

Bangladesh Water Development Board
Asian Development Bank

Flood and Riverbank Erosion Risk Management Investment Program – Project 1

ADB Loan No. 3138-BAN (SF)

**Institutional Strengthening and
Project Management Consultant (ISPMC)**

***Revised* QUARTERLY PROGRESS REPORT NO. 13**

FOR

JULY - SEPTEMBER 2018

Prepared by:

Reference:

ISPMC – FRERMIP – 564

ISPMC JV NHC-EMM

soniafrermip@gmail.com

17 December 2018

To

Mr. Md. Rafiqul Islam Choubey

Project Director,

Flood and Riverbank Erosion Risk Management Investment Program

152/3/B Bir Uttam, Kazi Nuruzzaman Road, Panthopath,

Firoz Tower, (12th Floor) Dhaka-1205, Bangladesh**Subject: Submission of Revised Quarterly Progress Report No. 13
July-September 2018.****Reference: As per Institutional Strengthening and Project Management Consulting Services
Contract, Clause 9 (i), Page 35, ISPMC-FRERMIP-553**

Dear Sir,

Please find enclosed Revised Quarterly Progress Report No. 13 for the period July - September 2018 for the "Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP) – Project 1". This revised report has been prepared in close discussion with your office, using information available in the Revised (September 2018) Development Project Performa and considering the Facility Administration Manual. The required changes from the previously submitted report (Ref: ISPMC-FRERMIP-553) are attached in a comment matrix below.

Yours sincerely,

JV Northwest Hydraulic Consultants – Euroconsult Mott MacDonaldKnut Oberhagemann
(Team Leader)

Distribution

As per enclosed Distribution List

Comment Matrix for Quarterly Progress Report No. 13 Updates

Sl. No.	Page No.	Issue	Status	Comment
1.	1	Change the Tranche-2 map to Tranche-1 Map	Done	The Tranche-2 map has been added to the section 2.3.11 .
2.	2	Changes to the terminologies of Table-1 as per Revised DPP	Done	The Revised DPP was not available to ISPMC in the time of making the report
3.	2	Changes to the last ADB Review Mission Date	Done	None
4.	2	Changes to the Physical Progress Values of different project components	Done	The ISPMC usually overestimates the progress values deliberately
5.	2	Changes to the cost of the project according to the RDPP	Done	The Revised DPP was not available to ISPMC in the time of making the report
6.	4	Changes to the position of the GoB name according to serial	Done	None
7.	4	Changes to the Physical Work Lengths	Done	The lengths were presented to the rounded figures
8.	4	Changes to the approval status of the project length extension	Done	The Revised DPP was not available to ISPMC in the time of making the report
9.	5	Including the major RDPP related updates	Done	The Revised DPP was not available to ISPMC in the time of making the report
10.	5	Changes in adaptive work length	Done	The previous number included the adaptive work done in packages other than W-11, now it only shows the length of the package W-11
11.	5	Changes in Project Overall Progress percentages	Done	The project progress percentages have been revised according to the RDPP. The Revised DPP was not available to ISPMC in the time of making the report
12.	5	Changes in Overall Project Cost	Done	The Revised DPP was not available to ISPMC

Project Office:

House 47 (8th Floor)

Road 27, Banani

Dhaka 1213, Bangladesh

Phone: 0088 (0) 2 986 1294

Email: ahmad.sajid@mottmac.com

Sl. No.	Page No.	Issue	Status	Comment
				in the time of making the report
13.	7	Changes regarding the revised budget allocation	Done	The Revised DPP was not available to ISPMC in the time of making the report
14.	7	Changes in project asset numbers due to the Revised DPP	Done	The Revised DPP was not available to ISPMC in the time of making the report
15.	7	Change in the reference for the resettlement budget increase	Done	None
16.	8	Changes with the newly awarded contracts	Done	The contract values were presented approximately
17.	8	Changes to the design progress	Done	The RDPP added a new contract for piloting named W-16 which needs design work. The Revised DPP was not available to ISPMC in the time of making the report
18.	8	Changes in the Adaptation work Bag numbers	Done	None
19.	8	Changes for the negative speech regarding the embankment construction progress	Done	The negative speech was omitted
20.	9	Changes in Regulator Construction Work Progress and Embankment Work Progress	Done	None
21.	10	Changes in the names of the Supporting Service Studies as per RDPP	Done	The Revised DPP was not available to ISPMC in the time of making the report
22.	10 and 11	Changes in the number of Affected Persons to receive resettlement grant	Unchanged	The numbers were found to be correct. The total number of AP were changed as it was mistaken.
23.	11	Inclusion of the intervention type of the project wise resettlement locations	Done	None
24.	11	Inclusion of group samples for income generating activities	Unchanged	The INGO didn't prepare any document for the groups. It can be

Project Office:
House 47 (8th Floor)
Road 27, Banani
Dhaka 1213, Bangladesh
Phone: 0088 (0) 2 986 1294
Email: ahmad.sajid@mottmac.com

Sl. No.	Page No.	Issue	Status	Comment
				prepared and added in the next reports.
25.	12	Changes regarding the number of contractors agreeing to recruit female labors	Done	None
26.	12	Inclusion of NGO office pictures	Done	None
27.	13	Inclusion of dates of CbFRM NGO activities	Done	None
28.	13	Changes in the number of CDMUs and CVs for CbFRM Activities	Unchanged	The numbers were found to be correct
29.	14	Changes in the Capacity Building Progress according to the Revised DPP	Done	The Revised DPP was not available to ISPMC in the time of making the report
30.	15 and 16	Changes in MIS Progress	Unchanged	The component was mistakenly conferred as the recently omitted MIS service contract, where it is actually the updates of the activities done by the ISPMC MIS expert
31.	16	Changes in the approval status of the Strategic Framework	Done	None
32.	16	Inclusion of the Dutch Government Organization name reviewing the SESA	Done	None
33.	16	Changes in the Appendix number	Done	None
34.	17	Inclusion of summary of ISPMC Activities during the quarter	Done	None
35.	19	Including PMO, SMO Manpower Status	Done	None
36.	20	Inclusion of the word "Grant" in the Compliance with Loan Agreement Covenants Paragraph name	Done	None
37.	21	Including Appraisal Meeting and PEC Meeting in the important events	Done	Also included the PIC meeting event
38.	22	Change the fiscal progress year for Table A-5	Done	None
39.	22	Updating Financial Progress Values according to the RDPP	Done	The Revised DPP was not available to ISPMC in the time of making the report
40.	24	Inclusion of new reference documents	Done	None

Project Office:
House 47 (8th Floor)
Road 27, Banani
Dhaka 1213, Bangladesh
Phone: 0088 (0) 2 986 1294
Email: ahmad.sajid@mottmac.com

Sl. No.	Page No.	Issue	Status	Comment
41.	Appendix-A	Updating the tables according to the RDPP	Done	The Revised DPP was not available to ISPMC in the time of making the report
42.	Appendix-B	Updating the tables according to the RDPP	Done	The Revised DPP was not available to ISPMC in the time of making the report
43.	Appendix-A and B	Verifying the financial tables by the DD, Accounts, PMO-FRERMIP	Done	None
44.	Appendix-C	Omitting the man-month progress of the ISPMC experts according to the Variation Order-1	Done	None
45.	Appendix-F	Including the word "Revised" in the name of the Gender Action Plan (GAP) appendix	Done	None
46.	Appendix-F	Including the reviewer name in the Revised GAP updates	Done	None
47.	Appendix-G	Updating the table according to the Mid-term Review Mission	Done	None
48.	Appendix-H	Updating the Capacity Development tables according to the RDPP	Done	The Revised DPP was not available to ISPMC in the time of making the report
49.	Appendix-I	Updating the Database Inventory	Done	The drone survey data was included as an item of the Database inventory
50.	Appendix-J	Changing the pictures	Done	The pictures from the Netherlands-Germany Tour, Australia Study Tour and CbFRM NGO field offices were included.

DISTRIBUTION LIST (Not according to Seniority)

BWDB:

1. Additional Director General, Planning, BWDB, Dhaka
2. Additional Director General, Western Region, BWDB, Dhaka
3. Additional Director General, Eastern Region, BWDB, Dhaka
4. Chief Planning, BWDB, Dhaka
5. Chief Engineer, Design, BWDB, Dhaka
6. Chief Monitoring, BWDB, Dhaka
7. Superintending Engineer, O&M Circle, BWDB, Pabna
8. Superintending Engineer, O&M Circle, BWDB, Mymensingh
9. Superintending Engineer, O&M Circle, BWDB, Dhaka
10. Executive Engineer, SMO, BWDB, Koitola
11. Executive Engineer, SMO, BWDB, Tangail
12. Executive Engineer, SMO, BWDB, Manikganj

Development Partners:

13. Country Director, BRM, ADB, Sher-e-Bangla Nagar, Dhaka
(Attn.: Mr. Zahir Uddin Ahmad, PIO; 2 copies)
15. Embassy of the Kingdom of the Netherlands, Gulshan, Dhaka
(Attn.: Mr. Pieter de Vries)
16. Project Manager, PMU-FRERMIP, DDM
17. Project Director, PMO-FRERMIP, BWDB; 4 copies

Total of 20 copies as specified in ISPMC contract agreement.

ABBREVIATIONS AND ACRONYMS

AP	-	Affected Person
ADB	-	Asian Development Bank
ADP	-	Annual Development Program
BDPC	-	Bangladesh Disaster Preparedness Center
BDT	-	Bangladesh Taka
BDRCS	-	Bangladesh Red Crescent Society
BRM	-	Bangladesh Resident Mission
BWDB	-	Bangladesh Water Development Board
CbFRM	-	Community-based Flood Risk Management
CCL	-	Cumulative Cost for Land
CDMU	-	Community Development Medical Unit
CEGIS	-	Center for Environmental and Geographic Information Services
CRO	-	Chief Resettlement Officer
DG	-	Director General
DDM	-	Department of Disaster Management
DMC	-	Disaster Management Committee
DPP	-	Development Project Performa
EKN	-	Embassy of the Kingdom of the Netherlands
EP	-	Entitled Person
FRERMIP	-	Flood and Riverbank Erosion Risk Management Investment Program
GAP	-	Gender Action Plan
GFM	-	Grout Filled Mattress
GOB	-	Government of Bangladesh
GON	-	Government of the Netherlands
ha	-	hectare
IMED	-	Implementation Monitoring and Evaluation Division
INGO	-	Implementation Non-Government Organization
ISPMC	-	Institutional Strengthening and Project Management Consultants
JLB-2	-	Jamuna Left Bank 2 Sub-Project
JRB-1	-	Jamuna Right Bank 1 Sub-Project
JVT	-	Joint Verification Team
km	-	Kilometer
LA	-	Land Acquisition
LAP	-	Land Acquisition Plan
MDIP	-	Meghna-Dhonagoda Irrigation Project
Mil	-	Million (1,000,000)
MIS	-	Management Information Systems
MoDMR	-	Ministry of Disaster Management and Relief
MoWR	-	Ministry of Water Resources
O&M	-	Operation and Maintenance
PM	-	Project Manager (DDM)
PD	-	Project Director (BWDB)
PIRDP	-	Pabna Irrigation and Rural Development Project
PLB-1	-	Padma Left Bank 1 Sub-Project
PMO	-	Project Management Office (BWDB)
PMU	-	Project Management Unit (DDM)
PPTA	-	Project Preparatory Technical Assistance
PVAT	-	Property Valuation Advisory Team
QPR	-	Quarterly Progress Report

SCME	-	Senior Community Mobilization Expert
SMO	-	Sub-Project Management Office
ToR	-	Terms of Reference
UDMC	-	Upzilla Disaster Management Committee
USD	-	United States Dollars
VDP	-	Village Defense Party

TABLE OF CONTENTS

	Page
Forwarding Letter	
Distribution List	
Abbreviations	i
Table of Contents	ii
INTRODUCTION	3
1.1 Background	3
1.2 The Project	4
1.3 Overall Progress.....	5
1.4 This Report	6
2. PROJECT ACTIVITIES.....	6
2.1 Introduction	6
2.2 PROJECT ASSET IMPLEMENTATION.....	7
2.2.1 Introduction	7
2.2.2 Bidding Activities.....	8
2.2.3 Design Activities.....	8
2.2.4 Implementation Activities.....	8
2.3 OTHER PROJECT ACTIVITIES.....	9
2.3.1 Supporting Service Studies	10
2.3.2 Environmental Management	10
2.3.3 Resettlement Services	10
2.3.4 Gender and Development	12
2.3.5 Community-based Flood Risk Management (CbFRM).....	12
2.3.6 Capacity Building.....	14
2.3.7 MIS Development Activities.....	15
2.3.8 River Study	16
2.3.9 Feasibility Study	17
2.3.10 ISPMC Performance Compliance with ToR.....	17
2.3.11 ISPMC Activities during this quarter	17
3. ADMINISTRATIVE ARRANGEMENTS	19
3.1 Establishment of Project Offices	19
3.2 Compliance with Loan and Grant Agreement Covenants	20
3.3 Important Events During This Quarter:	21
4. FINANCIAL ARRANGEMENTS.....	22
4.1 Statements of Expenditure.....	22
5. ISSUES FOR DISCUSSION AND AGREEMENT	23
5.1 Completion of Chauhali Investigation Report.....	23
6. REFERENCES	24

TABLE OF FIGURES

Figure 1 Index Map Tranche-1	1
Figure 0.1 Decadal erosion rates	3
Figure 2.1 Contract, Disbursement and Reimbursement History of ADB Loan	6
Figure 2.2 Location of the Failure occurred at Chauhali on September, 2018	9
Figure 5 Proposed Riverbank Protection (Left: Initial Site Selection Report, March 2017, Right: Feasibility Study, March 2018).....	18

LIST OF TABLES

Table 0.1 Progress at a Glance	Error! Bookmark not defined.
Table 0.1 Comparative Project Cost and ADB Disbursement Progress ...	Error! Bookmark not defined.
Table 2.1 Annual ADP allocation and disbursement (in BDT million).....	7
Table 2.2 Supporting Service Studies.....	10
Table 2.3 Summary of Compensations Received by the APs.....	11
Table 2.4 List fo Awareness Meetings Held	11
Table 2.5 Summary of Project Introductory Meetings	14
Table 2.6 Capacity Building Progress	15
Table 3.1 PMO-FRERMIP Staffing.....	19
Table 3.2 SMO-Koitola Staffing	19
Table 3.3 SMO-Tangail Staffing.....	20
Table 3.4 SMO-Manikganj Staffing	20
Table 6.1 Status of Local Trainings, PMO-FRERMIP	1
Table 6.2 Status of Overseas Training/Study Tour, PMO-FRERMIP.....	1

APPENDICES

Appendix-A	:	Work Program Summaries
Table A-1	:	Project Program Summary
Table A-2	:	Project Cost Summary
Table A-3	:	ADB Categories: Reimbursed Amount, by Donor
Table A-4	:	DPP Categories: Reimbursed Amount, by Donor
Table A-5	:	DPP Categories: Key Physical and Financial Indicators
Appendix-B	:	Work Program Details
Table B-1	:	Design Progress Details
Table B-2	:	Tender Progress Details
Table B-3	:	Implementation Progress Details, by Contract
Table B-4	:	Project Program, by Contract
Table B-5	:	BWDB PMO Expenditure Summary, by Contract
Table B-6	:	Reimbursement Summary, by Contract
Table B-7	:	Reimbursement Summary, by Application
Table B-8	:	ADB and GON Disbursement Details
Appendix-C	:	Administrative Details
Appendix-D	:	Status of River Study Technical Notes
Appendix-E	:	ISPMC Performance Compliance with ToR
Appendix-F	:	Revised Gender Action Plan
Appendix-G	:	Compliance with Loan and Grant Agreement Covenants
Appendix-H	:	Capacity Building
Appendix-I	:	Database Inventory
Appendix-J	:	Photo Annex

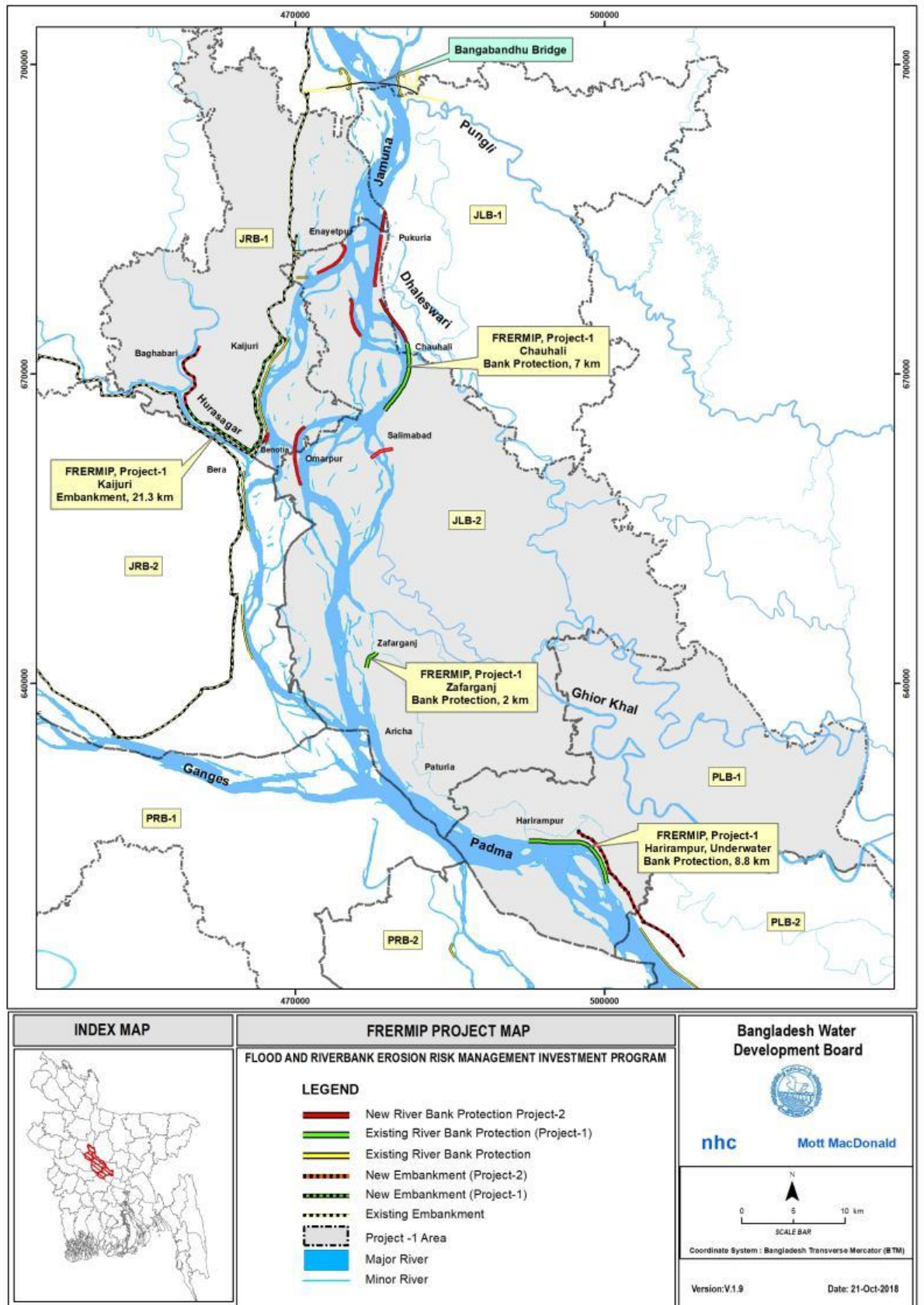


Figure 1 Index Map Tranche-1

Table 0.1 Project Progress at a glance
Table 1 Project Progress at a Glance

1. Basic Data						
ADB Loan Agreement Number	3138-BAN(SF)					
ADB Grant Agreement Number	0396-BAN(EF)					
Project Name	Flood and Riverbank Erosion Risk Management Investment Program - Tranche 1					
Country	Bangladesh					
Borrower	People's Republic of Bangladesh					
Executing Agency	Bangladesh Water Development Board					
Implementing Agency	Department of Disaster Management					

2. Financing Plan				
Modality and Sources	Tranches (\$ million)			Amount (\$ million)
	I	II	III	
Asian Development Bank (ADB)	65	100	90	255
Government of The Netherlands (GON)	15.3	0	0	15.3
Government of Bangladesh (GOB)	23.3	45.3	34.8	103.4
Total	103.6	145.3	124.8	373.7

3. Milestones			
Milestone	Date of		
	Approval	Signing	Effectiveness
ADB Loan Agreement	2014 June 27	2014 August 14	2014 August 15

Milestone	Project		
	I	II	III
Estimated Completion Date	2020 June 30	2023 December 31	2024 December 31

Milestone	Date
Last ADB Review Mission	15-26 February, 2018

4. Assets and Physical Progress						
Proposed Project Assets	Goods	Services	Works	eXtra	Total	Available
Project Program Best Estimate (Tk Mil)	1360	1116	3609	2690	8775	8775

Primary Component	Secondary Component	Assigned Weight (%)	Progress	
			Actual (%)	Weighted (%)
1. Establishment & Recruitment	1.1 PMO Establishment and Staffing	2	100	2
	1.2 ISPMC Consultants Recruitment	2	100	2
	1.3 NGO Recruitment	2	100	2
2. Implementation; Tranche-1	2.1 Detailed Design	2	100	2
	2.2 Tender Documents Preparation	6	98	6
	2.3 Tendering and Contract Award	6	98	6
	2.4 Land Acquisition and Resettlement	8	90	7
	2.5 Project Management	6	90	5
	2.6 Physical Completion of Works	32	75	24
	2.7 Financial Disbursements	4	85	3
3. Knowledge Base & Capacity	3.1 Knowledge Base & Tech. Studies	4	80	3
	3.2 CBFM Activities	6	10	1
	3.3 MIS Project Mgmt Module	4	0	0
4. River Study, Piloting & Master Plan	4.1 Long-term stabilization study	4	75	3
	4.2 Land recovery piloting	2	40	1
5. Preparation; Project-2	5.1 Feasibility Study; Project-2	6	75	5
	5.2 Detailed Design; Project-2	4	70	3
Totals		100		75

5. Financial Progress			
Financial Indicator	BDT Million	US\$ Million	% of Total
Estimated Project Cost (Source: DPP Page 1)	8,775	103.6	100
Physical Progress	6,644	83.05	76
PMO Expenditures	5,641	70.51	65
ADB Disbursement	4,459	57.63	51
Total Reimbursement	3,390	42.38	39

INTRODUCTION

1.1 Background

The people in Bangladesh are often detrimentally affected by flooding and riverbank erosion along its four main rivers: Jamuna, Ganges, Padma and Meghna. Even though the erosion rates of floodplain land have reduced from nearly 5000 hectares per year to less than 2,000 (Figure 0.1), ten thousands of people are affected annually.

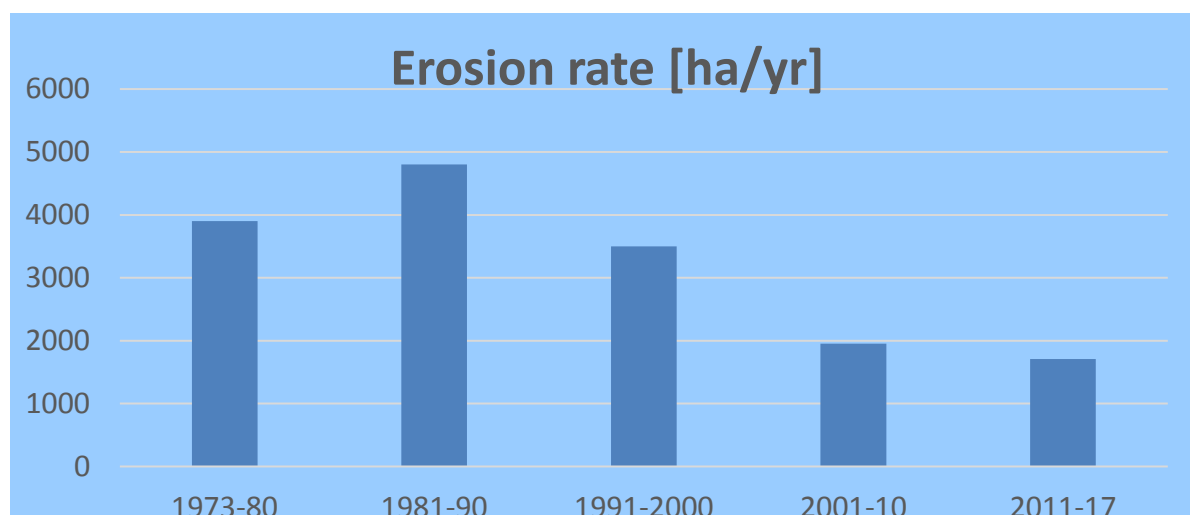


Figure 0.1 Decadal erosion rates*

*Source: Dr. Maminul Haque Sarker, Deputy Executive Director, Morphology Division, CEGIS

The risk associated with flooding and riverbank erosion increases with the growth of the population, and the high population density of Bangladesh restricts the scope for moving people away from disaster prone areas. Riverbank erosion increasingly threatens embankments required for flood protection, as the setback distances from the riverbank become increasingly smaller. The threat of flooding and riverbank erosion discourages investment and leads to lower economic growth in riverine areas. Effective riverbank erosion and flood protection management is essential for the economic growth and poverty reduction in affected areas.

Starting in 2004, geotextile bag revetments were used systematically to protect long reaches of the Pabna Irrigation and Rural Development Project (PIRDP) and Meghna-Dhonagoda Irrigation Project (MDIP) against riverbank erosion. Between 2004 and 2011, this protection method was used along 17 km of the lower Jamuna River and some 11 km around the MDIP. Geobag revetments were incorporated into the 'Guideline for Riverbank Protection' approved by BWDB in 2010. Following a feasibility study completed in December 2013, the Government of Bangladesh (GOB) and Asian Development Bank (ADB) agreed to continue riverbank protection for more systematic river stabilization along the lower Jamuna and upper Padma rivers. This initiative includes recovering floodplain land lost during the widening process which has persisted since the 1960s¹.

The Project Preparatory Technical Assistance (PPTA) implemented from 2012 to 2013 provides the key concept for FRERMIP and is documented in the Final Report, Feasibility Study, 2013 (Ref. 4). The

¹ ADB 2014. Report and Recommendation of the President to the Board of Directors, Proposed Multitranchise Financing Facility, People's Republic of Bangladesh: Flood and Riverbank Erosion Risk Management Investment Program, June.

ADB Facility Administration Memorandum, June 2014 (**Ref. 1**) is the key document prescribing the loan objectives and procedural details.

The loan for Project-1 of the Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP) was signed on 14 August 2014, and the contract with the main consultant (ISPMC) was signed on 8 September 2015. The first 17 km of riverbank protection, concentrating on the critical underwater part, were completed during the dry season 2015/16. This first project lays the foundation for systematic river stabilization supported by FRERMIP over three successive projects to be implemented over a period of around ten years. The first project, scheduled to be completed in June 2019, will provide structural and non-structural flood and riverbank erosion risk management measures in three high priority sub-projects: Jamuna Left Bank 2 (JLB-2), Jamuna Right Bank 1 (JRB-1) and Padma Left Bank 1 (PLB-1); refer to **Error! Reference source not found.** and **Ref 4**. Subsequent projects will extend the protected reaches with the goal to substantially stabilize the lower Jamuna and parts of the Padma River, based on an adaptive approach with designs adjusted to changing river conditions.

FRERMIP will contribute to provide a defined boundary between river and floodplain, and thus contribute to a more secure and improved livelihood for people living along the main rivers of Bangladesh, which will trigger faster economic growth and accelerate poverty reduction. The outcome of the program will be reduced flood and riverbank erosion risks in the sub-project reaches.

1.2 The Project

The project has three funding partners including two international donors: Asian Development Bank (ADB), Government of Netherlands (GON) plus the local counterpart: Government of Bangladesh (GoB).

The project scope and implementation arrangements have not fundamentally changed from those outlined in the ADB Report and Recommendation of the President (**Ref. 2**), except for the postponement of some activities due to the reduction of available loan financing. The anticipated outputs of the project are still to provide:

1. flood and riverbank erosion risk mitigation functioning at priority river reaches
2. a strengthened institutional system for flood and riverbank erosion risk management

Under Project-1, nearly 17.80 km of riverbank protection² and more than 21.30 km of flood embankments (rehabilitation and new; refer to the Project Map-**Figure 1**) will be implemented. Project outputs will also include related social and environmental safeguards; institutional, knowledge-base, and capacity development; and community capacity development for flood risk management activities.

The project will result in an improved knowledge base and enhanced institutional capacity in sustainable asset management, and better strategic management of the main rivers. The project will actively promote a sound and sustainable program management system which will facilitate the implementation process. **Error! Reference source not found.**, placed at the beginning of the report, provides a summary of project information including salient reference data, estimates of project assets, plus physical and financial progress indicators, in Bangladesh Taka (BDT), US dollars (USD) and percent completion. The project has been approved until June 2020 to complete key project

² The length of protection work has increased from 16 to 17.8 km due to changes in the river morphology at Chauhali and Harirampur between the feasibility study and the construction start.

activities, namely, the embankment construction, pilot works including monitoring during the 2019 flood season, as well as non-structural flood risk management through the Department of Disaster Management (DDM). After the first revision of the Development Project Proforma (DPP), approved on 15 June 2017 (Ref. 0), the Project Management Office (PMO) has revised the current DPP, which has also been approved on 25 September 2018. The revised DPP increases the budget for land acquisition and resettlement to complete the embankment works, without increasing the overall amount. A first zero-cost Variation Order for the ISPMC was accepted on 27 July 2017, a second zero cost variation, extending the consulting services to May 2019, was signed on 10 June 2018. In the 2nd Revised DPP, the two work packages W-12 and W-13 were excluded, along with service packages S-03, S-05 and S-07.

The PMO still expects that the modified Project outputs (**Appendix-A, Table A-5**) can be fully achieved by the revised scheduled closing date of 30 June 2020.

1.3 Overall Progress

Project-1 was very successful in its core activity, the construction of riverbank protection, during the dry season 2015/16. The progress during 2016/17 dry season concentrated on the continuation of the ongoing contract works. In total, 17.8 km riverbank protection (underwater with temporary or permanent wave protection above low water level) has been substantially completed. Some surficial damages at Chauhali, which occurred immediately after placing the surcharge of concrete blocks for the upper protection, are under investigation by a technical committee. This notwithstanding, the underwater protection has performed very well, despite deep scouring to, in places, 25 m below the original apron setting level as demonstrated by the Chauhali multi-beam echo-sounder survey performed in November 2017. During the early months of 2018, the Chauhali underwater works was adapted over a length of some 1.85 km. There were no surficial damages in the adapted area during the course of the 2018 flood season. During the last days of September around 250 m at the downstream transition to the char at Chauhali failed due to a combination of a natural low spur and accelerated flow from the last flood peak. The failure has no impact on the performance of the 7 km work.

The construction of 21.3 km of embankment at Kaijuri has started since 29 March 2018 as per contract agreement with little progress before the flood season 2018. This is not at last due to the slow land acquisition and resettlement process, which requires additional funding to be sanctioned through the second revision of the DPP. To this end the full dry season 2019 will be required to complete the works.

The overall weighted project progress is presented in **Error! Reference source not found.** and shows that the weighted progress achieved to the end of the reporting period is around 75%`after elapsing of 71% of the time. Compared with the total estimated projected cost, the physical progress is 76%, PMO expenditure is 65%, ADB (plus GON) disbursement is 51%, and total reimbursement is 39%.

The following **Error! Reference source not found.** shows the relative comparison between the total project cost, ADB loan amount and the comparative percentage progress.

Table 0.1 Comparative Project Cost and ADB Disbursement Progress

Total Project Cost (BDT Million)	ADB and GoN Aid (BDT Million)	ADB and GoN Disbursement Progress compared to the total cost (%)	ADB Disbursement Progress compared to the Aid amount (%)

8674.444	5823.4	51	76
----------	--------	----	----

1.4 This Report

Quarterly Progress Report No. 13 covers the period 01 July to 30 September 2018. The report describes activities carried out during the quarter, which primarily included: second revision of DPP, river monitoring, Chauhali slope failure analysis, river stabilization study, interaction with the BWDB design office on the Project-2 feasibility designs, preparation and bidding for remaining goods, works and services contracts. Small progress has been made in the construction of the Kojjuri embankment and the adaptation work of the existing protective work at Chauhali during this quarter.

2. PROJECT ACTIVITIES

2.1 Introduction

The BWDB FRERMIP Project Management Office (PMO) started functioning in April 2014. That office was initially engaged in preconstruction and procurement activities, and since November 2015 with construction activities at three sites (through two Sub-Project Management Offices (SMOs) at Tangail and Manikganj). At the end of the second construction season, a total of 17.8 km of riverbank protection has been constructed under the project: 7.0 km at Chauhali, 2.0 km at Zaffarganj and 8.8 km at Harirampur. The Kojjuri embankment construction has made some progress during this quarter.

The Institutional Strengthening and Project Management Consultants (ISPMC) have been working since September 2015 and have completed the following activities: prepared the Project Inception, Mid-Term, and summary study team and draft feasibility reports, supported overall project management and capacity building activities, advised on design, construction and resettlement activities, and prepared the terms of reference for several supporting studies.

The status of implementation activities in the reporting quarter is discussed in the following sections, and summary and detailed tables are provided in **Appendix-A** and **Appendix-B**, respectively. The history of contractual awards and disbursements, as projected by ADB and as actually achieved, is shown in **Figure 2.1**, along with the actual total reimbursements. The graph has not been corrected for the expected reduction in loan amount from US\$ 65 to around 58 million, but a horizontal line with the expected ADB revised funding amount has been added.

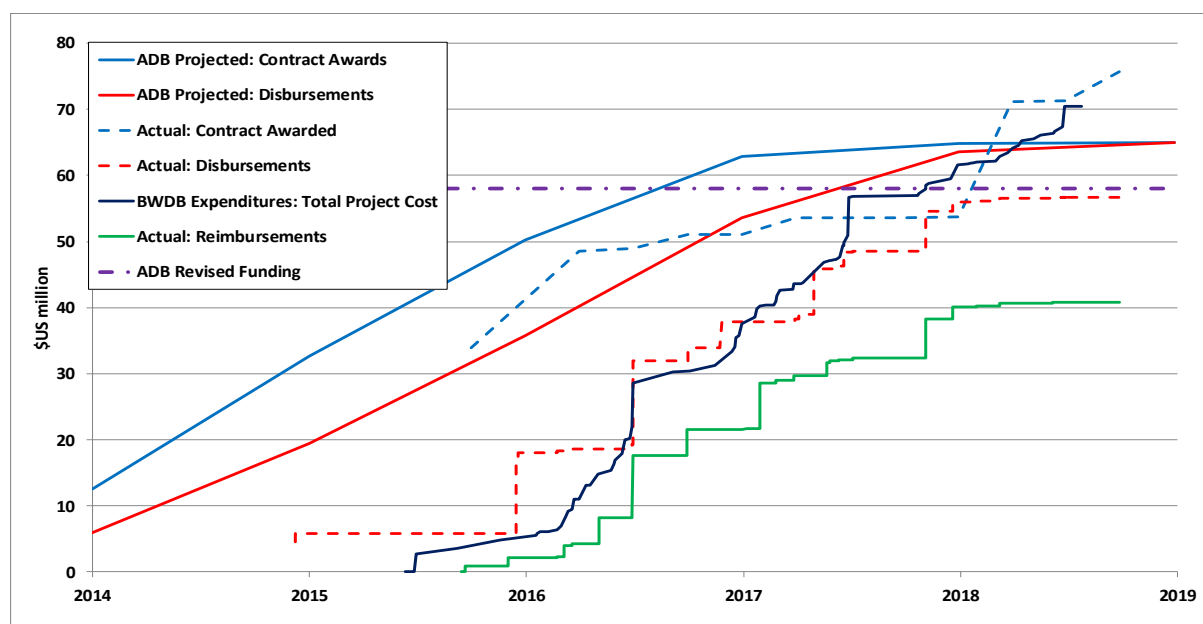


Figure 2.1 Contract, Disbursement and Reimbursement History of ADB Loan

Table 2.1 provides the status of annual ADP expenditures. During the current fiscal year, the allocation had to be revised down due to the delay in embankment construction. However, it is expected that the completion of the embankment construction by May 2019 will allow completing Tanche-1 within the planned period and even compensating for the start-up delay of one year. The PMO expects to spend the remaining budget within June 2020.

Table 2.1 Annual ADP allocation and disbursement (in BDT million)

Fiscal Year	ADP Allocation	Revised Allocation	Actual expenditure	Percentage Actual/Revised
2014/15	329.00	311.20	217.78	66.20/70.00
2015/16	2296.40	2108.20	2074.34	90.33/98.39
2016/17	2604.00	2290.80	2246.11	86.26/98.05
2017/18	2723.50	1331.50	1106.21	40.65/80.08
2018/19	1973.00	N/A	0*	74.25/92.16

*Up to September 2018, Fiscal Year Ongoing; Source: IMED Report 03/2003

2.2 PROJECT ASSET IMPLEMENTATION

2.2.1 Introduction

Tables A-1 and A-2 show the type, number and total cost of assets currently included in the program. The cost of the proposed 21.30 km of embankment (plus associated structures) has recently been revised to BDT 1,202.943 million based on detailed cost estimates from the PMO and the Koitola SMO (**Table A-5**). The 17.8 km of riverbank revetment is expected to cost BDT 1,850 million, plus BDT 1,153 million for geo-bags. Details on an individual contract basis are provided in **Table B-4**. According to the 2nd Revised DPP (September 2018) shows that the best estimate of final cost for all project assets currently identified is BDT 8674.44 million (Goods BDT 1360.30 million, Services BDT 1116.08 million and Works BDT 3609.24 million, plus BDT 2690 million of additional assets included in the DPP; primarily land acquisition) The total cost may vary to the DPP allocated amount due to the exclusion of the service contracts.

Using cross-link tables that connect these category items (and Asset Types) with other financial indicators, it is relatively easy to produce tables which show project progress based on ADB Financial

Categories (**Table A-3**) or DPP Components (**Table A-4 and A-5**). Note that **Table A-5** also contains the revised DPP values (**Ref. 0**).

A second revised DPP has been submitted to the Planning Commission. Government accepted this revision as zero-cost variation, which required to reallocate budgets internally. The reasons to revise the DPP for a second time are as follows-

- I. To increase the resettlement budget to accommodate increased cost as per revised government regulations (ADB Revised Resettlement Forma).
- II. To reduce the embankment length at Kaijuri (from 23 KM to 21.3 KM) to stay within the DPP allocation.
- III. To exclude the livelihood development component in order to realize some savings. This was discussed with the donors and the component has been transferred to the next tranche.
- IV. To increase the project period to June 2020.

2.2.2 Bidding Activities

One work contract and one service contract have been signed during this quarter. The work contract (W-14 package) for River Training Pilot Works was signed on 16 September 2018. The joint venture Khondoker Shaheen Ahmed-MA Enterprise signed the contract with a contract value of BDT 321.88 Mil. Also, service contract S-04 for Community-based Flood Risk Management was awarded to the NGO Bangladesh Disaster Preparedness Centre (BDPC) with a value of around BDT 37.41 Mil on 30 August 2018.

The details of bidding activities can be found in the Table B-2 of **Appendix-B**.

2.2.3 Design Activities

Most of the design work for Tranche-1 is essentially completed. The design work for the package W-16 Piloting Work is currently ongoing. The geotechnical data has been collected for this package. This notwithstanding the ISPMC has provided comments on the proposed BWDB designs and will provide suggestions for the repair of the downstream part at Chauhali. The details of the Tranche-1 design works can be found in Table A-1 of **Appendix-B**.

2.2.4 Implementation Activities

After the completion of original works of W-06 and W-07 at Chauhali, further adaptation works under a new Contract Package W-11 (signed on 20 March 2018) have been carried out during this quarter. The work covers the riverbank between Ch 180 to Ch 3980 at Chauhali. According to the contract, 344,772 no. of geo-bags are supposed to be dumped and 56,035 no. of geo-bags are supposed to be placed above low water level in areas where the concrete blocks have slipped. A total of 337,895 no. of geo-bags have been dumped up to 11-06-2018 and 29,133 no Geo-bags have been placed on damaged slopes by 04-07-2018 under this contract. The contractor employed three sets of barges, two of them were 45 meters long and was 60 meters. The work consisted of placing two layers of geobags over the launched slope followed by a toe apron consisting of three layers of bags. The toe apron has variable width depending on the actual bed level and the distance to the design scour level. At the end of implementation 33,779 Geo-bags remain for future use.

On 22 September 2018 the downstream end of the protective works eroded in places by some 20 m between Ch 0.000 km to Ch 0.090 km. Again, during the night of 23 September 2018 some CC blocks from Ch 0.090 km to Ch 0.135 km slid into the river. The project Director, Team Leader and Superintending Engineer Design-11 visited the site and suggested to place Geo-bags in the damaged

area. Again, during the night of 27 September 2018 about 330-meter river bank downstream of Ch 0.000 km eroded. On 29 September 2018, the Project Director, Superintending Engineer Mymensingh O&M Circle and Executive Engineer Tangail O&M Division visited the site and decided that the damaged area under FRERMIP (from Ch 0.000 km to Ch 0.135 km would be repaired by the contractor of Contract Package W-11. The remaining 330-meter length downstream of Ch 0.000 will be repaired using GoB funds. The repair work started on 22 September 2018 and 4,531 no geo-bags were placed along the upper slope until 30 September 2018. Thus, the total no of Geo-bags dumped under Contract Package W-11/2017-18 was 337,895 out of 344,772 and placed geobags totaled 33,664 out of 56,000 up to 30-09-2018. The following **Figure 2.2** shows that no failure occurred where the adaptation work was carried out.

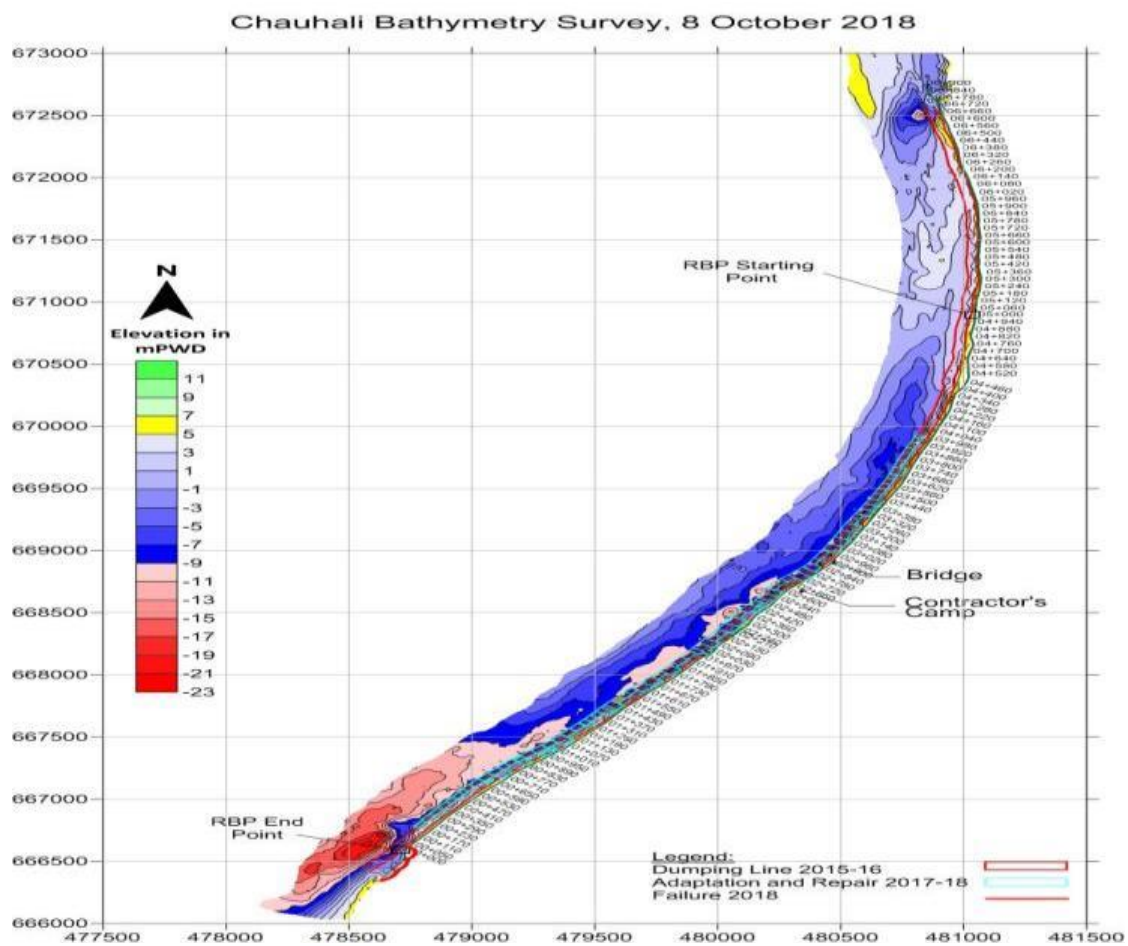


Figure 2.2 Location of the Failure occurred at Chauhali on September, 2018

Little progress was made in the Kojjuri embankment construction due to the monsoon season. The construction work is expected to start by the end of 2018, also after the revised DPP provides the remaining funds for land acquisition and resettlement. For the package W-01, the contractor has completed the construction of regulator at Kojjuri by 60%. The bottom part of the two-vent Kojjuri regulator has been completed including some 10,469 (100%) no. of CC blocks (Size 30cm x 30cm x 30cm). For the Rohindakandi regulator, the contractor has already manufactured 9,500 no. CC blocks (size-30cm x 30cm x 30cm) out of 10,469 (corresponds to 90.74% of the total). The remaining concrete block casting is planned for November, 2018. Both regulators are expected to be completed at the end of the dry season.

2.3 OTHER PROJECT ACTIVITIES

Other project activities that are documented in the following sections include:

1. Supporting Service studies
2. Environmental Management
3. Resettlement Services
4. Gender and Development
5. Community-based Flood Risk Management
6. Capacity Building
7. MIS Development
8. River Study
9. Feasibility Study for Tranche-2
10. ISPMC performance compliance with ToR

2.3.1 Supporting Service Studies

The project comprises four service contracts for supporting studies, two have been deferred to Tranche-2. The status of the four supporting studies is summarized in **Table 2.2**.

Table 2.2 Supporting Service Studies

Pkg.	Service Name	Present Status
S-01	Institutional Strengthening and Project Management Consultant (ISPMC)	The ISPMC signed a contract with BWDB on September 2015, and their work is estimated to be around 80 percent complete. The contract has been extended until May 2019.
S-02	Resettlement Plan Implementation	The Resettlement INGO signed a contract with BWDB on 16 March 2016, and their work is estimated to be 75 percent complete (Section 2.3.3). The resettlement contract ends in December 2018.
S-04	NGO Service for Community based Flood Risk Management (DDM)	The contract was signed on 30 August 2018 and the contractor has started implementation since 01 September (Section 2.3.5).
S-06	Erosion Prediction	The draft reports have been submitted during the previous quarter whilst CEGIS awaits their final payment.
S-02A	External Monitor for Resettlement Plan Implementation Support	The procurement of this contract is expected to take place in December 2018 (Source: RDPP-2 nd Revised)

2.3.2 Environmental Management

The Semi-annual Environmental safeguard report for the period January 2018 to June 2018 have been prepared and submitted to PMO on 09 July 2018 and was accepted by ADB. There was very little physical progress of the embankment packages during the reporting quarter. Thus, no EMP compliance monitoring took place during the quarter.

During the period, the baseline data collection on fisheries continued, particularly:

- (a) the status of river/floodplain connectivity along the left banks of the Jamuna-Padma river in the FRERMIP operational area and their impact on fish migration and fisheries,
- (b) certain aspects of ecological features and fisheries of the river banks with and without geo-textile bag revetment and selected charlands to ascertain the environmental/fisheries impacts of the bank revetment done particularly under the FRERMIP project.

(c) the seasonal variation in fish marketing along the river banks to understand the seasonal variation in the occurrence of river fish and size of river fish market

(d) seasonal variation in the fishing activities and livelihood pattern of the river bank fishers.

2.3.3 Resettlement Services

During this quarter, the INGO held a total of 96 public consultation meetings at the sub-project sites, altogether reaching a total of 388 public consultation meetings.

The INGO installed one Grievance Redress Committee (GRC) signboard in a well visible location in each site as per project requirement. Two GRC meeting were held in Zaffarganj (for the length of 1.4 km) and until now eight grievances have been addressed at this site. At Chauhali, a total of 36 grievance applications have been received and one meeting of the GRC was held. After that, all 36 applications were forwarded to Property Valuation Advisory Team (PVAT) for structure rate fixation.

A total of three PVAT meetings were held in Zaffarganj, Chauhali and JRB-1 Embankment; one at each subproject site. For riverbank protection works at Harirampur (subproject PLB-1), the revised Land Acquisition Plan has been submitted to the Deputy Commissioner, Manikganj office dated 09 April 2018 and approved by The DC office dated 12 June 2018.

A total of 1033 affected people received resettlement grant and replacement cost while a total of 1281 entitled persons received Cash Compensation per Law from respective DC office. The following **Table 2.3** and

Table 2.4 summarizes the compensations received by the Affected Persons and the list of awareness meetings held.

Table 2.3 Summary of Compensations Received by the APs

Sub-Project location	Cumulative status as of September 2018	Payment status	
		Resettlement grant	Cumulative Cost for Land (CCL)
Zaffarganj RBP JLB-2 (1.4 Km)	Total APs - 90 APs All APs submitted application to DC office for CCL payment	88 APs received Resettlement Grant	14 EPs received CCL payment from DC office
Zaffarganj RBP JLB-2 (0.6 Km)	Total APs - 26 All APs submitted application to DC office for CCL payment.	26 APs received Resettlement Grant	05 EPs received CCL payment from DC office
Chauhali RBP JLB-2 (7.8 Km)	Total APs - 191 Structure Replacement Cost (RC) for 36 APs Cheque distributed on 25/04/2018	52 APs received Resettlement Grant & 36 APs received Replacement Cost (RC)	12 EPs received CCL payment from DC office
Embankment JRB-1 (21.3 Km)	Resettlement grant budget for title & non-title holders submitted to PD office. A total of 3958 Notice Holders APs applied for CCL Payment to DC office	867 APs received Resettlement Grant on 12.09.2018	1250 EPs received CCL payment from DC office
Harirampur RBP PLB-1 (8 Km)	Land Acquisition Plan has been approved by DC office	Not yet started	Not yet started

Table 2.4 List fo Awareness Meetings Held

Place	Nos. of Awareness Meetings held in this quarter	Total Nos. of Awareness Meetings held
Zaffarganj (1.4 km)	06 Public consultation meeting	40 Public consultation meeting
Zaffarganj (600 m)	02 Public consultation meeting	28 Public consultation meeting
Chauhali	07 Public consultation meeting	56 Public consultation meeting
Embankment JRB-1	81 Public consultation meeting	246 Public consultation meeting
Harirampur	No Public consultation meeting	18 Public consultation meeting

Information Brochure with list of documents needed for getting Cumulative Cost for Land (CCL) payment has been distributed among all APs to make people aware during public consultation meeting. INGO has formed 60 groups each consisting of 20 members (total 1200 members) to facilitate income generating activities.

2.3.4 Gender and Development

This project included a Gender Action Plan (GAP) which could not be followed due to changes in design. The GAP has been since revised and approved by the ADB Mid-Term Review Mission (female labor recruitment reduced minimum 5% from 15%). After that there were several discussions held between ADB BRM Gender Specialist and ADB Gender Consultant with Team Leader and Gender Specialist of FRERMIP regarding reporting of gender component of FRERMIP as per the revised GAP. Accordingly, JRB-1 contractors of embankment packages W-02 and W-03 agreed to recruit female labor wherever possible and provide facilities; i.e. toilets, drinking water, shed for break time rest, etc. It was identified that the embankment construction work is being done by modern equipment so female labor can be recruited for turfing and relevant work which will start once the embankment construction is completed. Due to monsoon season, little progress has been made in the embankment construction, so, there is very limited progress seen in regards to female labor recruitment.

During this quarter, Gender and Development courses have been designed and it has been agreed to provide training to site offices as well as design office for the relevant people working for this project.

The GAP progress report is compiled as per approved revised GAP which is provided in **Appendix-F**.

2.3.5 Community-based Flood Risk Management (CbFRM)

During the quarter a number of important developments occurred in terms of procurement and engagement of implementing NGO by DDM. Immediately after receiving ADB's no objection to submission form-3, various preparatory works for documentation, including advance review meeting with the ADB procurement staff, were carried out to ensure faster processing of submission form-4. The process took considerable amount of time before inviting the lone technically qualified implementing NGO called Bangladesh Disaster Preparedness Centre (BDPC) for contract negotiation. On 01 August 2018 according to the special conditions of the draft lump-sum contract document was prepared incorporating the total negotiated contract price, inclusive of all taxes, of BDT 37,411,800, payment modality and the Terms of Reference. The PMO forwarded submission form-4 on 14 August to ADB followed by receipt of ADB's 'no objection' on 28 August. Accordingly, on 30 August the contract with BDPC was signed together with serving the 'notice to

proceed' to commence the work from 01 September 2018 until the end of June 2019, which covers a contract period of only 10 (ten) months against the original stipulation of nearly 36 months.

As per work schedule, BDPC will submit the inception report by the middle of October. It will describe the activities BDPC had performed since commencement of the work together with providing the work plan for the entire contract period and other pertinent issues. However, the activities BDPC performed during September, mostly attended by the ISPMC, are briefly presented below:

- Soon after the contract signing BDPC were able to mobilize the experts' team including the Team Leader, three Senior and nine Junior Community Mobilization Experts and support staffs.
- Three field offices (Pictures available in **Appendix-J**) were rented with all necessary logistics and office equipment in the suitable central locations near the three pre-defined priority reaches covering a total of 28 most vulnerable flood affected unions under Chauhali (7 unions) and Shahjadpur (5 unions) upazilas of Sirajganj district; Daulatpur (4 unions), Shibalaya (4 unions) and Harirampur (6 unions) upazilas of Manikganj district; and Tangail HQ (1 union) and Nagarpur (1 union) upazilas of Tangail district.
- A 2-day initial project orientation workshop for all the experts were carried out at the BDPC head office.
- Initial orientation through field visits and area-specific main statistics were collected by the Junior Community Mobilization Experts (JCMEs) under the supervision of the Senior Community Mobilization Experts (SCMEs).
- A Senior Community Mobilization Expert (SCME) held an initial meeting with the Project Director, FRERMIP to exchange views for successful implementation of CbFRM on 5 September, 2018.
- A brain-storming session participated by the key experts was held at BDPC office on reviewing and finalizing the baseline line survey questionnaire.
- The key experts had an introducing meeting with the Project Manager, CbFRM on 9 September, 2018 followed by an introductory project briefing meeting with the DG and other senior officers of DDM attended by the whole team of experts.
- A 3-day intensive project orientation and action-plan preparation workshop participated by all team members was held at BDPC office from 11-14 September 2018.
- The Key Experts held a meeting with the Director General of Ansar and Village Defense Party (VDP) on 13 September, 2018 to seek official endorsement for involving the Ansar/VDP, organized at the village levels, to work as Community Volunteers in the Community Disaster Management Units (CDMUs). Ansar/VDP have a long history of working as community volunteers in every village of Bangladesh living in the same community under a structured institutional framework and chain of command. This feature is believed to have an impact on ensuring the long-term sustainability of CbFRM with accountability to local institutions (LIs) via institutionalizing the CDMU at the grassroots community levels linked with UDMC.
- In addition to the above, introduction meetings were also held with Director, Cyclone Preparedness Program (CPP), Director Training and Director Community Development at Bangladesh Red Crescent Society (BDRCS) etc. on 22 September, 2018.

During September a number of Project Introductory Meetings were also held with the Upazila Disaster Management Committees (UzDMCs) as well as Union Disaster Management Committees (UDMCs) according to the ToR to build a strong functional relationship or network with these local level disaster management institutional frameworks formed, as per the Standing Orders on Disaster (SoD) of the Ministry of Disaster Management and Relief, Government of Bangladesh. As, in the three high priority sub-reaches of the right and left banks of Jamuna and Padma rivers in the central zone of Bangladesh, a total of 40 Community Disaster Management Units (CDMUs) will be formed in Tranche-1. Under this, 600 community volunteers (CVs) will be mobilized and trained on community flood preparedness activities so that they can efficiently run flood preparedness campaign in the most vulnerable communities in different flood-prone wards in each of the above 28 unions under 7 upazilas. It is, therefore, crucially important that the local level Disaster Management Committees provide strong institutional support to the CVs in different CDMUs. This will help to efficiently deliver their assigned duties in the communities as well as the committees also undertake regular monitoring of the CVs' activities to make them accountable to local institutions.

The **Table 2.5** below highlights pertinent information about the above Project Introductory Meetings held with the local level Disaster Management Committees (DMCs) during September.

Table 2.5 Summary of Project Introductory Meetings

Sl. No.	Date	Area	Number of Participants		
			Female	Male	Total
1.	20 September	Bachamara Union, Daulatpur	5	27	32
2.	23 September	Kanchanpur Union, Harirampur	7	32	39
3.	24 September	Jiyanpur Union, Daulatpur	5	30	35
4.	25 September	Chauhali Upazila	03	33	36
5.	26 September	Ramkrishnapur Union, Harirampur	8	29	37
6.	27 September	Jalalpur Union, Shahjadpur	03	23	26
7.	27 September	Bagutia Union, Chauhali	09	25	34
8.	29 September	Porjana Union, Shahjadpur	05	20	25
9.	30 September	Gharjan Union, Chauhali	08	27	35

Some relevant photographs of the CbFRM activities can be found in the **Appendix-J**.

2.3.6 Capacity Building

The following capacity development activities from the DPP budget line items took place during this quarter:

Study Tour to the Netherlands and Germany:

The study tour on “**Application of Geotextile on Innovative Interventions and Experience Sharing**” under FRERMIP successfully took place from 20-29 September, 2018 in the Netherlands and Germany. The tour comprised of a 10-member team, which included 1 member from the Planning Commission, 1 member from the Economic Relations Division, 2 members from the Ministry of Water Resources, 4 members from the BWDB and 2 members from the PMO-FRERMIP, BWDB. Some pictures of the tour can be found in the **Appendix-J**.

Study Tour to Australia:

The study tour on “**Geofabrics Geotextile factory and the coastal protection works**” under FRERMIP successfully took place from 22-30 June 2018 in Australia. The tour comprised of a 5-member team,

which included 1 member from the Ministry of Water Resources, 2 members from the BWDB and 2 members from the PMO-FRERMIP. Some snapshots from the tour can be found in the **Appendix-J**.

Riverbank Protection:

Under the Capacity Development Program of FRERMIP, a training course has taken place named “**Riverbank Protection**” at Bangladesh University of Engineering and Technology (BUET) from 08-12 July, 2018. The training course consisted of 20 members from BWDB.

Environment

The Centre for Environmental and Geographic Information Services (CEGIS), Dhaka, Bangladesh is conducting the training course on “**Environmental Impact Assessment**” and accordingly the contract agreement has been signed to execute the 5 days training (One batch with 15 participants) under the FRERMIP Capacity Development Program. The training has taken place between 30 September to 04 October 2018. All of the participants were from BWDB.

Resettlement

The Centre for Environmental and Geographic Information Services (CEGIS), Dhaka, Bangladesh is conducting the Training on Resettlement (Titled as Land Acquisition & Resettlement Plan Implementation) for BWDB and accordingly the contract agreement has been signed to execute the 5 days training (One batch with 15 participants). The training will take place during the next quarter.

Survey and Evaluation

The Institute of Water Modeling (IWM), Dhaka, Bangladesh is conducting training course on Survey and Evaluation (Topographical, Morphological and Hydrometric data Collection) for BWDB and accordingly the contract agreement has been signed to execute the 11 days training (With 10 participant).

The following capacity development activities form the ISPMC budget took place during this quarter: One Gender Awareness training and one River Survey Database Management training budget have been approved by the PMO. The River Survey Database Management training aims to familiarize the BWDB personnel to the Server and the Database procured and created by the ISPMC before handing it over. The ISPMC plans to carry out the trainings early next quarter. The summary of the Capacity Building Progress is given in the **Table 2.6**. The details of the Capacity Building Progress can be found in the **Appendix-H**.

Table 2.6 Capacity Building Progress as per RDPP (2nd Revised)

Item	Total	Completed	Remaining
A. Local Training	7	3	4
B. Overseas Training/Study Tour	9	5	4
Total	16	8	8

2.3.7 MIS Development Activities

During September, there were a number of significant developments to the River Survey Bathymetric and ADCP databases. There has been a number of improvements to the database functionality, a large number of additional surveys have been added, and preparations for a database training program are ongoing.

Added database functionality includes the following:

ADCP Database:

1. Added an algorithm to calculate river discharge from the limited information contained in the database. The estimated discharge compares closely with the values calculated by the ADCP supplier (generally within 2%).
2. Added water levels for each survey.

Bathymetric Database:

1. Added a function to automatically generate a common boundary from a set of surveys such that the boundary is fully contained by all surveys in the set. This boundary geometric element can then be used to calculate cumulative areas and volumes of sediment within that boundary versus elevation.
2. Added a routine to export raw point and contour data in ASCII (text) format for a set of surveys.
3. Developed additional tools to help facilitate the conversion and import of raw xyz-text survey data into database tables with 3D points and polygonised contours. The 3D points are used only for storage purposes, while the contour polygons are used to analyze the data.

During the quarter a total of over 347 historic and current bathymetric surveys have been added to the database from various locations along the lower Jamuna River from a number of different sources and challenging formats.

The ADCP database currently has a total of 239 surveys dated from August 2016 to the present. The bathymetric database currently has a total of 2119 surveys dated from April 1992. A summary table for the ADCP and bathymetric databases are given in **Appendix-I**. The tables give the number of surveys for each project along with the first and last survey dates.

Additional bathymetric and ADCP surveys are expected to be conducted at various sites during October 2018 under FRERMIP, and these will be added to the database. The ISPMC will continue to search for addition bathymetric and ADCP data and will update the database when and if they are found.

Preparations are also well underway for training of database Administrators. Appropriate hands-on training is essential if the database is to be sustainable after project completion. It is intended to conduct 5 full days of training to 05 candidates in early October. The documentation prepared in March 2018 will form the basis of the training, but the material has been extensively updated to include all recent database developments. A series of exercises have been prepared to give trainees hands-on experience on working with the database. On 30 September, the FRERMIP Management Information Systems (MIS) Specialist met with Mr. Tahmidul Islam, Superintending Engineer Planning II (BWDB's MIS Expert) to discuss the database and upcoming training.

The local Website Developer continues to meet with BWDB personnel to develop a new FRERMIP website which is compatible with current BWDB and GoB guidelines and standards. It is intended that a new FRERMIP website can be finalized by the end of next quarter.

2.3.8 River Study

As part of the FRERMIP River Study, a large number of Technical Notes have been prepared. It is intended that these Technical Notes will form Annexes to the main study documents including:

- (i) Strategic Framework

- (ii) River Stabilization Plan – Jamuna and Padma River Stabilization
- (iii) Preliminary Regional Master Plan – North Central Region Development
- (iv) Strategic Environmental and Social Assessment

Apart from presenting the context at two national workshops in 2016 and 2017, the Strategic Framework was recommended for approval by the Technical Advisory Committee in September 2017 and the SESA was reviewed by a Dutch Government Organization named National Commission for Environmental Assessment (NCEA) and has been update and sent to the PMO on 09-Sep-2018 (**Ref: ISPMC-FRERMIP-528**) during this quarter reflecting the latest standard of the river stabilization plan and the regional master plan.

The Technical Notes are under formatting this quarter for final submission. The **Appendix-H** portrays the details of the status of the technical notes.

The internal review of the updated draft Strategic Environmental and Social Assessment (SESA) of long-term river stabilization of the Brahmaputra-Jamuna-Padma river system was completed in early-September, and the SESA was submitted to PMO on 09-Sep-2018 (**Ref: ISPMC-FRERMIP-528**) for further review, processing and approval.

2.3.9 Feasibility Study

Design

In the course of preparation of the feasibility study for Tranche-2, the drawings for the two embankment work packages have again been updated in close cooperation with the BWDB design office. The update for the regulators reinforcement follows the standards and practices of the BWDB and often results in increased cost due to increased quantities of reinforcement. In order to achieve this, a number of meetings were held with the BWDB design office, in which, the drawings and BWDB mark ups were discussed in detail. The key dates were as follows:

- (i) First submission of the drawings: 01-Sep-2018.
- (ii) Meeting regarding proposed BWDB changes to JRB-1 embankment and bank protection drawings: 13-Sep-2018
- (iii) Meeting regarding proposed BWDB changes to PLB-1 embankment and BWDB suggested bank protection drawings: 17-Sep-2018
- (iv) Second submission of JRB-1 embankment drawings: 19-Sep-2018
- (v) Correction regarding second submission of JRB-1 embankment: 23-Sep-2018
- (vi) Third submission of JRB-1 embankment drawings: 30-Sep-2018

Revisions of the PLB-1 drawing are still ongoing subject to consultations with BWDB design. Further works are also ongoing to update the cost estimates, design reports and specifications for these two packages to bring them in line with the updated design drawings.

2.3.10 ISPMC Performance Compliance with ToR

So far, the ISPMC has complied the terms and conditions defined in the “Terms of Reference (ToR)” of the consultancy contract. The compliance of ISPMC with the ToR was presented by the PD, FRERMIP before the Planning Commission. The **Appendix-E** portrays a full scenario of the ISPMC performance so far associated by the tasks defined in the ToR of the consultancy contract.

2.3.11 ISPMC Activities during this quarter

The ISPMC has been intensely involved in finalizing the Tranche-2 design works during this quarter. The ISPMC experts have been closely communicating with PMO, FRERMIP and Design-2, BWDB for completing the design works as per the requirements. The draft reports on Strategic Framework, River Stabilization Plan – Jamuna and Padma River Stabilization, Preliminary Regional Master Plan – North Central Region Development and Strategic Environmental and Social Assessment have also been prepared and sent to the PMO during this quarter. The construction supervision engineers of the ISPMC have also kept busy monitoring the construction sites at Chauhali and Sirajganj. The engineers have supervised the emergency dumping for the failure that occurred downstream of the Chauhali construction site. **Figure 3** shows the overview of the proposed Tranche-2 sites and the site selection report.

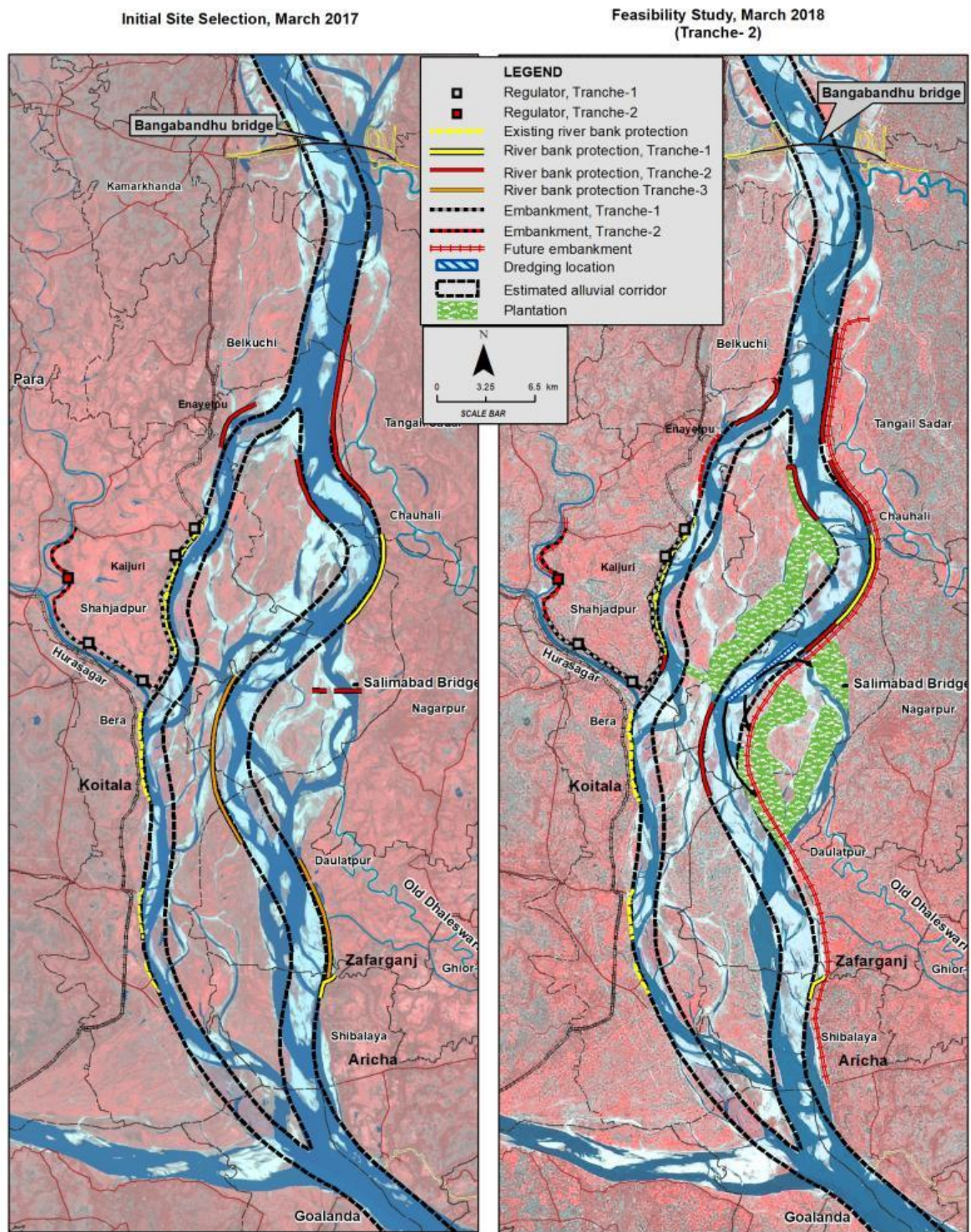


Figure 3 Proposed Riverbank Protection (Left: Initial Site Selection Report, March 2017, Right: Feasibility Study, March 2018)

3. ADMINISTRATIVE ARRANGEMENTS

3.1 Establishment of Project Offices

The PMO and two ISPMC offices are fully operational. The project management team of the ISPMC and the BWDB PMO Office are both located in the Firoz Tower, 152/3/B Bir Uttam, Kazi Nuruzzaman Road (Green Road), Dhaka-1205; on the 12th and 13th floor respectively. The ISPMC River Study and Feasibility teams are located at the Banani Office: House 47 (8th Floor) Road 27, Banani, Dhaka. Some responsibilities of Koitola construction division of BWDB, Bera, Pabna have been transferred to other O&M Divisions by the office order Memo No. 11/BWDB/Sec/DS (OD) on 06 March 2018.

The PMO and the 3 SMOs are understaffed. The following tables show the current staff employment status compared to the approved setup-

Table 3.1 PMO-FRERMIP Staffing

Post Name	No. of Posts in the approved setup	Currently appointed in the post
Project Director	1	1
Superintending Engineer	2	0
Executive Engineer	4	1
System Analyst	1	0
Sub-Divisional Engineer	2	1
Assistant Engineer	2	2
Assistant Director	1	1
Accounts Officer	1	1
Accounts Assistant	1	1
Data Entry Operator	2	1
Driver	2	1
Guard	2	2
MLSS	4	1
Total	25	13

Table 3.2 SMO-Koitola Staffing

Post Name	No. of Posts in the approved setup	Currently appointed in the post
Executive Engineer	1	1
Sub-Divisional Engineer	1	1
Assistant Engineer	1	0
Sub-Assistant Engineer	3	3
Accounts Assistant	1	0
Data Entry Operator	1	0
Revenue Surveyor	1	0
Work Assistant	3	2
Guard	1	1
MLSS	1	2
Total	15	10

Table 3.3 SMO-Tangail Staffing

Post Name	No. of Posts in the approved setup	Currently appointed in the post
Executive Engineer	1	1
Sub-Divisional Engineer	1	1
Assistant Engineer	1	0
Sub-Assistant Engineer	2	1
Accounts Assistant	1	1
Data Entry Operator	1	0
Revenue Surveyor	1	0
Work Assistant	2	2
Guard	1	1
MLSS	2	2
Total	13	9

Table 3.4 SMO-Manikganj Staffing

Post Name	No. of Posts in the approved setup	Currently appointed in the post
Executive Engineer	1	1
Sub-Divisional Engineer	2	1
Assistant Engineer	1	1
Sub-Assistant Engineer	3	3
Accounts Assistant	1	0
Data Entry Operator	1	1
Revenue Surveyor	1	0
Work Assistant	3	3
Guard	1	1
MLSS	2	2
Total	16	13

Appendix-C Utilization of Consultant Person-Months details the man-months spent by all international and national specialists to the end of the reporting period, which includes information from the Variation Order-2 (VO) for the ISPMC. According to the proposed Variation Order-2, up to the end of the June 2018, a total of 41 international specialists have expended 248 of 309 total person-months (80% of total), and 35 national specialists have expended 361.8 of 495.5 person-months (73% of total).

3.2 Compliance with Loan and Grant Agreement Covenants

Schedule 5 of the FRERMIP Loan Agreement (Ref. 7) contains a set of 30 specific covenants to be followed during project implementation. These 30 covenants are documented in **Appendix-G**, together with a column for compliance, and a column that provides evidence to support the compliance value. Out of the 30 covenants: 22 fully comply, 7 do not fully comply, and 1 are non-applicable. Of the 7 covenants that do not fully comply: 2 refer to BWDB and DDM staffing, 3 with resettlement issues, and 2 with contractual specifications.

3.3 Important Events During This Quarter:

07-Aug-2018	Appraisal Meeting on FRERMIP, between 2 members from the Planning Commission, 1 member from the Economic Relations Division (ERD), 1 member from the Ministry of Water Resources (MoWR), 2 members from Bangladesh Water Development Board (BWDB)
19-Aug-2018	Project Implementation Committee meeting, presided by the DG, BWDB with representatives from Coastal Embankment Improvement Project (CEIP), Bangladesh Weather and Climate Services Regional Project (BWCSR), Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP), Irrigation Management Improvement Project (IMIP), South-West Area Integrated Water Resources Planning & Management Project (SWAIWRPMP), Blue-gold Program and Haor Flood Management and Livelihood Improvement Project
30-Aug-2018	Notification of Award of the W-14 contract package of River Training Pilot Work at Manikganj, Sirajganj and Tangail by the PMO, FRERMIP
30-Aug-2018	Notification of Award of the S-04 contract package of Community-based Flood Risk Management by the Department of Disaster Management (DDM)
09-Sep-2018	Submission of draft Strategic Environmental and Social Assessment Report, Strategic Framework for River Stabilization and Development Report, Preliminary Regional Plan for the North-Central Zone Report and Feasibility Study Report for Tranche-2 to the PMO, FRERMIP by the ISPMC
10-Sep-2018	Project Evaluation Committee (PEC) meeting, between 4 members from the Planning Commission, 1 member from the Ministry of Water Resources (MoWR), 1 member from the Economic Relations Division (ERD), 3 members from the BWDB and 1 member from Water Resources Planning Organization (WARPO)
20-Sep-2018	Meeting with the Secretary (Secretary MoWR, Addl. Secretary, Joint Chief), BWDB (DG, Chief Planning, Project Director), Deputy Director CEGIS, and ISPMC consultant (Dr. Ainun Nishat, Team Leader) on the principles of the river stabilization plan.

4. FINANCIAL ARRANGEMENTS

4.1 *Statements of Expenditure*

Using the project implementation database, and with help from the FRERMIP PMO, the ISPMC monitors project financial progress including: all ADB (and GON) disbursements (deposits) to the project, BWDB PMO expenditures paid to contractors and suppliers, and all reimbursement bill applications approved by ADB.

Table A-5 shows cumulative totals to date for progress, expenses and reimbursements, for all DPP categories. This table also includes the 2018/19 fiscal targets (and fiscal progress) as define in the provisional ADP (Annual Development Program).

BWDB PMO expenditures by individual contract are provided in **Table B-5**. Only the total expenditure values are exactly correct. The individual donor values have been calculated using total expenditure values and the percent distribution by financial component.

Financial reimbursement on an individual contract basis is shown in **Table B-6**. The table shows the total bill claim amount, plus the reimbursed amount (BDT) by both ADB and GON. A summary of reimbursement applications for line of credit (L/C), direct payment, and imprest amounts is shown in **Table B-7**. This table also shows the total bill amount claimed and the reimbursement amounts paid by ADB and GON in both BDT and US\$.

Reimbursement values (BDT) are also summarized by ADB Financial Category (**Table A-3**), and by DPP Component (**Table A-4 and A-5**).

Table B-8 shows the total ADB (plus GON) disbursement (deposits) to the project. Total disbursement is the addition of all deposits to the ADB Loan Account and the Grant Imprest Account, plus the ADB and GON portions of all reimbursed Direct Payment and L/C applications.

A summary of the financial progress is also available in Error! Reference source not found. which shows that the progress of PMO expenditure is 65%, the ADB disbursement is 51% of the total project cost and the total reimbursement is 39%. The history of project disbursements and reimbursements (US\$) is shown in **Figure 2.1** in **Section 2.1**.

5. ISSUES FOR DISCUSSION AND AGREEMENT

5.1 *Completion of Chauhali Investigation Report*

The ISPMC has shared the draft Chauhali investigation report with the Project Director and the Design office. The latter was studying the report at the end of September prior to deciding on how to proceed. This report is a fundamental element in developing sustainable riverbank protection and influences the Tranche-2 designs.

6. REFERENCES

1. ADB, 2014: Facility Administration Manual, Bangladesh: Multi-Project Financing Facility - Flood and Riverbank Erosion Risk Management Investment Program, 2014 June
2. ADB, 2014: Report and Recommendation of the President to the Board of Directors, Proposed Multi-Project Financing Facility People's Republic of Bangladesh: Flood and Riverbank Erosion Risk Management Investment Program, 2014 June
3. BWDB, 2017: Revised Development Project Proforma/Proposal, Flood and Riverbank Erosion Risk Management Investment Program – Project 1 (Revised), 2017 June
4. NHC, 2013: Project Preparatory Technical Assistance 8054 BAN, Main River Flood and Bank Erosion Risk Management Program, Main Report, 2013 December
5. ISPMC, 2016: Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP) Project-1, Inception Report, 2016 March
6. ADB, 2012: Involuntary Resettlement Safeguards, A Planning and Implementation Good Practice Sourcebook – Draft Working Document, Asian Development Bank, 2012 November
7. ADB, 2014: Loan Agreement, Flood and Riverbank Erosion Risk Management Investment Program - Project 1, between People's Republic of Bangladesh and Asian Development Bank, 2014 August 14
8. BWDB 2015: Contract for Consultancy Services (Time Based) for Institutional Strengthening and Project Management Consultant (ISPMC) between Bangladesh Water Development Board and Northwest Hydraulic Consultants Ltd. Joint Venture with Euroconsult Mott Macdonald, September 2015
9. ADB 2018: Aide Memoire of Midterm Review Mission (15-26 February 2018), Asian Development Bank, Loan No. 3138 (SF)/Grant No. 0396 – Ban: Flood and Riverbank Erosion Risk Management Investment Program – Project 1, April 2014
10. BWDB 2018: Implementation Monitoring and Evaluation Division Report (IMED 05/2003), Implementation Monitoring and Evaluation Division, Ministry of Planning, Government of the People's Republic of Bangladesh, September 2018
11. BWDB, 2014: Revised Development Project Proforma/Proposal on Flood and Riverbank Erosion Risk Management Investment Program (Tranche-1) (2nd Revised), Bangladesh Water Development Board, Ministry of Water Resources, Government of the People's Republic of Bangladesh, September 2018

Appendix-A Work Program Summaries

Table A-1 Project Program Summary Quantity (Units)

Component	Asset Type	Units	BWDB	DDM	MAN	KOI	TAN	Totals
A: Civil Works								
A1: Embankment Works	Cons/ReCon: Embank	km	0.0	0.0	0.0	8.8	0.0	8.8
	New: Embank	km	0.0	0.0	0.0	12.5	0.0	12.5
	New: Infrastr	BDTM	0.0	0.0	7.8	0.0	0.0	7.8
	New: Regulator	No	0.0	0.0	0.0	4.0	0.0	4.0
A2: Riverbank Prot Works	New: Revetment	km	0.0	0.0	10.8	0.0	7.0	17.8
A3: Emerg & Adaptation	Emerg: AdpRivProt	BDTM	44.8	0.0	0.0	0.0	0.0	44.8
A4: Pilot Land Recovery	New: RivTrnWrk	BDTM	381.3	0.0	0.0	0.0	0.0	381.3
B: Materials								
B1: Geotextile, Civil Works	Procure: GeoBag	Mil	0.0	0.0	2.7	0.0	1.9	4.7
B2: Geotextile, Emerg	Procure: AdpGeoBag	Mil	0.0	0.0	1.3	0.0	0.0	1.3
C: Vehicles & Equipment								
C1: Vehicles/Transport	Procure: Veh/Trans	No	12.0	0.0	0.0	0.0	0.0	12.0
C2: Office Equipment	Procure: Equip	BDTM	4.4	0.0	0.0	0.0	0.0	4.4
C3: Survey Equipment	Procure: Equip	BDTM	6.7	0.0	0.0	0.0	0.0	6.7
C4: DDM Office Eqpt	Procure: Equip	BDTM	0.0	0.5	0.0	0.0	0.0	0.5
D: Consulting Services								
D1: ISPM; Consultant Serv.	Service: Feasi.Stud	BDTM	170.0	0.0	0.0	0.0	0.0	170.0
	Service: Instit.Cap	BDTM	387.0	0.0	0.0	0.0	0.0	387.0
	Service: Riv.Stabil	BDTM	461.0	0.0	0.0	0.0	0.0	461.0
D2: INGO BWDB	Service: Resettle.S	BDTM	16.2	0.0	0.0	0.0	0.0	16.2
D3: INGO DDM	Service: CBFRM	BDTM	0.0	64.4	0.0	0.0	0.0	64.4
D4: Survey & Investigation	Service: Eros.Pred	BDTM	29.9	0.0	0.0	0.0	0.0	29.9
E: Capacity Development								
E1: BWDB Training & Study	Service: Training	BDTM	63.9	0.0	0.0	0.0	0.0	63.9
F: Land Acqn & Resettle								
F1: Land Compensation	Compensate: Land.Acqu	BDTM	2,083.	0.0	0.0	0.0	0.0	2,083.
F2: Resettle Benefits	Compensate: Resettle.B	BDTM	28.4	0.0	0.0	0.0	0.0	28.4
G: Program Management								
G1: Staff Salaries BWDB	Service: Prog.Mngt	BDTM	83.7	0.0	0.0	0.0	0.0	83.7
G2: Office Opns BWDB	Service: Prog.Mngt	BDTM	31.0	0.0	0.0	0.0	0.0	31.0
G3: Office Opns DDM	Service: Prog.Mngt	BDTM	0.0	5.1	0.0	0.0	0.0	5.1
G4: BWDB River Surveys	Service: Riv.Surv	BDTM	7.8	0.0	0.0	0.0	0.0	7.8
	Service: LandSurvey	BDTM	0.2	0.0	0.0	0.0	0.0	0.2
X: Misc. Costs								
X1: Misc. Costs	Compensate: CD&SD	BDTM	12.1	0.0	0.0	0.0	0.0	12.1
	Compensate: Interest	BDTM	199.2	0.0	0.0	0.0	0.0	199.2
	Service: Hon.Allow	BDTM	0.8	0.0	0.0	0.0	0.0	0.8

Abbreviations:

DDM - Department of Disaster Management

MAN - Manikganj SMO

KOI - Koitola SMO

TAN - Tangail SMO

The unit BDTM refers to an estimated total cost of Bangladesh Taka 1 Million.

Table A-2 Project Cost Summary

Cost (BDT Mil)

Component	Asset	BWDB	DDM	MAN	KOI	TAN	Totals
A: Civil Works							
A1: Embankment Works	Cons/ReCon: Embank	0	0	0	486	0	486
	New: Embank	0	0	0	463	0	463
	New: Infrastr	0	0	7	0	0	7
	New: Regulator	0	0	0	254	0	254
A2: Riverbank Prot Works	New: Revetment	0	0	1,055	0	890	1,945
A3: Emerg & Adaptation	Emerg: AdpRivProt	63	0	0	0	0	63
A4: Pilot Land Recovery	New: RivTrnWrk	460	0	0	0	0	460
							3,677
B: Materials							
B1: Geotextile, Civil Works	Procure: GeoBag	0	0	788	0	365	1,153
B2: Geotextile, Emerg	Procure: AdpGeoBag	0	0	259	0	0	259
							1,411
C: Vehicles & Equipment							
C1: Vehicles/Transport	Procure: Veh/Trans	35	0	0	0	0	35
C2: Office Equipment	Procure: Equip	4	0	0	0	0	4
C3: Survey Equipment	Procure: Equip	7	0	0	0	0	7
C4: DDM Office Eqpt	Procure: Equip	0	0	0	0	0	0
							46
D: Consulting Services							
D1: ISPM; Consultant Serv.	Service: Feasi.Stud	170	0	0	0	0	170
	Service: Instit.Cap	387	0	0	0	0	387
	Service: Riv.Stabil	461	0	0	0	0	461
D2: INGO BWDB	Service: Resettle.S	18	0	0	0	0	18
D3: INGO DDM	Service: CBFRM	0	37	0	0	0	37
D4: Survey & Investigation	Service: Eros.Pred	30	0	0	0	0	30
							1,103
E: Capacity Development							
E1: BWDB Training & Study	Service: Training	64	0	0	0	0	64
							64
F: Land Acqn & Resettle							
F1: Land Compensation	Compensate: Land.Acqu	2,083	0	0	0	0	2,083
F2: Resettle Benefits	Compensate: Resettle.B	28	0	0	0	0	28
							2,111
G: Program Management							
G1: Staff Salaries BWDB	Service: Prog.Mngt	84	0	0	0	0	84
G2: Office Opns BWDB	Service: Prog.Mngt	31	0	0	0	0	31
G3: Office Opns DDM	Service: Prog.Mngt	0	5	0	0	0	5
G4: BWDB River Surveys	Service: Riv.Surv	8	0	0	0	0	8
	Service: LandSurvey	0	0	0	0	0	0
							128
X: Misc. Costs							
X1: Misc. Costs	Compensate: CD&SD	12	0	0	0	0	12
	Compensate: Interest	199	0	0	0	0	199
	Service: Hon.Allow	1	0	0	0	0	1
							212
Grand Totals		4,144	43	2,109	1,203	1,255	8,753

Abbreviations:

DDM - Department of Disaster Management

MAN - Manikganj SMO

KOI - Koitola SMO

TAN - Tangail SMO

Table A-3 ADB Categories: Reimbursed Amount, by Donor

Code	Categories	Total Cost Est.	Value of Physical Progress	PMO Expenses	all Values in BDT Mil		
					Reimbursed Amount		
					ADB	GON	Total
Component							
1	Works	3,677.5	2,235.2	2,061.2	1,697.2	0.0	1,697.2
2	Materials	1,411.2	1,411.2	1,278.8	1,137.5	0.0	1,137.5
3A	Vehicles - BWDB	34.5	34.5	34.9	1.5	0.0	1.5
3B	Equipment - BWDB	11.1	11.1	11.1	10.6	0.0	10.6
3C	Equipment -DDM	0.5	0.5	0.5	0.5	0.0	0.5
4	Resettlement	28.4	28.4	28.1	2.0	0.0	2.0
5	Training	63.9	60.7	58.9	44.8	0.0	44.8
6A	Consulting Services - Project Management - BWDB	1,018.2	873.9	552.3	68.5	390.0	458.6
6B	Consulting Services - NGO Services - BWDB	47.4	44.4	34.3	21.6	0.0	21.6
6C	Consulting Services - Project Management - DDM	37.4	3.7				
7A	Project Management - BWDB	38.9	28.9	23.7	16.1	0.0	16.1
7B	Project Management - DDM	5.1	4.1	1.2	0.4	0.0	0.4
8	Interest	199.2	139.4	120.0			
9	Unallocated	2,178.9	2,081.7	1,443.2			
Grand Total		8,752.2	6,957.9	5,648.3	3,000.7	390.0	3,390.7

Table A-4 DPP Categories: Reimbursed Amount, by Donor

Code	Categories	Total Cost Est.	Value of Physical Progress	PMO Expenses	all Values in BDT Mil		
					Reimbursed Amount		
					ADB	GON	Total
Revenue Component							
3111201, 3111310, 3111325, 3111335	PMO Salaries and Allowances	83.7	61.1				
3111332	Honorarium Allowances	0.8	0.0				
3211103	Resettlement Support Program	28.4	28.4	28.1	2.0	0.0	2.0
3231101, 3231201	Capacity Development Program	63.9	60.7	58.9	44.8	0.0	44.8
3257101	ISPMC; Implementation Consultant Services	387.3	329.2	210.1	26.1	148.4	174.4
3257101	ISPMC; River Stabilization and Land Recovery Study	461.2	392.1	250.2	31.0	176.7	207.7
3257101	ISPMC; Feasibility of Tranch-2/3 Project	169.6	152.7	92.0	11.4	65.0	76.4
3257101	Resettlement Implementation Support	17.5	14.6	10.3	5.9	0.0	5.9
3257101	Community-based Flood Management Program (DDM)	37.4	3.7				
3257104	Land/River Survey and Data Processing	8.0	6.3	4.4	0.4	0.0	0.4
3257104	Survey and Investigation Data Processing	29.9	29.9	24.0	15.8	0.0	15.8
3111302, 3111329, 3111332, 3111338, 3211119, 3211125, 3211128, 3211129, 3241101, 3243101, 3243102, 3255101, 3255105, 3256101, 3258104, 3258107, 3258101, 3258140, 3258129, 3255102, 3255104	PMO Operational Expenses	30.9	22.6	19.2	15.6	0.0	15.6
(same as PMO Operational Expenses)	PMU DDM Operational Expenses	5.1	4.1	1.2	0.4	0.0	0.4
3221110, 3411101	Interest & Service Charge for Netherland Grant	199.2	139.4	120.0			
Revenue Totals		1,522.9	1,244.7	818.5	153.4	390.0	543.5
Capital Component							
3821104, 3821101	CD and SD	12.1	0.0				
4111201	Construction of Inspection Bangalow at Manikganj	7.0	2.1	0.7			
4111307	Regulator/Sluice Construction in JRB1 Sub-project Area	253.7	92.6	34.3	9.2	0.0	9.2
4111321	Embankment along the Right Bank of Jamuna and the Left Bank of Baral-Hurasagar (27,38,118.66 Cum)	949.2	129.5	117.9	23.7	0.0	23.7
4111321	Protective Works at Left Bank of Jamuna at Chauhali, Nagarpur, Tangail Sadar, Zafarganj & at Left Bank of Padma at Harirampur	3,097.8	3,097.8	2,920.4	2,679.3	0.0	2,679.3
4111321	Adaptive Protection and Emergency	321.2	321.2	266.7	122.4	0.0	122.4
4111321	Land Recovery/River Training Works	459.8	3.2				
4112101	Motor Vehicle (Jeep 5 unit, Motorcycle 10 unit)	34.5	34.5	34.9	1.5	0.0	1.5
4112202, 4112310, 4113301	Computer and Office Equipment BWDB	4.4	4.4	4.4	4.2	0.0	4.2
4112202, 4112310, 4113301	Computer and Office Equipment DDM	0.5	0.5	0.5	0.5	0.0	0.5
4112304	Survey Equipment	6.7	6.7	6.7	6.4	0.0	6.4
4141101	Land Acquisition	2,083.1	2,020.6	1,443.2			
Capital Totals		7,230.1	5,713.2	4,829.8	2,847.2	0.0	2,847.2
Grand Total		8,753.0	6,957.9	5,648.3	3,000.7	390.0	3,390.7

Table A-5 DPP Categories: Key Physical and Financial Indicators

all Values in BDT Mil

Code	Categories	Total Cost		Total to Date		
		Budget (RDPP)	Revised Est.	Progress	Expenses	Reimburs
Revenue						
3111201, 3111310, 3111325, 3111335	PMO Salaries and Allowances	83.7	83.7	61.1	0.0	0.0
3111332	Honorarium Allowances	0.8	0.8	0.0	0.0	0.0
3211103	Resettlement Support Program	90.0	28.4	28.4	28.1	2.0
3231101, 3231201	Capacity Development Program	76.9	63.9	60.7	58.9	44.8
3257101	ISPMC; Implementation Consultant Services	387.3	387.3	329.2	210.1	174.4
3257101	ISPMC; River Stabilization and Land Recovery Study	461.2	461.2	392.1	250.2	207.7
3257101	ISPMC; Feasibility of Tranch-2/3 Project	169.7	169.6	152.7	92.0	76.4
3257101	Resettlement Implementation Support	17.5	17.5	14.6	10.3	5.9
3257101	Community-based Flood Management Program (DDM)	50.6	37.4	3.7	0.0	0.0
3257104	Land/River Survey and Data Processing	8.0	8.0	6.3	4.4	0.4
3257104	Survey and Investigation Data Processing	28.9	29.9	29.9	24.0	15.8
3111302, 3111329, 3111332, 3111338, 3211119, 3211125, 3211128, 3211129, 3241101, 3243101, 3243102, 3255101, 3255105, 3256101, 3258104, 3258107, 3258101, 3258140, 3258129, 3255102, 3255104	PMO Operational Expenses	32.3	30.9	22.6	19.2	15.6
(same as PMO Operational Expenses)	PMU DDM Operational Expenses	2.1	5.1	4.1	1.2	0.4
3221110, 3411101	Interest & Service Charge for Netherland Grant	199.2	199.2	139.4	120.0	0.0
		1,608.1	1,522.9	1,244.7	818.5	543.5
Capital						
3821104, 3821101	CD and SD	12.1	12.1	0.0	0.0	0.0
4111201	Construction of Inspection Bangalow at Manikganj	7.8	7.0	2.1	0.7	0.0
4111307	Regulator/Sluice Construction in JRB1 Sub-project Area	247.7	253.7	92.6	34.3	9.2
4111321	Embankment along the Right Bank of Jamuna and the Left Bank of Baral-Hurasagar (27,38,118.66 Cum)	955.2	949.2	129.5	117.9	23.7
4111321	Protective Works at Left Bank of Jamuna at Chauhali, Nagarpur, Tangail Sadar, Zafarganj & at Left Bank of Padma at Harirampur	2,920.4	3,097.8	3,097.8	2,920.4	2,679.3
4111321	Adaptive Protection and Emergency	325.5	321.2	321.2	266.7	122.4
4111321	Land Recovery/River Training Works	467.9	459.8	3.2	0.0	0.0
4112101	Motor Vehicle (Jeep 5 unit, Motorcycle 10 unit)	34.9	34.5	34.5	34.9	1.5
4112202, 4112310, 4113301	Computer and Office Equipment BWDB	4.4	4.4	4.4	4.4	4.2
4112202, 4112310, 4113301	Computer and Office Equipment DDM	0.5	0.5	0.5	0.5	0.5
4112304	Survey Equipment	6.7	6.7	6.7	6.7	6.4
4141101	Land Acquisition	2,083.1	2,083.1	2,020.6	1,443.2	0.0
		7,066.4	7,230.1	5,713.2	4,829.8	2,847.2
Totals		8,674.4	8,753.0	6,957.9	5,648.3	3,390.7

Appendix-B Work Program Details

Table B-1 Design Progress Details

Description	Design Data Collection			Prog (%)		Remarks
	Total	Surv	Hydraul	Geotech	Desn	
Component A: Civil Works						
<i>BWDB PMO</i>						
Emerg: AdpRivProt: 44.75 BDTM: Emergency/Adaptive 1: Riverbank Protection	c	c	na	100	100	Desn. & Dwg. Complete
New: RivTrnWrk: 380 BDTM: River Training Pilot Work: & Land Recovery	c	c	na	100	100	Desn. & Dwg. Complete
New: RivTrnWrk: 1.3 BDTM: Shahzadpur Piloting Jute Mattress	c	c	c	0	0	All Geotech Data Recd
<i>BWDB PMO Totals</i>	3	3	3	3	2	2
<i>Koitola SMO</i>						
Cons/ReCon: Embank: 4.8 km: Embankment Reconst. (4.8 km): Baghabari - Verakhola; km 12.5-17.3	c	c	na	100	100	Desn. & Dwg. Complete
Cons/ReCon: Embank: 4 km: Embankment Reconst. (5.7 km): Baghabari - Verakhola; km 17.3-23	c	c	na	100	100	Desn. & Dwg. Complete
New: Embank: 5 km: Embankment (5 km): Kaijuri - Bhatpara; km 0-5	c	c	na	100	100	Desn. & Dwg. Complete
New: Embank: 3.5 km: Embankment (3.5 km): Bhatpata - Gala; km 5-8.5	c	c	na	100	100	Desn. & Dwg. Complete
New: Embank: 4 km: Embankment (4 km): Gala - Verakhola; km 8.5-12.5	c	c	na	100	100	Desn. & Dwg. Complete
New: Regulator: 1 No: Kaijuri Reg 2V 1.5x1.8m: Kojjuri	c	c	c	100	100	Desn. & Dwg. Complete
New: Regulator: 1 No: Rohindakandi Reg 2V 1.5x1.8m: Ruhindakandi	c	c	c	100	100	Desn. & Dwg. Complete
New: Regulator: 1 No: Verakhola Reg 2V 1.5x1.8m: Verakhola	c	c	c	100	100	Desn. & Dwg. Complete
New: Regulator: 1 No: Andhar Manik Reg 4V 1.5x1.8m: Andharmanik	c	c	c	100	100	Desn. & Dwg. Complete
<i>Koitola SMO Totals</i>	9	9	9	9	9	9
<i>Manikganj SMO</i>						
New: Infrastr: 7.8 BDTM: Construction of Inspection Bungalow	c	na	na	100	100	Desn. & Dwg. Complete
New: Revetment: 2 km: Revetment (2 km): Zaffarganj; km 6.1-8.1	c	c	na	100	100	Desn. & Dwg. Complete
New: Revetment: 3.5 km: Revetment (3.5 km): Harirampur; km 0-3.5	c	c	na	100	100	Desn. & Dwg. Complete
New: Revetment: 5.3 km: Revetment (3.5 km): Harirampur; km 3.5-7	c	c	na	100	100	Desn. & Dwg. Complete
<i>Manikganj SMO Totals</i>	4	4	4	4	4	4
<i>Tangail SMO</i>						
New: Revetment: 2.5 km: Revetment (2 km): Chauhali; km 0- 2.5	c	c	na	100	100	Desn. & Dwg. Complete
New: Revetment: 4.5 km: Revetment (4.5 km): Chauhali; km 2.5-7.0	c	c	na	100	100	Desn. & Dwg. Complete
<i>Tangail SMO Totals</i>	2	2	2	2	2	2
Component Totals	18	18	18	18	17	17

Legend:

n - not commenced c - completed
p - partially completed na - not applicable/required

Table B-2 Tender Progress Details

Package Code	Description	Dates												
		ISPMC ToR	ADB ToR	Eol Notice	Eol Received	BWDB Eol Eval	ADB Eol Eval.	ADB Bid Doc.	Tender Notice	Tender Received	Eval. Comp.	ADB Concur.	Appr.Compl. Authority	Notif. Award
Goods; B: Materials														
G-01	Supply of Geobags; Chouhali, Sirajganj							26Dec14	31Dec14	19Feb15	04Aug15	29Apr15	07Jan15	01Jul15
G-02	Supply of Geobags; Zaforganj, Harirampur, Manikganj							26Dec14	31Dec14	19Feb15	04Aug15	29Apr15	07Jan15	01Jul15
G-03	Supply of Geobags; Harirampur, Manikganj							19May15	19May15	06Jul15	08Dec15	27Aug15	22Sep15	27Sep15
G-04	Supply of Geobags; Chauhali-Harirampur-Kojjuri-Benotia							13Sep16	27Sep16	14Nov16	19Dec16	20Jan17	31Jan17	12Feb17
Component Totals		0	0	0	0	0	0	4	4	4	4	4	4	4
Goods; C: Vehicles & Equipment														
G-05	2016 Supply of Jeep;							26Feb16	29Feb16	31Mar16	13Apr16	19Apr16	19Apr16	07Jun16
G-06.1	2015 Supply of Jeeps;								01Jun16	05Jun16	09Jun16	12Jun16	16Jun16	30Jun16
G-06.2	2016 Supply of Jeep;								10Mar16	24Mar16	14Apr16	21Apr16	28Apr16	05May16
G-06.3	2016 Supply of Motorcycles;								10Mar16	24Mar16	14Apr16	21Apr16	28Apr16	05May16
G-07.1	2015 Office Equipment; BWDB PMO								13Apr15	17May15				28May15
G-07.2	2016 Office Equipment; BWDB PMO							10Apr15	03Jan16	04Feb16	29Feb16	28Mar16	28Mar16	30Mar16
G-08	2016 Supply of Survey Equipments;							10Apr15	03Jan16	04Feb16	29Feb16	14Mar16	14Mar16	16Mar16
G-09	2017 Supply of Office Equip; DDM; DDM								01Jun17	08Jun17	08Jun17	15Jun17	22Jun17	22Jun17
Component Totals		0	0	0	0	0	0	3	8	8	7	7	7	8
Services; D: Consulting Services														
S-01	ISPMC; Tranche 1;			23Oct14	15Dec14				01Apr15	01Jun15				08Sep15
S-02	Resettlement Implementation Support; Sirajganj, Tangail, Manikganj		22Apr15	09Jun15	09Jul15	24Aug15		22Oct15	11Nov15	10Dec15	11Jan16	04Mar16	15Mar16	16Mar16
S-02A	External Monitor for Resettlement;													
S-04	Community Based Flood Risk Mngmt; DDM	30Sep15	01Mar16	28Mar16	26Apr16	27Mar17	23Oct17	23Oct17	12Nov17	17Dec17	05Aug18	28Aug18		30Aug18
S-06.1	2015 Erosion & Morphological Chg;								23Dec14	01Jan15				29Jan15
S-06.2	2016 & 2017 Erosion Prediction;		23Feb16						23Feb16	15Mar16	24Mar16	28Mar16	09May16	10May16
Component Totals		1	3	3	3	2	1	2	5	5	3	3	3	5
Works; A: Civil Works														
W-01	Embankment, & 2 Reg.; km 0-5							06Nov17	07Nov17	11Dec17	27Dec17	21Jan18	12Feb18	12Feb18
W-02	Embankment; km 5-8.5							06Nov17	07Nov17	11Dec17	27Dec17	21Jan18	23Jan18	29Jan18
W-03	Embankment; 8.5-12.5							06Nov17	07Nov17	11Dec17	27Dec17	21Jan18	23Jan18	29Jan18
W-04	Embankment & 1 Regulator; km 12.5-17.3							06Nov17	07Nov17	11Dec17	27Dec17	21Jan18	12Feb18	12Feb18
W-05	Embankment & 1 Regulator; km 17.3-21.3							06Nov17	07Nov17	11Dec17	27Dec17	29Jan18	20Feb18	22Feb18
W-06	Revetment; Jamuna at Chauhali, R1; km 0-2.5							30Mar15	04May15	08Jun15	28Jul15	14Aug15	22Sep15	23Sep15
W-07	Revetment; Jamuna at Chauhali, R2; km 2.5-7.0							30Mar15	04May15	08Jun15	28Jul15	14Aug15	22Sep15	23Sep15
W-08	Revetment; Jamuna at Zaffarganj, km 6.1-8.1							11May15	22Jun15	27Jul15	08Oct15	04Dec15	03Feb16	03Feb16
W-09	Revetment; Padma at Harirampur, R1; km 6.7-10.2							11May15	22Jun15	27Jul15	04Nov15	10Dec15	30Dec15	30Dec15
W-10	Revetment; Padma at Harirampur, R2; km 3.2-6.7							11May15	22Jun15	27Jul15	04Nov15	10Dec15	30Dec15	30Dec15
W-11	Emergency/Adaptive 1; Riverbank Protection							31Dec17	14Jan18	15Feb18	25Feb18	01Mar18	14Mar18	19Mar18
W-14	River Training Pilot Work; Manikganj, Tangail, Sirajganj	04Oct17						21May18	21May18	25Jun18	28Jun18	30Jul18	29Aug18	30Aug18
W-15	Construction of Inspection Bungalow; Manikgonj		05Apr18					15Apr18	15Apr18	17May18	29May18	07Jun18	11Jun18	11Jun18
W-16	Shahzadpur Piloting Jute Mattress;													
Component Totals		1	1	0	0	0	0	13	13	13	13	13	13	13

Table B-2 Tender Progress Details

Package Code	Description	Dates												
		ISPMC ToR	ADB ToR	Eol Notice	Eol Received	BWDB Eval	Eol ADB Eval.	Eol ADB Bid Doc.	Tender Notice	Tender Received	Eval. Comp.	ADB Concur.	Appr.Compl. Authority	Notif. Award
Project Totals		2	4	3	3	2	1	22	30	30	27	27	26	30
Abbreviations:	ADB - Asian Development Bank BDT - Bangladesh Taka Comp. - Completion	Concur. - Concurrence Doc. - Document Eval. - Evaluation		Eol - Expression of Interest Notif. - Notification										

Table B-3 Implementation Progress Details, by Contract

Contract Code	Description	Contractor	Best Estimate of Final Cost (BDT Mil)	Value of Cumulate Progress					Remarks
				during Mth%	30-Nov-2018 Current Mth (%) (BDT Mil)	31-Dec-2018 Next Mth (%) (BDT Mil)			
Goods									
B: Materials									
G-01	Supply of Geobags: Chouhali, Sirajganj	BJ Geo-Textile	365.0	0	100	365.0	100	365.0	Implementen Complete
G-02	Supply of Geobags: Zaforganj, Harirampur, Manikganj	BJ Geo-Textile	472.6	0	100	472.6	100	472.6	Implementen Complete
G-03	Supply of Geobags: Harirampur, Manikganj	DFL-DCTL(JV)	315.1	0	100	315.1	100	315.1	Implementen Complete
G-04	Supply of Geobags: Chauhali-Harirampur-Kojuri-Benotia	DIRD	258.5	33	100	258.5	100	258.5	Implementen Complete
Component Totals			1,411.2			1,411.2		1,411.2	
C: Vehicles & Equipment									
G-05	2016 Supply of Jeep:	Pacific Motors Ltd.	5.5	0	100	5.5	100	5.5	Implementen Complete
G-06.1	2015 Supply of Jeeps:	Progoti Industries	20.8	0	100	20.8	100	20.8	Implementen Complete
G-06.2	2016 Supply of Jeep:	Progoti Industries	6.9	0	100	6.9	100	6.9	Implementen Complete
G-06.3	2016 Supply of Motorcycles:	Atlas Bangladesh Ltd.	1.3	0	100	1.3	100	1.3	Implementen Complete
G-07.1	2015 Office Equipment: BWDB PMO	Logitech Computer Ltd.	2.2	0	100	2.2	100	2.2	Implementen Complete
G-07.2	2016 Office Equipment: BWDB PMO	Source & Service	2.2	0	100	2.2	100	2.2	Implementen Complete
G-08	2016 Supply of Survey Equipments:	Logitech Computers Ltd.	6.7	0	100	6.7	100	6.7	Implementen Complete
G-09	2017 Supply of Office Equip; DDM: DDM	DDM	0.5	0	100	0.5	100	0.5	Implementen Complete
Component Totals			46.1			46.1		46.1	
Goods Totals			1,457.4			1,457.4		1,457.4	
Services									
D: Consulting Services									
S-01	ISPMC; Tranche 1:	NHC (JV) Mott MacDonald	1,018.2	5	86	873.9	91	924.8	Satisfactory Progress
S-02	Resettlement Implementation Support: Sirajganj, Tangail, Manikganj	VRDS-HCL-JV	16.2	20	90	14.6	100	16.2	Satisfactory Progress
S-02A	External Monitor for Resettlement:		1.3	0	0	0.0	0	0.0	Contract Not Yet Started
S-04	Community Based Flood Risk Mngmt: DDM	BDFC	37.4	10	10	3.7	35	13.1	Implementation Started
S-06.1	2015 Erosion & Morphological Chg:	CEGIS	4.6	0	100	4.6	100	4.6	Implementen Complete
S-06.2	2016 & 2017 Erosion Prediction:	CEGIS	25.3	0	100	25.3	100	25.3	Implementen Complete
Component Totals			1,102.9			922.1		984.0	
Services Totals			1,102.9			922.1		984.0	
Works									
A: Civil Works									
W-01	Embankment, & 2 Reg.: km 0-5	Md. Moyenuddin (Bashi)-Gol	323.0	15	26	83.7	29	92.8	Satisfactory Progress
W-02	Embankment: km 5-8.5	Taher Brothers Ltd.-MA Ente	118.2	0	5	5.9	20	23.6	Construction Started
W-03	Embankment: 8.5-12.5	Taher Brothers Ltd.-MA Ente	112.3	0	5	5.6	20	22.5	Construction Started
W-04	Embankment & 1 Regulator: km 12.5-17.3	HB-SSECL (JV)	362.4	0	30	109.4	63	229.0	Construction Started
W-05	Embankment & 1 Regulator: km 17.3-21.3	Md. Moyenuddin (Bashi)-Gol	287.1	4	6	17.4	22	63.6	Satisfactory Progress
W-06	Revetment: Jamuna at Chauhali, R1; km 0-2.5	I-J (JV)	444.4	0	100	444.4	100	444.4	Construction Complete
W-07	Revetment: Jamuna at Chauhali, R2; km 2.5-7.0	I-J (JV)	445.2	0	100	445.2	100	445.2	Construction Complete
W-08	Revetment: Jamuna at Zaffarganj, km 6.1-8.1	WEL-NZK-PTSL (JV)	492.8	0	100	492.8	100	492.8	Construction Complete
W-09	Revetment: Padma at Harirampur, R1; km 6.7-10.2	M.M.Builders & Engineers Lt	304.4	0	100	304.4	100	304.4	Construction Complete
W-10	Revetment: Padma at Harirampur, R2; km 3.2-6.7	M.M.Builders & Engineers Lt	258.3	0	100	258.3	100	258.3	Construction Complete
W-11	Emergency/Adaptive 1: Riverbank Protection	M/S. Hassan & Brothers	62.7	5	100	62.7	100	62.7	Construction Complete
W-14	River Training Pilot Work: Manikganj, Tangail, Sirajganj	JV Khondoker Shaheen Ahm	321.9	1	1	3.2	10	32.2	Construction Started
W-15	Construction of Inspection Bungalow: Manikgonj	MS Builders	7.0	20	30	2.1	50	3.5	Satisfactory Progress
W-16	Shahzadpur Piloting Jute Mattress:		137.9	0	0	0.0	0	0.0	Design Started
Component Totals			3,677.5			2,235.2		2,474.9	
Works Totals			3,677.5			2,235.2		2,474.9	
ProjectTotals			6,237.8			4,614.7		4,916.3	

Table B-4 Project Program, by Contract

Code	Description	Cost (BDT Mil)
Goods		
Component B1: Materials Geotextile, Civil Works		
G-01	Geobags 1.25x1.00m; Chouhali, Sirajganj	364.97
G-02	Geobags 1.25x1.00m; Zaforganj & Harirampur, Manikganj	472.64
G-03	Geobags 1.25x1.00m; Harirampur, Manikganj	315.11
		1,152.72
Component B2: Materials Geotextile, Emerg		
G-04	Supply of Geobags; Chauhali & Harirampur	258.52
Component C1: Vehicles & Equipment Vehicles/Transport		
G-05	2016 Supply of Jeep;	5.49
G-06.1	2015 Supply of Jeeps;	20.78
G-06.2	2016 Supply of Jeep;	6.93
G-06.3	2016 Supply of Motorcycles;	1.31
		34.51
Component C2: Vehicles & Equipment Office Equipment		
G-07.1	Supply of Office Equip.; BWDB PMO	2.20
G-07.2	2016 Office Equipment; BWDB PMO	2.18
		4.37
Component C3: Vehicles & Equipment Survey Equipment		
G-08	Supply of Survey Equipments;	6.75
Component C4: Vehicles & Equipment DDM Office Eqpt		
G-09	Supply of Computers & Photocopiers; DDM	0.50
Goods Total		1,457.37
Services		
Component D1: Consulting Services ISPM; Consultant Serv.		
S-01	Implementation Consultant Services; Feasibility Study Tranche-2; River Stabilization & Land Recovery;	1,018.19
Component D2: Consulting Services INGO BWDB		
S-02	Resettlement Plan; Sirajganj, Tangail, Manikganj	16.20
S-02A	External Monitor for Resettlement;	1.30
		17.50
Component D3: Consulting Services INGO DDM		
S-04	Cb Flood Risk Mngmt; DDM	37.41
Component D4: Consulting Services Survey & Investigation		
S-06.1	2015 Erosion & Morphological Chg; Jamuna, Ganges, Padma R	4.60
S-06.2	2016 & 2017 Erosion Prediction;	25.25
		29.85
Services Total		1,102.95
Works		
Component A1: Civil Works Embankment Works		
W-01	Embankment (5 km); Kaijuri - Bhatpara; km 0-5 Kaijuri Reg 2V 1.5x1.8m; Koijuri Rohindakandi Reg 2V 1.5x1.8m; Ruhindakandi	322.98
W-02	Embankment (3.5 km); Bhatpata - Gala; km 5-8.5	118.24
W-03	Embankment (4 km); Gala - Verakhola; km 8.5-12.5	112.28
W-04	Embankment Reconst. (4.8 km); Baghabari - Verakhola; km 12.5-17.3 Verakhola Reg 2V 1.5x1.8m; Verakhola	362.36
W-05	Embankment Reconst. (5.7 km); Baghabari - Verakhola; km 17.3-23 Andhar Manik Reg 4V 1.5x1.8m; Andharmanik	287.08
W-15	Construction of Inspection Bungalow;	7.05
		1,209.99
Component A2: Civil Works Riverbank Prot Works		
W-06	Revetment (2 km); Chauhali; km 0- 2.5	444.41
W-07	Revetment (4.5 km); Chauhali; km 2.5-7.0	445.15
W-08	Revetment (2 km); Zaffarganj; km 6.1-8.1	492.80
W-09	Revetment (3.5 km); Harirampur; km 0-3.5	304.42
W-10	Revetment (3.5 km); Harirampur; km 3.5-7	258.26

Table B-4 Project Program, by Contract

Code	Description	Cost (BDT Mil)
Works		
Component A2: Civil Works Riverbank Prot Works		
		1,945.04
Component A3: Civil Works Emerg & Adaptation		
W-11	Emergency/Adaptive 1; Riverbank Protection	62.68
Component A4: Civil Works Pilot Land Recovery		
W-14	River Training Pilot Work; & Land Recovery	321.88
W-16	Shahzadpur Piloting Jute Mattress;	137.90
		459.78
Works Total		3,677.48
eXtra		
Component E1: Capacity Development BWDB Training & Study		
X-05	BWDB Training and Study Tours;	63.90
Component F1: Land Acqn & Resettle Land Compensation		
X-07	Land Compensation;	2,083.11
Component F2: Land Acqn & Resettle Resettle Benefits		
X-08	Resettlement Benefits;	28.36
Component G1: Program Management Staff Salaries BWDB		
X-02	BWDB Staff Salaries;	83.67
Component G2: Program Management Office Opns BWDB		
X-03	BWDB Office Operations;	30.94
Component G3: Program Management Office Opns DDM		
X-04	DDM Office Operations;	5.10
Component G4: Program Management BWDB River Surveys		
X-10.1	River Survey Work; Padma LB & Jamuna LB	0.15
X-10.2	Survey Work for Land Acquisition; Hat-Pachi to Dombaria	0.20
X-10.3	Land/River Survey Work; Jamuna at Chouhali 7km	0.15
X-10.4	Bathymetric River Survey; Dhaka, Pabna and Mymensingh	1.99
X-10.5	2018 Bathymetric River Survey; Manikganj	5.51
		8.00
Component X1: Misc. Costs Misc. Costs		
X-01	ADB Interest & Service Charge;	199.20
X-09	CD and SD;	12.10
X-11	;	0.80
		212.10
eXtra Total		2,515.17
Project Total		8,752.97

Table B-5 BWDB PMO Expenditure Summary, by Contract

all Values in BDT

Code	Description	ADB	GON	GOB	Total
Goods					
B1 Geotextile, Civil Works					
G-01	Supply of Geobags; Chouhali, Sirajganj	325,119,259	0	0	325,119,259
G-02	Supply of Geobags; Zaforganj, Harirampur, Manikganj	417,777,105	0	0	417,777,105
G-03	Supply of Geobags; Harirampur, Manikganj	313,997,430	0	0	313,997,430
Component Total		1,056,893,794	0	0	1,056,893,794
B2 Geotextile, Emerg					
G-04	Supply of Geobags; Chauhali-Harirampur-Kojhuri-Benotia	221,947,067	0	0	221,947,067
Component Total		221,947,067	0	0	221,947,067
C1 Vehicles/Transport					
G-05	2016 Supply of Jeep;	1,940,400	0	4,989,600	6,930,000
G-06.1	2015 Supply of Jeeps;	5,940,900	0	15,276,600	21,217,500
G-06.2	2016 Supply of Jeep;	1,537,200	0	3,952,800	5,490,000
G-06.3	2016 Supply of Motorcycles;	366,940	0	943,560	1,310,500
Component Total		9,785,440	0	25,162,560	34,948,000
C2 Office Equipment					
G-07.1	2015 Office Equipment; BWDB PMO	2,087,749	0	109,882	2,197,630
G-07.2	2016 Office Equipment; BWDB PMO	2,066,333	0	108,754	2,175,087
Component Total		4,154,081	0	218,636	4,372,717
C3 Survey Equipment					
G-08	2016 Supply of Survey Equipments;	6,409,650	0	337,350	6,747,000
Component Total		6,409,650	0	337,350	6,747,000
C4 DDM Office Eqpt					
G-09	2017 Supply of Office Equip; DDM; DDM	473,955	0	24,945	498,900
Component Total		473,955	0	24,945	498,900
Goods Total		1,299,663,987	0	25,743,491	1,325,407,478
Services					
D1 ISPM; Consultant Serv.					
S-01	ISPMC; Tranche 1;	71,800,848	408,712,518	71,800,848	552,314,214
Component Total		71,800,848	408,712,518	71,800,848	552,314,214
D2 INGO BWDB					
S-02	Resettlement Implementation Support; Sirajganj, Tangail, Manikganj	8,993,441	0	1,343,847	10,337,288
Component Total		8,993,441	0	1,343,847	10,337,288
D4 Survey & Investigation					
S-06.1	2015 Erosion & Morphological Chg;	4,002,000	0	598,000	4,600,000
S-06.2	2016 & 2017 Erosion Prediction;	16,881,479	0	2,522,520	19,403,999
Component Total		20,883,479	0	3,120,520	24,003,999
Services Total		101,677,768	408,712,518	76,265,215	586,655,501
Works					
A1 Embankment Works					
W-01	Embankment, & 2 Reg.; km 0-5	47,396,263	0	4,687,542	52,083,805
W-02	Embankment; km 5-8.5	10,759,405	0	1,064,117	11,823,522
W-03	Embankment; 8.5-12.5	10,217,637	0	1,010,536	11,228,173
W-04	Embankment & 1 Regulator; km 12.5-17.3	44,030,849	0	4,354,699	48,385,548
W-05	Embankment & 1 Regulator; km 17.3-21.3	26,124,286	0	2,583,721	28,708,007
W-15	Construction of Inspection Bungalow; Manikgonj	641,113	0	63,407	704,520
Component Total		139,169,553	0	13,764,022	152,933,575

Table B-5 BWDB PMO Expenditure Summary, by Contract

all Values in BDT

Code	Description	ADB	GON	GOB	Total
A2 Riverbank Prot Works					
W-06	Revetment; Jamuna at Chauhali, R1; km 0-2.5	384,141,613	0	37,992,028	422,133,641
W-07	Revetment; Jamuna at Chauhali, R2; km 2.5-7.0	370,574,469	0	36,650,222	407,224,691
W-08	Revetment; Jamuna at Zaffarganj, km 6.1-8.1	424,850,997	0	42,018,230	466,869,227
W-09	Revetment; Padma at Harirampur, R1; km 6.7-10.2	281,164,655	0	27,807,493	308,972,148
W-10	Revetment; Padma at Harirampur, R2; km 3.2-6.7	235,090,298	0	23,250,689	258,340,987
Component Total		1,695,822,032	0	167,718,662	1,863,540,694
A3 Emerg & Adaptation					
W-11	Emergency/Adaptive 1; Riverbank Protection	40,712,783	0	4,026,539	44,739,322
Component Total		40,712,783	0	4,026,539	44,739,322
Works Total		1,875,704,368	0	185,509,223	2,061,213,591
eXtra					
E1 BWDB Training & Study					
X-05	BWDB Training and Study Tours;	55,386,037	0	3,535,279	58,921,316
Component Total		55,386,037	0	3,535,279	58,921,316
F1 Land Compensation					
X-07	Land Compensation; Tangail and Manikganj	0	0	1,443,163,761	1,443,163,761
Component Total		0	0	1,443,163,761	1,443,163,761
F2 Resettle Benefits					
X-08	Resettlement Benefits;	28,071,059	0	0	28,071,059
Component Total		28,071,059	0	0	28,071,059
G2 Office Opns BWDB					
X-03	BWDB Office Operations;	16,914,871	0	2,306,573	19,221,444
Component Total		16,914,871	0	2,306,573	19,221,444
G3 Office Opns DDM					
X-04	DDM Office Operations;	1,040,650	0	141,907	1,182,557
Component Total		1,040,650	0	141,907	1,182,557
G4 BWDB River Surveys					
X-10.1	River Survey Work; left bank Padma & Jamuna	122,778	0	16,742	139,520
X-10.2	Survey Work for Land Acquisition; Hat-Pachi to Dombaria	170,702	0	23,278	193,980
X-10.3	Land/River Survey Work; Jamuna at Chouhali 7km	128,040	0	17,460	145,500
X-10.4	2017 Bathymetric River Survey; Dhaka, Pabna and Mymensingh	1,753,294	0	239,086	1,992,380
X-10.5	2018 Bathymetric River Survey; Manikganj	1,731,756	0	236,149	1,967,905
Component Total		3,906,571	0	532,714	4,439,285
X1 Misc. Costs					
X-01	ADB Interest & Service Charge;	120,000,000	0	0	120,000,000
Component Total		120,000,000	0	0	120,000,000
eXtra Total		225,319,188	0	1,449,680,234	1,674,999,422
Project Total		3,502,365,310	408,712,518	1,737,198,163	5,648,275,992

The donor values are calculated using Total Expenditure and percent distribution by Financial Component.

Table B-6 Reimbursement Summary, by Contract

Code	Description	Total Bill Amount		Reimbursed Amount (BDT)		
		(BDT)	ADB	GON	Total	
Goods						
B1 Geotextile, Civil Works						
G-01	Supply of Geobags; Chouhali, Sirajganj	322,485,940	322,485,940	0		322,485,940
G-02	Supply of Geobags; Zaforganj, Harirampur, Manikganj	417,808,694	417,808,694	0		417,808,694
G-03	Supply of Geobags; Harirampur, Manikganj	274,809,368	274,809,368	0		274,809,368
		1,015,104,002	1,015,104,002	0		1,015,104,002
B2 Geotextile, Emerg						
G-04	Supply of Geobags; Chauhali-Harirampur-Kojjuri-Benotia	122,413,200	122,413,200	0		122,413,200
C1 Vehicles/Transport						
G-05	2016 Supply of Jeep;	5,490,000	1,537,200	0		1,537,200
C2 Office Equipment						
G-07.1	2015 Office Equipment; BWDB PMO	2,197,630	2,087,749	0		2,087,749
G-07.2	2016 Office Equipment; BWDB PMO	2,175,087	2,066,333	0		2,066,333
		4,372,717	4,154,081	0		4,154,081
C3 Survey Equipment						
G-08	2016 Supply of Survey Equipments;	6,747,000	6,409,650	0		6,409,650
C4 DDM Office Eqpt						
G-09	2017 Supply of Office Equip; DDM; DDM	498,900	473,955	0		473,955
Goods Total		1,154,625,819	1,150,092,088	0		1,150,092,088
Services						
D1 ISPM; Consultant Serv.						
S-01	ISPMC; Tranche 1;	567,130,561	68,519,045	390,031,487		458,550,532
D2 INGO BWDB						
S-02	Resettlement Implementation Support; Sirajganj, Tangail, Manikganj	6,748,813	5,871,467	0		5,871,467
D4 Survey & Investigation						
S-06.1	2015 Erosion & Morphological Chg;	4,600,000	4,002,000	0		4,002,000
S-06.2	2016 & 2017 Erosion Prediction;	13,590,567	11,749,843	0		11,749,843
		18,190,567	15,751,843	0		15,751,843
Services Total		592,069,941	90,142,356	390,031,487		480,173,843
Works						
A1 Embankment Works						
W-04	Embankment & 1 Regulator; km 12.5-17.3	36,236,160	32,974,906	0		32,974,906
A2 Riverbank Prot Works						
W-06	Revetment; Jamuna at Chauhali, R1; km 0-2.5	422,133,641	380,275,626	0		380,275,626
W-07	Revetment; Jamuna at Chauhali, R2; km 2.5-7.0	407,224,691	360,112,420	0		360,112,420
W-08	Revetment; Jamuna at Zaffarganj, km 6.1-8.1	466,869,227	424,850,997	0		424,850,997
W-09	Revetment; Padma at Harirampur, R1; km 6.7-10.2	304,418,246	277,020,604	0		277,020,604
W-10	Revetment; Padma at Harirampur, R2; km 3.2-6.7	258,256,650	221,917,396	0		221,917,396
		1,858,902,456	1,664,177,043	0		1,664,177,043
Works Total		1,895,138,616	1,697,151,949	0		1,697,151,949
eXtra						
E1 BWDB Training & Study						
X-05	BWDB Training and Study Tours;	47,678,816	44,818,087	0		44,818,087
F2 Resettle Benefits						
X-08	Resettlement Benefits;	2,036,260	2,036,260	0		2,036,260

Table B-6 Reimbursement Summary, by Contract

Code	Description	Total Bill Amount (BDT)	Reimbursed Amount (BDT)		
			ADB	GON	Total
G2 Office Opns BWDB					
X-03	BWDB Office Operations;	17,749,034	15,619,149	0	15,619,149
G3 Office Opns DDM					
X-04	DDM Office Operations;	450,000	396,000	0	396,000
G4 BWDB River Surveys					
X-10.1	River Survey Work; left bank Padma & Jamuna	141,500	124,520	0	124,520
X-10.2	Survey Work for Land Acquisition; Hat-Pachi to Dombaria	200,000	176,000	0	176,000
X-10.3	Land/River Survey Work; Jamuna at Chouhali 7km	149,860	131,877	0	131,877
		491,360	432,397	0	432,397
eXtra Total		68,405,470	63,301,894	0	63,301,894
Project Total		3,710,239,846	3,000,688,286	390,031,487	3,390,719,774

Table B-7 Reimbursement Summary, by Application

Acct. Type	Applic. No.	Date	Page	Cat	Exchange Rate (BDT to US\$)	Total Bill Amount (BDT)	Total Bill Amount (US\$)	Reimburs (%)	ADB Reimbursed Amount (BDT)	ADB Reimbursed Amount (US\$)	Grant Applic. No.	Reimburs (%)	GoN Reimbursed Amount (BDT)	GoN Reimbursed Amount (US\$)	Total Reimbursed Amount (BDT)	Total Reimbursed Amount (US\$)	
L/C	BW001	30-Jun-16	01	2	77.80	675,913,796	8,687,838	100	675,913,796	8,687,838		0	0	0	675,913,796	8,687,838	
Dir.Pay.	BW002	22-Sep-15	01	2	77.80	27,665,835	355,602	100	27,665,835	355,602		0	0	0	27,665,835	355,602	
Dir.Pay.	BW003	22-Sep-15	01	2	77.80	35,827,904	460,513	100	35,827,904	460,513		0	0	0	35,827,904	460,513	
Imprest	BW006	14-Sep-15	01	7A	77.80	596,191	7,663	88	524,648	6,744		0	0	0	524,648	6,744	
				02	6B	77.80	4,600,000	59,126	87	4,002,000	51,440		0	0	0	4,002,000	51,440
				03	3B	77.80	2,197,630	28,247	95	2,087,749	26,835		0	0	0	2,087,749	26,835
				04	7A	77.80	457,804	5,884	88	402,868	5,178		0	0	0	402,868	5,178
				05	7A	77.80	200,000	2,570	88	176,000	2,262		0	0	0	176,000	2,262
				06	7A	77.80	149,860	1,926	88	131,877	1,695		0	0	0	131,877	1,695
						8,201,485	105,416		7,325,141	94,153		0	0	7,325,141	94,153		
Imprest	BW008	03-Dec-15	01	1	78.74	77,441,455	983,509	91	70,471,724	894,993		0	0	0	70,471,724	894,993	
				02	2	78.74	23,896,480	303,486	100	23,896,480	303,486		0	0	0	23,896,480	303,486
							101,337,935	1,286,995		94,368,204	1,198,479		0	0	94,368,204	1,198,479	
Dir.Pay.	BW009	23-Feb-16	01	6A	77.57	18,202,930	234,649	13	2,366,381	30,504	BW010	74	13,470,168	173,641	15,836,549	204,145	
Imprest	BW011	07-Mar-16	01	1	78.74	154,166,642	1,957,920	91	125,963,608	1,599,741		0	0	0	125,963,608	1,599,741	
				02	2	78.74	887,099	11,266	100	887,099	11,266		0	0	0	887,099	11,266
				03	6A	78.40	4,597,309	58,639	13	597,650	7,623	ED002	74	3,402,009	43,393	3,999,659	51,016
				04	7A	78.74	800,964	10,172	88	704,848	8,952		0	0	0	704,848	8,952
						160,452,013	2,037,997		128,153,205	1,627,582		3,402,009	43,393	131,555,214	1,670,975		
Dir.Pay.	BW012	20-Mar-16	01	6A	77.57	30,049,770	387,364	13	3,512,027	45,273	ED003	74	19,991,540	257,706	23,503,567	302,979	
Imprest	BW013	05-May-16	01	1	78.60	242,232,508	3,083,883	91	207,335,427	2,639,716		0	0	0	207,335,427	2,639,716	
				02	2	78.40	97,265,910	1,240,637	100	97,265,910	1,240,637		0	0	0	97,265,910	1,240,637
				03	5	78.60	624,855	7,950	94	587,364	7,473		0	0	0	587,364	7,473
				04	7A	78.74	173,409	2,202	88	152,600	1,938		0	0	0	152,600	1,938
						340,296,682	4,334,672		305,341,300	3,889,763		0	0	305,341,300	3,889,763		
Dir.Pay.	BW014	23-Jun-16	01	5	78.40	7,966,561	101,614	94	7,488,568	95,517		0	0	0	7,488,568	95,517	
Dir.Pay.	BW015	29-Jun-16	01	6A	77.57	37,052,991	477,641	13	4,336,393	55,899	ED004	74	24,684,081	318,196	29,020,474	374,096	

Table B-7 Reimbursement Summary, by Application

Acct. Type	Applic. No.	Date	Page	Cat	Exchange Rate (BDT to US\$)	Total Bill Amount (BDT)	Total Bill Amount (US\$)	Reimburs (%)	ADB Reimbursed Amount (BDT)	ADB Reimbursed Amount (US\$)	Grant Applic. No.	Reimburs (%)	GoN Reimbursed Amount (BDT)	GoN Reimbursed Amount (US\$)	Total Reimbursed Amount (BDT)	Total Reimbursed Amount (US\$)
Dir.Pay.	BW016	29-Jun-16	01	6A	77.57	30,310,811	390,729	13	3,552,983	45,801	ED005	74	20,224,672	260,711	23,777,655	306,512
Imprest	BW017	29-Sep-16	01	1	78.40	208,446,710	2,658,759	91	189,686,506	2,419,471		0	0	0	189,686,506	2,419,471
			02	2	78.40	56,809,500	724,611	100	56,809,500	724,611		0	0	0	56,809,500	724,611
			03	3A	78.40	5,490,000	70,026	28	1,537,200	19,607		0	0	0	1,537,200	19,607
			04	3B	78.40	8,922,087	113,802	95	8,475,983	108,112		0	0	0	8,475,983	108,112
			05	5	78.40	6,096,985	77,768	94	5,731,166	73,102		0	0	0	5,731,166	73,102
			06	6A	78.40	36,141,795	460,992	13	4,698,433	59,929	ED006	74	26,744,928	341,134	31,443,362	401,063
			08	6B	78.40	8,620,000	109,949	87	7,499,400	95,656		0	0	0	7,499,400	95,656
			09	7A	78.40	1,584,307	20,208	88	1,394,190	17,783		0	0	0	1,394,190	17,783
			10	7A	78.40	1,585,375	20,222	88	1,395,130	17,795		0	0	0	1,395,130	17,795
			11	7A	78.40	1,595,731	20,354	88	1,404,243	17,911		0	0	0	1,404,243	17,911
			12	7A	78.40	304,456	3,883	88	267,922	3,417		0	0	0	267,922	3,417
			13	7A	78.40	884,047	11,276	88	777,961	9,923		0	0	0	777,961	9,923
						336,480,994	4,291,849		279,677,635	3,567,317			26,744,928	341,134	306,422,563	3,908,451
Imprest	BW018	08-Dec-16	01	6A	78.40	5,385,000	68,686	13	804,655	10,263	ED007	74	4,580,345	58,423	5,385,000	68,686
Dir.Pay.	BW019	09-Jan-17	01	5	78.95	1,599,534	20,260	94	1,503,562	19,044		0	0	0	1,503,562	19,044
Imprest	BW020	02-May-17	01	1	78.84	214,208,421	2,717,002	91	194,929,663	2,472,472		0	0	0	194,929,663	2,472,472
			02	1	78.84	248,912,255	3,157,182	91	226,510,152	2,873,036		0	0	0	226,510,152	2,873,036
			03	2	78.84	89,668,562	1,137,349	100	89,668,562	1,137,349		0	0	0	89,668,562	1,137,349
			04	6A	78.84	33,754,290	428,139	13	4,388,058	55,658	ED008	74	24,978,174	316,823	29,366,232	372,481
			05	6A	78.84	3,033,444	38,476	13	453,273	5,749		74	2,580,170	32,727	3,033,444	38,476
			06	7A	78.84	1,542,815	19,569	88	1,357,677	17,221		0	0	0	1,357,677	17,221
						591,119,787	7,497,717		517,307,385	6,561,484			27,558,345	349,550	544,865,730	6,911,034
Dir.Pay.	BW021	26-Feb-17	01	6A	77.57	43,623,862	562,381	13	4,754,404	61,292	ED009	74	27,063,531	348,892	31,817,935	410,184
Dir.Pay.	BW022	06-Apr-17	01	6A	77.58	10,914,447	140,695	13	1,248,698	16,097	ED010	74	7,107,971	91,627	8,356,669	107,724
			02	6A	77.58	31,422,484	405,059	13	3,594,977	46,342		74	20,463,714	263,793	24,058,691	310,135
			03	6A	77.58	27,536,950	354,972	13	3,150,441	40,612		74	17,933,279	231,173	21,083,720	271,785
						69,873,881	900,727		7,994,115	103,050			45,504,965	586,593	53,499,080	689,643

Table B-7 Reimbursement Summary, by Application

Acct. Type	Applic. No.	Date	Page	Cat	Exchange Rate (BDT to US\$)	Total Bill Amount		Reimburs (%)	ADB Reimbursed Amount		Grant Applic. No.	Reimburs (%)	GoN Reimbursed Amount		Total Reimbursed Amount		
						(BDT)	(US\$)		(BDT)	(US\$)			(BDT)	(US\$)	(BDT)	(US\$)	
Imprest	BW023	22-Jun-17	01	1	78.84	125,870,850	1,596,535	91	114,542,474	1,452,847			0	0	0	114,542,474	1,452,847
			02	2	78.84	15,301,650	194,085	100	15,301,650	194,085			0	0	0	15,301,650	194,085
			03	4	78.84	1,209,410	15,340	100	1,209,410	15,340			0	0	0	1,209,410	15,340
			04	5	78.84	1,518,029	19,255	94	1,426,947	18,099			0	0	0	1,426,947	18,099
			05	6A	78.84	16,135,219	204,658	13	2,216,757	28,117	ED011	74	12,618,463	160,052	14,835,220	188,169	
			06	6B	78.84	3,128,813	39,686	87	2,722,067	34,526			0	0	0	2,722,067	34,526
			07	7A	78.84	303,043	3,844	88	266,678	3,383			0	0	0	266,678	3,383
					163,467,014	2,073,402		137,685,983	1,746,398				12,618,463	160,052	150,304,446	1,906,449	
Dir.Pay.	BW024	06-Jun-17	01	5	80.63	7,976,591	98,928	94	7,497,996	92,993			0	0	0	7,497,996	92,993
Dir.Pay.	BW025	07-Jun-17	01	6A	77.58	29,445,241	379,571	13	3,368,766	43,426	ED012	74	19,176,051	247,194	22,544,817	290,620	
Dir.Pay.	BW026	31-Mar-17	01	6A	77.58	20,192,316	260,294	13	2,310,158	29,780	ED013	74	13,150,130	169,515	15,460,287	199,295	
Dir.Pay.	BW027	06-Jul-17	01	6A	77.58	7,582,956	97,750	13	867,549	11,183	ED014	74	4,938,357	63,659	5,805,906	74,842	
Dir.Pay.	BW028	06-Jul-17	01	5	80.00	8,000,000	100,000	94	7,520,000	94,000			0	0	0	7,520,000	94,000
Imprest	BW029	06-Nov-17	01	1	80.50	407,515,881	5,062,053	91	368,076,256	4,572,169			0	0	0	368,076,256	4,572,169
			02	2	80.50	58,568,916	727,089	100	58,568,916	727,089			0	0	0	58,568,916	727,089
			03	3C	80.50	498,900	6,198	95	473,955	5,888			0	0	0	473,955	5,888
			04	4	80.50	826,850	10,271	100	826,850	10,271			0	0	0	826,850	10,271
			05	6A	80.50	32,250,000	400,422	13	4,192,500	52,055	ED015	74	23,865,000	296,312	28,057,500	348,367	
			06	6A	80.56	13,262,024	164,623	13	1,981,711	24,599			74	11,280,509	140,026	13,262,220	164,625
			07	6B	80.50	6,590,567	81,859	87	5,659,843	70,300			0	0	0	5,659,843	70,300
			08	7A	80.50	2,954,756	36,705	88	2,600,185	32,300			0	0	0	2,600,185	32,300
			09	7A	80.50	1,737,733	21,587	88	1,529,205	18,996			0	0	0	1,529,205	18,996
			10	7A	80.50	2,595,803	32,246	88	2,284,307	28,376			0	0	0	2,284,307	28,376
			11	7B	80.50	450,000	5,590	88	396,000	4,919			0	0	0	396,000	4,919
					527,251,430	6,548,643		446,589,728	5,546,963				35,145,509	436,339	481,735,237	5,983,301	
Imprest	BW030	22-Dec-17	01	1	80.85	94,942,081	1,174,299	91	89,160,489	1,102,789			0	0	0	89,160,489	1,102,789
			02	2	80.85	23,578,085	291,628	100	23,578,085	291,628			0	0	0	23,578,085	291,628

Table B-7 Reimbursement Summary, by Application

Acct. Type	Applic. No.	Date	Page	Cat	Exchange Rate (BDT to US\$)	Total Bill Amount		Reimburs (%)	ADB Reimbursed Amount		Grant Applic. No.	Reimburs (%)	GoN Reimbursed Amount		Total Reimbursed Amount		
						(BDT)	(US\$)		(BDT)	(US\$)			(BDT)	(US\$)	(BDT)	(US\$)	
Imprest	BW030	22-Dec-17	03	5	80.56	6,170,300	76,593	94	5,800,082	71,997	ED016	74	0	0	0	5,800,082	71,997
			04	6A	80.56	23,848,512	296,034	13	3,100,307	38,484			17,647,899	219,065	20,748,205	257,550	
			05	6B	80.56	2,000,000	24,826	87	1,740,000	21,599			0	0	1,740,000	21,599	
			06	7A	80.56	774,099	9,609	88	681,207	8,456			0	0	681,207	8,456	
						151,313,077	1,872,989		124,060,170	1,534,953			17,647,899	219,065	141,708,069	1,754,018	
Dir.Pay.	BW031	18-Dec-17	01	6A	77.58	8,714,858	112,341	13	997,048	12,853	ED017	74	5,675,505	73,162	6,672,553	86,014	
			02	6A	77.58	2,456,507	31,666	13	281,043	3,623			1,599,785	20,622	1,880,829	24,245	
						11,171,365	144,007		1,278,092	16,476			7,275,290	93,784	8,553,382	110,260	
Dir.Pay.	BW032	01-Feb-18	01	5	80.00	4,503,040	56,288	94	4,232,858	52,911			0	0	4,232,858	52,911	
Dir.Pay.	BW033	12-Mar-18	01	6A	77.58	19,036,391	245,393	13	2,177,912	28,075	ED018	74	12,397,345	159,811	14,575,257	187,886	
			02	6A	77.58	30,137,989	388,501	13	3,448,021	44,448			19,627,197	253,009	23,075,218	297,457	
						49,174,381	633,895		5,625,933	72,523			32,024,541	412,820	37,650,474	485,343	
Imprest	BW034	12-Sep-18	01	1	80.85	36,621,970	452,962	91	33,325,993	412,195	ED019	74	0	0	0	33,325,993	412,195
			02	1	80.85	84,779,843	1,048,607	91	77,149,657	954,232			0	0	0	77,149,657	954,232
			03	2	80.85	32,133,465	397,445	100	32,133,465	397,445			0	0	0	32,133,465	397,445
		08-Aug-18	04	6A	80.85	10,571,718	130,757	13	1,374,323	16,998			7,823,071	96,760	9,197,395	113,759	
						164,106,996	2,029,771		143,983,438	1,780,871			7,823,071	96,760	151,806,509	1,877,632	
Dir.Pay.	BW035	20-May-18	01	6A	77.58	41,470,746	534,589	13	4,744,577	61,161	ED020	74	27,007,592	348,148	31,752,169	409,309	
Dir.Pay.	BW036	23-Jul-18	01	5	80.57	3,222,921	40,002	94	3,029,546	37,601			0	0	3,029,546	37,601	
Project Totals						3,710,239,846	47,072,780		3,000,688,286	38,030,612			390,031,487	4,985,575	3,390,719,774	43,016,187	

Table B-8 ADB & GON Disbursement Details

ADB Disbursements

ADB Loan Account

Appl. No	Date	US\$	Rate	BDT
WL001	09-Dec-2014	3,682,433.00	77.85	286,677,409
WI007	17-Dec-2015	11,069,711.00	78.70	871,186,256
BW006	15-Oct-2015		77.80	
BW008	20-Dec-2015	1,198,478.59	78.70	94,320,265
BW013	30-Jun-2016	3,889,762.94	78.40	304,957,414
BW011	02-Oct-2016	1,627,548.73	78.40	127,599,820
BW017	27-Nov-2016	3,567,316.77	78.65	280,569,464
BW018	04-May-2017	10,263.46	78.40	804,655
BW020	02-May-2017	6,561,484.21	78.84	517,307,415
BW023	22-Jun-2017	1,746,397.55	78.84	137,685,983
BW029	06-Nov-2017	4,715,885.93	80.51	379,675,976
BW030	22-Dec-2017	1,148,309.32		17,370,057
BW034	12-Sep-2018	1,708,882.48	80.85	138,163,149
		40,926,473.98		3,156,317,864

Grant Imprest Account

Appl. No	Date	US\$	Rate	BDT
WG002	09-Dec-2014	1,189,354.00	77.85	92,591,209
WG007	17-Dec-2015	20,651.00	78.70	1,625,234
WG008	04-Oct-2016	319,995.00	78.40	25,087,608
ED002	24-Nov-2016	43,392.97	78.63	3,411,989
ED006	24-Nov-2016	341,134.29	78.63	26,823,389
ED007	04-May-2017	58,422.77	78.40	4,580,345
ED008	02-May-2017	349,549.87	78.84	27,558,512
ED011	22-Jun-2017	160,051.52	78.84	12,618,462
ED015	10-Nov-2017	435,718.95	80.66	35,145,091
ED016	22-Dec-2017	218,279.52	77.58	16,934,125
ED019	08-Aug-2018	163,006.75	80.85	13,179,095
		3,299,556.64		259,555,059

Reimbursement

Dir.Pay Applic	Date	Category	ADB & GoN	
			US\$	(BDT)
BW002	22-Sep-2015	2	355,602	27,665,835
BW003	22-Sep-2015	2	460,513	35,827,904
BW009/BW010	23-Feb-2016	6A	204,145	15,836,549
BW012/ED003	20-Mar-2016	6A	302,979	23,503,567
BW014	23-Jun-2016	5	95,517	7,488,568
BW015/ED004	29-Jun-2016	6A	374,096	29,020,474
BW016/ED005	29-Jun-2016	6A	306,512	23,777,655
BW001 (LC)	30-Jun-2016	2	8,687,840	675,998,236
BW019	20-Jan-2017	5	19,044	1,503,562
BW021/ED009	10-Mar-2017	6A	410,184	31,819,987
BW022/ED010	06-Apr-2017	6A	689,589	53,499,087
BW024	06-Jun-2017	5	92,993	7,497,996
BW025/ED012	07-Jun-2017	6A	290,620	22,544,814
BW026/ED013	22-Jun-2017	6A	199,295	15,460,289
BW027/ED014	06-Jul-2017	6A	74,843	5,805,907
BW028	06-Jul-2017	2	94,000	7,520,000
BW031/ED017	12-Jan-2018	6A	110,260	8,553,382
BW032	01-Feb-2018	5	52,910	4,232,857
BW033/ED018	12-Mar-2018	2	485,343	37,650,474
BW035/ED020	08-Jun-2018	6A	61,161	4,744,577
BW036	18-Jul-2018	5	37,601	3,029,546
Totals			13,405,046	1,042,981,265

Total Disbursement

Currency	ADB & GON
BDT Mil	4,459
US\$ Mil	57.63

Total Disbursement is the sum of the ADB Loan and Grant Imprest Account deposits, plus the total ADB & GoN Reimbursement amount.

Appendix-C Administrative Details

Table C-1 Utilization of Consultant Person-Months

No.	Position	Firm	Name	Updated until September 2018		
				Contract	Used	Balance VO-2
MAIN TEAM - INTERNATIONAL						
I-1	Team Leader / River Management Specialist	NHC	Knut Oberhagemann	35.0	26.92	6.58
I-2	Institutional Development Specialist/	EMM	Robert A. van de Putte	5.0	2.51	0.49
I-3	Morphologist	DELTARES	Erik Mosselman	5.0	4.52	-0.02
I-4	River Engineer	NHC	Bruce Walsh	10.0	3.62	0.88
I-5	Construction / Quality Control Engineer	EMM	Basistha Adhikari	24.0	0.87	0.00
I-6	Flood Risk Management Specialist	NHC	Dave Burkholder	12.0	10.70	0.10
I-7	Social Development / Resettlement Specialist	EMM	Jean Louis Leterme	8.0	10.13	0.87
I-8	Economist	NHC	John D. M. Roe	3.0	0.91	1.09
	CRVA (Climate Risk and Vulnerability Assessment)			0.45	-0.45	
I-9	Financial Management Specialist	EMM	J. Spurr	1.5	0.00	0.00
I-10	Hydrologist	NHC	Derek Stuart	3.0	6.61	-1.11
I-11	Environmental Specialist	EMM	Wandert Benthem	7.0	3.90	3.10
I-12	Information and Data Management Specialist	NHC	Dave Burkholder	4.0	6.15	2.35
I-13	Unallocated Engineering Services	NHC	TBN		0.00	44.00
I-13-1	Int'l Construction Advisor-Engineer	NHC	Graeme Vass	3.0	3.00	0.00
I-13-2	Junior Engineer	NHC	Jesper Mathiesen	4.0	14.39	-2.39
	CRVA (Climate Risk and Vulnerability Assessment)			0.36	-0.36	
I-13-3	Numerical Modeller	NHC	Angela Thompson	5.0	7.64	2.36
I-13-4	Unallocated Engineering Services	NHC	Seth Bryant		3.55	0.45
I-13-5	Unallocated Engineering Services	NHC	TBN/Brecht D'Haeyer		1.60	0.40
I-14	Senior Geotechnical Engineer	NHC	Dr. Horst Kramer		0.61	1.39
I-15	River Engineer	NHC	Brad Hall		6.42	-0.92
I-16	Water Resources Specialist	EMM	Hiba Khan		4.05	8.95
I-17	Water Resources Specialist	NHC	Marieke Nlewaal		0.00	0.14
	Design and Specification Engineer	EMM	John Prytherch		2.01	3.99
			Totals	129.50	120.93	71.88
Main Team National						
N-1	DTL / Flood & Erosion Risk Management Spec.	EMM	Sharif Al Kamal	41.5	34.20	5.30
N-2	Institutional / Capacity Development Specialist	RPMC	Dr. M. A. Qassem	10.0	9.86	0.14
N-3	River Engineer (Morphologist)	CEGIS	Dr. Maminul Haque Sarker	8.0	6.54	2.26
N-4	Community-based Flood Risk Mngt. Spec.	RPMC	Quazi Towfique Islam	36.0	32.28	4.72
N-5	Resettlement Specialist	EMM	Shireen Akhter/Begum S. Nahar	15.0	14.68	4.82
N-6	Project Economist	RPMC	Amiul Islam	7.0	7.55	1.95
N-7	Procurement Specialist	RPMC	A. Abdullah Chowdhury / Md Abdullah Sadeque	10.0	1.89	0.23
N-8	Construction Engineer	RPMC	Mirza Harunar Rashid	32.0	32.45	2.55
			Md. Habibur Rahman/Ektedar Rahman	12.0	8.97	0.03
N-10-1	River Engineer Flood Management Infr.- 1	RPMC	Mukhles uz zaman	12.5	14.74	-0.24
N-10-2	River Engineer Flood Management Infr. -2	RPMC	Md. Motiur Rahman	12.5	18.01	2.49
N-11	Social Development and Gender Specialist	EMM	Ruh Afza Ruhi/Begum S. Nahar	12.0	9.13	1.87
N-12	Environment Specialist	EMM	Dr. Md. Nurul Islam/Md. Amir Faisal	16.0	17.86	1.14
N-13	Training Coordinator	EMM	Jahangir Kabir/Shameem Ahmed	14.0	19.29	0.71
N-14	Information and Data Management Specialist	EMM	Asrafuzzamen	15.0	0.00	0.00
N-15	Hydraulic Structural Engineer	RPMC	Md. Dabir Uddin/Aminul Haque Shah	10.0	3.02	-0.02
N-16	Road Engineer	RPMC	Zakir Hossain	6.0	4.21	0.79
N-17	Geotechnical Engineer / Geotechnical Expert (Local)	EMM	Md. Korban Ali / Md. Shamsul Islam	7.0	7.55	-0.55
N-18-1	Site Engineer 1 (PRB-1)	RPMC	Md. Nurul Amin	36.0	33.32	5.68
N-18-2	Site Engineer 2 (JLB-2 Chauhali)	RPMC	KM Nazmul Haque/Ekram Sarder	36.0	8.20	5.80
N-18-3	Site Engineer 3 (JLB-2 Zaffarganj)	EMM	Md Faridul Alam	36.0	29.13	7.87
N-18-4	Site Engineers 4 (PLB-1 Harirampur)	EMM	Abdul Jalil/Saiful Islam	36.0	8.04	5.96
N-19	Surveyor	EMM	Osman Ghani		11.31	1.69
N-20	Unallocated Engineering Services	RPMC	TBN Mukhles uz zaman		1.00	5.0
N-21	Morphologist	CEGIS	Sudipta Kumar Hore		3.03	0.97
					0.00	
			Totals	420.50	336.26	61.16

Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP), Project-1

Table C-1 Utilization of Consultant Person-Months continued ...						
RIVER STUDY TEAM - INTERNATIONAL						
IR-1	Task Leader / Flood & River Management Spec.	NHC	Carsten Stuab	10.0	10.98	0.00
IR-2	Institutional Development Specialist/ Capacity Development Specialist.	EMM	Robert A. van de Putte	3.0	0.50	0.5
IR-3	Morphologist	DELTARES	Sanjay Giri	7.0	5.63	0.7
IR-4	River Engineer (River Training)	NHC	Gerritt Klaassen	7.0	10.33	-0.3
IR-5	Water Resources Management Specialist	DELTARES	W. J. Oliemans	5.0	2.76	-0.3
IR-6	Economist CRVA (Climate Risk and Vulnerability Assessment)	EMM	Alexander Mueller/ John D.M. Roe	4.0	2.47	0.2
IR-7	Social / Regional Development Specialist	NHC	Mark Hopkins	5.0	6.51	-0.3
IR-8	Environmental Specialist	EMM	Wandert Benthem	4.0	3.95	0.1
IR-9	Hydrologist CRVA (Climate Risk and Vulnerability Assessment)	NHC	Malcolm Leytham	5.0	3.06	0.4
IR-10	Climate Change Specialist CRVA (Climate Risk and Vulnerability Assessment)	NHC	Mariza Costa-Cabral		0.87	-0.9
IR-11	Dredging Specialist	NHC	Pieter Van Groen		1.98	0.0
IR-12	urban & Master Planner	NHC	Dr. Douglas Webster		0.09	-0.1
IR-13	Morphologist Modeller	DRS	Mohammed Yossef		1.81	0.2
IR-1	Sedimentologist	NHC	Dan Haught		2.82	0.7
IR-2	Geomorphologist	NHC	Andrew Nelson		1.35	0.2
IR-3	Community Development/ Flood Management Specialist	EMM	Judith de Bruijne		0.77	1.2
IR-4	Report Editor	NHC	Dr.Sara Bennett,		0.83	0.2
IR-5	Report Publisher	NHC	Sabrina Asche		0.18	1.3
			Totals	50.00	59.08	8.60
			Grand Total International	179.5	138.28	80.48
RIVER STUDY TEAM - NATIONAL						
NR-1	Water Resources Management Specialist	RPMC	G M Akram Hossain	10.0	9.92	-0.35
NR-2	Flood Management Specialist	RPMC	Md. Makbul Hossain	6.0	7.55	0.00
NR-3	River Engineer (Morphologist)	CEGIS	Dr. Maminul Haque Sarker	9.0	3.15	0.85
NR-4	Economist	EMM	Dr. Shaker Ahmed	4.0	0.00	0.50
NR-5	Regional / Spatial Planner	RPMC	Dr. Shamim M Haque	4.0	3.37	0.13
NR-6	Institutional Development Specialist	RPMC	Dr. M. A. Qassem	4.0	3.94	0.06
NR-7	River Engineer	RPMC	Md. Motiur Rahman Jewel	8.0	11.70	0.30
NR-8	Hydrologist	EMM	Imdadul Haque Siddiqui	6.0	0.00	0.00
NR-9	Social Development and Gender Specialist	EMM	Ruh Afza Ruhi/ Begum S. Nahar	5.0	3.99	1.01
NR-10	Environment / Climate Change Specialist	EMM	Md. Rakibul Haque/ Amir Faisal	5.0	0.77	1.73
NR-11	Water Supply and Water Quality Specialist	EMM	Md. Mozammel Hossain/ Dr. Khairul Bashar	5.0	3.63	0.37
NR-12	Agriculture Specialist	RPMC	Dr Quazi Reasul Islam	4.0	3.34	0.66
NR-13	Fishery Specialist	RPMC	Dr. Md. S. Howlader	5.0	5.00	5.00
NR-14	Environmental Avisor	EMM	Dr. Alnun Nishat		0.18	0.82
			Totals	75.00	56.55	11.07
			Grand Total National	495.5	351.89	72.23

Appendix-D Status of River Study Technical Notes

Table D-1 Status of River Study Technical Notes

New Number	Old Number	Title	Main Author(s)	Review/Approval	A	B	C	D	E	F	G	Status
					Background information	Morphology - General	Morphology - Bifurcations & Offtakes	River Engineering	Water Resources and Flood Modelling	Social and Environmental Impacts	Land Use & Economic Benefits	
A1	1	Background data, river use, studies and plans	MH	CS	x							Completed
A2	40	Inland Navigation and Dredging	HK	KO	x							Final report expected by mid-July 2018.
B1	2	Holistic river morphology analysis for the Brahmaputra river system	MHS	CS/EM		x						Completed
B2	44	Long term view of Brahmaputra/Jamuna channel planform	AN	EM		x						Completed: 03-Jul-2018.
B3	39	Cross-Section Analysis on Brahmaputra, Jamuna and Padma Rivers	MRJ	GJK		x						Completed; 06-Feb-2018
B4	5	Char characteristics and dynamics – past and present conditions on basis of satellite imagery	MHS	GJK		x						Completed
B5	4	Upper Meghna - present conditions and issues	JAA/MHS	CS		x						Completed
C1	6	River bifurcations: Theory and model experience	EM	KO			x					Completed
C2	7	Anabranching Channels of the Jamuna and Padma Rivers	MHS	CS			x					Completed; 08-Feb-2018
C3	8	River bifurcations: Simplified numerical modelling	AT	SG/GJK			x					Completed
C4	9	Reach 3 and bifurcation: numerical modelling	AT/SG	EM			x					Completed; 08-Feb-2018.
C5	10	Offtake and Flow Dynamics of the Major Rivers	MHS	CS			x					Completed; 06-Feb-2018.
C6	11	Offtakes part 2 Numerical model studies and generic guidelines	MY	EM			x					Completed; 12-Mar-2018.
D1	13	River Stabilization Plan -Technical Basis	GJK	BH				x				Draft expected by end-July-2018.
D2	14	River stabilization of other main rivers	GJK/BH/EM	BH/GJK				x				Draft expanded to include more rivers. Revisions expected by end-July-2018.
D3	15	Earlier proposals and attempts for stabilization of Jamuna River (include capital dredging)	MZ/GJK	BH				x				Report needs to be integrated to include capital dredging. Review expected by early August-2018.
D4	17	Intermediate and final planform alternatives	MRJ	GJK				x				Review expected by mid-August-2018.
D5	18	Feasible techniques and methods for riverbank protection and future channel narrowing	AN	BH				x				Review expected by mid-August-2018.
D6	16	Underwater Apron for Chandpur Confluence	MRJ/AT	SG				x				Completed
E1	19	Main river flood risk and management	Mho/DS	DS					x			Final report expected by mid-July-2018.
E2	20	Flooding numerical modelling	DS	BH					x			Draft report expected by mid-July-2018.
E3	21	Distributaries: Water resources preparation and baseline	WO/ML	ML					x			Completed; 10-Jan-2018
E4	22	Potential Impacts of Flow Augmentation and Study Needs	WO/ML	EM					x			Completed; 17-Apr-2018
F1	23	Socio-economic Aspects	MH/SN	JLL						x		Completed; 07-Dec-2017.
F2	24	Environmental and social aspects of river stabilization: Remedial measures	WB/MH	CS						x		Completed
F3	25	Fisheries Impacts of FRERMIP and their Management: A Pre-project Status Review	SH	CS/WB							x	Completed
F4	27	Long-term effects of river narrowing on water levels	EM	KO							x	Completed; 22-Nov-2017.
F5	36	Effects of sinuosity on channels and bars	MY	EM							x	Completed
F6	26	River stabilization and Sediment Management	GJK/MHS	BH							x	Draft expected by 20-July-2018.
F7	43	Modelling of impact of char land sedimentation	SB/GJK	EM							x	Final draft expected by mid-July 2018.
F8	37	Impact of Earthquake Induced Sediment Supply Variability	EM/AN	GJK/BH							x	Review expected by end-July-2018.
F9	28	Future conditions affecting flows	MCC	ML							x	Completed; 13-Feb-2018
G1	29	Planning the Use of Stabilized and Reclaimed Land, Procedure and Issues	MH	CS							x	Completed
G2	30	Charland amelioration and agriculture development	QRI/AC	AC							x	Completed; 10-June-2018
G3	31	Economic Assessment of River Stabilization	JR/AI	KO							x	Draft received in May 2016. Requires inputs from other Technical Notes.

Abbreviations:

AC = Alan Clark	DS = Derek Stuart	KO = Knut Oberhagemann	MZ = Mukhles uz Zaman
AF = Amir Faisal	EM = Erik Mosselman	MCC = Mariza Costa-Cabral	QRI = Qazi Reasul Islam
AI = Aminul Islam	GJK = Gerrit Klaassen	MH = Mark Hopkins	SB = Seth Bryant
AN = Andrew Nelson	HK = Hiba Khan	MHO = Makbul Hossain	SG = Sanjay Giri
AT = Angela Thompson	JAA = Jakia Akter	MHS = Mamin H. Sarker	SH = Shajahan Howlader
BH = Brad Hall	JLL = Jean Louis Leterme	ML = Malcolm Leytham	SN = Shamsun Nahar
BW = Bruce Walsh	JM = Jesper Mathiesen	MRJ = Motiur Rahman Jewel	WB = Wandert Bernthem
CS = Carsten Staub	JR = John Roe	MY = Mohamed Yossef	WO = William Oliemans

Reports	
23	Completed
8	Draft
4	Under Preparation
35	Total

Appendix-E ISPMC Performance Compliance with ToR

Tasks by ToR	Tasks Done	Current Tasks	Future Tasks
<p>Task-1: Supporting BWDB for institutional capacity strengthening of the holistic and strategic management of the main rivers</p>	<p>1 Inception Report, 12 Quarterly Progress Reports, 1 Mid-term Review Report, have been submitted</p>	<p>The Quarterly Progress Report-13 for July-September quarter is being prepared</p>	<p>The Quarterly Progress Report-13 to 19 will be submitted as scheduled. The Tranche-1 completion report will be submitted at the end of the project in May 2020.</p>
<p>Task-2: Supporting BWDB and DDM for project implementation management of Tranche-1</p>	<p>1. Institutional capacity strengthening: From DPP Budget, 11 Trainings and tours done. From ISPMC Budget, 10 workshops, trainings, conference and round-table discussions were arranged.</p>	<p>1. Institutional capacity strengthening: From DPP Budget, 5 trainings are being implemented.</p>	<p>1. Institutional capacity strengthening: From DPP Budget, 5 more trainings will be implemented in fiscal year 19/20. From ISPMC Budget, 3 more workshops, trainings and conferences will be held.</p>
	<p>2. Data and knowledge base development for flood and river management: basic river survey database, project maintenance database, resettlement and socio-economic survey database for Tranche-2 Feasibility studies have been built.</p>	<p>2. Data and knowledge base development for flood and river management: the river survey database is being populated and preparation being taken for hand-over to BWDB. The project monitoring database is currently being used by the ISPMC to generate quarterly progress reports and assisting PMO.</p>	<p>2. Data and knowledge base development for flood and river management: river survey database will be fully populated and handed over to the BWDB</p>
	<p>3. Support BWDB for supervising physical works: Supervising for Riverbank protection works at three sites since October 2015. The</p>	<p>3. The supervising of embankment construction works is currently ongoing</p>	<p>3. ISPMC will finish supervising the embankment construction works and the river training pilot works and will submit construction completion</p>

Tasks by ToR	Tasks Done	Current Tasks	Future Tasks
	ISPMC submitted 6 construction completion reports for 3 completed riverbank protection sites.		report.
	4. Support DDM for implementing Community-based Flood Risk Management: Implementation NGO has been contracted in August 2018 with the help of ISPMC expert	4. The ISPMC is supporting the NGO for implementing Community-based Flood Risk Management.	4. The ISPMC will support the NGO for implementing Community-based Flood Risk Management. The ISPMC specialist will submit the final report.
Task-3: Supporting BWDB for preparation of Tranche-2, including verification of site selections, feasibility studies, preparation of loan approval documents meeting requirements for the government and ADB	<ol style="list-style-type: none"> 1. Site Selection Report submitted in May 2017 2. Technical and social field surveys completed in December 2017 3. Basic Structural design complete in March 2018 4. Design of non-structural activities completed in March 2018 5. Safeguard, gender and poverty assessment completed in March 2018 6. Project economic assessment completed in March 2018 	Final Feasibility Report and Detailed design update is ongoing and ADB evaluation of safeguard documents ongoing.	Final Feasibility report and detailed design will be submitted based on comments followed by the Department of Environment approval of the Environmental Impact Assessment (EIA) and approval of the DPP through ECNEC.
Task-4: A long-term strategic river stabilization plan study for the Jamuna, Padma and Lower Meghna rivers covering from the Indian border to the estuary (by the river study task team)	Strategic framework on long-term river stabilization plan was presented in a workshop on December 2016. It was submitted on May 2017 and approved by the Technical Advisory Committee on September 2017.	4 main reports are being finalised.	4 main reports with some supplementary annexes will be submitted
Task-5: A preliminary master plan study for river management of the Jamuna-	Draft regional plan has been submitted in September 2018 (part of Task-4)		Final regional master plan will be submitted

Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP), Project-1

Tasks by ToR	Tasks Done	Current Tasks	Future Tasks
Padma-Lower Meghna-Upper Meghna River system network (by the river study task team)			
Task-6: Development, implementation support, and monitoring of land recovery/river training piloting schemes, including piloting using building with nature concept (by the river study task team)	ISPMC has assisted PMO, BWDB on preparing technical specifications and bid documents for implementing grout-filled jute mattress as riverbank protection works as a part of river training piloting schemes for first contract.	ISPMC is currently assisting PMO, BWDB on the mobilizing of the contractor.	Second Pilot works contract will be prepared.
Task-7: Hydraulic and morphological analyses for the Jamuna-Meghna and Jamuna-Padma-Ganges confluences (by the river study task team)	Included in Task-4	Included in Task-4	Included in Task-4

Appendix-F Revised Gender Action Plan

GAP IMPLEMENTATION MONITORING

Quarterly Progress Report on Revised³ Gender Action Plan (GAP)

Of

Flood and Riverbank Erosion Management Investment Program (FRERMIP) Tranche-1

Project Title:	Flood and Riverbank Erosion Management Investment Program (FRERMIP) Tranche-1	
Date of Update:	30-09-2018	Submission Date: 07-10-2018
Agency:	Bangladesh Water Development Board	
Timeframe:	2015-2019	
Gender Category:	EGM	
Project Impact (from PAM):	The expected impact of the investment program will be improved livelihoods of people in the project area along the main rivers in Bangladesh.	
Project Outcome (from DPP log frame):	The outcome of the program will be reduced flood and riverbank erosion risks in the subproject reaches	
Whether there is a Gender Action Plan:	Yes	
Is there a Gender Specialist:	Yes; a Gender Specialist (intermittent basis) in Institutional Strengthening Project Management Consultants (ISPMC) Team and a Gender Focal Point in Project Management Office (PMO);	
If not, how gender mainstreaming is supported?	N/A	

³ During MTR Mission February 2018

Features of Revised Gender Action Plan

Output/Activities/Targets	Progress of Reporting Quarter (July - September 2018)	Cumulative Progress up to September 2018	Remarks
Output I: Flood and riverbank erosion risk mitigation functioning at priority reaches			
A1 Construction of riverbank protection structures using appropriate technology and methods A1-2 Rehabilitation/construction of embankments			
1.Ensure women benefit from employment in construction Target 1.1: Specific condition included contractors' bidding document whereby 5% unskilled labor opportunities be given to women ⁴	1.1: During this quarter, no construction work held at the sites due to monsoon flood so no labor worked any of the sites.	1.1: A total of 951 female labors (5% of total) out of total labor force 20433 worked in construction sites.	
2.Ensure gender-related aspect of labor standard including equal wage for women and men for equal work Target 2.1 Orientation sessions targeting 45 SMO staffs (at least one orientation in each SMO) i.e. SDE, Section Officers, surveyors and contractors' site manager, site engineer and supervisors to verify and ensure that conditions are met	2.1: Project Director has approved training guidelines and session schedule for the "Orientation session for SMO" and agreed to implement in upcoming quarter;	2.1: Project Director has approved training guidelines and session schedule for the "Orientation session for SMO" and agreed to implement in upcoming quarter;	
3. Ensure occupational health and safety, safe water supply, sanitation is in place (incl. separate toilets) Targets: 3.1: Provisions for either separate toilets for women or arrangements for use of facilities in nearby communities and/or households 3.2: Sex-disaggregated information in field monitoring quarterly reports and contractors' compliance reports	3.2: Sex-disaggregated data collection is on-going process	3.1: In 2-places separate toilet for women arranged with nationhood and 2-places built newly by the contractors; 3.2: Sex-disaggregated data collection is on-going process	

⁴ Given the (large) physical infrastructure supported under the Loan, the EA requested the ADB to reduce the target for women's engagement to 5-10% range in light of the major change in design of geo-bags for better river bank stability which -initially estimated at 125 kg/bag- were revised upward to 250 kg/bag. The heavy weight filling and stitching of geo-bags on barges and the strenuous dumping methods resulted in women's reluctance to be involved in these activities.

Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP), Project-1

Output/Activities/Targets	Progress of Reporting Quarter (July - September 2018)	Cumulative Progress up to September 2018	Remarks
A2 Formulating community disaster management units			
4. Form 40 Community Disaster Management Units (CDMUs) Target: 4.1: CDMUs (40) -consisting of 15 male and female volunteers/each-established with minimum 33% units led by women (baseline=0).	In progress		These issues have been incorporated to the TOR of INGO for CDMU that has been recruited recently; so, work is yet to be started
5. Develop a community flood risk assessment and community risk reduction plan Targets 5.1: Community Flood Risk Assessment prepared identifying: (i) risks for women, men, children and vulnerable groups; and (ii) disaster response mechanism related to flood and erosion warning; 5.2: Community Risk Reduction Plan 20 plans prepared for 40 Units through participation of women volunteers specifying roles, provisions for women and men in terms of disaster preparedness at HH and community level; (iii) risk reduction measures 5.3: 60 locations identified and build community flood markers for flood warning information	In progress		
A3 Formulating community disaster management units			

Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP), Project-1

Output/Activities/Targets	Progress of Reporting Quarter (July - September 2018)	Cumulative Progress up to September 2018	Remarks
<p>6. Initiate community-based flood warning dissemination procedures building on indigenous techniques</p> <p>Target 6.1: 50% of the units have flood warning mechanisms [Source: end-line beneficiary survey]</p>	In progress		These issues have been incorporated to the TOR of INGO for CDMU that has been recruited recently; so, work is yet to be started
<p>7. Disseminate regular warning messages in relevant to local context/language in line with national warning network</p> <p>Targets:</p> <p>7.1: 20 knowledge events held [Target: 100 women]</p> <p>7.2: 50% of households, including low-income households, and poor women living on the embankment participate have increased resilience through preventive measures at household level ([Source: end-line beneficiary survey])</p>	In progress		
A4 Construction of resettlement areas with basic infrastructure and facilities			
<p>8. Ensure effective consultation with women in the affected areas and maintain sex- disaggregated data on Project Affected Persons (PAPs) along with entitlement benefits, as per Resettlement Plan (RP)</p> <p>Target 8.1: Full compensation for 100% women PAPs as per RP entitlement.</p>	8.1: Total 1069 APs (35 women) received resettlement grant and replacement cost while a total of 1281 EPs (45 women) received CCL through DC office.	8.1: A total of 264 women APs out of 2695 APs are eligible for entitlement benefits;	<ul style="list-style-type: none"> Until now a total of 1069 APs (35 women) received resettlement grant and replacement cost while a total of 1281 EPs (45 women) received CCL payment

Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP), Project-1

Output/Activities/Targets	Progress of Reporting Quarter (July - September 2018)	Cumulative Progress up to September 2018	Remarks
		through respective DC office.	
9.Ensure that gender issues are considered when planning resettlement villages and community facilities Target 9.1: 33% women involved in planning meetings	9.1: It is ensured that 33% women involved in planning meetings.	9.1: It is ensured that 33% women involved in planning meetings.	
Output II: Strengthened Institutional Systems for Flood and Riverbank Erosion Risk Management			
A5 Capacity enhancement of BWDB			
10. Integrate a gender-specific module in the BWDB training			
11. Build capacity of female staff in BWDB Targets: 11.1: 10% women in training programs 11.2: Provide 3 training (1 in BWDB HQ, 1 in design office and 1 in 3 SMOs) to at least 60 women staff in BWDB on working as women in BWDB – Challenges and issues	11.2: Project Director approved and preparatory work has been done for the “training/orientation session for SMOs” that will be conducted in coming days.	In June 2017, 1 (one) Gender specific course has been held for building capacity of female staff in BWDB HQ. Out of 32 participants, 25 were female. The main discussions were Importance of gender in water management project and concept of gender with government’s commitment. ADB’s Gender Specialist attended as resource person in this workshop.	
Output III: Program Management Systems Operational			
A6: Implementation management			
12.Establish MIS system with sex disaggregated data base for project reporting Target 12.1: Identify gender indicators, incorporate in monitoring system and ensure regular reporting on progress of GAP implementation	12.1: Using data from MIS for regular reporting on progress of GAP implementation	12. Established MIS system with sex disaggregated data base for project reporting 12.1 Using data from MIS for regular reporting on progress of GAP implementation	

Notes:

1. Quarterly Progress Report (QPR) is prepared based on revised version of Gender Action Plan, revised during ADB MTR Mission held in February 2018;
2. Based on project MIS, all activities and its' progress were reviewed and reported in the form of
 - i) Cumulative Progress; and
 - ii) Progress of Reporting Quarter with some explanations where necessary;

Issues/ Challenges with proposed measures to address them:

- (i) Capacity building of the women of the affected households through Income Generating and Livelihood Development Activities;
- (ii) Empowerment of women in the family affected by the river erosion is not impossible but very difficult due to change of location frequently as well as male domination and women are not willing to come forward;
- (iii) Extra effort is needed to ensure at least 5-10% involvement of women in construction work due to heavy duty and some areas are very conservative towards women's working outside home or beyond household work;

Comments/ Remarks:

FRERMIP is working to implement GAP for livelihood development and empowerment of women.

Compiled by:

Begum Shamsun Nahar
Social Development and Gender Specialist
ISPMC, FRERMIP, BWDB, Dhaka

Reviewed by:

Mr. A. M. Mustofa Sorwar
Executive Engineer
Flood and Riverbank Erosion Risk Management Investment Program
Bangladesh Water Development Board

Appendix-G Compliance with Loan and Grant Agreement Covenants

Reference	Covenants	Status
Para. 1, Schedule 5	The Borrower and BWDB shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the FAM. Any subsequent change to the FAM shall become effective only after approval of such change by the Borrower, BWDB, and ADB. In the event of any discrepancy between the FAM and this Loan Agreement, the provisions of this Loan Agreement shall prevail.	Being complied.
Para. 2, Schedule 5	The Borrower and BWDB shall ensure that the PMO, the SMOs and the PMU employ sufficient staff for the duration of the Investment Program with adequate and relevant expertise in the field of project management, financial management, engineering, procurement, environmental and social safeguards implementation. The Borrower and BWDB shall keep the PMO, the SMOs and the PMU equipped with the necessary office space, facilities, equipment, transport arrangements, support staff and management information systems for the entire duration of the Investment Program.	Being complied.
Para. 3, Schedule 5	The Borrower and BWDB shall (a) ensure that all counterpart staff assigned to the PMO and each Sub-divisional Engineer assigned to the SMOs are allocated to the Investment Program and the Project on a full-time basis; and (b) undertake best efforts to ensure that all persons assigned to the PMO, SMOs and the PMU remain in their positions for a reasonable period of time and that staff replacements will not unduly disrupt implementation of the Investment Program and the Project. The Borrower and BWDB shall provide ADB reasonable opportunity to comment on any proposed appointment of persons to key positions in the PMO, SMOs, including, without limitation, the position of Project Director of the PMO and Executive Engineer of each SMO.	Being complied.
Para. 4, Schedule 5	The Project Director of the PMO shall hold the position not less than the rank of Superintending Engineer.	Complied.
Para. 5, Schedule 5	ADB acknowledges that BWDB is in the process of seeking approval for its proposal entitled "Need-Based Set-up of BWDB 2013", and that, if adopted, the new set-up would create a separate office in BWDB with responsibility for flood and riverbank erosion risk management, led by the Chief Engineer River Management. Should this proposal, or any other proposal to reorganize BWDB that may have implications on the implementation of the Investment Program and the Project, be adopted, the Borrower and BWDB shall consult in good faith and agree with ADB on any changes to the implementation arrangements laid down in the FAM, FFA and/or the PFR before taking any affirmative action thereon.	Being Complied.
Para. 6, Schedule 5	In the unforeseen event that the Borrower cannot avail of the proceeds of the Grant when needed, the Borrower shall undertake best efforts to find an alternative source of funding for the expenditures set out in the	To be complied.

	Grant Agreement, failing which ADB may require the Borrower to seek a reduction of the Project scope. In all other respects, the Borrower shall make available to BWDB all counterpart funds required for timely and effective implementation of the Project, including, without limitation, any funds required to keep the PMO and the SMOs fully equipped and fully staffed in accordance with the requirements set out in the FAM, to mitigate unforeseen environmental and social impacts, and to meet additional costs arising from design changes, price escalation in construction costs and/or unforeseen circumstances. The Borrower shall make the resources thus required available to BWDB on a quarterly basis for each fiscal year.	
Para. 7, Schedule 5	The Borrower shall reimburse BWDB for any taxes and duties imposed in the territory of the Borrower for Goods, Works and Consulting Services used in carrying out of the Project no later than the fiscal year after the year in which the taxes and duties were incurred.	Being complied.
Para. 8, Schedule 5	The Borrower and BWDB shall ensure that each Subproject area is selected and approved in accordance with the selection criteria and approval process set out in Schedule 4 of the FFA. The Borrower and BWDB shall ensure that all relevant documents forming the basis for screening, selection and processing of Subproject areas are made available to ADB upon request and are kept available for such purposes for a minimum period of five years from the date of the project completion report for the Project.	Complied for Project-1. To be complied for succeeding tranches.
Para. 9, Schedule 5	The Borrower and BWDB shall ensure that the preparation, design, construction, implementation, operation and decommissioning of all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective EIA and EMP, and any corrective or preventive actions set forth in a Safeguards Monitoring Report.	Being complied.
Para. 10, Schedule 5	The Borrower and BWDB shall ensure that all land and rights-of-way required for all Project facilities are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; (c) the RF; (d) all measures and requirements set forth in the respective RP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being complied.
Para. 11, Schedule 5	Without limiting the application of the Involuntary Resettlement Safeguards, the RF or the RP, the Borrower and BWDB shall ensure that no physical or economic displacement takes place in a Subproject area until: (a) compensation and other entitlements have been provided to affected	Being complied.

	people in accordance with the relevant RP; and (b) a comprehensive income and livelihood restoration program have been established in accordance with the relevant RP	
Para. 12, Schedule 5	The Borrower and BWDB shall ensure that the Project does not have any indigenous people's impacts within the meaning of ADB's Safeguard Policy Statement (2009). In the unforeseen event that the Project does have any such impact, the Borrower and BWDB shall take all steps required to ensure that the Project complies with the applicable laws and regulations of the Borrower relating to indigenous peoples and with ADB's Safeguard Policy Statement.	Complied.
Para. 13, Schedule 5	The Borrower and BWDB shall make available the necessary budgetary and human resources to fully implement the EMPs and the RPs.	Being complied.
Para. 14, Schedule 5	The Borrower and BWDB shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures and requirements relevant to the contractor set forth in the relevant EIA; EMP and RP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report; (b) make available a budget for all such environmental and social measures;	Being complied.
Para. 14, Schedule 5	(C) provide BWDB with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the relevant EIA, EMP or RP; (D) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and (e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	Being complied.
Para. 15, Schedule 5	No later than 6 months after effectiveness, the Borrower and BWDB shall engage qualified and experience external experts or qualified NGOs under a selection process and terms of reference acceptable to ADB, to verify information produced through the Project monitoring process in respect of land acquisition and involuntary resettlement, and facilitate the carrying out of any verification activities related to land acquisition and involuntary resettlement by such external experts.	Complied.
	The Borrower and BWDB shall report any actual or potential breach of compliance with the measures and requirements set forth in an EMP or RP promptly after becoming aware of the breach.	Being complied.
	The Borrower and BWDB shall promptly inform ADB of the occurrence of any unanticipated environmental and/or social risks and impacts that would arise during construction, implementation or operation of the Project that were not considered in the relevant EIA, EMP or RP, in	Being complied.

	detailed description of the event and proposed corrective action plan.	
	The Borrower and BWDB shall submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission.	Being complied.
Para. 16, Schedule 5	The Borrower and BWDB shall ensure that no proceeds of the Loan and/or the Grant are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.	Being complied.
Para. 17, Schedule 5	The Borrower shall ensure that all bidding documents and contracts for construction or civil works under the Project contain provisions that require contractors: (a) to comply with applicable core labor standards, labor laws and incorporate applicable workplace occupational and health and safety principles;	Being complied.
Para. 20, Schedule 5	(b) to eliminate discrimination in respect of employment and to not differentiate payment between men and women for work of equal value; (c) not to employ child labor; to eliminate forced or compulsory labor; to allow for freedom of association; (d) to maximize employment of local poor and disadvantaged persons for construction purposes to the extent possible, provided that the requirements for efficiency are adequately met; (e) to disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmittable infections, including HIV/AIDS, to their employees and to members of the local communities surrounding the Project facilities, particularly to females; and (f) to implement the applicable provisions of the GAP developed for the Investment Program.	Being complied.
Para. 18, Schedule 5	The Borrower and BWDB shall comply with and implement the GAP in accordance with its terms, allocate adequate resources for such implementation, and shall monitor and report to ADB on key gender outcome and output targets in accordance with the project performance and monitoring system to be developed for the Investment Program and the Project.	Being complied.
Para. 19, Schedule 5	To ensure that all under water works or riverbank protection facilities to be constructed under the Project are carried out in accordance with the applicable design standards, specifications and construction methods, external experts shall inspect each selection completed under each Works contract using high resolution underwater echo sound surveying equipment with technical specifications acceptable to ADB and through diving inspections. BWDB shall ensure that all survey and inspection	Being complied.

	results are made available to ADB upon request and are kept available for such purposes for a minimum period of five years of the project completion report of the Project.	
Para. 20, Schedule 5	If and when ADS may so request from time to time, BWDB shall recruit and engage experts with qualifications, experience and terms of reference acceptable to ADB in order to analyze difficulties or constraints encountered in implementing the Investment Program or the Project, and advise on remedial measures or technological innovations to promote efficiency in project implementation.	To be complied.
Para. 21, Schedule 5	BWDB shall timely notify the Bangladesh Inland Water Transportation Authority, DDM and other relevant agencies of any areas where riverbank protection infrastructure will be or has been constructed. BWDB shall take necessary measures in consultation with such agencies to ensure that dredging or construction works undertaken by such agencies do not cause any damage to the riverbank protection infrastructure.	Being complied.
Para. 22, Schedule 5	The Borrower and BWDB shall ensure that (a) BWDB inspects and maintains the embankments, regulators and riverbank protection works rehabilitated or constructed under the Project in accordance with the operation and maintenance plans to be developed under the Investment Program and/or the Project.; (b) BWDB submits annually to the Ministry of Water Resources budget requests with a separate line item to cover the cost of maintenance and repair of the embankments, riverbank protection works and regulators in accordance with such operation and maintenance plans; and (c) the Borrower will allocate in its annual budget adequate resources for BWDB to carry out such maintenance and repair works and make the resources thus allocated available to BWDB on a quarterly basis.	To be complied.
Para. 23, Schedule 5	BWDB shall create strategic stockpiles of geo-textile bags for emergency riverbank protection works and repairs in accordance with the emergency and operation and maintenance plans to be developed under the Investment Program and/or the Project.	To be complied.
Para. 24, Schedule 5	BWDB shall provide local communities with land use rights for embankment land-side slopes rehabilitated or constructed under the Project through five-year lease contracts that are designed to promote livestock grazing, cultivation of trees or other suitable vegetation, or other activities conducive to embankment maintenance in a manner consistent with the operation and maintenance plans to be developed under the Investment Program and/or the Project.	To be complied.
Para. 25, Schedule 5	The Borrower and BWDB shall remain committed to the road map and the policy framework underlying the Investment Program and implement the policy and institutional reform actions identified under	Being complied.

	the road map in accordance with the time schedule set out therein.	
Para. 26, Schedule 5	The Borrower and BWDB shall keep ADS informed, through the Water Consultative Committee or otherwise, of discussions (a) among government and quasi-government bodies with responsibility for water sector development; and (b) with Japan International Cooperation Agency ("JICA"), the Kingdom of the Netherlands, World Bank and other multilateral and bilateral agencies, that have implications for the implementation of the Investment Program, and shall provide ADB with an opportunity to comment on any proposed interventions in the water sector resulting from such discussions. The Borrower and BWDB shall take ADB's views into consideration before finalizing and implementing any such proposals.	Being complied.
Para. 27, Schedule 5	The Borrower and BWDB shall (a) comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation	Being complied.
Para. 28, Schedule 5	The Borrower and BWDB shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of BWDB and all contractors, suppliers, consultants, and other service providers as they relate to the Project.	Being complied.
Para. 29, Schedule 5	The Borrower and BWDB shall announce the Project and business opportunities associated with the Project on their websites. In addition, the websites shall at least disclose the following information in relation to Goods, Works and Consulting Services procured for the Project: (a) the list of participating bidders; (b) the name of the winning bidder; (c) the amount of the contracts awarded; and (d) the Goods, Works and Consulting Services procured.	Being complied.
Para. 30, Schedule 5	The Borrower shall conduct periodic inspections and random spot checks of civil servants' and contractors' activities related to the procurement of Goods, Works and Consulting Services and to fund withdrawals and settlements under the Project.	Being complied.

Appendix-H Capacity Building

Table 6.1 Status of Local Trainings, PMO-FRERMIP

Item	Trainees	Number	Unit	Status	Time	Executing Agency
River Engineering	20	2	Course	Complete	April 2016	BUET
River Training Techniques	20	2	Course	Complete	February 2017	BUET
Riverbank Protection	20	1	Course	Complete	July 2018	BUET
Survey and Evaluation	10	1	Course	Pending	N/A	IWM
Resettlement Environment	15	1	Course	Pending	N/A	CEGIS
Capacity Building for DDM	15	2	LS	Pending	N/A	N/A

Table 6.2 Status of Overseas Training/Study Tour, PMO-FRERMIP

Item	Trainees	Number	Unit	Status	Time	Place
River Morphology	8	1	Course	Complete	September-October 2016	The Netherlands
River Training Techniques	8	1	Course	Complete	June-July 2017	The Netherlands
Study Tour-1	5	1	Tour	Complete	August 2016	China
Study Tour-2	10	1	Tour	Complete	October 2017	America-Canada
Study Tour-3	10	1	Tour	Complete	June 2018	Australia
Study Tour-4	10	1	Tour	Complete	September 2018	The Netherlands and Germany
Study Tour-5	5	1	Tour	N/A	N/A	N/A
Study Tour-6 (Asian Countries)	8	1	Tour	N/A	N/A	N/A
Study Tour-7 (Asian Countries)	8	1	Tour	N/A	N/A	N/A

Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP), Project-1

Implementation Progress of Training Activities by ISPMC

Sl.	Description	Completed			Date			Remarks
		No. of Courses	No. of Trainees		FY 15-16	FY 16-17	FY 17-18	
			M	F				
ISPMC Line Item-1: Workshops, Training and Seminars (Provisional Sum)								
A.	Workshops							
1	Workshop on Draft Inception Report	1	83	40	123	09-Dec-2015		Pan Pacific Sonargaon, Dhaka
2	River Stabilization and Preliminary Master Plan	1	99	41	140	07-Dec-2016		Pan Pacific Sonargaon, Dhaka
3	National Stakeholder Workshop on the River Stabilization Plan	1	170	80	250		29-Nov-2017	Hotel Radisson, Dhaka
Sub Total		3	352	161	513			
B.	Training:							
1	Training on Environmental Management at 3 sites	3	30	0	30	26-28 Apr-2016		Chauhali, Harirampur & Zaffarganj
2	Training on International River Stability	1	90	20	110		08-Dec-16	Level-4 of WAPDA Building
3	Training for Task Force on Sand-filled Geotextile Bags	1	24	0	24		22-Dec-16	Level-4 of WAPDA Building
4	Training: Gender Awareness for BWDB Engineers	1	7	25	32		31-Jul-17	BWDB Design Office Conference Room
Sub Total		6	151	45	196			
C.	Conferences & Discussions							
1	International Conference on Scour and Erosion	1	3	0	3		12-15 Sep-2016	Oxford University, UK With the DG, BWDB & PD, FRERMIP
2	International Large Rivers Conference	1	3	0	3		17-22 Apr-2017	Delhi, India with solely ISPMC
3	a) Round Table Discussion: River Management	1	20	0	20	28-Mar-16		Pan Pacific, Sonargaon
	b) Round Table Discussion: Presentation from the DG,	1	20	0	20	25-May-16		Lake Castle, Gulshan
	c) Round Table Discussion: Capacity Development	1	30	0	30		28-Oct-16	Pan Pacific Sonargaon
Sub Total		5	76	0	76			
ISPMC Totals		14	579	206	785			

Appendix-I Database Inventory

Bathymetric Survey Summary

Projects	Surveys	End Date	Start Date
Bazar Station Groyne Sirajganj	16	2014-Jul-12	1998-Jun-17
Betil Spur	10	2014-Sep-20	2002-Oct-26
Chandan Baisha groyne	5	2011-Nov-26	2002-Jul-05
Chandpur	6	2003-Aug-01	2001-May-01
Chauhali	17	2018-Sep-24	2016-May-04
East Guide Bund	10	2004-Jul-25	2004-Apr-11
Enayetpur Spur	27	2016-Aug-20	2002-Oct-26
Ganges	4	2001-Oct-19	2001-Oct-19
Harirampur	11	2018-Sep-11	2012-Jun-15
Hasnapara Spur	1	2002-Jul-30	2002-Jul-30
Kalitola Groyne	56	2016-Oct-28	2001-Sep-04
Koijuri	8	2017-Nov-09	2004-Nov-23
Lower Jamuna Full River	10	2018-Sep-10	2015-Sep-15
Mathuapara Groyne	66	2016-Aug-08	1998-Dec-23
MDIP	8	2009-Jan-15	2006-Aug-23
Meghal Spur	25	2016-Jul-31	2001-Sep-01
PIRDP	107	2011-Nov-15	1992-Apr-30
Ranigram Sirajganj	442	2016-Aug-03	1998-May-30
Sailbari Revetment	11	2003-Oct-17	2001-Sep-08
Sailbari Revetment Down	23	2016-Jul-13	1998-Oct-02
Sailbari Revetment Up	43	2016-Jul-13	1998-Oct-02
Sariakandi Groyne	45	2016-Aug-08	2001-Oct-29
Simla Spur	13	2016-Sep-11	2003-Oct-26
Sirajganj Full River	81	2016-Sep-11	1998-Jun-17
Sirajganj Revetment	1057	2016-Dec-20	1998-May-06
Subagacha Spur	9	2013-Jul-04	2001-Sep-01
Zaffarganj	8	2018-Sep-09	2016-Jul-19
Drone Survey	4	2018	
Total	2123		

Appendix-J Photo Annex



Germany and the Netherlands Tour, 2018



Germany and the Netherlands Tour, 2018



Australia Tour on “Geofabrics Geotextile & the coastal protection works”



Australia Tour on “Geofabrics Geotextile & the coastal protection works”



Contract signing at DDM between Ms. Nurun Nahar Chowdhury (sitting right), Deputy Director, Department of Disaster Management (DDM), and Project Manager, CbFRM, and Muhammad Saidur Rahman (sitting left), Director and Team Leader of BDPC.



Chauhali Project Office, BDPC



Senior Community Mobilization Expert (SCME) Mr. Barkat Ullah of BDPC presents a brief introduction on CBFMR at Chouhali UzDMC.



The ISPMC explains to Senior Community Expert Mr. Moley Chaki about the peculiarities of ward selection in ward 4 of Jalalpur union, Shahjadpur upzilla.



Chauhali 23 September 2018 at the time of the last flood peak



Chauhali 23 September 2018 at the time of the last flood peak



Chauhali, 23 September, downstream failure



Chauhali, 23 September upstream outflanking erosion addressed by BWDB, Tangail Division