

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)**

QUARTERLY PROGRESS REPORT NO. 11

FOR

JANUARY - MARCH 2018

Prepared by:

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496
15 May 2018

To
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**Subject: Submission of Quarterly Progress Report No. 11
January - March 2018.**

Reference: **As per Institutional Strengthening and Project Management Consulting Services
Contract, Clause 9 (i), Page 35**

Dear Sir,

Please find enclosed Quarterly Progress Report No. 11 for the period January – March 2018 for the Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP) – Project 1. This report has been prepared in close discussion with your office, using information available in the Revised (May 2017) Development Project Performa and considering the Facility Administration Manual.

The quarterly progress report documents the status of project and progress made during the reporting quarter. When required, it identifies changes to the key assumptions and possible risks to project implementation. This report was prepared by ISPMC with contributions, assistance and cooperation of the Bangladesh Water Development Board (BWDB).

This Quarterly Progress Report includes a new Appendix which shows compliance with Loan Agreement Covenants. We look forward to further comments from BWDB, ADB and others on this report.

Yours sincerely,

JV Northwest Hydraulic Consultants – Euroconsult Mott MacDonald

Sharif Al kamal
(Deputy Team Leader)

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ABBREVIATIONS AND ACRONYMS

ADB	-	Asian Development Bank
ADP	-	Annual Development Programme
BDT	-	Bangladesh Taka
BRM	-	Bangladesh Resident Mission
BWDB	-	Bangladesh Water Development Board
CbFRM	-	Community-based Flood Risk Management
CEGIS	-	Center for Environmental and Geographic Information Services
CRO	-	Chief Resettlement Officer
DG	-	Director General
DDM	-	Department of Disaster Management
DPP	-	Development Project Performa
EKN	-	Embassy of the Kingdom of the Netherlands
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
MDIP	-	Meghna-Dhonagoda Irrigation Project
Mil	-	Million (1,000,000)
MIS	-	Management Information Systems
MoDM	-	Ministry of Disaster Management
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
QPR	-	Quarterly Progress Report
SMO	-	Sub-Project Management Office
ToR	-	Terms of Reference
USD	-	United States Dollars

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Figure 0.1. Project Location Map

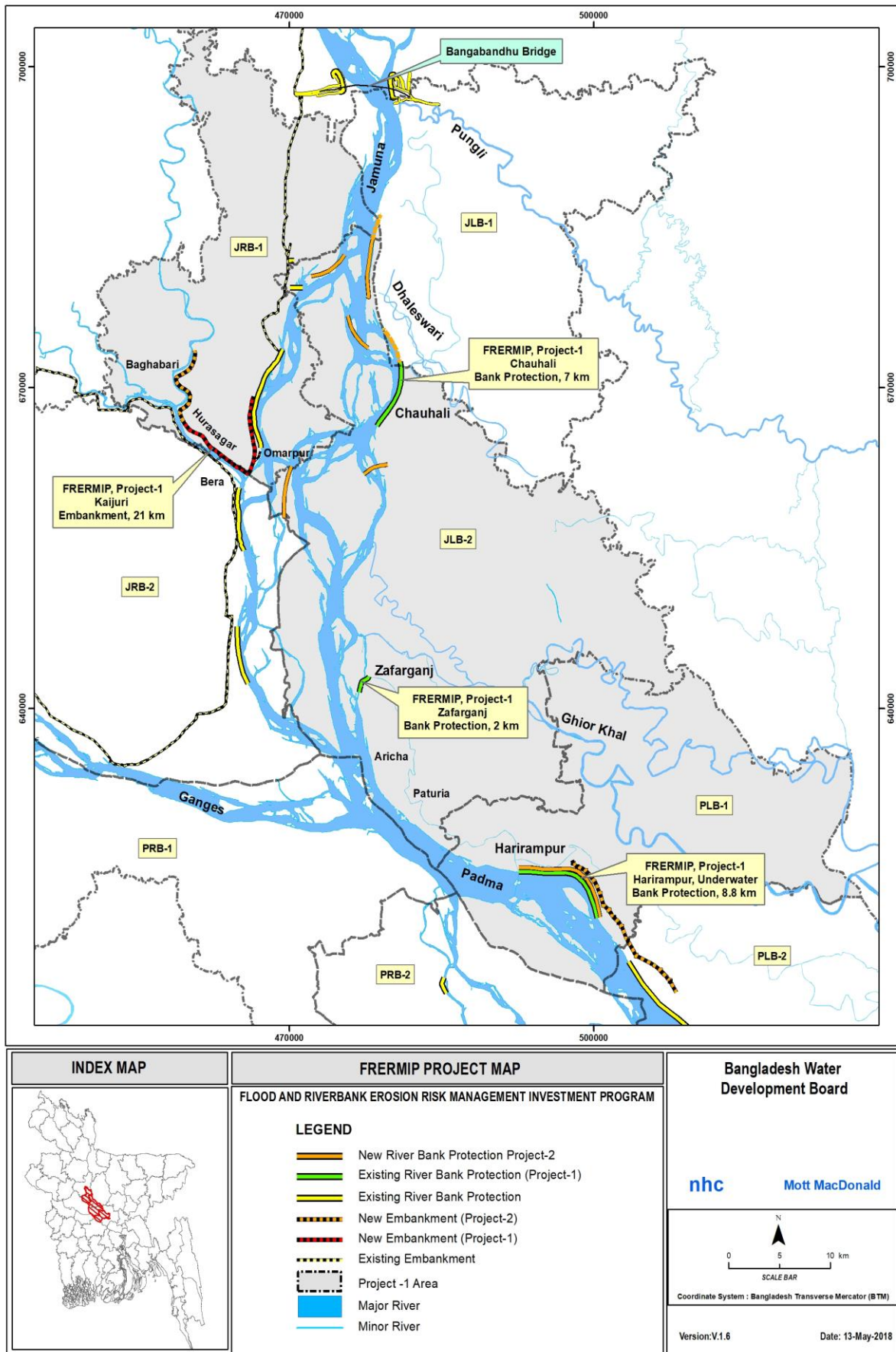


Table 0.1 Progress at a Glance
Table 1 Project Progress at a Glance

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 - Project 1					
Country	Bangladesh					
Borrower	People's Republic of Bangladesh					
Executing Agency	Bangladesh Water Development Board					
Implementing Agency	Department of Disaster Management					

2. Financing				
Modality and Sources	Projects (\$ million)			Amount (\$ million)
	I	II	III	
Asian Development Bank (ADB)	61.2	100	90	251.2
Government of The Netherlands (GON)	13.7	0	0	13.7
Government of Bangladesh (GOB)	33.5	45.3	34.8	113.6
Total	108.4	145.3	124.8	378.5

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	2019 June 30	2021 December 31	2023 June 30

Milestone	Date
Last ADB Review Mission	27 February-07 March, 2018

4. Assets and Physical Progress						
Proposed Project Assets	Goods	Services	Works	eXtra	Total	Available
Project Program Best Estimate (Tk Mil)	1399	1220	3540	2514	8673	8685

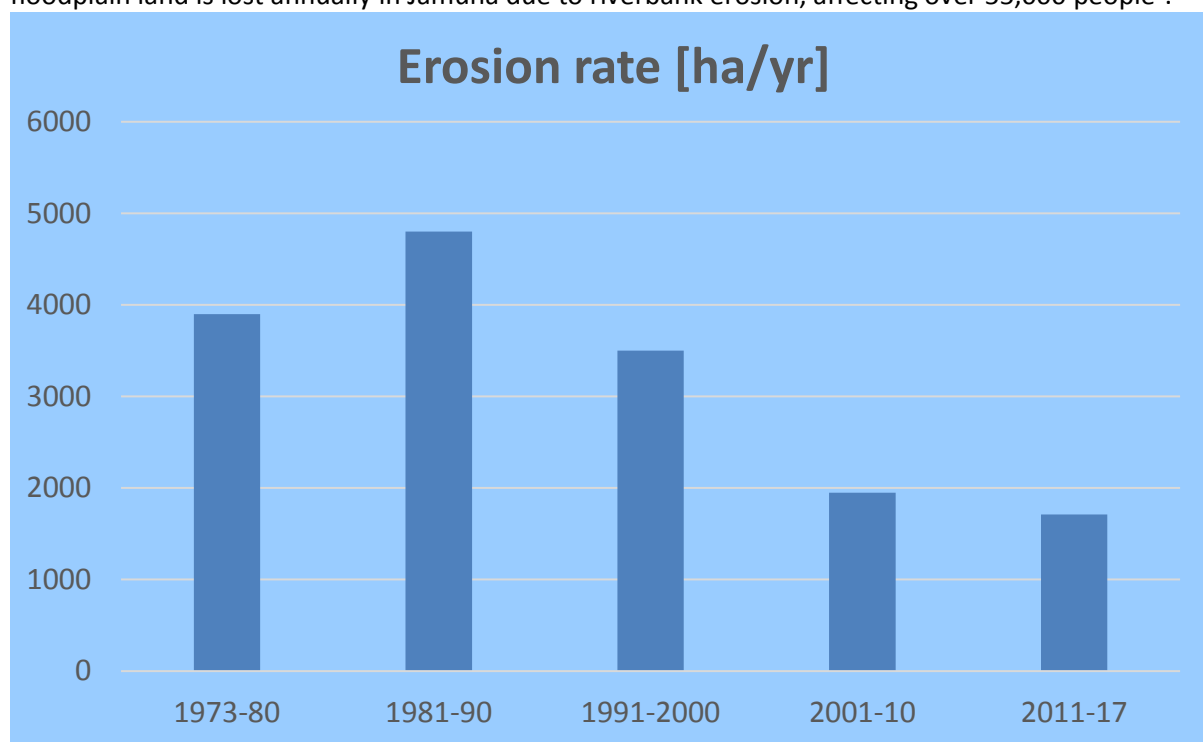
Primary Component	Secondary Component	Assigned Weight (%)	Progress	
			Actual (%)	Weighted (%)
1. Establishment & Recruitment	1.1 PMO Establishment and Staffing	2	100	2
	1.2 ISPMC Consultants Recruitment	2	100	2
	1.3 NGO Recruitment	2	50	1
2. Implementation; Tranche-1	2.1 Detailed Design	2	100	2
	2.2 Tender Documents Preparation	6	90	5
	2.3 Tendering and Contract Award	6	90	5
	2.4 Land Acquisition and Resettlement	8	85	7
	2.5 Project Management	6	85	5
	2.6 Physical Completion of Works	32	80	26
	2.7 Financial Disbursements	4	85	3
3. Knowledge Base & Capacity	3.1 Knowledge Base & Tech. Studies	4	70	3
	3.2 CBFM Activities	6	30	2
	3.3 MIS Project Mgmt Module	4	10	0
4. River Study, Piloting & Master Plan	4.1 Long-term stabilization study	4	90	4
	4.2 Land recovery piloting	2	25	1
5. Preparation; Project-2	5.1 Feasibility Study; Project-2	6	95	6
	5.2 Detailed Design; Project-2	4	40	2
Totals		100		75

5. Financial Progress			
Financial Indicator	BDT Million	US\$ Million	% of Total
Estimated Project Cost (Source: DPP Page 1)	8,685	108.65	100
Physical Progress	6,062	75.78	70
PMO Expenditures	5,074	63.43	58
ADB Disbursement	4,357	54.46	50
Total Reimbursement	3,204	40.05	37

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. A little less than 2,000 hectares (ha) of floodplain land is lost annually in Jamuna due to riverbank erosion, affecting over 55,000 people¹.



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. 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 reclaiming 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. 5). The ADB Facility Administration Memorandum, June 2014 (Ref. 1) is the key document prescribing the loan objectives and procedural details.

¹ Provided by Dr. M. Sarker based on his River Study Technical Note B1: Holistic River Morphology Analysis for the Brahmaputra River System

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 **Figure 0.1** and **Ref 5**. 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, plus the local counterpart: Asian Development Bank (ADB), Government of Netherlands (GON), and 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, 17.8 km of riverbank protection² and more than 20 km of flood embankments (rehabilitation and new; refer to the Project Map; **Figure 0.1**) 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. **Table 0.1**, 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.

Delays in the bidding process for key work contracts, specifically the 23.0 km of embankment construction, requires that Project-1 will be extended by a minimum of one construction season, until June 2019; but this is still within the scheduled project completion period. The Project Management Office (PMO) has revised the current DPP to this end, which was approved by the Ministry of Water Resources on 15 June 2017 (**Ref. 4**). The revised DPP also addresses the reduced

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.

level of loan funding by transferring several activities to Project-2³ and increasing budgets to reflect revised resettlement and construction costs. A first zero-cost Variation Order for the ISPMC was accepted on 27 July 2017, a second zero cost variation was sent to ADB for approval on 21 December 2017; primarily to extend their input to May 2019. The PMO still expects that the modified Project outputs (**refer to Appendix-A, Table A-5**) can be fully achieved by the original scheduled closing date of 30 June 2019.

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 damages at Chauhali 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.

The construction of 21.3km of embankment at Kaijuri has started, however the land acquisition and resettlement process slow down the progress. To this end the full dry season 2019 will be required to complete the works.

The overall weighted project progress is presented in **Table 0.1** and shows that the weighted progress achieved to the end of the reporting period is around 75%. Compared with the total estimated projected cost, the physical progress is 70%, PMO expenditure is 58%, ADB (plus GON) disbursement is 50%, and total reimbursement is 37%.

1.4 This Report

Quarterly Progress Report No. 11 covers the period 01 January to 31 March 2018. The report describes activities carried out during the quarter, which primarily included: river monitoring, river stabilization study, Project-2 feasibility study, preparation and bidding for remaining goods, works and services contracts. The major progress that took place during this quarter is successfully awarding the 5 embankment construction contracts, although no physical progress has been made for the embankment construction during this quarter. Also, a draft feasibility study for Tranche-2 works has been submitted to the PMO by the ISPMC.

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 Zafarganj and 8.8 km at Harirampur. Since 29 March, 2018 construction of the embankment at Kaijuri has started, land acquisition paid for 40 cases involving Kaitola Division.

³ Project support service contracts deferred due to lack of funding include: S-05 Participatory O&M, S-08 Annual Development Plan MIS, S-09 Asset MIS, and S-10 Environment Management.

The Institutional Strengthening and Project Management Consultants (ISPMC) have been working since September 2015 and have completed the following activities: prepared the Project Inception Report and a number of River Study team 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 ISPMC has submitted a draft feasibility report for Tranche-2 on 25 March, 2018 during this quarter.

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.

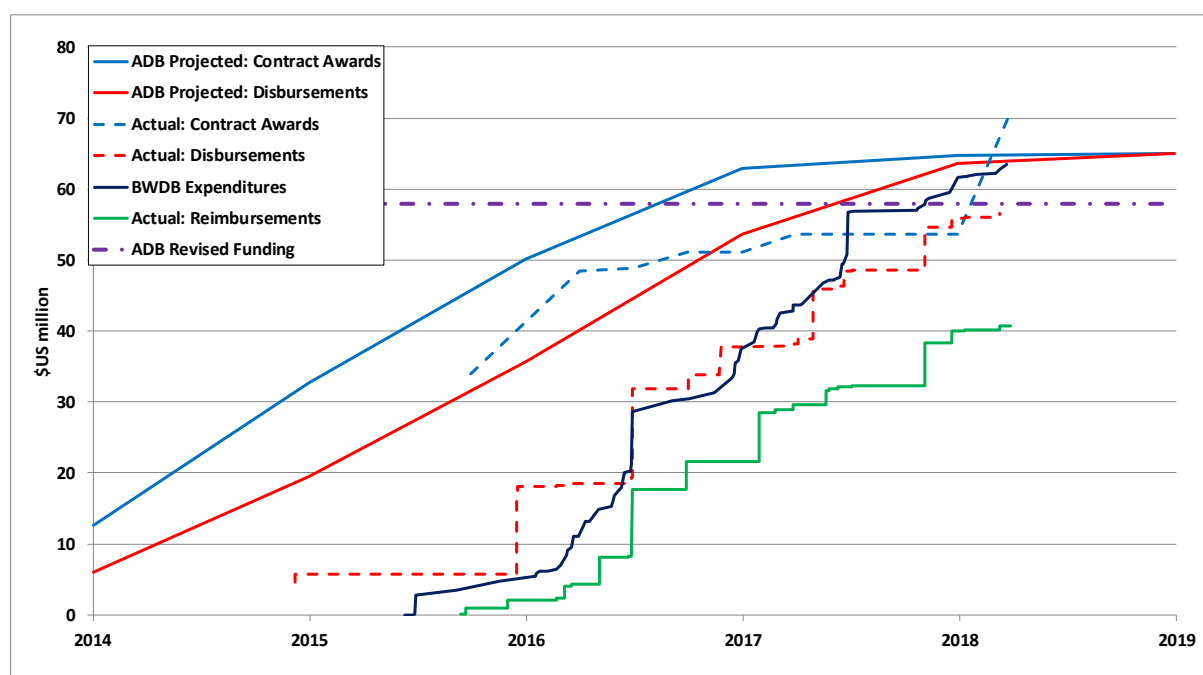


Figure 2.1 Contract, Disbursement and Reimbursement History of ADB Loan

Table 2.1 demonstrates that the PMO in general fails at achieving annual ADP expenditures demonstrated by a near perfect match of actual expenditure versus revised allocation. 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 June 2019 will allow completing Tanche-1 within the planned period and even compensating for the start-up delay of one year.

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	1398.00	536.07	19.68/38.35
total	7623.90	6126.00	5074.3	66.56/82.83

*Ongoing, numbers may vary

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 23.0 km of embankment (plus associated structures) has recently been revised to BDT 1,221 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 1850 million, plus BDT 1153 million for geo-bags. Details on an individual contract basis are provided in **Table B-4**. This detailed table also shows that the best estimate of final cost for all project assets currently identified is BDT 8715 million (Goods BDT 1457 million, Services BDT 1155 million and Works BDT 3589 million, plus BDT 2514 million of additional assets included in the DPP; primarily land acquisition).

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. 4**).

A second revised DPP has been submitted to the Ministry of Water Resources during this quarter. The revision has been of zero-cost variation. The reasons to revise the DPP for a second time are as follows-

- I. To increase the cost of resettlement to accommodate the revised government regulations.
- II. To reduce the reduce the embankment length of Koijuri (23 KM down to 21.3 KM) in order to make it commensurate with the DPP provisions.
- III. To exclude the livelihood development component as discussed with the donors. The component has been transferred to the next tranche.
- IV. To increase the project period up to December 2019.

The approval is expected in the next quarter before the end of this fiscal year.

2.2.2 Design Activities

An updated dumping plan for repair and adaptation works has been submitted to the PMO by the ISPMC on 29th March 2018. The revised design takes into account the latest survey, conducted in March 2018.

In the course of submission of the feasibility study report, design documents were submitted for Tranche 2 works:

- Embankment in PLB 1 from Harirampur to Dohar on 07 March 2018
- Embankment in JRB 1 from Tranche 1 embankment to Shajadpur on 12 March 2018
- Bank protection design for works in Enayetpur, Salura (both JRB 1) and Upstream Chauhali (JLB 2) on 14 March 2018
- Design for River channelization and char development in Solimabad on 27 March 2018

The detailed status of the design documents for Tranche-2 is given in **Table 6.3 of Appendix-E**. So far, comments have been received from the Design Circle on 14-Mar-2018 about the design of embankment at PLB1. The response to the comments are being prepared by the ISPMC. The ISPMC has submitted the designs of the respective works in the feasibility study that is equivalent to the detailed design. The designs will be updated once the results of the drone survey arrive. A complete history of design progress details, on an individual asset basis, is given in **Table B-1**.

2.2.3 Bidding Activities

Some major bidding progress has been made during this quarter. In total, 6 contracts have been awarded during this quarter, 5 work contracts for the embankment construction at JRB1 and 1 contract for conducting the adaptation works at Chauhali. The total cost of 5 work contracts for Kojjuri embankment stands BDT 1,203 Mil. The contracts are scheduled to be completed within May, 2019.

The short-listed tender for Community-based Flood Risk Management (CbFRM) support services was received on 17 December. Comments on the short-listed parties were sent to ADB on 20-Feb-2018 and ADB commented on it on 22-Mar-2018. (**Section 2.3.6**).

Besides the Koitola embankment, there are 4 other contracts in the 2017/18 work program; 3 for construction works and 1 for a multi-beam service contract. Contractual procedures for these 4 contracts are still under process.

Works

- River Training Pilot Work: Bid Document has been sent to ADB for approval on 11-Feb-2018
- Inspection Bungalow in Manikganj: Bid Document sent to ADB for approval on 27-Aug-2017

Services

- Multi-beam Echo Sounding & River Survey: Bid document re-sent to ADB after incorporating comments on 01-Mar-2017 and still lying with ADB for approval.

A complete history of bidding progress details, on individual contract basis, is given in **Table B-2**.

2.2.4 Implementation Activities

A first part of the adaptation works at Chauhali (under the extension of Contract Package No. W-06) was implemented from 7 January, 2018 to 20 March, 2018. Around 1.3km of downstream works (Ch 0.180 Km to Ch 1.520) were covered with 1,41,436 no geo-bags. Further adaptation works under a new Contract Package W-11, has started from 20 March, 2018 and the work is going on in between Ch 0.060 Km to Ch 0.180 Km and Ch 1.520 Km to 3.990 Km. Under the package, 344,000 no. of geo-bags will be dumped and 56,000 no. of geo-bags will be placed at damaged slopes for wave protection. A total of 37,935 no. of geo-bags have been dumped by the end of this quarter under this contract. The work is being carried on by two sets of barges, one of them is 45 meters long and another one is 60 meters long. Another set of 45 meters long barge is expected to arrive by April, 2018.

Construction of 21.30 km of embankment and 4 regulators on the right bank of the Jamuna and the left bank of the Hurasagar rivers have been awarded to five contractors. All contractors have mobilized to site by March 2018. The contractor of Package No. W-01 (Ch 0+000 Km to 5+000 Km) has started excavation of foundation trench of Kojjuri regulator (2 vents) from 29 March, 2018 but did not, so far, take any construction materials at site. The other four contractors were unable to start the physical work for embankment due to the complications about land acquisition. The Koitola SMO is working on the issue (**Section 2.3.3**).

Table B-3 shows implementation details for goods, services and works contracts, on an individual contract basis. The table includes new, carried-over and completed contracts. It shows actual progress during the reporting quarter and projected progress for the next quarter. The best estimate of final cost has been updated as per the revised DPP.

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. Livelihood Development
5. Gender and Development
6. Community-Based Flood Risk Management
7. Capacity Building
8. Pilot Works
9. Management Information Systems (MIS) Developments
10. River Study
11. Feasibility Study for Tranche-2

2.3.1 Supporting Service Studies

There is currently a total of 6 service contracts for supporting studies. The status of all support studies is summarized in **Table 2.2**.

Table 2.2 Supporting Service Studies

Pkg.	Study 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 70 percent complete.
S-02	Resettlement Plan Implementation	The Resettlement INGO signed a contract with BWDB on 16 March 2016, and their work is estimated to be 65 percent complete (Section 2.3.3).
S-03	Livelihood Development Services	Essentially deferred to the next tranche.
S-04	CbFRM Services	A short-listed tender was received on 17 December 2017 and is currently being evaluated (Section 2.3.6).
S-05	Multi-Beam Echo Sounding (MBES) Survey	The finalized MBES Survey ToR was submitted to the PMO on 27 July 2017 and was sent to ADB 28 July 2017 for their concurrence. It is still lying with ADB.
S-06	Erosion Prediction Services	CEGIS is conducting the study. The progress of work for their current contract is estimated to be 80 percent and the draft report is expected in the next quarter.

2.3.2 Environmental Management

Environmental Management Tranche/Project-1

The Semi-Annual EMP compliance report on the Project-1 construction works (Q3 & Q4/2017) was prepared and submitted to PMO and ADB for their review in January 2018. As little or no construction works were conducted, limited EMP monitoring was performed during the second half of 2017. The 4th semi-annual report (July 2017-December 2017) had been approved by PMO/ADB and displayed in ADB web site.

The FRERMIP design includes a Terms of Reference and budget for a comprehensive biodiversity and fisheries baseline study but current funding limitations prevent its implementation prior to commencement of Tranche-2. (Aide Memoire-Midterm Review Mission 15-26 February, 2018, Paragraph 39 and Revised DPP, May 2017)

International E&S inputs

The International Environmental Specialist (IES) conducted his 8th mission to the project from 15 January through 2nd February 2018. His next mission is planned for May 2018. A new international team member, Ms. Judith de Bruijne, Community Development & Flood Management Specialist, joined FRERMIP during the reporting period. She contributed to the proposal on the pilot baseline study in January; her next input is planned for May. The main focus of their work in May will be to guide and assist the PMO/ISPMC in further work on the SESA, and help start up the pilot baseline study in Solimabad and Harirampur Chars.

2.3.3 Resettlement Services

During this quarter, adequate progress has been noted regarding resettlement activities of the project, mainly in the JRB-1 that is 23 km embankment construction from Kojjuri to Baghabari site. The possession of LA Cases No. 13/2014-15, 14/2014-15, 15/2-14-15 & 16/2014-15 was received on 19-Mar-2018 while LA Case No. 09/2014-15 was received on 17-Aug-2017 and LA Case No. 06/2016-17 was received on 26-Dec-2017. Some progress has been made in resettlement work in other subproject sites; for example-possession received in Zafarganj RBP work in LA Case No. 03/2016-17 on 07-Jan-2018 and 04/2016-17 on 08-Aug-2017. Notice under Section 6 have been received by APs in Chauhali for RBP works in Sirajgonj district; proposal for 5.71 ha of land have been submitted to DC for Harirampur on 09-Jan-2018 for LA Case No. 06/2016-17 and 07/2016-17. On 18-Jna-2018, there were some public meetings organized by INGO (**Table 2.3**) to make the concerned people aware of the papers required to be submitted in DC office for claiming CCL.

Table 2.3 Awareness meetings by INGO

Place	Meetings
Zafarganj (1.4 km)	02 Public consultation meeting done
Zafarganj (600 m)	02 Public consultation meeting done
Chauhali	04 Public consultation meeting done
Embankment JRB-1	15 Public consultation meeting done
Harirampur	02 Public consultation meeting done

In JRB-1, a total of 2310 APs and 12 CPRs have been affected due to the construction of embankment. Of them 949 APs are Title-holders and 1305 APs are Non-Titled-Holders. Out of these non-title holder APS 806 APs are Squatters and 499 are Uthuli. There are another 56 APs who are Tenants and 12 are CPRs. All APs have received as notices under Section- from the DC office. By the end of this quarter 1360 APs have applied for CCL Payment to the DC office. A total of 40 APs has received CCL payment and procedures for getting payment have been completed for another 32 Aps. By this time Resettlement grant budget for title and nontitle holders have been submitted to PD office for further process. To make people aware, information Brochure with list of documents needed for getting CCL payment have been distributed among 1460 APs. INGO has formed 60 groups each consisting of 20 members to facilitate income generating activities. As per ADB requirement, INGO has established GRC Signboard at all required sites.

During this quarter, the ISPMC has taken a vital role for organizing ADB's Mid Term Review Mission held from 15-26 February 2018 and ISPMC representatives attended all project site visits with them. Several meetings were held with ADB and ISPMC along with PMO during field visit to minimize the misperceptions and also to provide them with updated information related to the resettlement and livelihood issues.

2.3.4 Livelihood Development

During this ADB Mid Term Review Mission it is confirmed that there will be no INGO recruited for livelihood during Tranche-1 and the program was shifted to Tranche-2.

2.3.5 Gender and Development

There was a meeting held with ADB representatives from Manila, BRM Gender Specialist, ADB Gender Consultant and Team Leader of Water Sector of ADB Zahir uddin Ahmed with Project Director, SE, Team Leader and Gender Specialist of FRERMIP regarding gender component of FRERMIP. The decision was taken to revise the present GAP during ADB Mid Term Review Mission considering project practical arrangement and it will be revised and approved by the MTR Mission if required.

Accordingly, project's GAP has been revised consultation with ADB Gender team and Project Gender Specialist, Team Leader and Project Director which has been submitted to the Mission and approved as annexure in Wrap-up meeting. The approved revised GAP is provided in **Appendix-F**.

As per revised GAP, JRB-1 contractors of all packages 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 will be done by modern equipment so female labor can be recruited for turfing and relevant work which will start once the embankment construction is completed.

2.3.6 Community-Based Flood Risk Management (CbFRM)

During the quarter, in response to initial submission of evaluation of the Technical Proposals of 5 INGOs on 3 January 2018, ADB asked to formally submit submission form -2 with all necessary attachments on 28 January 2018. Accordingly, the second and final round of evaluations of the technical proposals were carried out on 7 February 2018 by the evaluation committee followed by their submissions with 8 other attachments to ADB on 20 February 2018 via submission form-2.

ADB provided comments on the above submissions on 22 March 2018. PIU is currently reviewing ADB's comments to help Proposal Evaluation Committee endorse any revisions required in the submissions in early next quarter followed by fresh submission to ADB for concurrence.

Given the above, the earlier target to start INGO's support services cannot be achieved. It is anticipated that further delay for another couple of months would be required for concurrence to two more such lengthy procedural submissions ahead.

During the reporting quarter, PMO partially disbursed funds for PIU's operational expenses. The requested additional amount is likely to be disbursed soon to cover pending operational expenses in next quarter. The status of CbFRM progress is given in the **Table 6.4 of Appendix-E**.

2.3.7 Capacity Building

During this quarter, no significant capacity building activities were conducted. The PMO has prioritized the local trainings to be conducted within the shortest possible period. The ISPMC

capacity building personnel has made liaisons with different institutions to carry out the different training programs, especially the programs for Geotechnical Stability, River Training, Survey and Investigation, Leadership, Project Management, Resettlement and Environmental Trainings. The summary of the progress of the capacity building activities are stated in the **Table 2.4**. The details of the capacity building component are mentioned in **Appendix-H**.

Table 2.4 Summary of Capacity Building Progress

Type of Training	Implementation Progress				
	Total	Discussed	Prepared	Approved	Completed
PMO Program					
A. Local Training	34	34	15	5	5
B. Overseas Training	2	2	2	2	2
C. Overseas Tours	4	4	3	2	2
PMO Totals	40	40	20	9	9

2.3.8 Pilot Works

Under FRERMIP Tranche-1, pilot works are planned using grout filled jute mattress as wave protection works i) at the river bank at Harirampur as well as ii) on the slope of a selected embankment section at Hurasagar, and iii) plantation of vetiver on a char at Solimabad to increase the hydraulic roughness of the charland and as a deposition inducing measure.

Implementation of the pilot works on the river bank in Harirampur and the plantation of vetiver on the Solimabad char were intended to start in March/April 2018. Design and budget for the pilot works were re-submitted on the 13th February 2018 to resolve certain issues regarding unit rates and scope of works in the previously submitted documents.

2.3.9 Institutional Development and Sustainability of the Riberbank Protection Works

17 KM riverbank protection work at the right bank of Jamuna was carried out by the Construction department of Koitola Division, Bera, Pabna of BWDB by the financial and technical assistance of ADB under Jamuna-Meghna River Erosion Mitigation Project (JMREMP). The operation and maintenance work along with land improvement tax and other responsibilities have been handed over to the following departments from the Construction Department, Koitola, Bera, Pabna, BWDB-

1. The operation and maintenance of the 7 KM riverbank protection work (N 654520 to N 66100) from Koitola to Mohanganj under Bera Upzilla of Pabna has been handed over to the O&M Division, Bera, Pabna, BWDB.
2. The operation and maintenance of the 10 KM riverbank protection work (N 673890 to N 664120) from Hatpachil to Benotia under Shahjadpur Upzilla of Sirajganj has been handed over to the O&M Division, Sirajganj BWDB.

The protective work due to the erosion downstream of Enayetpur has been taken over by the Tangail O&M Division. The Tangail O&M Division is preparing the tender documents for the work which is planned to be floated early next quarter.

2.3.10 Management Information Systems (MIS) Developments

A website for FRERMIP project (www.frermip.cf) has been inaugurated on 15-Mar-2018. The website contains an interface for the project highlights. It also incorporates a River Survey database, mostly incorporating bathymetric, ADCP and multi-beam survey data from notable projects around the river Brahmaputra. The database is accessible by both web and database interface. The website also has a

dynamic map to show the areas covered by the database surveys and a file server for the internal file sharing purpose of the ISPMC team. A dedicated server was purchased in this process, which is one of the deliverables for ISPMC. The server is intended to be handed over to BWDB after the completion of the project. The PMO considers hiring a data and web specialist from the next quarter to maintain and expand the website.

2.3.11 River Study

As part of the FRERMIP River Study, a large number of Technical Notes will be prepared. It is intended that these Technical Notes will eventually either be incorporated into the main text or form Annexes of the River Stabilization Plan or the Preliminary Master Plan.

Out of a total of 34 Technical Notes, 21 have been completed, 7 have formalized drafts, and the remaining 6 are under preparation. Most Technical Notes will be assigned to one of the seven proposed Supplementary Reports, organized as follows:

- Background information
- Morphology - General
- Morphology - Bifurcations & Offtakes
- River Engineering
- Water Resources and Flood Modelling
- Ecological issues
- Land Use & Economic Benefits

The **Appendix-D** portrays the details of the status of the technical notes.

2.3.12 Feasibility Study

General

The ISPMC has submitted a feasibility study for Project-2 on 25 March, which suggested systematic development at these sites over three successive projects (tranches) resulting in gradually increasing river stability and through additional investments contributing to flood risk reduction and economic development. Consequently, Project-2 builds on the initial developments under achieved under Project-1 and continues the development story of reducing poverty and increasing economic rates of return of the program.

The implementation of Project-2 means towards this end will be more systematic stabilization of river reaches, combining the benefits of individual riverbank protection works and therefore resulting in overall substantially reduced erosion losses.

The proposed river stabilization plan in the feasibility study envisages a river corridor from the Assam border to Chandpur. In the context of the FRERMIP investment component focusing on Reach 3 and 4, the Jamuna Bridge serves as upstream boundary and as a starting point for the systematic river stabilization works at the priority subprojects in the lower Jamuna and upper Padma. Systematic river stabilization will start with Project-2 from the Jamuna bifurcation some 20km downstream of Jamuna Bridge and concentrate on the less protected left channel around Chauhali. Project implementation is intended to continue the Project-1 works and to start during the dry season 2018/19 overlapping the last construction season of Project-1. The bifurcation and left Jamuna branch are covered largely by subproject JLB-2.

Furthermore, the stabilization strategy focusses on the government's primary goals of land reclamation, restoring navigation, and providing reliable distributary flows during the dry season. In parallel, modern flood protection will be built along the yet unprotected left bank, however with substantial lengths over land reclaimed from the river. Furthermore, environmental enhancement

measures play a key role, focusing on the important aquatic habitat. Future land reclaimed alongside the downstream Padma River has a high potential to contribute to the country's goal of attaining middle income status by providing prime land for peri-urban development with a high concentration of manufacturing enterprises. Project-2 also considers morphological changes and incorporates all riverbank protection works built since 2013, after the feasibility study was prepared. Consequently, Project-2 had to adjust the work sites in subprojects JRB-1 and JLB-2, planned during the feasibility study, to continue a consistent development story, yet focused on the three identified subprojects of the feasibility study.

In addition to past morphological changes between the PPTA and the start of Project-2, morphological changes expected prior to the constructing Project-2 works need to be accounted for. The draft feasibility study was discussed between PMO and ADB during the pre-appraisal mission in February-March 2018. The progress status timeline of the Feasibility Study and the Tranche-2 DPP is given in **Table 6.1** and **Table 6.2** respectively of **Appendix-E**.

Project-2 will continue to increase river stability and reduce flood risk along the Jamuna, Padma and Meghna Rivers. Four sub-projects are proposed for Project-2, and the salient features and primary work items are summarized in **Table 2.5**. Topographic, hydraulic and geotechnical data required for the preliminary design and cost estimates are currently being collected. Detailed design for these identified Project-2 civil works has started in February 2018.

Table 2.5 Project-2 Proposed Work Items and Scope of Works

Sub-Project	Work Item	Tentative Scope of Works
JRB-1 (Jamuna Right Bank)	<ul style="list-style-type: none"> • Embankment • Fish Passes • River Protection 	<ul style="list-style-type: none"> • 7.7 km rehab. along Hurasagar • 1 Nos. • 4 km Enayetpur - Kojhuri reach, 7 km on charland
JLB-2 (Jamuna Left Bank)	<ul style="list-style-type: none"> • River Training • Land Recovery 	<ul style="list-style-type: none"> • 5 km standard work, 7 km mass dumping • 2.5 km closure dam
PLB-1 (Padma Left Bank)	<ul style="list-style-type: none"> • Embankment • Fish Passes 	<ul style="list-style-type: none"> • 17.3 km rehab. from Harirampur to Dohar • 4 Nos.

Design

The design submission for each package of the Tranche-2 feasibility study includes-

- Design report
- Design Drawings
- Cost estimate
- Bill of Quantities
- Specifications

Environmental Management

As required by the ISPMC/ToR, the Environmental Assessment Review Framework (EARF) for FRERMIP of May 2014 was reviewed and updated based on Tranche/Project-1 experience through a number of revision rounds, leading to a final version submitted to ADB on 26/3/2018. Final ADB consent was still awaited at the end of the reporting period.

Preparing the EIA for Tranche/Project-2 has already been started in early 2017 but as the finalization of the feasibility study continued well into Q1/2018, a final version of the EIA could only be

submitted to ADB, PMO and DoE in February 2018. By the end of the reporting period approval of the EIA report by the various parties was still awaited.

With respect to the Site-specific Environmental Management Plans (SEMP) that are to be prepared and implemented for each of the (five) implementation sites, ISPMC informed the PMO and ADB that the previous year's EMP compliance monitoring showed that the contractors pay a little or no attention to environmental issues, and even are little aware of the PMO/ISPMC-prepared EMP in their contracts. Therefore, ISPMC recommended that the contractors are to prepare their own SEMPs, forcing them to study EIA and develop budget and implement the necessary mitigation measures at their sites – all to be monitored by PMO/ISPMC.

Meanwhile the Environmental/Fisheries Team continued during the reporting period its study on the location, ownership, connectivity and eco-status of the beels selected for the establishment of Fish Sanctuaries in the Tranche-2 area, as well as its preliminary/reconnaissance survey on river fish markets, fishermen and fish consumption status in the Tranche-2 priority reach areas. Ownership documents of Jalmahals have been collected from upazila fisheries offices where the floodplain fish sanctuaries will be established in Tranche-2.

As some funding is available from the Tranche-1 contingencies budget the ISPMC proposed to start the baseline study with a limited scope in selected sites of the program area. The aim of the pilot baseline study is to provide information on the current situation that the program intends to change. The assessment is to deliver a critical reference point for assessing changes and impact as it establishes a basis for comparing the situation before and after the interventions, and for determining the effectiveness of the program. The purpose of the pilot baseline study is to develop an extended database about current environmental and social conditions along the Lower Jamuna and Upper Padma rivers to assess the long-term impacts of river stabilization measures planned to be systematically implemented until around 2040. The 12-months study will focus on two implementation sites: Solimabad Char near Chauhali (in sub-reach JLB-2) and Harirampur Char (in PLB-1). The proposal was prepared, following an exploratory field trip to both sites on 23 and 24 January, and submitted to the PMO for review and approval in early-February. In the light of the extension of the project until the end of 2018, it is expected that this study could be started in early 2019. In addition, the ISPMC has commenced acquiring satellite imagery on regular basis to monitor large-scale changes pertaining to the social and environmental parameters in the Lower Jamuna.

Resettlement

During this quarter detailed RP has been prepared for the proposed locations of Harirampur-Dohar embankment site. Based on this RP, an initial resettlement budget and Land Acquisition Plan (LAP) were prepared and submitted to ADB on 21 December 2017. Comments from ADB were received on 01 February 2018. The ISPMC is preparing responses on those comments. It has been noticed that 4 fish pass regulators and 3 road crossing on the embankment also require land acquisition which was not recorded earlier. So, an intensive field work has been done with a team of concerned experts. The team calculated the required land area and estimated affected households which has been incorporated in the revised RP. As a result, area of land increased and budget had to be revised and after doing some related works like insertion of maps and design of the structure the revised RP will be submitted at the beginning of the next quarter.

Another RP needs to be prepared for embankment construction at Baghabari where resettlement survey has been completed and data analyzing and processing is ongoing in order to prepare RP with LAP and budget within 3rd week of June.

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 (**Section 2.3.9**) by the office order Memo No. 11/BWDB/Sec/DS (OD) on 06 March 2018.

Appendix-C Utilization of Consultant Person-Months details the time spent by all international and national specialists to the end of the reporting period, which includes information from the proposed Variation Order-2 (VO) for the ISPMC. According to the proposed Variation Order-2, up to the end of the March 2018, a total of 38 international specialists have expended 145 of 229 total person-months (64% of total), and 36 national specialists have expended 339 of 466 person-months (73% of total).

3.2 Compliance with Loan Agreement Covenants

Schedule 5 of the FRERMIP Loan Agreement (**Ref. 8**) 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:

- 15 to 26 Feb-2018** **ADB Midterm Review Mission:** During the ADB Midterm Review Mission, the mission visited the project area and met with the concerned project officials from BWDB, DDM and inspected the construction works for riverbank protection and embankment re-sectioning process.
- 25-Feb-2018** **Completion of Package No. W-06 (Chauhali):** On 25 February, 2018, the W-06 package for riverbank protection at Chauhali has essentially been completed. The PMO is expected to issue a Completion Certificate for the work in early April.
- 27-Feb to 5-Mar-2018** **ADB Consultation Mission for Tranche-2:** The mission focused on striving the Tranche-2 processing within the schedule (**Appendix-I**)
- 25-Mar-2018** **Submission of Draft Feasibility Report for Tranche-2:** The ISPMC has submitted a final draft feasibility study report for the upcoming FRERMIP Tranche-2 project. The report is currently under review by the PMO and ADB.

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 2017/18 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 **Table 0.1** which shows that the progress of PMO expenditure is 70%, the ADB disbursement is 50% and the total reimbursement is 37%. 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 Construction Schedule for Embankment

The 5 work contracts for the construction of Kojjuri Embankment has been awarded during this quarter in early March. But none of the contractors could start the mobilization of construction work due to hindrances in resettlement and land acquisition activities. The progress of the resettlement and land acquisition work has not been satisfactory in the embankment area. Any further delay of start of embankment construction work due to the resettlement and land acquisition activities would seriously threaten the chances of construction work being started during this dry season, as a half-built embankment is highly susceptible to erosion during the flood season. Start of embankment construction work during the next dry season would not guarantee a timely completion of the work, which is not acceptable as the completion date of the project is nearing.

5.2 Pilot Works

A revised design and budget for the Pilot works was submitted by the ISPMC on 11 February 2018 to clarify some issues that were raised during the previous submission. The extension of the project until December 2019, will allow to implement and monitor the pilot works, despite the current delay.

5.3 Multi-beam Echosounder Survey

The draft bid document for the procurement of multi-beam echosounder was submitted to the ADB in August, 2017. The document is awaiting ADB concurrence. The procurement procedure for the multi-beam echosounder needs to be completed before the occurrence of next flood season, as the survey is intended to be conducted during the flood season. The survey results are essential in two ways: (i) they confirm the amount of adaption works to be done after the 2018 flood season, and (ii) they confirm the final location of some of the Tranche-2 works, prior to construction start.

5.4 PMO Under-Staffing

The performance of the BWDB PMO has recently been reduced due to the transfer of both Superintending Engineers, of which only one has been replaced. **Table 5.1** shows the proposed and actual staffing for senior PMO personnel. It is not possible for the current reduced PMO staff to properly handle all their required duties.

Table 5.1 Proposed and Actual PMO Staffing

Position	Proposed ¹	Current (Dec-2017)
Project Director	1	1
Superintending Engineer	2	0
Executive Engineer	4	2
Assistant Director	1	1
Deputy Director (Accounts)	1	1
System Analyst	1	0
Sub-Divisional Engineer	2	1
Assistant Engineer	2	1
Totals	14	7

1. Source: Revised DPP

6. REFERENCES

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8. 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

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
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Appendix-B	:	Work Program Details
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Table B-5	:	BWDB PMO Expenditure Summary, by Contract
Table B-6	:	Reimbursement Summary, by Contract
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Appendix-D	:	Status of River Study Technical Notes
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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	80.9	0.0	0.0	0.0	0.0	80.9
A4: Pilot Land Recovery	New: RivTrnWrk	BDTM	380.0	0.0	0.0	0.0	0.0	380.0
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	55.9	0.0	0.0	0.0	0.0	55.9
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

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	8	0	0	8
	New: Regulator	0	0	0	254	0	254
A2: Riverbank Prot Works	New: Revetment	0	0	1,010	0	890	1,899
A3: Emerg & Adaptation	Emerg: AdpRivProt	99	0	0	0	0	99
A4: Pilot Land Recovery	New: RivTrnWrk	380	0	0	0	0	380
							3,589
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	16	0	0	0	0	16
D3: INGO DDM	Service: CBFRM	0	64	0	0	0	64
D4: Survey & Investigation	Service: Eros.Pred	56	0	0	0	0	56
							1,155
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
							211
Grand Totals		4,124	70	2,064	1,203	1,255	8,715

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		Total
					ADB	GON	
Component							
1	Works	3,588.9	1,902.6	1,840.5	1,586.7	0.0	1,586.7
2	Materials	1,411.2	1,325.9	1,199.0	1,105.4	0.0	1,105.4
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	8.5	2.4	2.0	0.0	2.0
5	Training	63.9	44.7	45.5	41.8	0.0	41.8
6A	Consulting Services - Project Management - BWDB	1,018.2	772.1	510.8	62.4	355.2	417.6
6B	Consulting Services - NGO Services - BWDB	72.1	37.9	28.4	21.6	0.0	21.6
6C	Consulting Services - Project Management - DDM	64.4	0.0				
7A	Project Management - BWDB	38.9	25.8	18.3	16.1	0.0	16.1
7B	Project Management - DDM	5.1	3.6	0.5	0.4	0.0	0.4
8	Interest	199.2	71.7	70.0			
9	Unallocated	2,178.9	1,823.4	1,312.3			
Grand Total		8,715.3	6,062.4	5,074.3	2,848.9	355.2	3,204.1

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

Code	Categories	Total Cost Est.	Value of Physical Progress	all Values in BDT Mil PMO Expenses	Reimbursed Amount		
					ADB	GON	Total
Revenue Component							
4826	Interest & Service Charge for Netherland Grant	199.2	71.7	70.0			
4840	Capacity Development Program	63.9	44.7	45.5	41.8	0.0	41.8
4849	Resettlement Support Program	28.4	8.5	2.4	2.0	0.0	2.0
4874	ISPMC; Implementation Consultant Services	387.3	290.5	194.3	23.7	135.1	158.9
4874	ISPMC; River Stabilization and Land Recovery Study	461.2	345.9	231.4	28.3	160.9	189.2
4874	ISPMC; Feasibility of Tranch-2/3 Project	169.6	135.7	85.1	10.4	59.2	69.6
4874	Resettlement Implementation Support	16.2	10.5	10.3	5.9	0.0	5.9
4874	Community-based Flood Management Program (DDM)	64.4	0.0				
4886	Land/River Survey and Data Processing	8.0	6.3	4.4	0.4	0.0	0.4
4886	Survey and Investigation Data Processing	55.9	27.3	18.1	15.8	0.0	15.8
4700	PMO Salaries and Allowances	83.7	52.7				
4800	PMO Operational Expenses	30.9	19.5	13.8	15.6	0.0	15.6
4899	PMU DDM Oprational Expenses	5.1	3.6	0.5	0.4	0.0	0.4
Revenue Totals		1,573.8	1,017.0	676.0	144.3	355.2	499.5
Capital Component							
6807	Transport Vehicles (Jeep 5, Motorcycle 10 and Speed Boat 1)	34.5	34.5	34.9	1.5	0.0	1.5
6819	Computer and Office Equipment BWDB	4.4	4.4	4.4	4.2	0.0	4.2
6819	Computer and Office Equipment DDM	0.5	0.5	0.5	0.5	0.0	0.5
6851	Survey Equipment	6.7	6.7	6.7	6.4	0.0	6.4
6901	Land Acquisition (136 ha)	2,083.1	1,770.6	1,312.3			
7016	Construction of Inspection Bangalow at Manikganj	7.8	0.0				
7041	Regulator (new 4 and repair 3) in JRB1	253.7	0.0				
7081	Embankment (23 km) along RB Jamuna and LB Baria-Hurasagar, with Road (5 km)	949.2	0.0				
7081	Protective Works at RB Jamuna at Kaijuri, LB Jamuna at Chaulhali, Jafforganj & Harirampur (15 km)	3,052.2	3,052.2	2,897.4	2,601.8	0.0	2,601.8
7081	Land Recovery/River Training Works	379.8	0.0				
7081	Adaptive Protection and Emergency	357.4	176.3	142.1	90.3	0.0	90.3
7091	CD and SD	12.1	0.0				
Capital Totals		7,141.5	5,045.3	4,398.4	2,704.6	0.0	2,704.6
Grand Total		8,715.3	6,062.4	5,074.3	2,848.9	355.2	3,204.1

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						
4826	Interest & Service Charge for Netherland Grant	199.2	199.2	71.7	70.0	0.0
4840	Capacity Development Program	76.9	63.9	44.7	45.5	41.8
4849	Resettlement Support Program	28.4	28.4	8.5	2.4	2.0
4874	ISPMC; Implementation Consultant Services	387.3	387.3	290.5	194.3	158.9
4874	ISPMC; River Stabilization and Land Recovery Study	461.2	461.2	345.9	231.4	189.2
4874	ISPMC; Feasibility of Tranch-2/3 Project	169.7	169.6	135.7	85.1	69.6
4874	Resettlement Implementation Support	17.5	16.2	10.5	10.3	5.9
4874	Livelihood Support Program	64.7	0.0	0.0	0.0	0.0
4874	Community-based Flood Management Program (DDM)	64.4	64.4	0.0	0.0	0.0
4886	Land/River Survey and Data Processing	8.0	8.0	6.3	4.4	0.4
4886	Survey and Investigation Data Processing	55.8	55.9	27.3	18.1	15.8
4700	PMO Salaries and Allowances	83.7	83.7	52.7	0.0	0.0
4800	PMO Operational Expenses	30.9	30.9	19.5	13.8	15.6
4899	PMU DDM Oprational Expenses	5.1	5.1	3.6	0.5	0.4
		1,652.8	1,573.8	1,017.0	676.0	499.5
Capital						
6807	Transport Vehicles (Jeep 5, Motorcycle 10 and Speed Boat 1)	34.9	34.5	34.5	34.9	1.5
6819	Computer and Office Equipment BWDB	4.4	4.4	4.4	4.4	4.2
6819	Computer and Office Equipment DDM	0.5	0.5	0.5	0.5	0.5
6851	Survey Equipment	6.7	6.7	6.7	6.7	6.4
6901	Land Acquisition (136 ha)	2,083.1	2,083.1	1,770.6	1,312.3	0.0
7016	Construction of Inspection Bangalow at Manikganj	7.8	7.8	0.0	0.0	0.0
7041	Regulator (new 4 and repair 3) in JRB1	225.9	253.7	0.0	0.0	0.0
7081	Embankment (23 km) along RB Jamuna and LB Baria-Hurasagar, with Road (5 km)	995.2	949.2	0.0	0.0	0.0
7081	Protective Works at RB Jamuna at Kajjuri, LB Jamuna at Chaulhali, Jafforganj & Harirampur (15 km)	3,000.8	3,052.2	3,052.2	2,897.4	2,601.8
7081	Land Recovery/River Training Works	379.8	379.8	0.0	0.0	0.0
7081	Adaptive Protection and Emergency	280.9	357.4	176.3	142.1	90.3
7091	CD and SD	12.1	12.1	0.0	0.0	0.0
		7,032.2	7,141.5	5,045.3	4,398.4	2,704.6
Totals		8,685.0	8,715.3	6,062.4	5,074.3	3,204.1

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						
BWDB PMO						
Emerg: AdpRivProt: 44.75 BDTM: Emergency/Adaptive 1: Riverbank Protection	c	c	na	100	100	Desn. & Dwg. Complete
Emerg: AdpRivProt: 18.36 BDTM: Kojihuri-Benotia Revetment: Riverbank Protection	n	n	n	0	0	Design Not Yet Started
Emerg: AdpRivProt: 17.82 BDTM: Emergency/Adaptive 3: Riverbank Protection	n	n	n	0	0	Design Not Yet Started
New: RivTrnWrk: 380 BDTM: River Training Pilot Work: & Land Recovery	c	c	na	100	100	Dwgs Complete
BWDB PMO Totals	4	2	2	2	2	
Koitola SMO						
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
Koitola SMO Totals	9	9	9	9	9	
Manikganj SMO						
New: Infrastr: 7.8 BDTM: Construction of Inspection Bungalow	c	na	na	100	100	Dwgs 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
Manikganj SMO Totals	4	4	4	4	4	
Tangail SMO						
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
Tangail SMO Totals	2	2	2	2	2	
Component Totals	19	17	17	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 Eval	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;		22Apr15	09Jun15	09Jul15	24Aug15		22Oct15	11Nov15	10Dec15	11Jan16	04Mar16	15Mar16	16Mar16
S-04	Community Based Flood Risk Mngmt;	30Sep15	01Mar16	28Mar16	26Apr16	27Mar17	23Oct17	23Oct17	12Nov17	17Dec17				
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	2	2	2	4
Works; A: Civil Works														
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
Component Totals		0	0	0	0	0	0	5	5	5	5	5	5	5
Project Totals		1	3	3	3	2	1	14	22	22	18	18	18	21
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-Apr-2018 Current Mth (%)	31-May-2018 Next Mth (%)			
Goods									
B: Materials									
G-01	Supply of Geobags: Chouhali, Sirajganj	BJ Geo-Textile	365.0	0	100	365.0	100	365.0	Implementation Complete
G-02	Supply of Geobags: Zafarganj, Harirampur, Manikganj	BJ Geo-Textile	472.6	0	100	472.6	100	472.6	Implementation Complete
G-03	Supply of Geobags: Harirampur, Manikganj	DFL-DCTL(JV)	315.1	0	100	315.1	100	315.1	Implementation Complete
G-04	Supply of Geobags: Chauhali-Harirampur-Kojuri-Benotia	DIRD	258.5	0	67	173.2	100	258.5	Implementation Started
Component Totals			1,411.2			1,325.9		1,411.2	
C: Vehicles & Equipment									
G-05	2016 Supply of Jeep:	Pacific Motors Ltd.	5.5	0	100	5.5	100	5.5	Implementation Complete
G-06.1	2015 Supply of Jeeps:	Progoti Industries	20.8	0	100	20.8	100	20.8	Implementation Complete
G-06.2	2016 Supply of Jeep:	Progoti Industries	6.9	0	100	6.9	100	6.9	Implementation Complete
G-06.3	2016 Supply of Motorcycles:	Atlas Bangladesh Ltd.	1.3	0	100	1.3	100	1.3	Implementation Complete
G-07.1	2015 Office Equipment: BWDB PMO	Logitech Computer Ltd.	2.2	0	100	2.2	100	2.2	Implementation Complete
G-07.2	2016 Office Equipment: BWDB PMO	Source & Service	2.2	0	100	2.2	100	2.2	Implementation Complete
G-08	2016 Supply of Survey Equipments:	Logitech Computers Ltd.	6.7	0	100	6.7	100	6.7	Implementation Complete
G-09	2017 Supply of Office Equip; DDM: DDM	DDM	0.5	0	100	0.5	100	0.5	Implementation Complete
Component Totals			46.1			46.1		46.1	
Goods Totals			1,457.4			1,372.1		1,457.4	
Services									
D: Consulting Services									
S-01	ISPMC; Tranche 1:	NHC (JV) Mott MacDonald	1,018.2	6	76	772.1	81	823.0	Satisfactory Progress
S-02	Resettlement Implementation Support:	VRDS-HCL-JV	16.2	5	65	10.5	70	11.3	Satisfactory Progress
S-04	Community Based Flood Risk Mngmt:		64.4	0	0	0.0	0	0.0	Tender Received
S-06.1	2015 Erosion & Morphological Chg:	CEGIS	4.6	0	100	4.6	100	4.6	Implementation Complete
S-06.2	2016 & 2017 Erosion Prediction:	CEGIS	25.3	10	90	22.7	95	24.0	Satisfactory Progress
Component Totals			1,128.6			810.0		863.0	
Services Totals			1,128.6			810.0		863.0	
Works									
A: Civil Works									
W-06	Revetment: Jamuna at Chauhali, R1; km 0-2.5	I-J (JV)	444.4	2	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	2	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	8	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	268.9	0	100	268.9	100	268.9	Construction Complete
W-10	Revetment: Padma at Harirampur, R2; km 3.2-6.7	M.M.Builders & Engineers Lt	248.3	0	100	248.3	100	248.3	Construction Complete
Component Totals			1,899.5			1,899.5		1,899.5	
Works Totals			1,899.5			1,899.5		1,899.5	
ProjectTotals			4,485.5			4,081.5		4,219.8	

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
		1,457.37
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;	16.20
Component D3: Consulting Services INGO DDM		
S-04	Cb Flood Risk Mngmt;	64.40
Component D4: Consulting Services Survey & Investigation		
S-05	Multi-beam Echo Sounding & River Sur;	26.00
S-06.1	2015 Erosion & Morphological Chg; Jamuna, Ganges, Padma R	4.60
S-06.2	2016 & 2017 Erosion Prediction;	25.25
		55.85
Services Total		
		1,154.64
Works		
Component A1: Civil Works Embankment Works		
W-01	Embankment (5 km); Kajjuri - Bhatpara; km 0-5 Kajjuri 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;	7.80
		1,210.74
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	268.85
W-10	Revetment (3.5 km); Harirampur; km 3.5-7	248.28
		1,899.49

Table B-4 Project Program, by Contract

Code	Description	Cost (BDT Mil)
Works		
Component A3: Civil Works Emerg & Adaptation		
W-11	Emergency/Adaptive 1; Riverbank Protection	62.68
W-12	Kojhuri-Benotia Revetment; Riverbank Protection	18.36
W-13	Emergency/Adaptive 3; Riverbank Protection	17.82
		98.86
Component A4: Civil Works Pilot Land Recovery		
W-14	River Training Pilot Work; & Land Recovery	379.80
Works Total		3,588.90
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
		211.30
eXtra Total		2,514.37
Project Total		8,715.27

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-Koijuri-Benotia	142,119,902	0	0	142,119,902
Component Total		142,119,902	0	0	142,119,902
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		1,219,836,822	0	25,743,491	1,245,580,313
Services					
D1 ISPM; Consultant Serv.					
S-01	ISPMC; Tranche 1;	66,409,651	378,024,166	66,409,651	510,843,468
Component Total		66,409,651	378,024,166	66,409,651	510,843,468
D2 INGO BWDB					
S-02	Resettlement Implementation Support;	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;	11,749,843	0	1,755,724	13,505,567
Component Total		15,751,843	0	2,353,724	18,105,567
Services Total		91,154,935	378,024,166	70,107,222	539,286,323
Works					
A2 Riverbank Prot Works					
W-06	Revetment; Jamuna at Chauhali, R1; km 0-2.5	367,368,657	0	36,333,164	403,701,821
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	277,020,604	0	27,397,642	304,418,246
W-10	Revetment; Padma at Harirampur, R2; km 3.2-6.7	235,013,552	0	23,243,099	258,256,650
Component Total		1,674,828,278	0	165,642,357	1,840,470,635
Works Total		1,674,828,278	0	165,642,357	1,840,470,635
eXtra					

Table B-5 BWDB PMO Expenditure Summary, by Contract

all Values in BDT

Code	Description	ADB	GON	GOB	Total
E1 BWDB Training & Study					
X-05	BWDB Training and Study Tours;	42,782,858	0	2,730,821	45,513,679
Component Total		42,782,858	0	2,730,821	45,513,679
F1 Land Compensation					
X-07	Land Compensation; Tangail and Manikganj	0	0	1,312,304,940	1,312,304,940
Component Total		0	0	1,312,304,940	1,312,304,940
F2 Resettle Benefits					
X-08	Resettlement Benefits;	2,426,890	0	0	2,426,890
Component Total		2,426,890	0	0	2,426,890
G2 Office Opns BWDB					
X-03	BWDB Office Operations;	12,184,480	0	1,661,520	13,846,000
Component Total		12,184,480	0	1,661,520	13,846,000
G3 Office Opns DDM					
X-04	DDM Office Operations;	396,506	0	54,069	450,575
Component Total		396,506	0	54,069	450,575
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;	70,000,000	0	0	70,000,000
Component Total		70,000,000	0	0	70,000,000
eXtra Total		131,697,305	0	1,317,284,064	1,448,981,369
Project Total		3,117,517,340	378,024,166	1,578,777,134	5,074,318,640

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	90,279,735	90,279,735	0		90,279,735
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		1,122,492,354	1,117,958,623	0		1,117,958,623
Services						
D1 ISPM; Consultant Serv.						
S-01	ISPMC; Tranche 1;	454,742,352	62,400,145	355,200,824		417,600,969
D2 INGO BWDB						
S-02	Resettlement Implementation Support;	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		479,681,732	84,023,455	355,200,824		439,224,279
Works						
A2 Riverbank Prot Works						
W-06	Revetment; Jamuna at Chauhali, R1; km 0-2.5	395,411,571	355,958,542	0		355,958,542
W-07	Revetment; Jamuna at Chauhali, R2; km 2.5-7.0	397,324,791	351,103,511	0		351,103,511
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	268,647,758	244,469,460	0		244,469,460
W-10	Revetment; Padma at Harirampur, R2; km 3.2-6.7	245,483,455	210,293,789	0		210,293,789
		1,773,736,803	1,586,676,299	0		1,586,676,299
Works Total		1,773,736,803	1,586,676,299	0		1,586,676,299
eXtra						
E1 BWDB Training & Study						
X-05	BWDB Training and Study Tours;	44,455,896	41,788,542	0		41,788,542
F2 Resettle Benefits						
X-08	Resettlement Benefits;	2,036,260	2,036,260	0		2,036,260
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

Table B-6 Reimbursement Summary, by Contract

Code	Description	Total Bill Amount (BDT)	Reimbursed Amount (BDT)		
			ADB	GON	Total
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		65,182,549	60,272,348	0	60,272,348
Project Total		3,441,093,438	2,848,930,726	355,200,824	3,204,131,550

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\$)		
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	0	0	0	5,800,082	71,997
			04	6A	80.56	23,848,512	296,034	13	3,100,307	38,484		74	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	0	1,740,000	21,599
			06	7A	80.56	774,099	9,609	88	681,207	8,456		0	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	0	0	13	997,048	12,853	ED017	74	5,675,505	73,162	6,672,553	86,014
			02	6A	77.58	0	0	13	281,043	3,623		74	1,599,785	20,622	1,880,829	24,245
									0	0			1,278,092	16,476		7,275,290
Dir.Pay.	BW032	01-Feb-18	01	5	80.00	4,503,040	56,288	94	4,232,858	52,911		0	0	0	4,232,858	52,911
Dir.Pay.	BW033	12-Mar-18	01	6A	77.58	0	0	13	2,177,912	28,075	ED018	74	12,397,345	159,811	14,575,257	187,886
			02	6A	77.58	0	0	13	3,448,021	44,448		74	19,627,197	253,009	23,075,218	297,457
									0	0			5,625,933	72,523		32,024,541
Project Totals						3,441,093,438	43,690,516		2,848,930,726	36,150,978			355,200,824	4,540,666	3,204,131,550	40,691,645

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	94,110.00	77.80	7,321,766
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	5,546,958.57	80.51	446,585,634
BW030	22-Dec-2017	1,148,309.32		
		40,142,774.14		3,075,016,082

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
		3,136,549.89		246,375,963

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	12-Mar-2018	2	485,343	37,650,474
Totals			13,306,284	1,035,207,143

Total Disbursement

Currency	ADB & GON
BDT Mil	4,357
US\$ Mil	56.59

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

No.	Position	Firm	Name	Person-Months					
				Contract	VO - 1	VO - 2	Used	Balance VO-1	Balance VO-2
MAIN TEAM - INTERNATIONAL									
I-1	Team Leader / River Mangement Specialist	NHC	Knut Oberhagemann	35.0	31.5	33.50	23.13	8.37	10.37
I-2	Institutional Development Specialist/	EMM	Robert A. van de Putte	5.0	4.5	3.00	2.51	1.99	0.49
I-3	Morphologist	DELTA	Erik Mosselman	5.0	4.5	4.50	3.69	0.81	0.81
I-4	River Engineer	NHC	Bruce Walsh	10.0	9.0	4.50	3.62	5.38	0.88
I-5	Construction / Quality Control Engineer	EMM	Basistha Adhikari	24.0	21.6	0.87	0.87	20.73	0.00
I-6	Flood Risk Management Specialist	NHC	Dave Burkholder	12.0	10.8	10.80	10.39	0.41	0.41
I-7	Social Development / Resettlement Specialist	EMM	Jean Louis Leterme	8.0	8.8	11.00	10.03	-1.23	0.97
I-8	Economist <i>CRVA (Climate Risk and Vulnerability Assessment)</i>	NHC	John D. M. Roe	3.0	3.3	2.00	0.91	2.39	1.09
I-9	Financial Management Specialist	EMM	J. Spurr	1.5	0.0	0.00	0.00	0.00	0.00
I-10	Hydrologist	NHC	Derek Stuart	3.0	5.0	5.50	5.94	-0.94	-0.44
I-11	Environmental Specialist	EMM	Wandert Benthem	7.0	7.0	7.00	3.34	3.66	3.66
I-12	Information and Data Management Specialist	NHC	Dave Burkholder	4.0	6.0	8.50	5.36	0.64	3.14
I-13	Unallocated Engineering Services	NHC	TBN		26.0	44.0	0.00	26.00	44.00
I-13-1	Int'l Construction Advisor-Engineer	NHC	Graeme Vass	3.0	3.0	3.00	3.00	0.00	0.00
I-13-2	Junior Engineer <i>CRVA (Climate Risk and Vulnerability Assessment)</i>	NHC	Jesper Mathiesen	4.0	5.0	5.00	10.39	-5.39	-5.39
I-13-3	Numerical Modeller	NHC	Angela Thompson	5.0	5.0	5.00	0.23	-0.23	-0.23
I-13-4	Unallocated Engineering Services	NHC	Seth Bryant		2.0	2.00	5.00	0	0.00
I-13-5	Unallocated Engineering Services	NHC	TBN/Brecht D'Haeyer		2.0	2.00	2.35	-0.35	-0.35
I-14	Senior Geotechnical Engineer	NHC	Dr. Horst Kramer		2	2.00	0.55	1.45	1.45
I-15	River Engineer	NHC	Brad Hall		4.5	5.50	0.26	1.74	1.74
I-16	Water Resources Specialist	EMM	Hiba Khan		1		4.85	-0.35	0.65
I-17	Water Resources Specialist	NHC	Marieke Nlewaal		2	0.14	1.13	-0.13	-1.13
	Design and Specification Engineer	EMM	John Prytherch			6.00	0.00	2	0.14
							0.95	-0.95	5.05
			Totals	129.50	164.50	165.81	97.65	66.85	62.16
MAIN TEAM - NATIONAL									
N-1	DTL / Flood & Erosion Risk Management Spec.	EMM	Sharif Al Kamal	41.5	37.40	39.50	28.50	8.90	11.00
N-2	Institutional / Capacity Development Specialist	RPMC	Dr. M. A. Qassem	10.0	10.00	10.00	9.80	0.20	0.20
N-3	River Engineer (Morphologist)	CEGIS	Dr. Maminul Haque Sarker	8.0	8.8	8.80	7.62	1.18	1.18
N-4	Community-based Flood Risk Mngt. Spec.	RPMC	Quazi Towfique Islam	36.0	36.0	37.0	26.65	9.35	10.35
N-5	Resettlement Specialist	EMM	Shireen Akhter/Begum S. Nahar	15.0	13.5	19.50	12.32	1.18	7.18
N-6	Project Economist	RPMC	Amiul Islam	7.0	7.7	9.50	7.55	0.15	1.95
N-7	Procurement Specialist	RPMC	A. Abdullah Chowdhury / Md Abdullah Sadeque	10.0	9.0	2.12	2.12	6.88	0.00
N-8	Construction Engineer	RPMC	Mirza Harunar Rashid	32.0	29.0	35.0	24.04	4.96	10.96
N-9	Financial Management Specialist	EMM	Md. Habibur Rahman/Ekterdar Rahman	12.0	11.0	9.00	6.17	4.83	2.83
N-10-1	River Engineer Flood Management Infr. - 1	RPMC	Mukhles uz zaman	12.5	12.5	14.50	13.22	-0.72	1.28
N-10-2	River Engineer Flood Management Infr. -2	RPMC	Md. Motiur Rahman	12.5	20.5	20.50	17.60	2.90	2.90
N-11	Social Development and Gender Specialist	EMM	Ruh Afza Ruhi/Begum S. Nahar	12.0	16.0	11.0	8.49	7.51	2.51
N-12	Environment Specialist	EMM	Dr. Md. Nurul Islam/Md. Amir Faisal	16.0	16.0	19.0	14.74	1.26	4.26
N-13	Training Coordinator	EMM	Jahangir Kabir/ Shameem Ahmed	14.0	20.0	20.0	18.16	1.84	1.84
N-14	Information and Data Management Specialist	EMM	Asrafuzzamen	15.0		0.00	0.00	0.00	0.00
N-15	Hydraulic Structural Engineer	RPMC	Md. Dabir Uddin/Aminul Haque Shah	10.0	5.0	3.00	3.02	1.98	-0.02
N-16	Road Engineer	RPMC	Zakir Hossain	6.0	6.0	5.00	4.21	1.79	0.79
N-17	Geotechnical Engineer / Geotechnical Expert (Local)	EMM	Md. Korban Ali / Md. Shamsul Islam	7.0	7.0	7.00	5.50	1.50	1.50
N-18-1	Site Engineer 1 (PRB-1)	RPMC	Md. Nurul Amin	36.0	33.0	39.00	26.87	6.13	12.13
N-18-2	Site Engineer 2 (JLB-2 Chauhali)	RPMC	KM Nazmul Haque/ Ekram Sarder	36.0		14.00	8.20	-8.2	5.80
N-18-3	Site Engineer 3 (JLB-2 Zaffarganj)	EMM	Md Faridul Alam	36.0		37.00	23.40	-23.4	13.60
N-18-4	Site Engineers 4 (PLB-1 Harirampur)	EMM	Abdul Jalil/Saiful Islam	36.0		14.00	8.04	-8.04	5.96
N-19	Surveyor	EMM	Osman Ghani		13.0	13.00	6.04	6.96	6.96
N-20	Unallocated Engineering Services	RPMC	TBN Mukhles uz zaman		6.0	6.00	1.00	5.00	5.0
N-21	Morphologist	CEGIS	Sudipta Kumar Hore		7.5	4.00	1.60	5.90	2.40
							0.00	0.00	0.00
			Totals	420.50	324.90	397.42	284.86	40.04	112.56

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

RIVER STUDY TEAM - INTERNATIONAL									
IR-1	Task Leader / Flood & River Management Spec.	NHC	Carsten Stuab	10.0	11.0	10.98	10.98	0.02	0.00
IR-2	Institutional Development Specialist/Capacity Development Specialist.	EMM	Robert A. van de Putte	3.0	2.7	1.00	0.50	2.20	0.5
IR-3	Morphologist	DELTARES	Sanjay Giri	7.0	6.3	6.30	5.36	0.94	0.9
IR-4	River Engineer (River Training)	NHC	Gerritt Klaassen	7.0	7.7	10.00	9.62	-1.92	0.4
IR-5	Water Resources Management Specialist	DELTARES	W. J. Oliemans	5.0	4.5	2.50	2.27	2.23	0.2
IR-6	Economist	EMM	Alexander Mueller/John D.M. Roe	4.0	3.6	2.70	2.47	1.13	0.2
IR-7	Social / Regional Development Specialist	NHC	Mark Hopkins	5.0	5.5	6.20	6.23	-0.73	-0.03
IR-8	Environmental Specialist	EMM	Wandert Benthem	4.0	3.6	4.00	3.15	0.45	0.9
IR-9	Hydrologist (CRVA (Climate Risk and Vulnerability Assessment))	NHC	Malcolm Leytham	5.0	2.0	3.50	1.94	0.06	1.6
							0.23	-0.23	-0.23
IR-10	Climate Change Specialist	NHC	Mariza Coba Cabralle		1.0	2.00	1.00	0	1.0
IR-11	Dredging Specialist	NHC	Pieter Van Groen		1.0	2.00	1.50	-0.5	0.5
IR-12	Urban & Master Planner	NHC	Dr. Douglas Webster		1.0	3.50	0.55	0.45	3.0
IR-13	Morphologist Modeller	DRS	Mohammed Yossef		1.0	1.50	0.97	0.03	0.5
IR-1	Sedimentologist	NHC	Dan Haught			2.00	0.00	0	2.0
IR-2	Geomorphologist	NHC	Andrew Nelson			1.00	0.68	-0.68	0.3
IR-3	Community Development/ Flood Management Specialist	EMM	Judith de Bruijne			1.50	0.00	0	1.5
IR-4	Report Editor	NHC	Dr.Sara Bennett,			2.00	0.43	-0.43	1.6
IR-5	Report Publisher	NHC	Sabrina Asche			5.00			
			Totals	50.00	50.90	56.18	46.77	4.13	9.41
			Grand Total International	179.5	215.4	62.7	136.31	278.52	71.57
RIVER STUDY TEAM - NATIONAL									
NR-1	Water Resources Management Specialist	RPMC	G M Akram Hossain	10.0	10.0	9.57	9.97	0.03	-0.03
NR-2	Flood Management Specialist	RPMC	Md. Makbul Hossain	6.0	6.6	7.55	7.55	-0.95	0.00
NR-3	River Engineer (Morphologist)	CEGIS	Dr. Maminul Haque Sarker	9.0	8.1	4.00	2.66	5.44	1.34
NR-4	Economist	EMM	Dr. Shaker Ahmed	4.0	3.6	0.50	0.00	3.60	0.50
NR-5	Regional / Spatial Planner	RPMC	Dr. Shamim M Haque	4.0	4.0	3.50	3.37	0.63	0.13
NR-6	Institutional Development Specialist	RPMC	Dr. M. A. Qassem	4.0		4.00	4.00	4.00	0.00
NR-7	River Engineer	RPMC	Md. Motiur Rahman Jewel	8.0		12.0	7.84	7.84	4.16
NR-8	Hydrologist	EMM	Imdadul Haque Siddiqui	6.0		0.00	0.00	0.00	0.00
NR-9	Social Development and Gender Specialist	EMM	Ruh Afza Ruhi/Begum S. Nahar	5.0		5.00	5.00	5.00	0.00
NR-10	Environment / Climate Change Specialist	EMM	Md. Rakibul Haque	5.0		2.50	0.00	0.00	2.50
NR-11	Water Supply and Water Quality Specialist	EMM	Md. Mozammel Hossain/ Dr. Khairul Bashar	5.0		4.00	3.63	3.63	0.37
NR-12	Agriculture Specialist	RPMC	Dr Quazi Reasul Islam	4.0		4.00	3.34	3.34	0.66
NR-13	Fishery Specialist	RPMC	Dr. Md. S. Howlader	5.0		10.00	6.00	6.00	4.00
NR-14	Environmental Advisor	EMM	Dr. Alnun Nishat		0.5	1	0.18	0.32	0.82
			Totals	75.00	32.80	67.62	53.55	38.88	14.44
			Grand Total International	495.5	357.7	67.6	351.85	359.29	127.00
						687.030			

Appendix-D 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							Review ongoing
B1	2	Holistic river morphology analysis for the Brahmaputra river system	MHS	CS/EM		x						Completed
B2	36	Effects of sinuosity on channels and bars	MY	EM		x						Completed
B3	5	Char characteristics and dynamics – past and present conditions on basis of satellite imagery	MHS	GJK		x						Completed
B4	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				Completion expected by end-May-2018.
D2	14	River stabilization of other main rivers	GJK	GJK/BH				x				Expanded draft by end-Apr-2018.
D3	15	Earlier proposals and attempts for stabilization of Jamuna River (include capital dredging)	MZ/GJK	BH				x				Draft available at end of Apr-2018.
D4	39	Cross-Section Analysis on Brahmaputra, Jamuna and Padma Rivers	MRJ	GJK				x				Completed; 06-Feb-2018
D5	17	Intermediate and final planform alternatives	MRJ	GJK				x				Final expected by end-Apr-2018.
D6	18	Feasible techniques and methods for riverbank protection and future channel narrowing	AN	GJK/BH				x				Draft received on 08-Mar-2018.
D8	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 late-April.
E2	20	Flooding numerical modelling	DS	BH					x			Draft expected by end April.
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
F4.1	26	Sediment Management	GJK/MHS	BH						x		Draft expected by end-Apr-2018.
F4.2	43	Sediment Balance Study	SB	BH						x		Draft expected by 04-May-2018.
F5	27	Long-term effects of river narrowing on water levels	EM	KO						x		Completed; 22-Nov-2017.
F6	37	Impact of Earthquake Induced Sediment Supply Variability	EM/AN	GJK/BH						x		GJK has reviewed. Approval by EM and BH review required.
F7	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	Completion expected by mid-June.
G3	31	Economic Assessment of River Stabilization	JR/AI	KO							x	Draft received in May 2016.

Abbreviations:

AC = Alan Clark	DS = Derek Stuart	KO = Knut Oberhagemann	MZ = Mukhes 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

21	Completed
7	Draft
6	Under Preparation
34	Total

Appendix-E Status of Different Project Components

Table 6.1 Status of Feasibility Study for Tranche-2

Date	Letter Reference	PMO	ADB	ISPMC
31-May-2017	ISPMC-FRERMIP-362			Submission of site selection report by the ISPMC
17-Sep-2017	N/A	Approval of site selection by the 3rd Technical Advisory Committee		
26-Nov-2017 to 01-Dec-2017	N/A		Discussion of first draft EIA and RP (for Harirampur) during the ADB consultation mission	
15-Dec-2017	N/A	Submission of draft EIA to ADB for review (including comment matrix from mission) through email		
21-Dec-2017	N/A			Submission of first draft RF and RP Harirampur
31-Jan-2018	N/A			Initial draft feasibility study (internal document)
02-Feb-2018	N/A		ADB Comments on Harirampur RP and RF	
08-Feb-2018	N/A		ADB Comments on EIA (main report)	
12-Mar-2018		Draft EARF Tranche-2 sent to ADB (by email)		
13-Feb-2018	N/A		ADB Comments on EIA (annexes)	
14-Mar-2018	N/A	SPRSS and GAP were sent to ADB (by email)		
15-Mar-2018	N/A		ADB comments on EARF	
19-Mar-2018	N/A	Revised EARF send to ADB (by email)		
25-Feb-2018	PMO/FRERMIP/E-4/138	Final draft EIA sent to ADB		
27-Feb-2018	ISPMC-			Final draft EIA sent

Date	Letter Reference	PMO	ADB	ISPMC
	FRERMIP-464			to PMO for distribution
22-Mar-2018	N/A			Development of concept paper to update initial draft feasibility study (started on 26 February 2018)
25-Mar-2018	ISPMC-FRERMIP-478			Submission of draft feasibility study
28-Mar-2018	N/A	Document passed for EIA peer review in ADB		

Table 6.2 Status of DPP Progress for Tranche-2

Date	Letter Reference	Design	Other	Approval
25-Feb-2018	PMO-FRERMIP/C-2/131		Draft EIA sent to ISPMC for comments	
07-Mar-2018	ISPMC-FRERMIP-468	Submission of draft Harirampur Embankment design to PD		
08-Mar-2018	PMO-FRERMIP/D-1/161	Submission of Harirampur design to design office		
12-Mar-2018	ISPMC-FRERMIP-471	Submission of draft Shahjadpur Embankment design to PD		
14-Mar-2018	PMO-FRERMIP/D-1/179	PD submits Shahjadpur design to design office		
14-Mar-2018	PMO-FRERMIP/C-2/177	Comments from design office on Harirampur embankment		
14-Mar-2018	ISPMC-FRERMIP-473	Submission of draft riverbank protection design to PD		
15-Mar-2018	PMO-FRERMIP/D-1/182/1	PD submits riverbank protection design to design office		
19-Mar-2018	PMO-FRERMIP/C-2/186		Submission of draft feasibility study	

Date	Letter Reference	Design	Other	Approval
25-Mar-2018	ISPMC-FRERMIP-478		Submission of draft feasibility study	
27-Mar-2018	ISPMC-FRERMIP-480	Submission of draft Solimabad design to PD		

Table 6.3 Status of Design Documents for Feasibility Study, Tranche-2

Date	Letter Reference	Document
07-Mar-2018	ISPMC-FRERMIP-468	Embankment in PLB 1 from Harirampur to Dohar
12-Mar-2018	ISPMC-FRERMIP-471	Embankment in JRB 1 from Tranche 1 embankment to Shajadpur
14-Mar-2018	ISPMC-FRERMIP-473	Bank protection design for works in Enayetpur, Salura (both JRB 1) and Upstream Chauhali (JLB 2)
27-Mar-2018	ISPMC-FRERMIP-480	Design for River channelization and char development in Solimabad

Table 6.4 Status of CbFRM Progress

Date	Activity
09-Sep-2015	Joined the PMU, CbFRM.
Mid-October 2015	Drafted ToR, Sub-0 & NGO budget and sent to ADB for review and approval.
01-Mar-2016	ADB approval of Sub-0 with all attachments i.e. ToR & NGO budget after several communications on mitigating clarifications.
28-Mar-2016	Advertised Eol notice.
29-Mar-2016	Submission of a proposal to line ministry to form POC and PEC.
26-Apr-2016	Submission of 42 Eols (including 4 online submission)
03-May-2016	Constitution of Proposal Opening Committee (POC)/Proposal Evaluation Committee (PEC) by the line ministry.
Mid-May 2016	First Project Manager promoted and transferred subsequently in end June 2016.
29-Jun-2016	Joining of 2 nd Project Manager
18-Jul-2016	Eols were opened by the Proposal Opening Committee (PoC).
19-Jul-2016	Preparation of draft Eol evaluation in excel spreadsheet for CSC evaluation.
28-Aug-2016	Convening of first PEC meeting. Meeting was postponed
21-Sep-2016	Cancellation of POC/PEC by the line ministry without showing any reason whatsoever.
02-Oct-2016 and again on 10-Nov-2016	DDM requested the ministry to form new PEC twice.
27-Dec-2016	The second Project Manager promoted and transferred.

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Date	Activity
28-Dec-2016	Reconstituted PEC comprising five members without one from ISPMC.
08-Jan-2017	Current Project Manager joined.
20-Feb-2017	Revised PEC formation comprising 6 members including one from ISPMC in response to recommendation of the last aid memoire. Also, validated earlier POC.
07-Mar-2017	First PEC was held to recommend standard sub-criteria for EoI evaluation.
27-Mar-2017	Second and final PEC held to shortlist 6 EoIs out of 42.
Early April to End August 2017	Processing equipment procurement following ADB's guidelines using 'shopping method'.
11-May-2017	Submission of Sub-1 to ADB including revised NGO budget, EoI shortlisting report, EoI evaluation spreadsheets, Narrative Evaluation Criteria, Draft RFP etc.
14-Sep-2017	Submission of Sub-1 to ADB including revised NGO budget, EoI shortlisting report, EoI evaluation spreadsheets, Narrative Evaluation Criteria, Draft RFP etc.
15-Oct-2017	ADB sent subsequent revised versions of Sub-1 with attachments (i.e. RFP, revised budget, procurement plan etc.)
23-Oct-2017	ADB approval Sub-1 with all attachments (RFP, revised NGO budget, procurement plan etc.)
12-Nov-2017	Circulation of RFP to six shortlisted NGOs.
17-Dec-2017	Submission of Technical and Financial proposals by 5 short-listed NGOs.
17-Dec-2017	Opening of Technical Proposals afternoon.
18-Dec-2017	Held first PEC meeting.
03-Jan-2018	Preliminary submission of RFP evaluation with all other pertinent doc as attachment to sub-2 to ADB for informal review and comments.
28-Jan-2018	ADB asked for formal submission of sub-2 with all docs without any important comments.
07-Feb-2018	Carried out second and final evaluation of Technical Proposals at second round of Proposal Evaluation Committee meeting.
20-Feb-2018	Formally submitted submission form 2 to ADB with eight attachments including Technical Proposal Evaluation spreadsheets and Narrative Evaluation Report.
22-Mar-2018	Received ADB's comments on Sub-2 afternoon

Appendix-F Gender Action Plan

Output/Activities	Indicators and Targets	Responsibility	Time frame
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			
<ul style="list-style-type: none"> - Ensure women benefit from employment in construction - Ensure gender-related aspect of labor standard including equal wage for women and men for equal work - Ensure occupational health and safety, safe water supply, sanitation are in place (incl. separate toilets) 	<ol style="list-style-type: none"> 1. Specific condition included contractors' bidding document whereby 5% unskilled labor opportunities be given to women⁴ 2. 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 3. Provisions for either separate toilets for women or arrangements for use of facilities in nearby communities and/or households 4. Sex-disaggregated information in field monitoring quarterly reports and contractors' compliance reports 	PMO and contractors	Entire T-1 period
A2 Formulating community disaster management units			
<ul style="list-style-type: none"> - Form 40 Community Disaster Management Units (CDMUs) - Develop a community flood risk assessment and community risk reduction plan 	<ol style="list-style-type: none"> 5. CDMUs (40) -consisting of 15 male and female volunteers/each- established with minimum 33% units led by women (baseline=0). 6. 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; 7. 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 8. 60 locations identified and build community flood markers for flood warning information 	PMU-DDM Partner NGO	End of T-1
A3 Formulating community disaster management units			

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.

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<ul style="list-style-type: none"> - Initiate community-based flood warning dissemination procedures building on indigenous techniques - Disseminate regular warning messages in relevant to local context/language in line with national warning network 	<ul style="list-style-type: none"> 9. 50% of the units have flood warning mechanisms [Source: end-line beneficiary survey] 10. 20 knowledge events held [Target: 100 women] 11. 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]) 	PMU-DDM and community disaster management NGO	End of T-1
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A4 Construction of resettlement areas with basic infrastructure and facilities			
<ul style="list-style-type: none"> - 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) - Ensure that gender issues are considered when planning resettlement villages and community facilities 	<ul style="list-style-type: none"> 12. Full compensation for 100% women PAPs as per RP entitlement. 13. 33% women involved in planning meetings 	PMO and Partner NGOs	End of T-1

Output II: Strengthened Institutional Systems for Flood and Riverbank Erosion Risk Management

A5 Capacity enhancement of BWDB			
<ul style="list-style-type: none"> - Integrate a gender-specific module in the BWDB training - Build capacity of female staff in BWDB 	<ul style="list-style-type: none"> 14. 10% women in training programs 	BWDB	End of T-1
	<ul style="list-style-type: none"> 15. – 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 	BWDB	Entire T-1 period

Output III: Program Management Systems Operational

A6: Implementation management			
<ul style="list-style-type: none"> - Establish MIS system with sex disaggregated data base for project reporting 	<ul style="list-style-type: none"> 16. - Identify gender indicators, incorporate in monitoring system and ensure regular reporting on progress of GAP implementation 	BWDB	End of T-1

Appendix-G Compliance with Loan Agreement Covenants

Sl.No.	Covenant Description	Comply ²	Evidence to Support Claim
Implementation Arrangements			
1	Project is implemented in accordance FAM.	Yes	All Environmental, Social and Financial provisions outlined in the FAM are being satisfactorily implemented.
2	PMO, SMOs and PMU shall employ sufficient and experienced staff.	No No	<ul style="list-style-type: none"> • BWDB: on average, the PMO has only 55% of Senior Staff as specified in DPP. • DDM: PMU only has only 2 staff, and the Project Manager is on additional charges.
3	PMO, SMOs and PMU staff shall remain for a reasonable period of time.	Yes No	<ul style="list-style-type: none"> • BWDB: PD stayed for over 4 years • DDM: has had 3 Project Managers in 2.5 years
4	The PMO PD shall have a rank not less than a Superintending Engineer.	Yes	PMO PD had rank of Superintending Engineer.
5	BWDB shall establish a CE River Management office responsible for flood and riverbank erosion risk management.	Yes	On 22-Nov-2017, BWDB established the office of CE River Management, and appointed a Chief Engineer.
Counterpart Support			
6	If Borrower cannot avail of the proceeds of the Grant, the Borrower shall find an alternative source of funding.	na	No problem has occurred in availing Grant money.
7	The Borrower shall reimburse BWDB for any taxes and duties imposed for Goods, Works and Consulting Services.	Yes	Typically, taxes and duties are being reimbursed by the Borrower as per their portion of each Loan Category.
Selection of Subproject areas			
8	BWDB shall ensure that Subprojects are selected in accordance with FFA Schedule 4.	Yes	All 3 selected Subprojects are included in the approved Project-1 Feasibility Study completed in Dec-2013.
Environment			
9	Project facilities comply with environmental safeguards, laws and regulations, EARF, EIA/EMP, and reported upon in Monitoring Reports.	Yes	EIA approved, EMP being implemented, SESA drafted, and Quarterly and Semi-Annual Monitoring Reports submitted. These reports document satisfactory compliance with environmental safeguards.
Land Acquisition and Involuntary Resettlement			
10	BWDB shall ensure that all land and all rights-of-way are available to contractors in a timely manner.	Yes	Contractors' work has not been delayed due to land acquisition issues.
	(a,b,c&d) Land acquisition and resettlement comply with applicable laws, Involuntary Resettlement Safeguards, RF, and RP.	No Yes	<ul style="list-style-type: none"> • Riverbank Protection: land acquisition done after construction, due to severe erosion potential and local public demand. A Corrective Action Plan is currently being implemented. • Embankment: land acquisition and resettlement processes have been properly followed.

Sl.No.	Covenant Description	Comply ²	Evidence to Support Claim
11	BWDB shall ensure that there is no physical or economic displacement until:		
	(a) compensation and other entitlements have been provided to affected people	No	Refer to Sl.No. 10 above. However, compensation process is now actively ongoing for both Riverbank Protection and Embankment.
	(b) a comprehensive income and livelihood restoration program has been established	No	Not yet started. ToR for Livelihood Support Study sent to ADB for concurrence in May 2016.
Indigenous Peoples			
12	BWDB shall ensure that the Project does not have any indigenous peoples' impacts.	Yes	No indigenous people affected by project.
Human and Financial Resources to Implement Safeguards Requirements			
13	BWDB shall fully implement the EMPs and the RPs.	Yes	EMPs included in all Civil Work contracts, and an INGO is actively engaged to develop all RPs. Monitoring results are regularly being reported.
Safeguards			
14	BWDB shall ensure that all Works contracts require contractors to:		
	(a) comply with EIA, EMP and RP; and Safeguards Monitoring Report actions	Yes	Covered in 'Technical Specifications' under Section 2. Environmental Management Plan and Safety at the Site.
	(b) include a budget for environmental and social measures	Yes	Included in Bill of Quantities, Bill No. 02: Environmental Management Works.
	(c) provide written notice of unanticipated environmental, resettlement or indigenous peoples' risks	No	No special clause found to provide written notice of unanticipated environmental, resettlement or indigenous peoples' risks. Clause to be added to all 5 pending embankment contracts.
	(d) adequately record pre-Work condition of roads, agricultural land and infrastructure	No	No special clause found requiring contractors to record pre-Work condition. Clause to be added to all 5 pending embankment contracts.
	(e) fully reinstate pathways, other local infrastructure, and agricultural land pre-Work condition	Yes	Adequately covered in Section 2. 'Environmental Management Plan and Safety at the Site' of the Technical Specifications.
Safeguards Monitoring and Reporting			
15	BWDB shall:		
	(a) submit semi-annual Safeguards Monitoring Reports to ADB	Yes	ISPMC submit Monitoring Reports on quarterly and bi-annual basis on environmental and social issues.
	(b) promptly document any unanticipated environmental and social risks and impacts	Yes Yes	<ul style="list-style-type: none"> • Environ: No serious unanticipated risks or impacts have occurred. • Social: Resettlement Issues documented in QPR.
	(c) within 6 months, engage external experts to verify information regarding land acquisition and involuntary resettlement	No	The bid document has been received and evaluated, short-listing completed, and negotiations are ongoing for External Expert. Contract award is expected by early Feb-2018.

Sl.No.	Covenant Description	Comply ²	Evidence to Support Claim
	(d) promptly report any breach of compliance with EMP or RP	Yes Yes	<ul style="list-style-type: none"> • Environ: No serious compliance breach with EMP has occurred. • Social: Resettlement Issues documented in QPR.
Prohibited List of Investments			
16	BWDB shall ensure that Loan or Grant funds are not used for prohibited investment activities.	Yes	Accounting procedures are being rigorously maintained by PMO and no evidence of misuse has been found.
Labour Standards			
17	All civil works contracts require contractors to:		
	(a) comply with labour standards, labor laws and applicable health and safety principles	Yes	Covered in 'Conditions of Contracts for Construction', under Section: 6. Staff and Labour.
	(b) eliminate discrimination between men and women for work of equal value	Yes	Adequately covered in 'Conditions of Contracts for Construction', under clause: 6.24 Non-Discrimination and Equal Opportunity.
	(c) eliminate child labour, and forced or compulsory labour; and allow freedom of association	Yes	Covered in 'Conditions of Contracts for Construction', under clause: 6.21 Child Labour.
	(d) maximize employment of local poor and disadvantaged persons	No	No special clause found to employ local poor and disadvantaged person. Clause to be added to all 5 pending embankment contracts.
	(e) disseminate information on sexually transmittable infections and HIV/AIDS	Yes	Covered in 'Conditions of Contracts for Construction', under clause: 6.7 'Health and Safety'.
	(f) implement applicable provisions of GAP	No	No special clause found related to provisions of GAP. Clause to be added to all 5 pending embankment contracts.
Gender and Development			
18	BWDB shall implement the GAP, and monitor and report on key gender outcome and output targets.	Yes	GAP outcomes and outputs are being documented in QPR.
Quality Assurance			
19	Engage external experts to inspect and store results of completed riverbank protection works using accurate surveying equipment.	Yes	ISPMC performs a rigorous and regular Flood Monitoring Program including Multi-Beam Echo-Sounder surveys at Chauhali and Kojuri in Nov-2018. Scuba diving investigations also conducted.
Panel of Experts			
20	BWDB shall engage experts to analyze project implementation constraints, and advise on remedial measures.	Yes	There has been four Technical Advisory Committee(TAC) Meetings to review Project technical issues and make recommendations. A Technical Committee has also been formed by BWDB to investigate slope failures at Chauhali.
Inter-agency Coordination			
21	BWDB shall timely notify all relevant agencies of their riverbank protection works.	Yes	ISPMC has one Specialist permanently deputed to DDM, who updates PM PMU on project activities.

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Sl.No.	Covenant Description	Comply ²	Evidence to Support Claim
Operation and Maintenance of Project Facilities			
22	Ensure that:		
	(a) BWDB inspect and maintains all Works rehabilitated according to O&M plans	Yes	ISPMC performs a rigorous Flood Monitoring Program to identify status of Riverbank Protection Works.
	(b) BWDB submits annual budgets to MoWR for O&M works according to the plans	Yes	Provisional 2017/18 ADP funding for Adaptive Protection and Emergency work is BDT 89 million; other funding also available.
	(c) Borrower allocates adequate resources for BWDB to carry out O&M works	Yes	Funding for 2017/18 Emergency/Adaptive work is expected to be around BDT 160 million. Koitola riverbank protection transferred to O&M Division in Dec-2017.
23	BWDB shall maintain adequate stockpiles of geo-textile bags for emergency riverbank protection works and repairs.	Yes	BWDB has purchased enough geo-bags to accommodate all expected emergency and adaptive work for 2017/18.
24	BWDB shall provide local communities with land use rights for embankment to promote livestock grazing and tree cultivation.	na	Construction work of embankments not yet started. However, Social Forestry is mentioned in the CbFRM Support Services INGO Contract.
Road Map and Policy and Institutional Reforms			
25	BWDB shall implement timely institutional reform actions identified under Investment Program policy framework.	Yes	Refer to Sl.No. 5 reply regarding the establishment of CE River Management office.
Policy Dialogue and Coordination with Development Partners			
26	BWDB shall keep ADB informed of discussions with government and quasi-government bodies responsible for water sector development.	Yes	This is being done through periodic ADB Missions, and regular discussions and correspondence between PMO and ADB BRM.
Governance and Corruption			
27	BWDB shall comply with ADB's Anticorruption Policy and cooperate with any investigations.	Yes	No evidence of corruption in dealing with any project activities have been reported or found.
28	BWDB shall include anticorruption provisions in contracts, allowing ADB to audit records of contractors, suppliers, and consultants.	Yes	Covered in the 'Conditions of Contracts for Construction' Section, under clause: 15.6 Corrupt and Fraudulent Practices.
29	BWDB shall announce all business opportunities on their websites, including participating bidders, winning bidders and contract award amounts.	Yes	Adequate contract information is available on: www.bwdb.gov.bd/index.php/site/live_tender
30	Borrower shall periodically inspect financial activities related to the procurement of Goods, Works and Consulting Services.	Yes	Foreign Aided Project Audit Directorate (FAPAD) audits carried out on a annual basis.

Notes: 1. Implementation Arrangement Covenants are defined in Loan Agreement Schedule 5.
2. Valid Comply answers include: Yes, No or na (non-applicable)

Appendix-H Capacity Building

Table I-1 Implementation Progress of Training Activities: PMO Program

Sl.	Description	No. of Courses			Total	No. of Trainees			Implementation Progress			Date				Remarks
		M	F	Total		M	F	Total	Discussed	Prepared	Approved	Completed	FY 15-16	FY 16-17	FY 17-18	
A. Local Training																
1	River Engineering	2	34	6	40	2	2	2	2	2	2	3-9 & 24-30 Apr-2016				By BUET: FY 2015-2016
2	River Training Techniques	2	38	2	40	2	2	2	2	2	2	12-16 & 18-23 Feb-2017				By BUET : FY 2016-2017
3	Riverbank Geotechnical Stability	2			40	2	2	2				Feb-2018				Back to back, US Resource Person, geotechnical training including software use - TL & Afnan working on it
4	Riverbank Protection	2			40	2	2	2				Feb-2018				Geotextile, B. Walsh & Mr. Michel - Hydraulic Design/Slope Protection - TL & Afnan working on it
5	Strategic Planning	2			40	2	2	2				Feb-Mar-2018				Back to back, Combined: To be completed under FY 17-18
6	Survey and Evaluation	2			40	2	2	2				Mar-Apr-2018				Back to back, Combined: Mr. Atique, Mr Ghani. To be completed under FY 17-18
7	Underwater Investigations	1			20	1						Mar-Apr-2018				To be completed under FY 17-18
8	Resettlement	2			30	2						Jan-Feb-2018				One training done by ISPMC- 3 sites, CEGIS interested to execute under FY 17-18
9	Environment	2			30	2						Within 2018				We can reprocess
10	Leadership	2			40	2	2	2				Mar-Apr-2018				Mr. Bruce Hunter-RTW, (To be prepared soon)
11	Project Management	2			40	2	2	2				Mar-Apr-2018				To be organized by-IPMC
12	Construction Management	2			40	2	2	2				Feb-2018				Completed
13	Technology Transfer (counterpart)	8				8						Within 2018				
13.1	Demonstration and Presentation: Use of Grout-Filled Jute Mattresses for Riverbank Protection	1	27	3	30	1	1	1	1	1	1	18-May-2017				Completed
14	Capacity Building for DDM	2			30	2	2	2				Before Jun-				Dr. Towfique, preparing the programme
Sub Total		34	99	11	500	34	15	5	5	5	5					
B. Overseas Training																
1	River Morphology	1	7	1	8	1	1	1	1	1	1	01-Dec-2016				Completed by IHE (Netherlands) on Sep-2016 (FY: 15-16 & 16-17)
2	River Training Techniques	1	7	1	8	1	1	1	1	1	1					Completed by IHE (Netherlands) on 5 June- 2 July- 2017 (FY: 16-17)
Sub Total		2	14	2	16	2	2	2	2	2	2					
C. Overseas Study Tour																
1	Study Tour-1 (Australia)	1			5	1	1	1	1	1	1					To be executed before June 2018
2	Study Tour-2 (North America)	1	9	0	9	1	1	1	1	1	1	Oct-2017				Completed on 5-21 October 2017
3	Study Tour-3 (China)	1	10	0	10	1	1	1	1	1	1	Jun-2016				Completed on June 2016; FY 2015-16
4	Study Tour-4	1			10	1	1	1	1	1	1	Within 2018				To be held in 2018
Sub Total		4	19	0	34	4	3	2	2	2	2					
Totals		40	132	13	550	40	20	9	9	9	9					
Gender Percentages (%)			91	9												

Table I-2 Implementation Progress of Training Activities: ISPMC Program

Sl.	Description	Completed			Date			Remarks	
		No. of Courses	No. of Trainees			FY 15-16	FY 16-17		FY 17-18
			M	F	Total				
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 &	
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, BWDB	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				
Gender Percentages (%)			74	26					

Appendix-I Photo Annex



ADB Mission at Chauhali – 19 Feb 2018



Stakeholder meeting at Kaijuri embankment site – 19 Feb 2018



BWDB – ADB discussion at Kaijuri, 19 Feb 2019



ADB mission at Chauhali, 19 Feb 2019



Chauhali revetment, central part after flood season, 18 Feb 2018



Adapatation work at Chauhali, last work from contract W06, 18 Feb 2018



Erosion upstream of Chauhali, with beginning of outflanking of the existing works, 18 Feb 2018