

**Reference:** ISPMC JV NHC-EMM  
ISPMC- FRERMIP- [soniafrermip@gmail.com](mailto:soniafrermip@gmail.com)  
158

07 June 2016

To  
Mr. A M Aminul Haque,  
Project Director,  
Flood and River Bank Erosion Risk Management Investment Program  
152/3/B Bir Uttam, Kazi Nuruzzaman Road, Panthopath,  
Firoz Tower, (13<sup>th</sup> Floor) Dhaka-1205, Bangladesh.

**Subject: Submission of EMP Compliance Monitoring Report.**

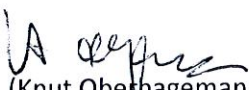
Dear Sir,

We are happy to send hereby the third report (in five attachments) of the EMP compliance monitoring of the project. As before, we have also structured this report in a way so that this may be shared with various concerned parties.

The International Environmental Specialist, Wandert Benthem, and the National Environmental Specialist, Dr. Nurul Islam, will be happy to discuss the contents of this report with Mr. Jahangir Alam, the PMO Environmental Officer, once he gets the opportunity to go through the report.

Sincerely,

**JV Northwest Hydraulic Consultants – Euroconsult Mott MacDonald**

  
(Knut Oberhagemann)  
Team Leader



Attachments: As quoted  
Cc: Office file;  
Deputy Team Leader, Sharif Al Kamal;  
Wandert Benthem, Environmental Specialist;  
Dr. Md. Nurul Islam, Environment Specialist.

**ISPMC**  
Institutional strengthening and  
project management consultant

**Joint Venture:**

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**Mott MacDonald**

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## FRERMIP – Monitoring of EMP Implementation

This monitoring form includes three parts, i.e.:

**PART 1:** General Project information, findings and recommendations

**PART 2:** Monitoring Contractor's EMP and Safety at Site Compliance

**PART 3:** Post-Construction: operation of flood and bank protection works & other interventions

**PART 4:** Pictures taken during the monitoring visit

Two Environmental Management Plans (EMP) are distinguished in implementing the ADB-financed Flood and Riverbank Erosion Risk Management Project (2014-2023), i.e. the:

- (i) EMP included as Chapter 10 in the EIA (of May 2014) as enclosed in Volume IV – 'Social Development and Safeguards' of the PPTA report for FRERMIP – this EMP distinguished three phases: Pre-Construction, Construction and Post-Construction and is meant to manage and mitigate all identified adverse impacts of the project).
- (ii) EMP as included in the Contractor's Contract, i.e. as Section 2 – 'EMP and Safety at the Site' of Chapter 6 – this EMP spells out all environmental management obligations of the Contractor on working sites and in worker's camps (the focus of PART 2).

### PART 1 – General Project Information, Findings and Recommendations

#### 1-A Location, key contacts and report

<b>Sub-Project</b>	JLB-2		
<b>Location:</b>	Zafarganj	<b>Monitoring report:</b>	Nr 2
<b>Date of visit:</b>	5 June 2106	<b>Date:</b>	6 June 2016
<b>Contract:</b>	W-08 / 2014-2015	<b>By:</b>	Dr Nurul Islam Mr Wandert Benthem
<b>Contractor:</b>	Western Engineering Ltd – Nuruzzman Khan – Parisha Trade System Ltd. (PTSL)		
<b>Contractor's contact:</b>	Md Shah Alam – Site Engineer (1) Md Yousuf – Site Engineer (2) Vacancy – Environmental Inspector		
<b>BWDB's contact:</b>	PMO: Mr Md. Jahangir Alam – Executive Engineer, Dhaka SMO: Mr Md. Hasan Mian Jewel – Sub-Assistant Engineer		
<b>On-site ISPMC Consultant's contact:</b>	Mr Mirza Harunar Rashid – Supervising Engineer <a href="mailto:Mirza_harunarrashid@yahoo.com">Mirza_harunarrashid@yahoo.com</a> Mr Nurul Amin – Site Engineer <a href="mailto:nurulamin93@yahoo.com">nurulamin93@yahoo.com</a>		

#### 1-B Main Contract features

<b>Current Contract</b>	Protection of the left (east) bank of Jamuna River over 2 km by depositing sandbags (2016) and concrete blocks (2017) on eroding riverbanks near Zafarganj. Main contract activities are clearance and establishment of work sites and worker's camps, sand mining, transport of sand to filling areas and cement block making sites; filling and depositing sand bags on/from barges; laying of concrete blocks. In total some 400 labourers have been employed,
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	nearly all of these are men; few women have been employed for cooking/cleaning.
<b>Start of the works</b>	March 2016
<b>End of the works</b>	2018

#### 1C Persons met during this visit

	Party	Name	Position
1	BWDB/SMO	Mr Md. Hasan Mian Jewel	Sub-Assistant Engineer
2	Contractor	Mr Md. Shah Alam	Site Engineer (1)
3	Supervising Consultant	Mr Nurul Amin	Site Engineer

#### Persons met during the previous visit (22 March 2016)

	Party	Name	Position
1	Contractor	Mr Md. Shah Alam Mr Md. Yousuf	Site Engineer (1) Site Engineer (2)
2	Supervising Consultant	Mr Mirza Harunar Rashid	Supervising Engineer

#### 1D Summary of observations

It was explained that some 1.2 km of the targeted 2 km of riverbank protection with sandbags has been achieved, and that placing of the concrete (cc) blocks has not started yet.

Significant adverse impacts of the physical construction works were not noted during the previous visit, and this is believed to remain the case. As dredging takes place on selected sites (with high sand content) in the middle of river where it is several km wide, negative impact is believed to be limited to very local and temporary disturbance of the water downstream of the dredger only. Sandbag filling cannot be expected to have a negative impact on the environment but the works (maneuvering barges, movement of ships, sandbag dumping) will temporarily chase away fish and dolphins (*susuk*) that return later. The main adverse impact of the works is therefore in and around worker's camps (water supply and sanitation facilities), and from moving vehicles through noise and dust generated by these.

Some improvement of the sanitation condition in the worker's camp has materialized, i.e. one tubewell has been protected by a concrete flooring surrounding the well and few more toilets have been constructed (see pictures). Other sanitary conditions in the worker's camps remain unchanged, i.e. littering paper and plastic abound, no wastebins provided or installed, wastewater is discharged in surface pits and local depressions where it stays stagnant.

Copies of the previous EMP compliance monitoring report (of March 2016) have not been sent by PMO to the concerned on-site as yet, contributing to why no proper follow up action has been taken as yet.

Senior staff of PMO/SMO and Contractor have been trained by ISPMC in EMP implementation on 28/4/2016.

An Environmental Inspector has not been appointed by the Contractor yet, but the Contractor suggested during the visit to appoint one of the Site Engineers, Mr Yousuf to become the Environmental Inspector (he did take part in the EMP training but was sick during the visit). The Contractor was provided with a ToR and it was agreed to start with the monthly reporting.

No formal Grievance Redress Mechanism is in place as yet.

Due to the off-season (high water level and monsoon) the next monitoring round is currently planned for December 2016.

**1E Summary of recommendations**

<p><b>For BWDB (PMO / SMO):</b></p> <ol style="list-style-type: none"> <li>1. Assist, through SMO and Supervising Consultants, the Contractor in establishing and operating a formal Grievance Redress Mechanism.</li> <li>2. Distribute the ISPMC EMP compliance monitoring reports to the concerned office in charge and assure proper follow up is being taken.</li> </ol>	<p>To be achieved by:</p> <ol style="list-style-type: none"> <li>1. With immediate effect.</li> <li>2. With immediate effect.</li> </ol>
<p><b>For On-site Supervising Consultant:</b></p> <ol style="list-style-type: none"> <li>3. Follow-up on EMP compliance monitoring reports timely and effectively.</li> </ol>	<p>To be achieved by:</p> <ol style="list-style-type: none"> <li>3. With immediate effect.</li> </ol>
<p><b>For Contractor:</b></p> <ol style="list-style-type: none"> <li>4. Further instruct and assist the full-time Environmental Inspector for supervising EMP compliance</li> <li>5. Prepare and submit monthly environmental reports and establish a proper filing system for these.</li> <li>6. Install proper noise silencer on boat and dredger engines.</li> <li>7. Improve on waste disposal in worker's camps, e.g. by installing waste bins, and depositing waste, and instructing workers through health awareness training.</li> <li>8. Improve waste water management around water points.</li> <li>9. Improve sanitation facilities and increase number of toilets.</li> </ol>	<p>To be achieved by:</p> <ol style="list-style-type: none"> <li>4. With immediate effect</li> <li>5. As from June 2016.</li> <li>6. As needed.</li> <li>7. With immediate effect.</li> <li>8. Asap.</li> <li>9. With immediate effect.</li> </ol>

**1F. Circulation (recommended)**

<p>BWDB / PMO office – Dhaka          BWDB / SMO office - Harirampur          Contractor's Resident Engineer – Harirampur          Consultant's Supervising Engineer – Manikganj          Consultant's Site Engineer – Harirampur</p>	<p>The previous monitoring report was sent to the PMO office but it had not been received as yet by on-site officers, reportedly.</p>
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**PART 2 – Monitoring Contractor's EMP and Safety at Site Compliance**

Scoring key: 4 = excellent; 3 = good; 2 = fair; 1 = poor; 0 = non-compliant

EMP Clause	Item	Score	Comment
2.1.1	<b>Inspector</b>		
	Employing one full-time EMP inspector.	0	Not employed as yet – see also 2.3.4
	Set of environmental standards at site.	0	A Contractor Contract (including the EMP) is available on site, however the Contractor seemed

EMP Clause	Item	Score	Comment
			not to have seen the EMP enclosed in it yet.
	Monthly EMP reporting.	0	Is not taking place as yet – see also 2.3.4.
<b>2.1.2</b>	<b>Air &amp; noise</b>		
	Spraying water on dry surfaces (roads and work sites).		Access road to the site office is some 100 m through a low-laying area only; no major issues assumed here – see also 2.2.2
	Noise cancellation at work sites.		No noise silencers provided.
<b>2.1.3</b>	<b>Land use</b>		
	Topsoil removal and replacement at work sites.	3	A land lease has been concluded with a land owner; the Contractor has constructed the site office here.  As Contractor's site office/stock yard/cc block yard and labour camps are constructed on non-fertile agricultural land this issue is not relevant here.
	Restoring surface vegetation at work sites.		This issue is not relevant here.
<b>2.1.4</b>	<b>Pollution</b>		
	Preventing spills of lubricants and fuel.		During previous visit it was stated that used oil and lubricants are drained in the soil. Now it was stated that used oil and lubricants are collected in a container which is then collected by someone and disposed of.
	Waste disposal at work sites.		See above.
	Waste disposal at worker camps.	1	No wastebins available; wastewater in worker's camp is drained in open pit.
<b>2.1.5</b>	<b>Disruption of agricultural activities</b>		
	Minimizing disturbance.		Not noted / recorded.
	Compensation arrangements.		A land lease has been entered.
<b>2.2.1</b>	<b>Navigation</b>		
	Preventing navigation routes of riverine traffic.		No constraints noted or recorded.
	Clearance permits for protection works and sand mining.	3	Protection works require ECC from DoE and PMO has received clearance already. For sand mining, contractor has sub-contracted. Sub-contractor has received clearance from the district authority concerned, reportedly. See also 2.2.4.
	Compliance to GoB navigation and safety standards.		Not assessed.
	Coordination with BWDB & BIWTA on dredging operations.		Not assessed.
<b>2.2.2</b>	<b>Roads</b>		
	Road inspections.	3	Access road to the site office is only some 100 m; this road is being maintained, no issues noted. See also 2.1.2
	Road use & maintenance.	3	Vehicle movement is limited anyway.
<b>2.2.3</b>	<b>Excavation of earth in slope protection</b>		
	Excavation in accordance with approvals.		No issues noted or recorded. Spoils are used by local people.

<b>EMP Clause</b>	<b>Item</b>	<b>Score</b>	<b>Comment</b>
<b>2.2.4</b>	<b>Sand mining</b>		
	Mining in accordance with approvals.	3	See 2.2.1 – approval of sand mining is not the concern of the contractor since he is sub-contracting it to a dredging firm. No legal permits for sand mining have been issued, reportedly.
<b>2.3.1</b>	<b>Safety equipment to prevent accidents / injuries</b>		
	Helmets & life jackets / buoys.		Some equipment available (life jackets) in Contractor's office but not (yet) used
	Traffic control signboards.		Signboards are being prepared.
	Guards / walkways / etc.		Not noted or discussed.
<b>2.3.2</b>	<b>First aid</b>		
	First-aid nurse.		Not appointed. A first aid kit is available in the site office.
	Qualified medical doctor.		Not available.
	Health inspection & vaccination to workers.		Not discussed.
<b>2.3.3</b>	<b>Accidents</b>		
	Reporting of accidents within 24 h.		A daily register is not kept however the Supervising Consultant / Site Engineer produces daily reports in which he notes incidences if occurring.
<b>2.3.4</b>	<b>Full-time Safety Inspector</b>		
	Employed / on-site.		Not available yet – see also 2.1.1
	Monthly safety report.		Not prepared as yet – see also 2.1.1
<b>2.4.1</b>	<b>Site management</b>		
	Clearing obstructions, grading, working / storage sites.		Not noted.
	Protection of existing structures.	3	
	Maintenance of temporary roads.	2	Dust generation on temporary road to worker's camp.
	Building maintenance.	3	Building under construction
	Site fencing.	3	Most sites have been fenced.
	Equipment management.		Not assessed.
<b>2.4.2</b>	<b>Lay-out drawings</b>		
	Submission on demand.		Not assessed.
<b>2.4.3</b>	<b>Sanitation conditions &amp; waste management</b>		
	Water supply.	2	1 protected borehole is available.
	Sanitation (toilets etc).	2	8 toilets are available
	Waste management.	1	No wastebins are available; wastewater is drained in an open pit.

**Other matters:**

ISPMC developed and provided a training to 10 Zafarganj staff in EMP implementation on 28/4/2016 – see Training Report of April 2016.

There is no formal **Grievance Redress Mechanism (GRM)** in place. Establishing such system, responsibility of the BWDB, was discussed and a handout on how to establish and run such system was given and explained.

Documents and template shared with the officers on site during the visit (and attached to the present report) are:

- Guidance for establishing and running of a Grievance Redress Mechanism
- Proposed job description for the Contractor's Environmental Inspector
- Proposed template for monthly progress reporting by the Environmental Inspector on environmental matters
- Proposed template for environmental compliance reporting by the Supervising Consultant
- Proposed template for temporary acquisition of land for reporting by the Contractor
- Proposed template for site identification and setting up of worker's camps for reporting by the Contractor
- Proposed template for restoration of construction sites and worker's camps for reporting by the Contractor
- Proposed template for a Summary of mitigation and enhancement measures for reporting by the Contractor

### **PART 3 – Post-Construction: operation of flood and bank protection works & other interventions**

<b>Nr</b>	<b>Important Environmental Component (IEC) / impact</b>	<b>Mitigation measure</b>	<b>Monitor frequency</b>	<b>Score</b>	<b>Comment</b>
	<b>Water resources</b>				
1	Condition of new and rehabilitated embankments (crest level, width, slope)	Check & report			
2	Performance of drainage sluice & fish pass	Check & report			
3	Condition of riverbank protection works	Check & report			
4	River planform	Check & report			
	<b>Land and agriculture resources</b>				
5	Crop yield	Check & report			
6	Crop damage	Check & report			
7	Irrigation expansion	Check & report			
	<b>Fisheries resources</b>				
8	Operation of Fish Sanctuaries	Check & report			
9	Fish habitat – status	Check & report			
10	Fish migration	Check & report			
11	Fish diversity	Check & report			
12	Fish production	Check & report			
13	Pond fish culture	Check & report			
14	Public awareness	Check & report			
15	Training needs	Check & report			
	<b>Other ecological resources</b>				

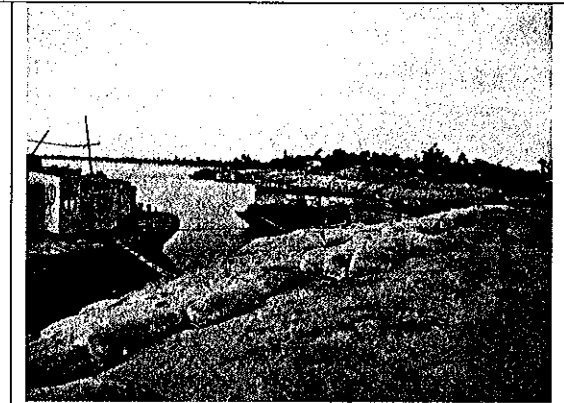
Nr	Important Environmental Component (IEC) / Impact	Mitigation measure	Monitor frequency	Score	Comment
16	Survival rate of planted saplings	Check & report			
17	Operation of Wildlife Sanctuaries	Check & report			
18	Bird counts	Check & report			
19	Other wildlife counts	Check & report			
	<b>Socio-economic</b>				
20	Communication?	Check & report			
21	Protection of municipal area including markets and homesteads?	Check & report			
22	Employment?	Check & report			
23	Income generation?	Check & report			



**PART 4 – Pictures taken during the visit**



1. Riverbank protection with sandbags opposite the site office (viewed towards south)



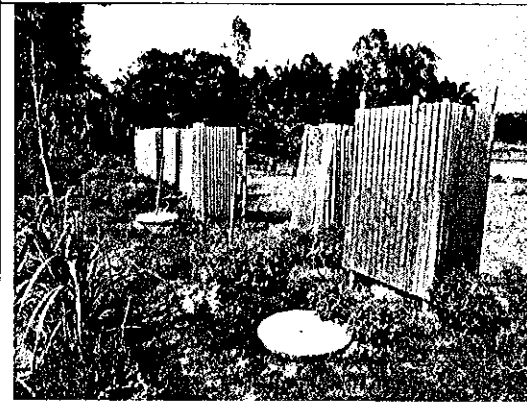
2. As picture 1 (viewed towards north)



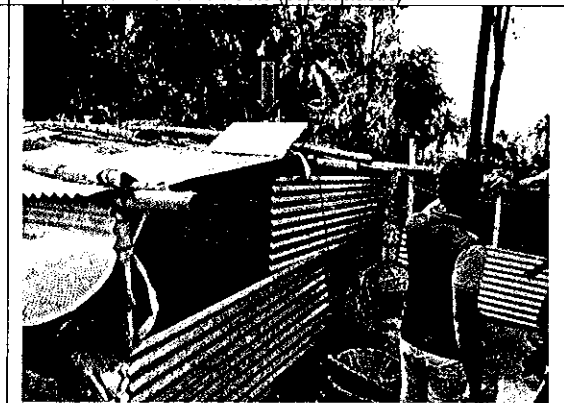
3. Concrete protection around tubewell in worker's camp



4. Pond to which washwater is drained, containing catfish but polluted with solid waste (paper/plastic)



5. Toilets with lid-covered pits



6. Solar power unit at worker's camp



7. Worker's camp



8. Meeting with (f.l.t.r.) Supervising Stie Engineer, SMO officer and Contractor at site office

## FRERMIP – Monitoring of EMP Implementation

*This monitoring form includes four parts, i.e.:*

**PART 1:** *General Project information, findings and recommendations*

**PART 2:** *Monitoring Contractor's EMP and Safety at Site Compliance*

**PART 3:** *Post-Construction: operation of flood and bank protection works & other interventions*

**PART 4:** *Pictures taken during the monitoring visit*

*Two Environmental Management Plans (EMP) are distinguished in implementing the ADB-financed Flood and Riverbank Erosion Risk Management Project (2014-2023), i.e. the:*

- (i) *EMP included as Chapter 10 in the EIA (of May 2014) as enclosed in Volume IV – 'Social Development and Safeguards' of the PPTA report for FRERMIP – this EMP distinguished three phases: Pre-Construction, Construction and Post-Construction and is meant to manage and mitigate all identified adverse impacts of the project).*
- (ii) *EMP as included in the Contractor's Contract, i.e. as Section 2 – 'EMP and Safety at the Site' of Chapter 6 – this EMP spells out all environmental management obligations of the Contractor on working sites and in worker's camps (the focus of PART 2).*

### PART 1 – General Project Information, Findings and Recommendations

#### 1-A Location, key contacts and report

<b>Sub-Project</b>	PLB-1		
<b>Location:</b>	Harirampur	<b>Monitoring report:</b>	Nr 3
<b>Date of visit:</b>	5 June 2106	<b>Date:</b>	6 June 2016
<b>Contract:</b>	W-9 & W-10	<b>By:</b>	Dr Nurul Islam Mr Wandert Benthem
<b>Contractor:</b>	MM Builders		
<b>Contractor's contact:</b>	Mr Robayet – Contract Manager Mr A. Rouf – Environmental Inspector		
<b>BWDB's contact:</b>	PMO: Mr Md. Jahangir Alam – Executive Engineer, Dhaka SMO: Mr Zahedul Alamkhan – Sub-Assistant Engineer		
<b>On-site ISPMC Consultant's contact:</b>	Mr Mirza Harunar Rashid – Supervising Engineer <a href="mailto:Mirza_harunarrashid@yahoo.com">Mirza_harunarrashid@yahoo.com</a> Md. Saiful Islam – Site Engineer <a href="mailto:Islamsaiful1964@yahoo.com">Islamsaiful1964@yahoo.com</a>		

#### 1-B Main Contract features

<b>Current Contract</b>	Protection of the left (north) bank of Padma River over 10 km by depositing sandbags and concrete blocks on eroding riverbanks near Harirampur. Main contract activities are clearance and establishment of work sites and worker's camps, sand mining, transport of sand to filling areas and cement block making sites; filling and depositing sand bags on/from barges; laying of concrete blocks. In total some 1,400 labourers have been
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	employed, nearly all of these are men; few women have been employed for cooking/cleaning. Most labourers come from 10-20 km away and reside in camps.
<b>Start of the works</b>	January 2016
<b>End of the works</b>	June 2016

#### 1C Persons met during this visit

	Party	Name	Position
1	Contractor	Mr Robayet	Contract Manager
2	Supervising Consultant	Md. Saiful Islam	Site Engineer

#### Persons met during the previous visit (21 March 2016)

	Party	Name	Position
1	Contractor	Mr Kawsar Ali	Lab Technician
2	Supervising Consultant	Mr Mirza Harunar Rashid Md. Saiful Islam	Supervising Engineer Site Engineer

#### 1D Summary of observations

At time of visit 8 out of 10 km of riverbank protection works had been completed; the remaining works are expected to be completed by the end of June 2016.

Significant adverse impacts of the physical construction works were not noted during the previous visit, and this is believed to remain the case. As dredging takes place on selected sites (with high sand content) in the middle of river where it is several km wide, negative impact is believed to be limited to very local and temporary disturbance of the water downstream of the dredger only. Sandbag filling cannot be expected to have a negative impact on the environment but the works (maneuvering barges, movement of ships, sandbag dumping) will temporarily chase away fish and dolphins (*susuk*) that return later, as was confirmed by local fishermen during the previous visit. The main adverse impact of the works is therefore in and around worker's camps (water supply and sanitation facilities), and from moving vehicles through noise and dust generated by these.

Sanitary conditions in the worker's camps remain unchanged, i.e. littering paper and plastic abound, no wastebins provided or installed, wastewater is discharged in surface pits and local depressions where it stays stagnant, tubewells remain unprotected, and no improvements that were agreed during the previous visits have materialized (e.g. no doors provided). As during the previous visit there was a strong anger outbreak by some local people residing behind the row of toilets, complaining about continued bad smell and unsanitary conditions. It was understood that the Contractor had only applied some "medicine" following the previous visit.

Copies of the previous EMP compliance monitoring report (of March 2016) have not been sent by PMO to the concerned on-site as yet, contributing to why no proper follow up action has been taken as yet.

Senior staff of PMO/SMO and Contractor have been trained by ISPMC in EMP implementation on 27/4/2016.

An Environmental Inspector has been appointed by the Contractor recently, however he did not take part in the EMP training and has not been fully instructed on his roles and responsibilities. He was provided with a ToR and he will start the monthly reporting from now on.

No formal Grievance Redress Mechanism is in place as yet.

Due to the off-season (high water level and monsoon) the next monitoring round is currently planned for December 2016.

**1E Summary of recommendations**

<p><b>For BWDB (PMO / SMO):</b></p> <ol style="list-style-type: none"> <li>1. Assist, through SMO and Supervising Consultants, the Contractor in establishing and operating a formal Grievance Redress Mechanism.</li> <li>2. Distribute the ISPMC EMP compliance monitoring reports to the concerned office in charge and assure proper follow up is being taken.</li> </ol>	<p>To be achieved by:</p> <ol style="list-style-type: none"> <li>1. With immediate effect.</li> <li>2. With immediate effect.</li> </ol>
<p><b>For On-site Supervising Consultant:</b></p> <ol style="list-style-type: none"> <li>3. Follow-up on EMP compliance monitoring reports timely and effectively.</li> </ol>	<p>To be achieved by:</p> <ol style="list-style-type: none"> <li>3. With immediate effect.</li> </ol>
<p><b>For Contractor:</b></p> <ol style="list-style-type: none"> <li>4. Further instruct and assist the full-time Environmental Inspector for supervising EMP compliance</li> <li>5. Prepare and submit monthly environmental reports and establish a proper filing system for these.</li> <li>6. Install proper noise silencer on boat and dredger engines.</li> <li>7. Improve on waste disposal in worker's camps, e.g. by installing waste bins, and depositing waste, and instructing workers through health awareness training.</li> <li>8. Improve waste water management around water points.</li> <li>9. Improve sanitation facilities and increase number of toilets.</li> </ol>	<p>To be achieved by:</p> <ol style="list-style-type: none"> <li>4. With immediate effect</li> <li>5. As from June 2016.</li> <li>6. As needed.</li> <li>7. With immediate effect.</li> <li>8. Asap.</li> <li>9. With immediate effect.</li> </ol>

**1F. Circulation (recommended)**

<p>BWDB / PMO office – Dhaka          BWDB / SMO office - Harirampur          Contractor's Resident Engineer – Harirampur          Consultant's Supervising Engineer – Manikganj          Consultant's Site Engineer – Harirampur</p>	<p>The previous monitoring report was sent to the PMO office but it had not been received as yet by on-site officers, reportedly.</p>
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## PART 2 – Monitoring Contractor's EMP and Safety at Site Compliance

Scoring key: 4 = excellent; 3 = good; 2 = fair; 1 = poor; 0 = non-compliant

EMP Clause	Item	Score	Comment
<b>2.1.1</b>	<b>Inspector</b>		
	Employing one full-time EMP inspector	2	An Environmental Inspector has been appointed reportedly but he was absent during the visit.
	Set of environmental standards at site	1	The Contractor's contract is on-site but staff not familiar with EMP or its requirements; Contractor's staff has been trained in environmental management, i.e. during a training course given by ISPMC on 27/4/2016.
	Monthly EMP reporting	0	No EMP reporting started – see also 2.3.4
<b>2.1.2</b>	<b>Air &amp; noise</b>		
	Spraying water on dry surfaces (roads and work sites)		There are no complaints reported, according to the Contractor.
	Noise cancellation at work sites	0	Boat and dredger engines rather noisy (no or limited noise silencer)
<b>2.1.3</b>	<b>Land use</b>		
	Topsoil removal and replacement at work sites		As Contractor's site office/stock yard/cc block yard and labour camps are constructed on non-fertile agricultural land this issue is not relevant here.  No complaints according to the Contractor.
	Restoring surface vegetation at work sites		Since no vegetation removal took place at work sites and their surroundings this issue is not relevant here.
<b>2.1.4</b>	<b>Pollution</b>		
	Preventing spills of lubricants and fuel		The Contractor states that used oils and lubricants are collected in a container and that this disposed of through someone that reuses it (no details provided).
	Waste disposal at work sites		Not assessed during the visit. It is assumed that limited waste is being produced anyway; assumed mostly food leftovers that are dumped in the river
	Waste disposal at worker camps	1	Situation noted during previous visit is unchanged: solid waste in camp sites (paper / plastic / kitchen spoils) is not collected; there are no waste bins on site. Liquid waste flows in open pit depressions amidst dormitory/tent sites, attracting flies and other nuisance. Toilet facilities are considered poor. Villagers openly complain about bad smells.
<b>2.1.5</b>	<b>Disruption of agricultural activities</b>		
	Minimizing disturbance	2/3	Not applicable. Contractor hires office building and land for worker's camp from local farmer, reportedly.
	Compensation arrangements		As above
<b>2.2.1</b>	<b>Navigation</b>		
	Preventing navigation routes of riverine traffic	3	No problems reported according to the Contractor.

<b>EMP Clause</b>	<b>Item</b>	<b>Score</b>	<b>Comment</b>
	Clearance permits for protection works and sand mining	3	Protection works require ECC from DoE and PMO has received clearance already. For sand mining, contractor has sub-contracted. Sub-contractor has received clearance from the district authority concerned, reportedly. See also 2.2.4.
	Compliance to GoB navigation and safety standards		Not assessed as yet.
	Coordination with BWDB & BIWTA on dredging operations		No problems or concerns noted.
<b>2.2.2</b>	<b>Roads</b>		
	Road inspections		No problems reported according to the Contractor.
	Road use & maintenance	2	Most vehicle movement is on existing road system: these are normally narrow crowded rural roads where speeds should be low; speeding causes risks to road users and dust being a nuisance.
<b>2.2.3</b>	<b>Excavation of earth in slope protection</b>		
	Excavation in accordance with approvals		Excavation for slope preparation as per approved engineering design – no environmental problem in this regard.
<b>2.2.4</b>	<b>Sand mining</b>		
	Mining in accordance with approvals	3	See 2.2.1 – approval of sand mining is not the concern of the contractor since he is sub-contracting it to a dredging firm; legal permit has been given by local authority. Permits are available, reportedly.
<b>2.3.1</b>	<b>Safety equipment to prevent accidents / injuries</b>		
	Helmets & life jackets / buoys	2	Some equipment (helmets/vests) has been acquired and is available in inspection barge (not used though). Workers on dredgers and sand filling barges do not wear or use safety equipment.
	Traffic control signboards	0	None recorded.
	Guards / walkways / etc	0	Walkways on sand filling barges are available but there are no guards
<b>2.3.2</b>	<b>First aid</b>		
	First-aid nurse	2	First-Aid kit is available and staff have received some training, according to the Contractor
	Qualified medical doctor		On call available according to the Contractor
	Health inspection & vaccination to workers	0	No awareness campaign on health issues (e.g. AIDS/HIV, sanitation) has been given or is planned.
<b>2.3.3</b>	<b>Accidents</b>		
	Reporting of accidents within 24 h	0	No serious accidents have occurred according to the Contractor, but no reporting on environmental / health / safety issues is taking place
<b>2.3.4</b>	<b>Full-time Safety Inspector</b>		
	Employed / on-site	2	Has been appointed, however was not present during the visit – see also 2.1.1

EMP Clause	Item	Score	Comment
	Monthly safety report	0	No reporting taking place as yet – see also 2.1.1
<b>2.4.1</b>	<b>Site management</b>		
	Clearing obstructions, grading, working / storage sites	1	No fencing around worker's camp noted.
	Protection of existing structures		Not noted.
	Maintenance of temporary roads		Not noted.
	Building maintenance		Not noted.
	Site fencing		Not or only partial existing.
	Equipment management		Not assessed.
<b>2.4.2</b>	<b>Lay-out drawings</b>		
	Submission on demand		Not assessed.
<b>2.4.3</b>	<b>Sanitation conditions &amp; waste management</b>		
	Water supply	1	No change visible since previous visit: few standpipes are available but there is no concrete platform around and drainage pipe away from these to divert wastewater that could pollute source. Open pit wastewater dump amidst tents or near toilets. Unhealthy conditions.
	Sanitation (toilets etc)	1	No change visible since previous visit: some 30 latrines provided (= 1400 / 30 = 50 persons/latrine), that all lack proper doors; drainage into open pits (that appear full) that cause nuisance to villagers in surroundings. Villagers complain again openly.
	Waste management	1	No change visible since previous visit: no waste bins available for paper / plastic.

**Other matters:**

ISPMC developed and provided a training to 10 Harirampur staff in EMP implementation on 27/4/2016 – see Training Report of April 2016.

There is no formal **Grievance Redress Mechanism (GRM)** in place. Establishing such system, responsibility of the BWDB, was discussed and a handout on how to establish and run such system was given and explained.

Documents and template shared with the officers on site during the visit (and attached to the present report) are:

- Guidance for establishing and running of a Grievance Redress Mechanism
- Proposed job description for the Contractor's Environmental Inspector
- Proposed template for monthly progress reporting by the Environmental Inspector on environmental matters
- Proposed template for environmental compliance reporting by the Supervising Consultant
- Proposed template for temporary acquisition of land for reporting by the Contractor
- Proposed template for site identification and setting up of worker's camps for reporting by the Contractor
- Proposed template for restoration of construction sites and worker's camps for reporting by the Contractor
- Proposed template for a Summary of mitigation and enhancement measures for reporting by the Contractor

**PART 3 – Post-Construction: operation of flood and bank protection works & other interventions**

Nr	Important Environmental Component (IEC) / impact	Mitigation measure	Monitor frequency	Score	Comment
	<b>Water resources</b>				
1	Condition of new and rehabilitated embankments (crest level, width, slope)	Check & report			
2	Performance of drainage sluice & fish pass	Check & report			
3	Condition of riverbank protection works	Check & report			Staff mentioned a 'tornado' and strong wave action damaging part of the protection works recently – repair works are ongoing.
4	River planform	Check & report			
	<b>Land and agriculture resources</b>				
5	Crop yield	Check & report			
6	Crop damage	Check & report			
7	Irrigation expansion	Check & report			
	<b>Fisheries resources</b>				
8	Operation of Fish Sanctuaries	Check & report			
9	Fish habitat – status	Check & report			
10	Fish migration	Check & report			
11	Fish diversity	Check & report			
12	Fish production	Check & report			
13	Pond fish culture	Check & report			
14	Public awareness	Check & report			
15	Training needs	Check & report			
	<b>Other ecological resources</b>				
16	Survival rate of planted saplings	Check & report			
17	Operation of Wildlife Sanctuaries	Check & report			
18	Bird counts	Check & report			
19	Other wildlife counts	Check & report			
	<b>Socio-economic</b>				
20	Communication?	Check & report			
21	Protection of municipal area including markets and homesteads?	Check & report			
22	Employment?	Check & report			



Nr	Important Environmental Component (IEC) / impact	Mitigation measure	Monitor frequency	Score	Comment
23	Income generation?	Check & report			

**PART 4 – Pictures taken during the visit**



1. Completed riverbank protection works near site office



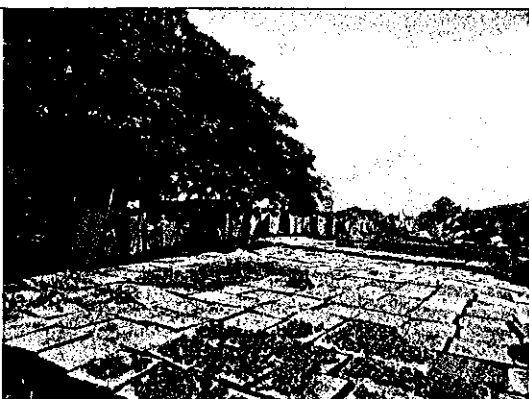
2. As picture 1.



3. Unprotected tubewell in worker's camp



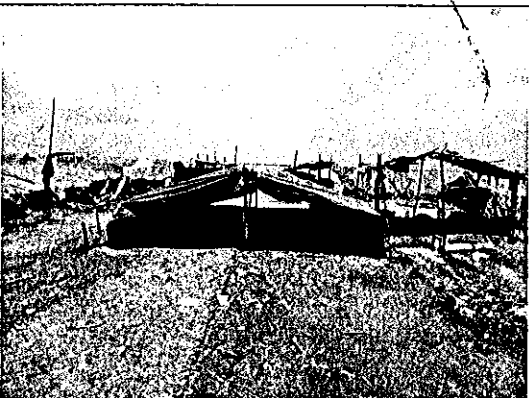
4. Unsanitary conditions at wastewater dump and scattered litter near cooking site in worker's camp



5. Row of toilets where situation has not improved since March 2016 visit, i.e. people living right behind it.



6. Backside of row of toilets



7. Worker's camp.



8. Meeting with Contractor and Supervising Consultant

## FRERMIP – Monitoring of EMP Implementation

This monitoring form includes four parts, i.e.:

**PART 1:** General Project information, findings and recommendations

**PART 2:** Monitoring Contractor's EMP and Safety at Site Compliance

**PART 3:** Post-Construction: operation of flood and bank protection works & other interventions

**PART 4:** Pictures taken during the monitoring visit

Two Environmental Management Plans (EMP) are distinguished in implementing the ADB-financed Flood and Riverbank Erosion Risk Management Project (2014-2023), i.e. the:

- (i) EMP included as Chapter 10 in the EIA (of May 2014) as enclosed in Volume IV – 'Social Development and Safeguards' of the PPTA report for FRERMIP – this EMP distinguished three phases: Pre-Construction, Construction and Post-Construction and is meant to manage and mitigate all identified adverse impacts of the project).
- (ii) EMP as included in the Contractor's Contract, i.e. as Section 2 – 'EMP and Safety at the Site' of Chapter 6 – this EMP spells out all environmental management obligations of the Contractor on working sites and in worker's camps (the focus of PART 2).

### PART 1 – General Project Information, Findings and Recommendations

#### 1-A Location, key contacts and report

<b>Sub-Project:</b>	JLB-2		
<b>Location:</b>	Chauhal	<b>Monitoring report:</b>	Nr3
<b>Date of visit:</b>	4 June 2016	<b>Date:</b>	6 June 2016
<b>Contract:</b>	W-06, W-07, W-07-Extension	<b>By:</b>	Dr Nurul Islam Mr Wandert Benthem
<b>Contractor:</b>	IJ (JV)		
<b>Contractor's contact:</b>	Mr Aliquul Islam / Mr Zahed Iqbal Mr Md. Robiul Islam – Environmental Inspector		
<b>BWDB's contact:</b>	PMO: Mr Md. Jahangir Alam – Executive Engineer, Dhaka SMO: Mr Md. Sultan Mahmud – Sub-Divisional Engineer, Chauhal		
<b>On-site ISPMC Consultant's contact:</b>	Mr Mirza Harunar Rashid – Supervising Engineer <a href="mailto:Mirza_harunarrashid@yahoo.com">Mirza_harunarrashid@yahoo.com</a> Mr Faridul Alam – Site Engineer 1 <a href="mailto:faridnao@yahoo.com">faridnao@yahoo.com</a> Mr Ekramul Haque Sarder – Site Engineer 2 <a href="mailto:Ekramul.sarder@gmail.com">Ekramul.sarder@gmail.com</a>		

#### 1-B Main Contract features

<b>Current Contract</b>	Protection of the left (east) bank of Jamuna River over 7.2 km by depositing sandbags and concrete blocks on eroding riverbanks near Chauhali. Main contract activities are clearance and establishment of work sites and worker's camps, sand mining, transport of sand to filling areas and cement block making sites; filling and
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	depositing sand bags on/from barges; laying of concrete blocks. In total some 900 labourers have been employed of which some 200 are from nearby villages and the rest resides in two worker's camps; nearly all of these are men; few women have been employed for cooking/cleaning.
<b>Start of the works</b>	November/December 2015
<b>End of the works</b>	2017

**1C Persons met during this visit – initially with the Contractor only, later SMO and others joined; the meeting in the canteen on site lasted about 1 hour.**

	<b>Party</b>	<b>Name</b>	<b>Position</b>
1	BWDB/SMO	Mr Md. Sultan Mahmud	Sub-Divisional Engineer
2	Contractor	Mr Md. Saidur Rahman Mr Md. Robiul Islam	Deputy Project Manager Environmental Inspector
3	Supervising Consultant	Mr Faridul Alam Mr Ekramul Haque Sarder	Site Engineer 1 Site Engineer 2

**Persons met during previous visit (22 March 2016)**

	<b>Party</b>	<b>Name</b>	<b>Position</b>
1	Contractor	Mr Zakaria Mahammed Nasim	Project Manager
2	Supervising Consultant	Mr Mirza Harunar Rashid Mr Faridul Alam Mr Ekramul Haque Sarder	Supervising Engineer Site Engineer 1 Site Engineer 2

**1D Summary of observations**

The works have progressed as planned: sandbags have been installed along the entire targeted riverbank, but placing of some additional 200,000 bags continues in June on locations where weak spots have been identified by diving teams. Concrete blocks have been made and will be laid as from mid-October when the monsoon has ended and river water recedes. Between June and October little activities will take place (high water level & monsoon).

Significant adverse impacts of the physical construction works were not noted during the previous visit, and this is believed to remain the case. As dredging takes place on selected sites (with high sand content) in the middle of river where it is several km wide, negative impact is believed to be limited to local and temporary disturbance of the water downstream of the dredger only. Sandbag filling is believed not have a negative impact on the environment but the works (maneuvering barges, movement of ships, sandbag dumping) temporarily chase away fish and dolphins (*susuk*) that return later, as was confirmed by local fishermen, earlier. The main adverse impact of the works is therefore in and around worker's camps (water supply and sanitation facilities), and from moving vehicles through noise and dust generated by these.

Copies of the previous EMP compliance monitoring report (of March 2016) have not been sent by PMO to the concerned on-site as yet, contributing to why no proper follow up action has been taken as yet.

Despite promises made by the Contractor during the previous visit there is no improvement visible in and around the worker's camps: water pumps remain unprotected, dirty water accumulates around the pumps and near the kitchens, solid waste (paper, plastic) abounds and there are no wastebins. Basically there is still no waste management system in place.

Senior staff of PMO/SMO and Contractor have been trained by ISPMC in EMP implementation on 26/4/2016.

An Environmental Inspector has been appointed by the Contractor recently, however he did not take part in the EMP training and has not been fully instructed on his roles and responsibilities. He was provided with a ToR and he will start the monthly reporting from now on.

No formal Grievance Redress Mechanism is in place as yet.

Due to the off-season (high water level and monsoon) the next monitoring round is currently planned for December 2016.

**1E Summary of recommendations**

<p><b>For BWDB (PMO / SMO):</b></p> <ol style="list-style-type: none"> <li>1. Assist, through SMO and Supervising Consultants, the Contractor in establishing and operating a formal Grievance Redress Mechanism.</li> <li>2. Distribute the ISPMC EMP compliance monitoring reports to the concerned office in charge and assure proper follow up is being taken.</li> </ol>	<p>To be achieved by:</p> <ol style="list-style-type: none"> <li>1. With immediate effect.</li> <li>2. With immediate effect.</li> </ol>
<p><b>For On-site Supervising Consultant:</b></p> <ol style="list-style-type: none"> <li>3. Follow-up on EMP compliance monitoring reports timely and effectively.</li> </ol>	<p>To be achieved by:</p> <ol style="list-style-type: none"> <li>3. With immediate effect.</li> </ol>
<p><b>For Contractor:</b></p> <ol style="list-style-type: none"> <li>4. Further instruct and assist the full-time Environmental Inspector for supervising EMP compliance</li> <li>5. Prepare and submit monthly environmental reports and establish a proper filing system for these.</li> <li>6. Install proper noise silencer on boat and dredger engines.</li> <li>7. Improve on waste disposal in worker's camps, e.g. by installing waste bins, and depositing waste, and instructing workers through health awareness training.</li> <li>8. Improve waste water management around water points.</li> <li>9. Improve sanitation facilities and increase number of toilets.</li> </ol>	<p>To be achieved by:</p> <ol style="list-style-type: none"> <li>4. With immediate effect</li> <li>5. As from June 2016.</li> <li>6. As needed.</li> <li>7. With immediate effect.</li> <li>8. Asap.</li> <li>9. With immediate effect.</li> </ol>

**1F. Circulation (recommended)**

<p>BWDB / PMO office – Dhaka          BWDB / SMO office – Chauhali          Contractor's Resident Engineer – Chauhali          Consultant's Supervising Engineer – Manikganj          Consultant's Site Engineer – Chauhali</p>	<p>The previous monitoring report was sent to the PMO office but it had not been received as yet by on-site officers, reportedly.</p>
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**PART 2 – Monitoring Contractor's EMP and Safety at Site Compliance**

Scoring key: 4 = excellent; 3 = good; 2 = fair; 1 = poor; 0 = non-compliant

EMP Clause	Item	Score	Comment
2.1.1	<b>Inspector</b>		
	Employing one full-time EMP inspector.	2	The Environmental Inspector has been appointed and was met; his English is poor and he did not seem to have been fully briefed on environmental issues and his role and responsibilities in the

EMP Clause	Item	Score	Comment
			program.
	Set of environmental standards at site.	2	A Contractor Contract, including the EMP is available in the office.
	Monthly EMP reporting.	0	Is not taking place as yet – see also 2.3.4. The SMO and Contractor were provided with a proposed ToR for the Environmental Inspector. It was agreed that the Environmental Inspector will prepare a first monthly progress report, as per the provided template and in English, for June, October and November and that these will be handed over to ISPMC during the next monitoring round, currently planned for December 2016.
<b>2.1.2</b>	<b>Air &amp; noise</b>		
	Spraying water on dry surfaces (roads and work sites.	2	During the visit electricity was provided by a generator nearby – which was rather noisy. Nevertheless, according to the Contractor there are no complaints about (too) high noise levels.
	Noise cancellation at work sites.		Not noted or discussed.
<b>2.1.3</b>	<b>Land use</b>		
	Topsoil removal/preservation and replacement at work sites.	3	As Contractor's site office/stock yard/cc block yard and labour camps are constructed on non-fertile agricultural land this issue is not relevant here.  According to the Contractor there are no objections from the local residents; in general are happy with the bank protection works and do not complain.
	Restoring surface vegetation at work sites.		Since no vegetation removal took place at work sites and their surroundings this issue is not relevant here.
<b>2.1.4</b>	<b>Pollution</b>		
	Preventing spills of lubricants and fuel.	2	According to the Contractor there are fuel or lubricant spills occasionally but these are then removed and dumped somewhere inland. Used lubricants are collected in a container and periodically sold in the market, reportedly.
	Waste disposal at work sites.		Not assessed.
	Waste disposal at worker camps.	1	Despite promises made earlier, there are no wastebins available; paper and plastic waste abound.
<b>2.1.5</b>	<b>Disruption of agricultural activities</b>		
	Minimizing disturbance.	3	No complaints have been received by the Contractor thus far.
	Compensation arrangements.		Not discussed.
<b>2.2.1</b>	<b>Navigation</b>		
	Preventing navigation routes of riverine traffic.	3	No accidents have occurred thus far according to the Contractor.
	Clearance permits for protection works.	3	Protection works require ECC from DoE and PMO has received clearance already. For sand mining,

EMP Clause	Item	Score	Comment
			contractor has sub-contracted. Sub-contractor has received clearance from the district authority concerned, reportedly. See also 2.2.4.
	Compliance to GoB navigation and safety standards.		Not discussed.
	Coordination with BWDB & BIWTA on dredging operations.		Not discussed.
<b>2.2.2</b>	<b>Roads</b>		
	Road inspections.	3	No problems have been reported to the Contractor.
	Road use & maintenance.		Not assessed.
<b>2.2.3</b>	<b>Excavation of earth in slope protection</b>		
	Excavation is accordance with approvals.	3	Excavations are done as per the design; no problems have been recorded.
<b>2.2.4</b>	<b>Sand mining</b>		
	Mining in accordance with approvals.	3	See 2.2.1 – approval of sand mining is not the concern of the Contractor since he is sub-contracting it to a dredging firm; legal permit has been given by local authority.
<b>2.3.1</b>	<b>Safety equipment to prevent accidents / injuries</b>		
	Helmets & life jackets.		PPE was seen stored in the canteen; according to the Contractor there are sufficient PPE available and no serious incidents have happened thus far.
	Traffic control signboards.		Not noted.
	Guards / walkways / etc.		Not noted.
<b>2.3.2</b>	<b>First aid</b>		
	First-aid nurse.	3	A first aid kit was seen in the canteen.
	Qualified medical doctor.	3	A doctor is on call available.
	Health inspection & vaccination to workers.		Not discussed.
<b>2.3.3</b>	<b>Accidents</b>		
	Reporting of accidents within 24 h.		No serious accidents have occurred thus far according to the Contractor.
<b>2.3.4</b>	<b>Full-time Safety Inspector</b>		
	Employed / on-site.		Assigned – see 2.1.1
	Monthly safety report.		Not being made yet – see also 2.1.1
<b>2.4.1</b>	<b>Site management</b>		
	Clearing obstructions, grading, working / storage sites.		No problems occurred thus far according to the Contractor.
	Protection of existing structures.	2	Fencing constructed, however accessible
	Maintenance of temporary roads.		Not discussed or assessed.
	Building maintenance.		Not noted.
	Site fencing.		Fencing constructed, however accessible to public
	Equipment management.		Not assessed.

EMP Clause	Item	Score	Comment
2.4.2	<b>Lay-out drawings</b>		
	Submission on demand.		Not discussed.
2.4.3	<b>Sanitation conditions &amp; waste management</b>		
	Water supply.	1	No improvement was noted in the existing tubewells; there is no protection and so are still defunct.
	Sanitation (toilets etc).	1	Existing toilets (about 1 per 90 workers) is insufficient; no change or improvement is visible.
	Waste management.	0	Still no wastebins or proper management system in place.

**Other matters:**

ISPMC developed and provided a training to 13 Chauhali staff in EMP implementation on 26/4/2016 – see Training Report of April 2016.

There is no formal **Grievance Redress Mechanism (GRM)** in place. Establishing such system, responsibility of the BWDB, was discussed and a handout on how to establish and run such system was given and explained.

Documents and template shared with the officers on site during the visit (and attached to the present report) are:

- Guidance for establishing and running of a Grievance Redress Mechanism
- Proposed job description for the Contractor's Environmental Inspector
- Proposed template for monthly progress reporting by the Environmental Inspector on environmental matters
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- Proposed template for temporary acquisition of land for reporting by the Contractor
- Proposed template for site identification and setting up of worker's camps for reporting by the Contractor
- Proposed template for restoration of construction sites and worker's camps for reporting by the Contractor
- Proposed template for a Summary of mitigation and enhancement measures for reporting by the Contractor

**PART 3 – Post-Construction: operation of flood and bank protection works & other interventions**

Nr	Important Environmental Component (IEC) / impact	Mitigation measure	Monitor frequency	Score	Comment
	<b>Water resources</b>				
1	Condition of new and rehabilitated embankments (crest level, width, slope)	Check & report			
2	Performance of drainage sluice & fish pass	Check & report			
3	Condition of riverbank protection works	Check & report			
4	River planform	Check & report			
	<b>Land and agriculture resources</b>				
5	Crop yield	Check & report			
6	Crop damage	Check & report			



Nr	Important Environmental Component (IEC) / impact	Mitigation measure	Monitor frequency	Score	Comment
7	Irrigation expansion	Check & report			
	<b>Fisheries resources</b>				
8	Operation of Fish Sanctuaries	Check & report			
9	Fish habitat – status	Check & report			
10	Fish migration	Check & report			
11	Fish diversity	Check & report			
12	Fish production	Check & report			
13	Pond fish culture	Check & report			
14	Public awareness	Check & report			
15	Training needs	Check & report			
	<b>Other ecological resources</b>				
16	Survival rate of planted saplings	Check & report			
17	Operation of Wildlife Sanctuaries	Check & report			
18	Bird counts	Check & report			
19	Other wildlife counts	Check & report			
	<b>Socio-economic</b>				
20	Communication?	Check & report			
21	Protection of municipal area including markets and homesteads?	Check & report			
22	Employment?	Check & report			
23	Income generation?	Check & report			

**PART 4 – Pictures taken during the visit**



1. Riverbank protection by sandbags



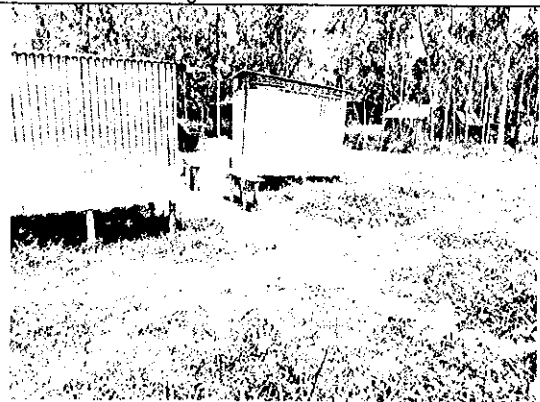
2. Situation regarding unprotected tubewells in worker's camp prevails.



3. Unsanitary conditions near cooking sites in worker camps remain unchanged.



4. Other pumps: as Picture 2, above.



5. Littering paper and plastic abound; waste bins have still not been provided.



6. Consulting local resident.

## FRERMIP – Monitoring of EMP Implementation – Round 3

4/5 June 2016: Chauhali, Harirampur, Zafarganj

The EIA for FRERMIP (May 2014) contains the elaborate Environmental Management Plan (EMP; 68 pages) for the Project in its Chapter 10, and is for all three phases of the Project (pre-construction, construction and post-construction). As the pre-construction phase for the current three pilot areas has already been completed whereas post-construction starts after completion of the works, the focus for EMP compliance monitoring is currently on the construction phase only.

The Contractor's Contracts include an EMP as well, which although based on the PPTA/EIA report, is much shorter than the latter. In fact the Contractor's EMP is basically a listing of clauses (Section 2 of Chapter 6 of the Contractor's Contract) covering 4 pages only. The current monitoring focuses on whether the Contractor implements the works in compliance with its EMP obligations.

The present monitoring of EMP implementation form is compiled on the basis of the 'Monitoring Plan' as enclosed in Section 10.5 of the PPTA/EIA but it has been amended for specifically the present phase of Project implementation. This means that it focuses on the work of the present contractors, and it is presented in a format targeting both the PMO and SMO units and individuals that are expected to follow up on the observations and recommendations.

### General Observations:

1. Little adverse environmental impacts are believed to result from the main works at each of the three sites, i.e. the collection of sand through dredgers, transport of sand by barge to bag filling sites, bag filling and dumping, and the making and placing of cement concrete (cc) blocks.
2. Adverse environmental impacts of the works are therefore mainly noted in and around the worker's camps: in all of these there is a lack of or inadequate waste management (paper and plastic littering is widespread, there are no waste bins), sanitary conditions are poor (wastewater drainage from cooking and washing areas in open pits), and toilet facilities are limited, generally of poor quality, and cause hindrance (smell, eyesore) not only to the workers themselves but also to surrounding villagers. The latter openly complained about the prevailing unsanitary conditions at one site (Harirampur) during two of the monitoring visits (in March and June 2016).
3. In general the Contractors, as well as the Supervising Consultant, give the impression that they do not take environmental management seriously. The Contractors do not know well what their responsibilities are for environmental management under their contract. On several occasions we had to point out to the Contractor where the EMP section is in their contract.
4. Although some site-specific EMP requirements have been achieved, Contractors do not comply with all of their contractual EMP obligations. They lag behind specifically in (i) employing, instructing and/or supervising their full-time Environmental Inspector; (ii) providing acceptable standards for water supply and waste management in worker's camps, while (iii) their monthly reporting on environmental management has nowhere started as yet.
5. As required by the Project design, the PMO office informed on 25 May 2016 that their Executive Engineer, Mr Md. Jahangir Alam, has been nominated as focal point officer for smooth operation of especially the EMP of the FRERMIP.
6. Involved supervising BWDB officers, Supervising Consultants and Contractors have been trained in environmental management i.e. during brief training courses conducted by ISPMC on 26-28/4/2016. A Training Report of April 2016 has been prepared and issued. Each of the site offices has received a copy of the report.
7. The EARF (Environmental Review and Assessment Framework) for FRERMIP includes the responsibility of the PMO to establish and operate a Grievance Redress Mechanism (GRM) in

each of the project sites. However, to date no formal GRM has been established in any of the three sites. It is noted that the EIA in the PPTA does not include the need for or guidance on a GRM, neither does the Contractor's contract.

8. In at least one site there is strong opposition against the presence of toilets near existing housing, however so far no or insufficient effort has been made by the Contractor, or indirectly the Supervising Consultant to redress the complaints.
9. As noted in the previous EMP compliance monitoring report, some items in the Contractor's EMP are duplications (e.g. 2.1.1 and 2.3.4) or have limited relevance to environmental management (e.g. 2.4.2).
10. It is noted that the previous EMP compliance monitoring report of ISPMC's of March 2016 had not been received by any of the consulted officers in the three sites.

**General Recommendations:**

1. Contractors must step up their performance on EMP implementation, first and foremost by (i) formally assigning and/or properly instructing and supervising a full-time Environmental Inspector, (ii) by improving water supply and waste management, (iii) by monthly reporting on their on-site environmental management.
2. The Supervising Consultant is to improve on supervising the Contractor in his obligations with respect to environmental management.
3. Adequate and immediate measures are required in Harirampur to minimize hindrance experienced by residents near toilets in the worker's camp. Given the obvious improper siting of these toilets, and the end of the works in end-June, these toilets should be dismantled and, in case works are to continue during the next work season(s), rebuilt elsewhere with sufficient distance to settlement (at least 100 m, and considering prevail winds).
4. PMO is to establish and operate a formal and effective Grievance Redress Mechanism in each of the work sites in accordance with guidance provided in the EARF. This GRM is also required to take care of any complaints that may result from land acquisition activities, and therefore needs close cooperation with other ISPMC specialists for example resettlement and institutional development.
5. PMO is to adopt a system for sharing and following up on ISPMC's EMP compliance monitoring reports.
6. For future Contractor's contracts the EMP section should be revisited and amended, based on experience gained in implementing the pilot area works.

ISPMC – Dhaka; 6 June 2016

Dr Nurul Islam – National Environmental Specialist

Wandert Benthem – International Environmental Specialist

**Circulation (recommended)**

BWDB / PMO office – Dhaka BWDB / SMO Engineer – Chauhali BWDB / SMO Engineer – Harirampur BWDB / SMO Engineer – Zafarganj Consultant's Supervising Engineer – Manikganj Consultant's Supervising Engineer – Chauhali Consultant's Supervising Engineer – Harirampur Consultant's Supervising Engineer – Zafarganj	
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## Attachments:

- EMP Compliance Monitoring Report Nr 3 – Chauhali (blue-marked)
- EMP Compliance Monitoring Report Nr 3 – Harimampur (yellow-marked)
- EMP Compliance Monitoring Report Nr 2 – Zafarganj (green-marked)
- Hand-outs shared with site staff (Contractors and Supervising Engineer) during the visit

**TEMPORARY ACQUISITION OF LAND**

(Reporting by Contractor to Environmental Management Officer, SMO (M&E Unit)/XEN (Environmental), PMO)

Construction Stage: Monthly/Quarterly Report: Date ..... Month ..... Year .....

(Site Layout Plan of all locations to be attached with format)

(Attach Photograph of the Site)

Sl. No	Item	Target Date for Establishment	Date of Establishment	Location	Present Landuse	Size (mxm)	Existing Trees	Distance from Nearest Settlement	Distance from Nearest Riverbank	Remarks by Environmental Management Officer, SMO(M&E Unit)/XEN (Environmental) PMO, if any
1	Geo-bag Sandfill Area (SA)									
	SA 1									
	SA 2									
2	CC Block Construction Area (CA)									
	CA 1									
	CA 2									
3	Work force Camps (WC)									
	WC 1									
	WC 2									
4	Stock Yard Cement for fine and coarse aggregate (SY)									
	SY 1									
	SY 2									
5	Site Store (SS)									
	SS 1									
	SS 2									
6	Site Office (SO)									

Certified that the furnished information is correct and the quality of work is as per good practice

\_\_\_\_\_  
 Environmental Management Officer (SMO, M&E Unit)

\_\_\_\_\_  
 Executive Engineer (Environmental), PMO

\_\_\_\_\_  
 Contractor or his representative

## SITE IDENTIFICATION AND SETTING UP OF WORKFORCE CAMP

(Reporting by Contractor to Environmental Management Officer, SMO (M&E Unit)/XEN (Environmental), PMO)

Construction Stage Report: Date ..... Month ..... Year.....

(Attach Photograph of the Camp Site)

Format to be submitted before target date of establishing camps as

Camp no.WC

Location of Camp: km \_\_\_\_\_ Package \_\_\_\_\_

Sl. No	Item	Unit	Details	Remarks by Environmental Management Officer, SMO (M&E Unit)/XEN (Environmental), PMO, if any
1	Detail of item camp	m <sup>2</sup> m		
a	Size of Camp	M <sup>2</sup> m		
b	Area of Camp	Sq.m		
c	Distance from Nearest Settlement	M		
d	Distance from Nearest Water Source/Riverbank	M		
e	Date of camp becoming operational	dd/mm/yy		
f	Present land use			
g	No of trees with the Camp site			
2	Details of top soil stacking			
a	Quantity of top soil removed	Sq.m		
b	Detail of storage of topsoil	Cu.m		
3	Details of workforce	Nos.		
a	Total No of Labourers at work site	Nos		
b	Total no of Male Workers at work site	Nos		
c	No of Male Workers below 18 years of age	Nos		

Sl. No	Item	Unit	Details	Remarks by Environmental Management Officer, SMO (M&E Unit)/XEN (Environmental), PMO, if any
d	Total no of Female workers at work site	Nos		
e	No of Female workers below 18 years of age	Nos		
f	No of children	Nos		
4	Details of dwelling units			
a	No of dwellings	Nos		
b	Minimum size of dwelling	m <sup>2</sup> m		
c	Walls	Specifications		
d	Roofing	Specifications		
e	Flooring	Specifications		
f	Total no of Bathrooms	Nos		
5	Details of facilities			
a	Availability of security guard 24 hrs a day	Yes/ No		
b	First Aid Facility	Yes/ No		

Certified that the furnished information is correct and the quality of work is as per good practice

\_\_\_\_\_  
**Environmental Management Officer (SMO, M&E Unit)**

\_\_\_\_\_  
**Executive Engineer (Environmental), PMO**

\_\_\_\_\_  
**Contractor or his representative**



**RESTORATION OF CONSTRUCTION SITES**

(Reporting by Contractor to Environmental Management Officer, SMO (M&E Unit)/XEN (Environmental), PMO)  
 Construction stage: Monthly Report – Date ..... Month ..... Year .....

Sl. No	Item	Location	Unit (cum)	Volume of Topsoil Restored (cum)	Remarks by Environmental Management Officer, SMO (M&E Unit)/XEN (Environmental), PMO, if any
1	Restoring of topsoil at site of sand filled geo-bag				
A					
B					
C					
D					
2	Restoring top soil at construction site of CC block				
A					
B					
C					
D					
3	Restoring of topsoil at Workers Camp				
A					
B					
C					
D					
4	Restoring of topsoil at Construction/ stock yard and disposal of spoil				
A					
B					
C					
D					

Certified that the mitigation/enhancement works have been completed as specified and as per prevalent good construction practices

Environmental Management Officer (SMO, M&E Unit)

Executive Engineer (Environmental), PMO

Contractor or his representative

## SUMMERY MITIGATION AND ENHANCEMENT

(Monthly Reporting by Contractor to Environmental Management Officer, SMO (M&E Unit)/XEN (Environmental), PMO)  
 Construction Stage: Monthly Report – Date ..... Month ..... Year .....

S.No	Item	Physical Target			Completion Target		
		Target	Target Achieved	% of task completed	Target Date	Date of Completion if task completed	Reason for delay if any
1	Protection of Cultural Properties	Unit					
2	Water Bodies	Nos					
3	Barrier to prevent garbage dumping	Nos					
4	Spill of oil lubricant control	Nos					
5	Washing Platform	Nos					
6	Trees planted and cared	Nos					
7	Turf area	m <sup>3</sup>					
8	Top soil covers	m <sup>3</sup>					
9							
10							

Completed as specified and as per prevalent good construction practices

Environmental Management Officer (SMO, M&E Unit)

Executive Engineer (Environmental), PMO

Contractor or his representative