessible channels available for the stakeholders to submit their grievances. (e.g., toll-free hotline, online platform , drop box, post, landline/mobile phone and e-mail).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	Processing of GFA (Good Faith Agreement)	1 Dyke/Land selection survey.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Survey in every week.
		2 Opinion meeting with land owner along with inform to the contractor and S1A team for justifying land as dyke.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Survey in 15 days a month.
		3 GFA documentation collection.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Collection the document 15 days a month.
		4 GFA will be submitted to S1A.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		5 FGD on GFA with the Locals	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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5	Constitution of GRM Protocol	1	Preparation of GRM Protocol and Greivance Redres Committee (GRC) will be Constituted by the Contractors.	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
6	Establish a Complaint Box	1	For receive feedback, suggestions and complain letters.	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	There are 3 complain box in site. One box is in office, one box in houseboat and onther is open road site.
7	Establish a Signboard	1	The size of Bill board will be 5/15. The bill board should contain: name, mobile number and email of the focal person.	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	There is a signboard in front of office.
8	3 (three) tyers of the GRM Comittee will be formed	1	Local level GRC (Committee members 05, quorum fullfill at least 03) -Project related issues.	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
		2	Contractor level GRC (Committee members 03, quorum fullfill at least 03)- GBV, CoC, Contractor's workers occurance etc. related issues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
		3	Project level GRC (Committee members 03, quorum fullfill at least 03)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	
9	Capacity Building	1	Project staffs and local institutions have received training on the GRM, GBV related issues and its operation.	<input type="radio"/>	<input type="radio"/> N/A	<input type="radio"/>	<input type="radio"/>	
10	Leaflet/ Brochure	1	The Leaflet/ Brochure will be published for dissemination to all the stakeholders.	<input type="radio"/>	<input type="radio"/> N/A	<input type="radio"/>	<input type="radio"/>	There is no liflat in the site.
11	Monitoring, Reporting & documentation	1	The regular reports generated to document the number, nature, and resolution of grievances (Registration Book, Resolution book / Decision book & Closing book)	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
12	Social Consultation	1	Local Community	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
		2	Land Owner	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
		3	Local Government Authority	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	
13	Gender-Based Violence (GBV)	1	Sex Violence by an intimate partner	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	
		2	Sexual violence by a non-peer	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	
		3	Child sexual abuse & forced marriage	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	
		4	Sexual exploitation & abuse	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	

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		5	Sexual harassment	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
		6	In case of emergency, the local level GRC will address the matter within 04 -12 hours.	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

ESHS Checklist of Lot-3

Factors	Checklist Items		Dredging Activity			Comments/Compliance
			Daily	Monthly	Quarterly	
1. Permits and Explanation	1	EIA and Environmental Permits	<input type="radio"/>	<input type="radio"/>	√	
	2	Explanation to the Local Stakeholders	<input type="radio"/>	<input type="radio"/>	√	
	3	Signboards, Notice Boards	<input type="radio"/>	<input type="radio"/>	√	
2. Physical Environmental Parameters Monitoring	1	Air Quality	<input type="radio"/>	√	<input type="radio"/>	Test done Route no.21 for the month of December,2023
	2	Surface Water Quality	<input type="radio"/>	√	<input type="radio"/>	
	3	Solid Wastes	<input type="radio"/>	√	<input type="radio"/>	
	4	Liquid Wastes	<input type="radio"/>	√	<input type="radio"/>	
	5	Soil Contamination	<input type="radio"/>	√	<input type="radio"/>	
	6	Noise and Vibration	<input type="radio"/>	√	<input type="radio"/>	
	7	Underwater Noise	<input type="radio"/>	√	<input type="radio"/>	
	8	Odor	<input type="radio"/>	√	<input type="radio"/>	
	9	Riverbed Sediment	<input type="radio"/>	√	<input type="radio"/>	
	10	Groundwater	<input type="radio"/>	√	<input type="radio"/>	
3. Natural Environment	1	Protected Areas	<input type="radio"/>	√	<input type="radio"/>	Route no.21
	2	Habitat Type	<input type="radio"/>	√	<input type="radio"/>	Route no.21
	3	Hydrology	<input type="radio"/>	√	<input type="radio"/>	Route no.21
	4	Topography and Geology	<input type="radio"/>	√	<input type="radio"/>	Route no.21
	5	Dolphin Observation	<input type="radio"/>	√	<input type="radio"/>	Route no.21
	6	Fish Catch Examination	<input type="radio"/>	√	<input type="radio"/>	Route no.21
	7	Flora (Aquatic & Terrestrial)	<input type="radio"/>	√	<input type="radio"/>	Route no.21
	8	Benthos (Micro & Macro)	<input type="radio"/>	√	<input type="radio"/>	Route no.21
	9	Phyto- & Zoo-planktons	<input type="radio"/>	√	<input type="radio"/>	Route no.21
4. Social Environment	1	Resettlement	<input type="radio"/>	<input type="radio"/>	√	

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

	2	Living and Livelihood	○	○	√	
	3	Heritage	○	○	√	
	4	Landscape	○	○	√	
	5	Ethnic Minorities and Indigenous Peoples	○	○	√	
5. Occupational Health Safety	1	Work Permit/Contract	○	○	√	
	2	Daily Toolbox Meeting - OHS	○	○	√	
	3	Working Conditions	○	√	○	Fair
	4	Impact/Precaution during Dredging	○	○	√	Not any major issue observed
	5	Accident Prevention Measures	○	√	○	Contractors ESHS team visiting site and concerning all the Manpower
	6	Working Condition	√	○	○	Fair
	7	Accommodation	√	○	○	House Boat
	8	Personal Protection Equipment	√	○	○	Safety helmet, Safety vest, safety shoes, Hand gloves etc observed at site.
	9	Drinking Water	√	○	○	Freshwater daily collect from tube well of near by village
	10	Sanitary Condition	√	○	○	Good arrangement kept in House boat
6. Dredged Material Disposal Area	1	Agreement with Land Owner	○	○	√	Process on going
	2	Land Use Type	○	√	○	Once or twice cultivated land in a year
	3	Dyke Design Approval	○	√	○	New dyek at Route no.21 named 08(R21-D8),09(R21-D9) & 10(R21-D10).
	4	Dyke Setback Distance	○	√	○	20m, 1026m and 1450m distance from the river bank
	5	Disposal Area Dyke Height	○	√	○	2.5m (avg)
	6	Dyke Strengthened/Material Used*	○	○	√	When required then used
7. Dredger	1	Carbon Emission	○	○	√	Not found/observed at site for all route in lot_3
	2	Leakage	○	○	√	
	3	Oil Spill	○	○	√	
	4	Onboard Waste Management	○	○	√	
	5	Noise and Vibration	○	○	√	

Dredging Checklist of Lot-3

Checklist Items			Dredging Activity			Comments/Compliance
			Daily	Monthly	When and As Required	
1	Gauge reading & Water level (WL)		○	○	✓	
2	Connectivity with BM & TBM		○	○	✓	
3	Study Hydrographic Chart		○	○	✓	
4	Fixing Cutting Depth respect to existing WL as per design depth		○	○	✓	
5	Checking Dredging Alignment		○	○	✓	
6	Checking Dredged Activities as below;					Dredged Activities for the month of December, 2023
	a	Dredging Hours	○	✓	○	Total Dredging Hours 249.1 hrs
	b	Cutting Length	○	✓	○	Total length 1481.31m
	c	Cutting Depth	○	✓	○	Cutting Depth 2.5m (average)
	d	Cutting Width	○	✓	○	Cutting Width 32.5m(1st cut) and 65m(2nd cut)
	e	Dredged Volume	○	✓	○	Total Dredged Volume 1,00653.66 cum
7	Supervising Dredged Material Disposal Area whether the Dykes are designed as per Design		○	✓	○	Supervised together with dredging experts durning the new dyke construction and it is observed that Dykes are maintained as per Design
8	Supervising Dredged Material Disposal Area whether the Dykes are capable to resist the pressure of disposed materials		○	✓	○	It's observed that new dyke boundary wall maintained proper design thickness, slope, layer of compaction, 20m/30m safe distance from river bank with bamboo strip protection at river side slope.
9	Checking outlet of the compartment		○	✓	○	Using 4nrs of outlet of this compartment
10	Check whether the dykes are being constructed at safe distance from river bank		○	✓	○	20m, 1026m and 1450m safe distance from the river bank

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11	Check construction of the pipe line whether there is any leakage in the Joints of Floating Pipe/Shore pipe lines	<input type="radio"/>	✓	<input type="radio"/>	No leakage observed in the Joints of Floating Pipe/Shore pipe lines
12	Check whether dredging work exacting Keeping Safety distance of River side installations like Road/houses/buiding.	<input type="radio"/>	✓	<input type="radio"/>	It is observed that contractor maintained 100m from safe distance from Road/Houses/building and 20m-30m safe distance maintained from river Bank
13	Check Survey Activities	<input type="radio"/>	✓	<input type="radio"/>	Route wise Hydrographic Pre survey (line and details survey) work done on dated from 01.11.2023 to 04.11.2023 for lot 3 Route number 15 & 16

GRM Checklist of Lot-3

Sl no.	Factors	Checklist Items	Dredging Activity				Comments/Compliance
			Daily	Weekly	Monthly	Quarterly	
1	Legal and Regulatory Compliance	1 The contractors communicate to all the stakeholders regarding GRM processing and lodging complaints.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	✓	
		2 Contact details for lodging grievance easily accessible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	✓	
2	Community Engagement	1 Consultations have been conducted with local communities, dredging contractors to collect their input on the GRM design.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	✓	
		2 The preferences of social customs and cultural sensitivities of the project affected communities taken into consideration.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	✓	
		3 FGD on GRM with the Project Affected Persons (PAPs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	✓	
3	Grievance Channels	1 The multiple accessible channels available for the stakeholders to submit their grievances. (e.g., toll-free hotline, online platform, drop box, post, landline/mobile phone and e-mail).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	✓	
4	Processing of GFA (Good Faith Agreement)	1 Dyke/Land selection survey.	<input type="radio"/>	<input type="radio"/>	✓	<input type="radio"/>	
		2 Opinion meeting with land owner along with inform to the contractor and S1A team for justifying land as dyke.	<input type="radio"/>	<input type="radio"/>	✓	<input type="radio"/>	
		3 GFA documentation collection.	<input type="radio"/>	<input type="radio"/>	✓	<input type="radio"/>	
		4 GFA will be submitted to S1A.	<input type="radio"/>	<input type="radio"/>	✓	<input type="radio"/>	
		5 FGD on GFA with the Locals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	✓	

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5	Constitution of GRM Committee	1	Preparation of GRM Committee Constitution by the Contractors.	○	○	○	✓	
6	Establish a Complaint Box	1	Nos. of Feedback, concerned, suggestions and complain letters.	○	○	✓	○	Not found/observed at site for all route in lot_3
7	Establish a Signboard	1	The size (5/15) of Bill board will according the BOQ	○	○	✓	○	only 2 nos. sign board found one is at route 21(bheduria ferry ghat) and another one is at route 16(Patarhat launch ghat)
		2	Name, Mobile number and email of the focal person will be included in the Bill board.	○	○	✓	○	Not found/observed at site for all route in lot_3
8	3 (three) tiers of the GRM Committee will be formed	1	Local level GRC [In a five (5) members committee meeting Three (3) members participation will be the quorum]	○	○	○	✓	Local level GRC committee formed by Banga contractor on dated 14th October,2023
		2	Contractor level GRC [In a five (3) members committee meeting Three (3) members participation will be the quorum]	○	○	○	✓	Local level GRC committee formed by Banga contractor on dated 14th October,2023
		3	Project level GRC [In a five (3) members committee meeting Three (3) members participation will be the quorum]	○	○	○	✓	Local level GRC committee formed by Banga contractor on dated 14th October,2023
9	Capacity Building	1	Project staffs and local institutions have received training on the GRM and its operation.	○	○	○	✓	
10	Leaflet/ Brochure	1	The Leaflet/ Brochure will be published for dissemination to all the stakeholders.	○	○	○	✓	
11	Monitoring, Reporting & documentation	1	The regular reports generated to document the number, nature, and resolution of grievances (Registration Book, Resolution book or Decision book & Closing book)	○	○	✓	○	Route no.21
12	Social Consultation	1	Local Community	○	○	✓	○	Route no.21
		2	Land Owner	○	○	✓	○	Route no.21
		3	Local Government Authority	○	○	○	✓	
13	Gender-Based Violence (GBV)	1	Sex Violence by an intimate partner	○	○	○	✓	None of these has been found/observed for the month of December, 2023
		2	Sexual violence by a non-peer	○	○	○	✓	
		3	Child sexual abuse& forced marriage	○	○	○	✓	
		4	Sexual exploitation & abuse	○	○	○	✓	
		5	Sexual harassment	○	○	○	✓	

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		6	In case of emergency, the local level GRC will address the matter within 4 -12 hours.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
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