FRERMIP
Flood and Riverbank Erosion Risk Management Investment Program

Bangladesh Water Development Board
Asian Development Bank

Flood and Riverbank Erosion Risk Management Investment Program – Project 1

ADB Loan 3138-BAN (SF)/GON Grant 0396 (EF)

Institutional Strengthening and Project Management Consultant (ISPMC)

QUARTERLY PROGRESS REPORT NO. 16

FOR

April- June 2019

Prepared by:

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FRERMIP
Flood and Riverbank Erosion Risk Management Investment Program

Reference:
ISPMC – FRERMIP 628

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6th August, 2019

To
Engr. Md. Rafiqul Islam Choubey
Project Director
Flood and Riverbank Erosion Risk Management Investment Program
152/3/B Bir Uttam, Kazi Nuruzzaman Road, Panthopath,
Firoz Tower, (12th Floor) Dhaka-1205, Bangladesh

Subject: **Submission of Quarterly Progress Report No. 16, April-June, 2019.**

Reference: **As per Institutional Strengthening and Project Management Consultant Service Contract, Clause 9 (i).**

Dear Sir,

Please find enclosed Quarterly Progress Report No. 16 for the period April-June 2019 for "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 (November 2018) Development Project Proforma 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).

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

AP	-	Affected Person
ADB	-	Asian Development Bank
ADP	-	Annual Development Program
BDPC	-	Bangladesh Disaster Preparedness Center
BDT	-	Bangladesh Taka
BDRCS	-	Bangladesh Red Crescent Society
BRM	-	Bangladesh Resident Mission
BWDB	-	Bangladesh Water Development Board
CbFRM	-	Community-based Flood Risk Management
CCL	-	Cumulative Cost for Land
CDMU	-	Community Development Medical Unit
CEGIS	-	Center for Environmental and Geographic Information Services
CRO	-	Chief Resettlement Officer
CV	-	Comminuty Volunteer
DG	-	Director General
DDM	-	Department of Disaster Management
DMC	-	Disaster Management Committee
DPP	-	Development Project Proforma
EKN	-	Embassy of the Kingdom of the Netherlands
EP	-	Entitled Person
FRERMIP	-	Flood and Riverbank Erosion Risk Management Investment Program
GAP	-	Gender Action Plan
GFM	-	Grout Filled Mattress
GOB	-	Government of Bangladesh
GON	-	Government of the Netherlands
ha	-	hectare
IMED	-	Implementation Monitoring and Evaluation Division
INGO	-	Implementing Non-Government Organization
ISPMC	-	Institutional Strengthening and Project Management Consultant
JLB-2	-	Jamuna Left Bank 2 Sub-Project
JRB-1	-	Jamuna Right Bank 1 Sub-Project
JMREMP	-	Jamuna-Meghna River Erosion Mitigation Project (2002-2011)
JVT	-	Joint Verification Team
km	-	Kilometer
LA	-	Land Acquisition
LAP	-	Land Acquisition Plan
MDIP	-	Meghna-Dhonagoda Irrigation Project (1977-1983)
Mil	-	Million (1,000,000)
MIS	-	Management Information Systems
MoDMR	-	Ministry of Disaster Management and Relief
MoWR	-	Ministry of Water Resources
O&M	-	Operation and Maintenance
PD	-	Project Director (BWDB)
PM	-	Project Manager (DDM)
PIRDP	-	Pabna Irrigation and Rural Development Project (1978-1992)
PLB-1	-	Padma Left Bank 1 Sub-Project
PMO	-	Project Management Office (BWDB)
PMU	-	Project Management Unit (DDM)

PPTA	-	Project Preparatory Technical Assistance
PVAT	-	Property Valuation Advisory Team
QPR	-	Quarterly Progress Report
SCME	-	Senior Community Mobilization Expert
SMO	-	Sub-Project Management Office
ToR	-	Terms of Reference
ToT	-	Training of Trainers
UDMC	-	Upzilla Disaster Management Committee
USD	-	United States Dollars
VDP	-	Village Defense Party
VRDS	-	Voluntary Rural Development Society

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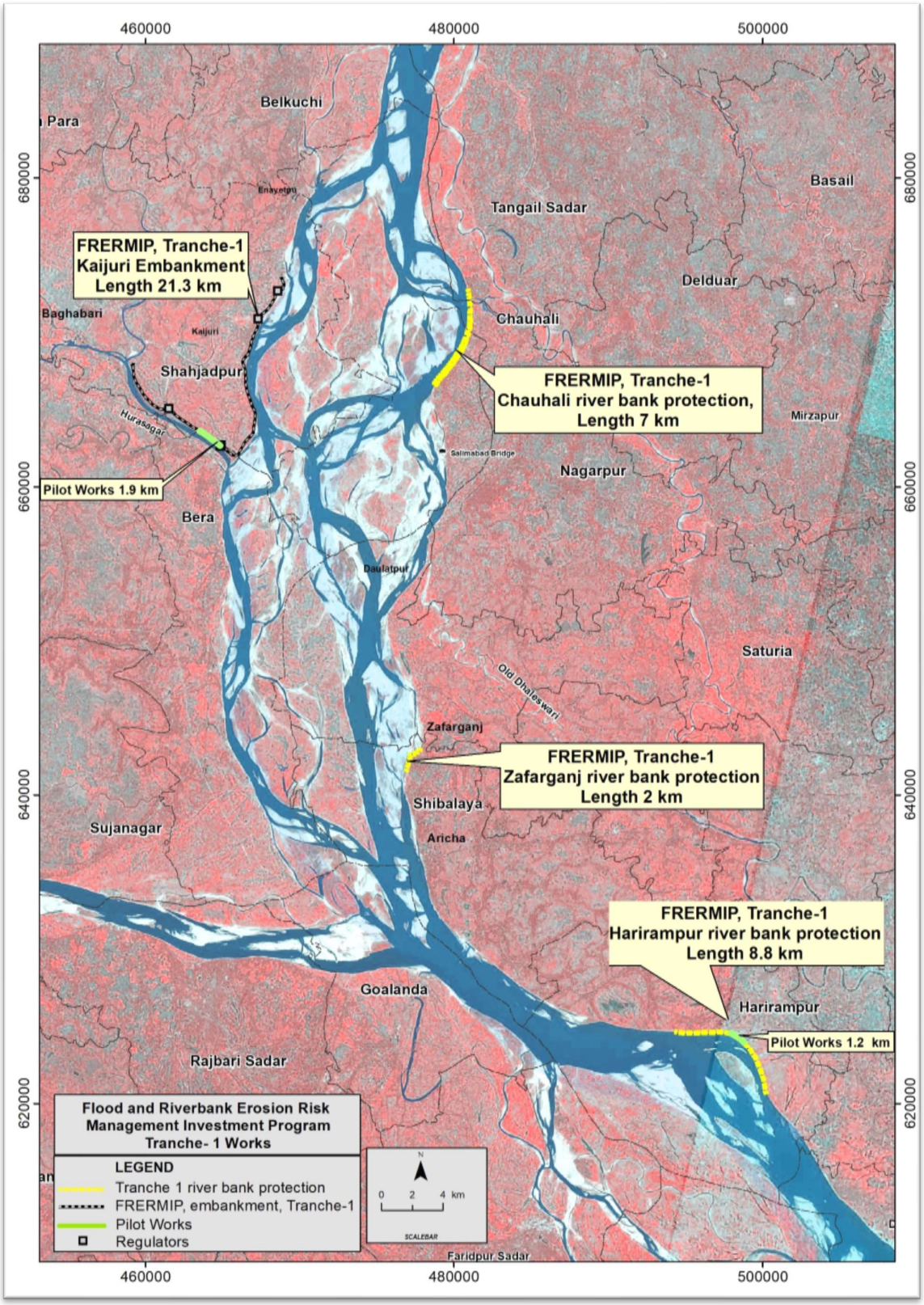

Figure 0-1 Index Map (Tranche-1)

Table 0-1 Project Progress at a glance

Table 1 Project Progress at a Glance

1. Basic Data

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

2. Financing Plan

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

3. Milestones

Milestone	Date of		
	Approval	Signing	Effectiveness
ADB Loan Agreement	2014 June 27	2014 August 14	2014 September 17

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

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

4. Assets and Physical Progress

Proposed Project Assets	Goods	Services	Works	eXtra	Total	Available
Project Program Best Estimate (Tk Mil)	1360	1116	3609	2689	8774	8774

Primary Component	Secondary Component		Assigned Weight (%)	Physical Progress Actual (%)	Physical Progress Weighted (%)
1. Establishment & Recruitment	1.1	PMO Establishment and Staffing	2	100	2.00
	1.2	ISPMC Consultants Recruitment	2	100	2.00
	1.3	NGO Recruitment	2	100	2.00
2. Implementation; Tranche-1	2.1	Detailed Design	2	100	2.00
	2.2	Tender Documents Preparation	6	98	5.88
	2.3	Tendering and Contract Award	6	95	5.70
	2.4	Land Acquisition and Resettlement	8	95	7.60
	2.5	Project Management	6	84	5.04
	2.6	Physical Completion of Works	32	95	30.40
	2.7	Financial Disbursements	4	89	3.56
3. Knowledge Base & Capacity	3.1	Knowledge Base & Tech. Studies	4	95	3.80
	3.2	CBFRM Activities	6	100	6.00
	3.3	MIS Project Mgmt Module	4	75	3.00
4. River Study, Piloting & Master Plan	4.1	Long-term stabilization study	4	85	3.40
	4.2	Land recovery piloting	2	90	1.80
5. Preparation; Project-2	5.1	Feasibility Study; Project-2	6	100	6.00
	5.2	Detailed Design; Project-2	4	88	3.52
Totals			**100**		**93.72**

5. Financial Progress

Financial Indicator	BDT Million	US$ Million	% of Total
Estimated Project Cost (Source: DPP Page 1	8674.00	108.43	100
PMO Expenditures	7278.22	90.98	84
ADB and GON Disbursement	5279.00	67.55	61
Total Reimbursement	4001.75	51.25	47

*1 USD= 80 Taka (Source : Revised Devised Development Project Performa (Page-2)

Progress percentages are taken from Implementation Monitoring and Evaluation Division Report (June 2019)

1. INTRODUCTION

1.1 Background

The people in Bangladesh are often detrimentally affected by flooding and riverbank erosion along its four main rivers: Jamuna, Ganges, Padma and Meghna. Even though the erosion rates of floodplain land have reduced from nearly 5000 hectares per year to less than 2,000 hectares (Figure 1-1), ten thousands of people are affected annually.

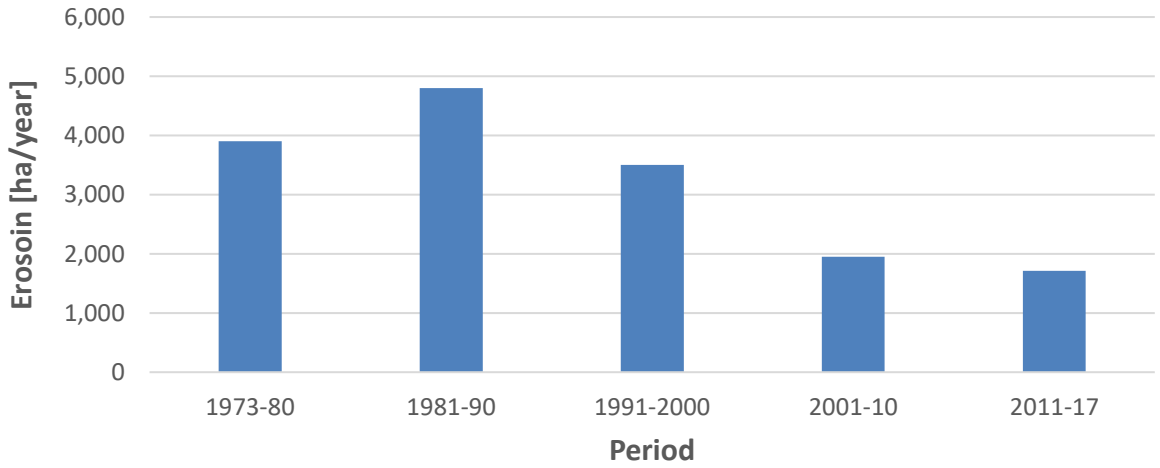

Figure 1-1 Decadal erosion rates of the Jamuna-Ganges-Padma River

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

The BWDB undertook the 'Jamuna-Meghna River Erosion Mitigation Project ' (JMREMP) with financial assistance from ADB in 2001, having the dual purpose to firstly mitigate riverbank erosion at the Pabna Irrigation and Rural Development Project (PIRDP) and the Meghna-Dhonagoda Irrigation Project (MDIP) through sustainable and cost-effective protective works; and secondly to develop a framework for sustainable erosion risk management system to be applied elsewhere in the country. JMREMP has developed the concept of phased planning (based on erosion prediction, river surveys, and flexible fund allocations) and implementation to adapt to changing river condition known as adaptive management. The most important development of the project is a special method of construction of underwater revetment by dumping sand filled geo-textile bags from positioned barges. 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 the BWDB in 2010. 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 (NHC, 2013). This initiative includes recovering floodplain land lost during the

widening process which has persisted since the 1960s[1].The ADB Facility Administration Manual, June 2014 (ADB, 2014) is the key document prescribing the loan objectives and procedural details.

The loan for Project-1 of the Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP) was signed on 14 August 2014, and the contract with the main consultant (ISPMC) was signed on 8 September 2015. The first 17.80 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 2020, 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 ADB, 2014. 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 targeted sub-project reaches.

1.2 The Project

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

The project scope and implementation arrangements have not fundamentally changed from those outlined in the ADB Report and Recommendation of the President **(**ADB, 2014**)**, except for the postponement of some activities due to the reduction of available loan financing. The anticipated outputs of the project are to provide:

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

Under Project-1, nearly 17.80 km of riverbank protection and 21.30 km of flood embankments (rehabilitation and new; refer to the Project Map(**Figure 0-1)** were implemented. Adding to that, 4.4 km of grout filled jute mattress pilot work is under implementation as wave protection at two project sites. Project outputs also include social and environmental safeguards; institutional, knowledge-base, capacity development; and community-based 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. placed at the beginning of the report, provides a summary of project information including salient reference data, estimates of project assets, plus physical and financial progress indicators, in Bangladesh Taka (BDT), US dollars (USD) and percent completion. The project

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

has been extended until June 2020 to complete the activities, namely, the embankment construction, pilot works including monitoring during the 2019 flood season. The ADB has approved the extension of one-year on January 2018 After the first revision of the Development Project Proforma (DPP), approved on 15 June 2017, the Project Management Office (PMO) has revised the DPP as second time, which was approved on 1st November 2018. The revised DPP, amongst others, increases the budget for land acquisition and resettlement to complete the embankment works, without increasing the overall amount. The 2nd revised DPP also excluded work packages W-12 and W-13 and service packages S-03, S-05 and S-07. A first zero-cost Variation Order for the ISPMC was accepted on 27 July 2017, a second zero cost variation, extending the consulting services to May 2019, was signed on 10 June 2018. The 3rd zero cost variation was approved on 23 March 2019 and it extends the consultancy services untill December 2019.

The PMO is expecting that the modified Project outputs (Appendix-A, Table A-5) can be fully achieved by 30 June 2020.

1.3 Overall Progress

Project-1 is very successful in its core activity, the construction of riverbank protection, during the dry season 2015/16, completed during the 2016/17 dry season with a total length of 17.80 km. Some surficial damages to the upper slope protection occurred at Chauhali, closely related to the placing of permanent concrete block protection. The reason for the slides are under investigation by a technical committee. This notwithstanding, the underwater protection has performed very well, despite deep scouring to, in places, 28 m below the low water level and 25 m below the original apron setting level. Multi-beam echo-sounder survey performed in November 2017 document the underwater constituency of the riverbank at its maximum depth. During the 2018 dry season, the Chauhali underwater works was adapted over a length of some 1.855 km under W-11 work package. The Revised DPP maintained a budget of BDT 325,535,000 under the dedicated contract package W-11 and G-04 for emergency repair and adaptation works in this length. Also additional adaptation work of 2 km length at Chauhali under two different contracts W-07 was conducted which costed BDT 5,76,77,451.25. There were no surficial damages in the adapted area during the course of the 2018 flood season. No adaptation works were required for Harirampur and Zafarganj riverbank protection as no major erosion or river deepening occurred at those sites.

Over the year's geotextile bag revetments have been built at a stable cost level for around USD 3 million or BDT 24 Crore per kilometer (in 2018 prices). It is noteworthy that the works built at Kaijuri between 2009 and 2011 was some 40% below this average rate and shows some damages, while the rest is performing well. Overall, geotextile bag revetments looks like the most cost-effective and sustainable solution built till date, even below spur cost, historically considered more cost effective than continuous revetment works. Riverbank protection advances have been documented widely, including a number of memos and reports authored by the ISPMC FRERMIP. A list of memos is attached in Appendix-J.

The construction of 21.30 km of embankment at Kaijuri to Verakhola U/S Reach and construction of 4 regulators has started on 15 February 2018 for contract packages W-01 to W-05. While only very little progress was achieved prior to the 2018 flood season, all five contract packages achieved 85% cumulative progress by 30 June as per Implementation Monitoring and Evaluation Division (IMED) report, June-2019. Delays accrued particularly from repeated tendering and land acquisition and resettlement issues, which required additional funding to be sanctioned through the second revision of the DPP. Construction activities are expected to be substantially complete before the end of the year 2019.

The contractor for the pilot works package W-14 has completed the first grout-filled jute mattress work including the installation of piezometer and inclinometer at the Harirampur site during this quarter. At Shahjadpur the contractor has started the grout filled jute mattress works from 30th April, 2019, which is supposed to be finished in the next quarter. The overall progress of the pilot works contract W-14 is about 90% up to the end ofJune, 2019.

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 84% of the total time[2] . Compared with the total estimated projected cost, the physical progress is 93%, PMO expenditure is 84%, ADB (plus GON) disbursement is 61% of the total value of project, 89 % of the total aid and total reimbursement is 47%.

The following Table 1-1 shows the relative comparison between the total project cost, ADB loan amount and the comparative percentage progress.

Table 1-1 Comparative Project Cost and ADB Disbursement Progress

Total Project Cost (BDT Million)	Project Aid (ADB and GoN) (BDT Million)	ADB and GoN Disbursement Progress compared to the total cost (%)	ADB Disbursement Progress compared to the Aid amount (%)
8674.444	5907.485	61	89

1.4 This Report

Quarterly Progress Report No. 16 covers the period 01 Apriil 2019 to 30 June 2019. The report describes activities carried out during the quarter, which primarily included: flood embankment construction at Kaijuri with four regulators,inspection bunglow construction, pilot work construction at Harirampur, SESA discussion and preparation, feasibility study report submission to the Project Management Office and Design Office, progress of land acquisition, implementation of Resettlement activities through VRDS, implementation of community-based flood risk management activities through DDM. Notable progress has been made in the construction of the Koijuri embankment and the grout filled jute mattress pilot works at Harirampur and Shahajadpur .

2. PROJECT ACTIVITIES

2.1 Introduction

The BWDB FRERMIP Project Management Office (PMO) started functioning in April 2014. In 2014/15 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

[2] The revised project end date results in 75 months for implementation (April 2014 to June 2020) out of which 63 months (April 2014 until June 2019) have passed. The last six months are typically for accounts closure and administrative processes and not implementation of works.

and Manikganj). After the riverbank construction was completed in 2016/17 adaptation works was implemented at Chauhali In 2017/18 and the Koijuri embankment construction started. During the 2018/19 dry season work concentrated on the Koijuri embankment and pilot works. The PMU DDM has started implementing the CbFRM component since 30 August 2018 and it has been completed in this quarter.

Joint venture of Northwest Hydraulic Consultants (nhc) and Euroconsult Mott Macdonald (EMM) formed a component named Instituional Strenghening and Project Management Counsultant (ISPMC) which has been working since 8th September 2015 and have completed the following activities: prepared the Project Inception, Mid-Term, summary study team, and draft feasibility reports; supported overall project management and capacity building activities; advised on design, construction and resettlement activities during implementation; prepared management support tools including data bases; provided regular quarterly progress reports; and prepared the terms of reference for several supporting studies.

The status of implementation activities in the reporting quarter is discussed in the following sections, and summary and detailed tables are provided in Appendix-A and Appendix-B, respectively. The history of contractual awards and disbursements, as projected in the FAM and as actually achieved up to the quarter, is shown in Figure 2-1 along with the actual total reimbursements.

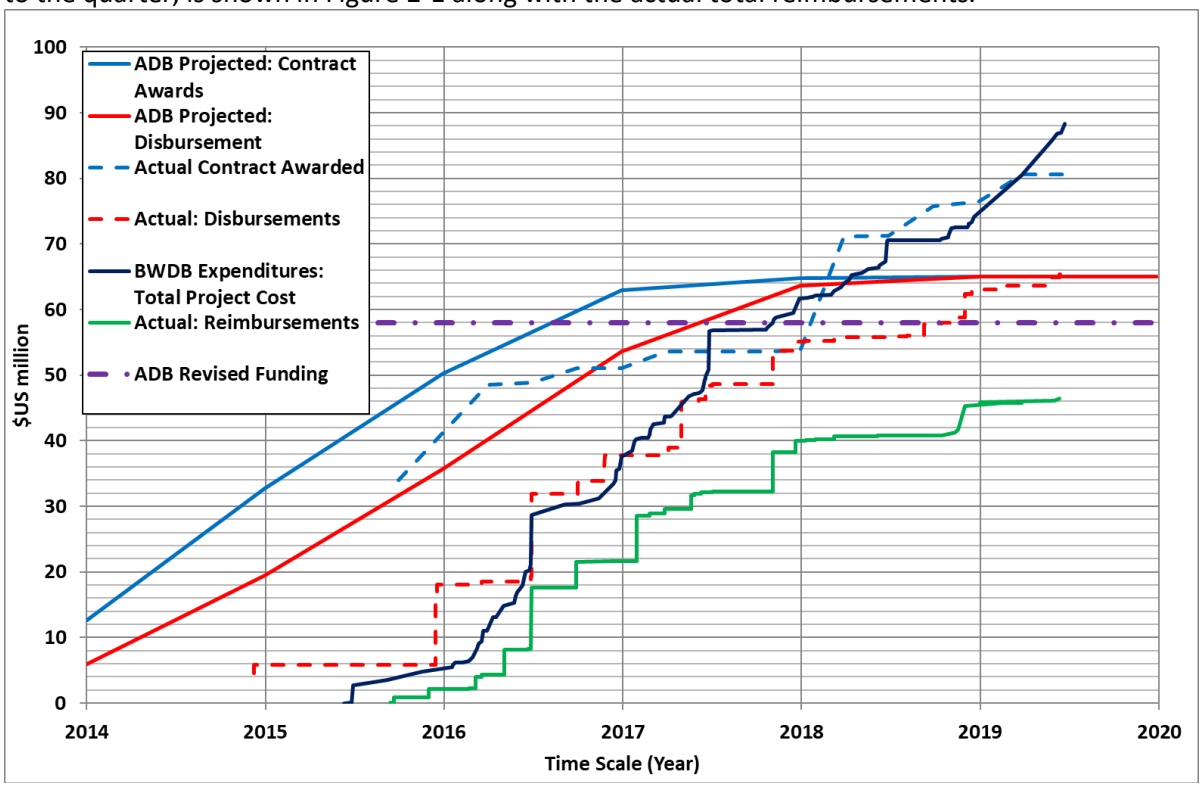

Figure 2-1 Contract, Disbursement and Reimbursement History of ADB Loan

Table 2-1 provides the status of annual ADP expenditures. It is expected that the substantial completion of the embankment construction during the fourth quarter of 2019 (October-December) will complete the Tranche-1 construction activities. The PMO expects to spend the remaining budget within June 2020.

Table 2-1 Annual ADP allocation and disbursement (in BDT million)

Fiscal Year	ADP/RADP Allocation	Actual expenditure	Percentage Actual/Revised
2014/15	2179.53	217.78	66.20/70.00
2015/16	2108.20	2074.34	90.33/98.39
2016/17	2290.80	2246.11	86.26/98.05
2017/18	1331.50	1106.21	40.65/80.08
2018/19	1676.30*	1633.77	81.16/97.46
2019/20	1007.0	-	-

*Up to June 2019, Fiscal Year Ongoing; Source: IMED Report 03/2003

2.2 PROJECT ASSET IMPLEMENTATION

2.2.1 Introduction

Tables A-1 and A-2 show the type, number and total cost of the project according to 2nd revised DPP. The cost of the 21.30 km of embankment (plus associated structures) amounts to BDT 1,202.943 million, as per awarded contract (Table A-5). The 17.8 km of riverbank revetment is expected to cost BDT 1,863 million (work contracts), plus BDT 1,054 million for geo-bags (supply contracts). In line with the 2nd revised DPP (September 2018) the best estimate of the final cost for all project assets currently amounts to BDT 8,674.44 million (Goods BDT 1,360.26 million, Services BDT 1,116.08 million and Works BDT 3,609.24 million, plus BDT 2,588.86 million of additional assets included in the DPP, primarily for land acquisition). The total cost may differ slightly from the DPP allocations due to contract variations and the exclusion of the service contracts.

Using cross-link tables that connect these category items (and Asset Types) with other financial indicators, it is relatively easy to produce tables which show project progress based on ADB Financial Categories (Table A-3) or DPP Components (Table A-4 and A-5). Table A.2 and Table A.5 shows the detail breakdown of RDPP budget estimation.

The second revised DPP was approved by the Planning Commission on 1 November 2018 with the administrative approval letter issued on 19 November 2018. The revised budgetary allocations were incorporated in the quarterly progress report for the period October to December 2018.

2.2.2 Bidding Activities

No major contract has been awarded during this quarter. The details of bidding activities can be found in the Table B-2 of Appendix-B.

2.2.3 Design Activities

The design work for Tranche-1 is essentially completed. Details of the design development can be found in Table A-1 of Appendix-B. During this quarter, the design of contract package W-16, grout filled jute mattress pilot works from chainage 16.73 km to chainage 18.03 km= 1.3 km in embankment slope protection at Shahzadpur Upazilla, Sirajganj was prepared and was submitted to the BWDB design office for approval and was finally approved on 30 June, 2019.

2.2.4 Implementation Activities

The following work contracts are complete or under implementations:

Table 2-2 Summary of Implementation activities

Contract	Locations	Start date	Completion date	Contract Amount in Lac	Amount paid in Lac	Percent completed
W-6 & W-7	Chauhali	19-10-15	15-04-18	8895.6	8293.58	100
W-8	Zaffarganj	16-02-16	20-01-18	4850.00	4668.69	100
W-9 & W 10	Harirampur	07-01-16	09-02-17	5705.15	5673.15	100
W-01 to W-05	Kaijuri	11-02-18 27-02-18 08-03-18	31-05-19	12029.43	9102.06	87
W-14	Pilot	16-09-18	30-06-19	3218.79	1932.136	90
W-15	Inspection Bunglow	10-06-18	31-05-19	70.452	46.35468	78

Details of the ongoing contract work are:

The construction work of embankment under Contract Package W-01/2016-17 was started from 15 February, 2018. In the Package W-01, the contractor has completed all the components of the regulator work at Koijuri except vertical lift gate installation, backfilling (92% completed) and excavation of inlet and outlet channel. The overall progress of this structure is about 90%. The vertical lift gates are under fabrication and may be completed by 10-07-2019. The work of another 2-vent regulator at Rohindakandi was started from the last week of December, 2018 and the work is in progress. Almost all major components of works are complete except RCC casting (95% complete), back filling (77% complete), complete fabrication and installation of vertical lift gates and excavation of inlet and out let channel. The vertical lift gates are under fabrication and may be completed by 10-07-2019 .The overall progress of the package is about 80% up to 30th June, 2019. The rest of the work is expected to be completed by December, 2019. The overall progress of embankment (From Ch 0.00 km to 5.00 km) up to June 2019 is about 78%. The contractor is building the embankments with sand dredged from the river and being compacted by machine. The progress of different components of the works are stated in the next paragraph .

The dredged fill and compacted sand is 95%, clay cladding is 40% and vetiver plantation is 16%. The earth work by dredged filled sand in Contract Packages W-02& W-03 was started by the Contractor from November, 2018. The progress of dredged filled materials with ancillary works in these two Packages is 70% up to June, 2019. Total length of earth work of two packages is 7.50 km (From km 5.00 to km 12.50). There are no structural works like regulators in these two packages. The component wise progress in Package W-02&W-03 is as stated in the next sentence. The progress of dredged filled sand is about 97%, the progress of clay cladding is about 40% and vetiver plantation is about 03%. The rest earth works under the packages are in progress and is expected to be completed by December, 2019. The progress of the dredged filled sand with compaction for construction of embankment (From km 12.50 to km 17.30 = 4.80 km) under Contract package W-04 is 75% up to this quarter. But the progress of many major components is slow. These are -- dredged fill earth with compaction is about 97%, clay cladding is about 53% and vetiver plantation is about 0%. One 4 (four) vent regulator under this package (W-04) is under construction. The construction of the regulator is also in progress and overall progress is about 75% up to 30th June, 2019. The progress of major component of the regulator is as stated. The progress of RCC casting is about 76%, embedded parts is about 57%, CC blocks laying is about 25%, back filling is 0%, fabrication and installation of gates and hoists is 0%, inlet and outlet

channel excavation is 0%. It seems that the completion of the works of the regulator may not not be possible before December, 2019. The earthwork by dredged fill materials in Contract package W- 05 (From km 17.30 to km 21.30 = 4.00 km) is in progress. The progress of different components of the earth works up to June, 2019 is as stated. There is one 4 (four) vent regulator under this package W-05. The work of the regulator construction is in progress. The overall progress of the regulator is about 70% up to June, 2019. The progress of major components of regulator works is as mentioned. The progress of RCC works is 92%, CC blocks laying is 84%, back filling is 0%, fabrication and fitting fixing of gates and hoists is 0%, inlet and outlet channel excavation is 0%. It seems that the contractor will not be able to complete the rest works before December, 2019. The progress of pilot works under Contract W-14/2017-18 is also in progress. The scope of works under this contract package is "Riverbank protection Piloting works with grout filled jute mattresses along the left bank of Padma River from km 5.30 to km 6.50=1.20km at Harirampur in Upazila Harirampur, Dist-Manikganj & Embankment Slope Protection Piloting works with grout filled jute mattress along the left bank of Hurasagar River from km 13.100 to km 15.000 =1.90 km in Upazila-Shahjadpur, Dist-Sirajganj & plantation of Vetiver grass and local reeds as piloting works for sedimentation and flow reduction at Salimabad char in Upazila-Chouhali, District- Sirajganj under FRERMIP project during the year 2017-18". Out of 3(three) sites of piloting works ,the contractor was able to start work at Harirampur site along the left bank of river Padma from km 5.300 to km 6.500=1.20 km . In this site the river bank was available to start piloting works. Accordingly the contractor started the works by the 1st week of December, 2018 at Harirampur. The overall progress of pilot works at Harirampur is about 100% up to June, 2019 including the installation of piezometer and inclinometer. At Shahjadpur the contractor has started the grout filled jute mattress works from 30th April, 2019. The progress of the works is as mentioned. The work has been completed from Km 13.100 to km 13.675 & from km 13.880 to km 14.700. The works from km 14.700 to km 15.100 is in progress. As per verbal information of the contractor the works in this portion will be completed by mid July,2019 including the installation of piezometer and inclinometer. But they will not be able to complete the grout filled Jute mattress work in between km 13.675 to km 13.880 due to non completion of embankment works near the under construction 4 vent Verakhola Regulator under Contract Package W-04. The works of vetiver plantation works at Salimabad at Chouhali under Sirajganj District may not be possible due to non availability of land as well as due to adverse opinion of the local people.

2.3 OTHER PROJECT ACTIVITIES

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

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

2.3.1 Supporting Service Studies

The project comprises four service contracts for supporting Project actitivites, two have been deferred to Tranche-2. The status of the four supporting services are summarized in Table 2-3.

Table 2-3 Supporting Service Studies

Pkg.	Service Name	Present Status
S-01	Institutional Strengthening and Project Management Consultant (ISPMC)	The ISPMC signed a contract with BWDB on 08 September 2015,and their work is estimated to be around 80 % complete. The contract has been extended until May 2019 and the third zero-cost variation order to extend the contract until December 2019 is being processed currently.
S-02	Resettlement Plan Implementation	The Resettlement INGO signed a contract with BWDB on 16-Mar-2016, and their work is estimated to be 89 percent complete. Details are in Section 2.3.3.
S-04	NGO Service for Community based Flood Risk Management (DDM)	The contract was signed on 30 August 2018 and the contractor (BDPC) has started implementation since 01 September, 2018. More details are in Section 2.3.5. The contract has ended in 30 June 2019.
S-06	Erosion Prediction	CEGIS has completed the contract work in June, 2018.

2.3.2 Environmental Management

The international Environmental Specialist reviewed the fisheries field report on possible FRERMIP impacts and minor changes were made to the SESA report. Review of the SESA by NCEA awaits the completion of the RSP and is currently expected to take place in July 2019. The National Environmental Specialist prepared Semi-annual Environmental Monitoring Report for the period January 2019- July 2019 and sent to PMO for final submission to ADB. The National Environmental Specialist also submitted the monitoring report of EMP compliance of Embankment Construction packages at W-01/2016-2017 (Md. Moyenuddin (Bashi)-Golam Rabbani const. Ltd, JV) W-02/2016-2017 (Taher Brothers Ltd.- M.A Enterprise, JV), W-03/2016-2017 (Taher Brothers Ltd.- M.A Enterprise, JV), W-04/2016-2017 (HB-SSECL, JV), W-05/2016-2017 (Md. Moyenuddin (Bashi)-Golam Rabbani const. Ltd, JV) and Embankment slope protection piloting works with grout filled jute mattresses along the left bank of Hurasagar river W-14/2017-2018 (Khondaker Shaheen Ahmed- M.A Enterprise, JV). Field work on the 'Baseline Study on Certain Environmental/Fisheries Aspects in the FRERMIP Operational Area' was completed and Draft report on the study was also completed and submitted for review of the ISPMC team and further action. Reviewed latest comments on the TN on Fisheries with the ISPMC Team Leader and provided with needful feedback for finalization of the TN.

2.3.3 Resettlement Services

A significant number of progress have already been achieved upto June 2019.

JVT for embankment of the concerned district completed the assessment of compensation by visiting the sub-project areas physically. Subsequent to the determination of the compensation VRDS in association with HCL finalized the payment procedure like finalized the list of the EPs with ID card, opening the Bank Account. All payment procedure at Zafarganj (1.4 km) & Chauhali completed & already Resettlement Grant distributed to the Affected People. Now payment procedure at Embankment JRB-1 has been completed & 662 Titled Holders & Uthuli have received Resettlement Grant & 754 received Replacement Cost & Resettlement Grant. 602 Titled Holders bills were

forwarded to the RAC office through PD office & 97 Titled Holders bills were forwarded to the PD office through XEN office, Koitola. 48 Non-titled Holders (Squatters) bills were submitted to XEN office, Koitola. 59 Titled Holders & 24 Non-Titled Holders Bills were not possible to find out

A total of 2956 affected people (Notice holders) received Cumulative Cost for Land (CCL) as per Law from respective DC office. A total of 1628 affected persons received resettlement grant and replacement cost. The following Table 2-4 Summary of Resettlement Grant Received by the AP summarizes the compensations received by the Affected Persons and the list of awareness meetings held.

Table 2-4 Summary of Resettlement Grant Received by the AP

Sl No	Location of Intervention with sub-reaches	Upazilla/ District	Type of Loss	Approved by PVAT & JVT	No. of APs & CPR Title/ Non-title/Tenants					Affected Households		Status of Compensation	
					Title	Non Title	Tenants	CPR	Total	Male	Female	Cumulative up to June 2019	
												CCL	Resettlement Grant
1	Embankment (Koijuri to Hurasagor) incl. 4 regulators in JRB-1	Shajadpur of Sirajgonj and Bera of Pabna	Residence & Business structure, Business loss,	JVT on Squatters done on 30/08/2017	949	1305	56	12	2322[3]	2081	229	90% CCL payment for structure holders done & 80% CCL	1416 EPs received Resettlement Grant
2	Riverbank protection work at Chauhali JLB-2	Chauhali of Sirajgonj; Nagorpur& Sadar of Tangail	Residence & Business structure, Business loss, Agriculture plot	Approved by JVT	176	14	00	01	191	179	11	85% CCL payment done at Tangail part. 72% CCL payment done at Sirajganj part	Resettlement Grant among 52 EPs on 16/07/17 Replacement Cost (RC) for 36 APs on 25/04/2018
3	Riverbank protection work at Zafargonj JLB-2 (1.4 Km)	Shibaloy of Manikganj	Residence & Business structure ,Business loss, Agriculture plot	Approved by JVT	38	40	12		90[4]	77	13	50% CCL payment done	Resettlement Grant distributed among 88 EPs on 15/04/17

[3]During Socio-Economic & Census Survey 2372 Aps & 12 CPR has been identified but during JVT survey 2310 Aps & 12 CPR has been identified. 62 Aps (Squatters) has been reduced due to displacement to another places.

[4]During Socio-Economic & Census Survey 83 Aps & 2 CPR has been identified but during JVT survey 88 APs has been identified & 02 CPR has been reduced. Finally total 90 Aps has been identified (02 Aps has been included by DC office)

4	Riverbank protection work at Zaforgonj JLB-2 (0.6 km)	Shibaloy,Manikganj	Residence & Business structure ,Business loss, Agriculture plot	Approved by JVT	26				26	22	04	55% CCL payment done	Resettlement Grant distributed among 26 EPs on 12/07/17
5	Riverbank protection work at Hariramp ur PLB-1	Harirampur , Manikganj	Residence & Business structure ,Business loss,	Not Done	66	13		02	81	72	07	Yet not Start	Yet not start
	Total				1255	1372	68	15	2710			2956	

The NGO distributed an Information Brochure detailing the documents needed for payment of Cumulative Cost for Land (CCL) payment to all APs during public consultation meeting. INGO has formed 60 groups each consisting of 20 members (total 1200 members) to facilitate income generating activities.

2.3.4 Gender and Development

Gender and Development courses have been implemented for the staff of 5 construction packages of Koijuri site and 1 for all staff of Koijuri site of office of BWDB. A gender specific training course was also conducted for raising awareness and building capacity of female BWDB staff. 5 female workers and 16 female staffs participated in the training programs respectively. The training included:

a) Briefing on FRERMIP activities & implementation strategy; Concept of Gender Equality.
b) Equity and Mainstreaming; National and International Policy commitment of GOB in Gender;
c) Mainstreaming Importance of Gender Mainstreaming in FRERMIP activities; Importance of women-friendly design of physical structures; Gender Action Plan (GAP) of FRERMIP;
d) Importance of Sex-disaggregated data collection and use; and Importance of implementation & reporting of Project's GAP. BWDB and Project's senior officials attended as resource persons in this workshop. The training was conducted in a participatory way and all participants provided their opinion and comments through VIPP card and presentation.

The trainings were very successful ensuring collaborative understanding and discussion on the above topics and establishing the main objective of the program.

The Revised Gender Action Plan has been emphasized by the ADB in this quarter and is under implementation. The progress report is compiled as per approved revised GAP which is provided in Appendix F.

2.3.5 Community-based Flood Risk Management (CbFRM)

Indeed, the project ending quarter April-June, 2019, was very eventful for CbFRM, during which period implementing NGO (INGO) in line with the action plan implemented massive community awareness program-activities on flood and erosion risks reductions, across the project areas. Those included series of courtyard sessions, deliberations by Imams at mosques during prayers; community sensitization via cultural events at community levels showing popular dramas and singing thematic songs by local cultural groups; open discussion sessions at local primary and high schools for children's sensitization. All these community level awareness campaigns were followed by conducting the **local advocacy workshops** in 7 upazilas covered by CbFRM covering learning of the project and issues of institutionalization of CbFRM approach for sustainability. These workshops were participated by majority members of upazila disaster management committees, some members of union disaster management committees under each upazila and leaders and deputy team leaders of CDMUs constituted under each upazila. The objective was to provide feedbacks for sharing and developing content of the last major event of **National Advocacy Workshop,** held at CIRDAP International Conference Centre, Dhaka, on 19 June 2019. Policy level official of the prime minster's secretariat, major stakeholders in the concerned ministries of Water Resources and Disaster Management and Relief, including the secretaries and other high officials, high officials in the concerned departments, representatives of union and upazila disaster management committees, selected number of community volunteers participated in the workshop. Brief description of the national workshop is presented in the end.

First, brief description of each of the above-mentioned community awareness program-activities completed in the reporting quarter is presented below. Other than the courtyard sessions all other three activities, whilst conducted throughout the project areas, are sequentially reported here for convenience under the 7 project-upazilas including Shahjadpur and Chowhali in Sirajgonj district; Nagarpur and HQ in Tangail district; and Shibalaya, Harirampur and Daulatpur in Manikgonj district.

a) First with respect to courtyard sessions each of the 605 Community Volunteers (CVs) covered 100 households to cover a total of 60,500 households in the venues close to each household's homestead for convenience. The group of 100 households per CV was again divided into four sub-groups, comprising 25 household-representatives in each group, to cover each of them in three courtyard sessions to complete sharing the messages included in the prepared flip chart for each CV. Each such session was held for half an hour mostly before the noon, as preferred by the participants. Given the above arrangement, each CV undertook 12 sessions that multiplied by the total number of CVs (605) resulting in total 7,260 courtyard sessions covered during the quarter.

b) During prayers 'Imams' of the mosques were also advised in written to speak about various preparedness measures needed for flood and river erosion preparedness, so that community people attending the prayers seriously take those into account and also motivate others for compliance. A total of 56 such mosque-based lecture-sessions were conducted by the 'Imams' throughout 7 upazilas, attended by more than 10,000 community people. Information on each of these sessions in particular locations of the individual mosques together with the people attended in each mosque is given in Table-1 below.

Table-1: Community Sensitization on Flood and Erosion Risks Preparedness in Mosques

Sl.	Date	Venue	Union	Male Participants
District: Sirajgonj				
Upazila: Shahzadpur				
01.	24.05.2019	Porjona Bazar Mosque	Porjona	375
02.	24.05.2019	Suto Moharajpur Jame Masjid	Porjona	310
03.	24.05.2019	Suto Chamtara Jame Masjid	Sonatony	317
04.	24.05.2019	Bantiar Bazar Jame Masjid	Sonatony	325
05.	24.05.2019	Koijuri Bazar Jame Masjid	Koijuri	495
06.	24.05.2019	Pachil Bazar Jame Masjid	Koijuri	375
07.	24.05.2019	Jalalpur Bazar Jame Masjid	Jalalpur	355
08.	24.05.2019	Sayadpur Jame Masjid	Jalalpur	315
09.	24.05.2019	Binotia Jame Masjid	Gala	305
10.	24.05.2019	Tarutia Jame Masjid	Gala	307
Upazila: Chowhali				
11.	24.05.2019	Moddho Jotpara	Kash Kawlia	80
12.	24.05.2019	Dakkhin Kash Kawlia Jama Masjid	Kash Kawlia	75
13.	24.05.2019	Poshchim Bolia Bapari Para	Kash Pukuria	78
14.	24.05.2019	Mituani Jama Masjid	Kash Pukuria	95
15.	24.05.2019	Baghutia Bazar Jama Masjid	Baghutia	60
16.	24.05.2019	Rahai Pukuria Jama Masjid	Baghutia	90
17.	24.05.2019	Colohara Jama Masjid	Sthal	150
18.	24.05.2019	Langlemora Jama Masjid	Sthal	70
19.	24.05.2019	Haparia Sardar Para Masjid	Umarpur	65
20.	24.05.2019	Patrial Jama Masjid	Umarpur	120
21.	24.05.2019	Batil Jama Masjid	Sadia Chandpur	110
22.	24.05.2019	Boalkandi Ahle Hadis	Sadia Chandpur	90
23.	24.05.2019	Borongail Jama Masjid	Ghorjan	150
24.	24.05.2019	Char Jajuria Jama Masjid	Ghorjan	70
District: Tangail				
Upazila: Nagarpur				
25.	24.05.2019	Atapar Sarkari Jama Masjid	Varra	120
26.	24.05.2019	Master Bari Jama Masjid	Varra	85
Upazila: Headquarter				
27.	24.05.2019	Dubali Moddho Para Jama Masjid	Katuli	70
28.	24.05.2019	Alokdia Bazar Jama Masjid	Katuli	65
District: Manikganj				
Upazila: Shibalaya				
29.	24.05.19	Zam Duyara Jame Masjid	Teota	150
30.	24.05.19	Al Munnafia Baytul Aman Jame Masjid	Teota	200
31.	24.05.19	Noyabari Bazar Jame Masjid	Uthali	250
32.	24.05.19	Kolabari Jame Masjid	Uthali	200
33.	24.05.19	Noyakandi Bazar Jame Masjid	Arua	250
34.	24.05.19	Arua Bepary Para Jame Masjid	Arua	180
35.	24.05.19	Boyali Para Jame Masjid	Shibalaya	250
36.	24.05.19	Notun Para Jame Masjid	Shibalaya	200
Upazila: Harirampur				
37.	24.05.19	Bahirchar Poshchim para Jame Masjid	Ramkrishnopur	210
38.	24.05.19	Maniknagar Poshchim para Jame Masjid	Ramkrishnopur	190
39.	24.05.19	Charpara Jame Masjid	Gopinathpur	217
40.	24.05.19	Foiyosnagar Jame Masjid	Harukandi	220
41.	24.05.19	Velabad Jannul Maoya Jame Masjid	Harukandi	225
42.	24.05.19	Degirchar Moulovibari Jame Masjid	Gopinathpur	197

Sl.	Date	Venue	Union	Male Participants
43.	24.05.19	Islampur Jame Masjid	Dhulshura	150
44.	24.05.19	Hazinagar Baitul Nur Jame Masjid	Dhulshura	170
45.	24.05.19	Lechragonj Bazar Jame Masjid	Boyra	230
46.	24.05.19	Andharmanik Forkania Jame Masjid	Boyra	120
47.	24.05.19	Kotkandi Jame Masjid	Kanchanpur	200
48.	31.05.19	Gayenbari Jame Masjid	Kanchanpur	150
Upazila: Daulatpur				
49.	24.05.19	Uttar Baralautara Jame Mosjid	Jiyonpur	160
50.	24.05.19	Dokshin Baitul Mamur Jame Mosjid	Jiyonpur	90
51.	24.05.19	Baghutia Jame Mosjid	Khulshi	190
52.	24.05.19	Char Khulshi Jame Mosjid	Khulshi	230
53.	24.05.19	Islampur Moddho para Jame Mosjid	Baghutia	110
54.	24.05.19	Islampur Uttar para Jame Mosjid	Baghutia	80
55.	24.05.19	Hazrat Fatematuzzohora Jame Mosjid	Bachamara	200
56.	24.05.19	Bachamara Purba Jannat Jame Mosjid	Bachamara	160
			Total	**10,301**

3. As indicated, cultural events including popular dramas and songs performed by the local cultural groups were also held to convey the relevant messages of flood and erosion risks awareness campaign to the grass roots audiences. There were 28 of such cultural events organized at different suitable venues across the project areas; each lasted for about two hours, on average, in the daytime, attended by more than 11,000 grass roots community people, including males, females and children. The pertinent information on each of the cultural events are presented in Table-2 below:

Table-2: Cultural Events

Sl.	Date	Venue	Union	Participants		
				Male	Female	Total
District: Sirajgonj						
Upazila: Shahzadpur						
1	30.04.2019	Guchsa Gram	Jalalpur	175	255	430
2	01.05.2019	Bherakola High School	Gala	223	515	738
3	02.05.2019	Porjona Primary school	Porjona	145	217	362
4	03.05.2019	Rishi Para	Koijuri	117	185	302
5	04.05.2019	Soto Chantara Bazar	Sonatony	235	377	612
Chowhali, Sirajganj						
6	11.06.2019	Samvudia Schoool	Baghutia	150	280	430
7	12.06.2019	BM High School	Kash Pukuria	70	350	420
8	12.06.2019	Janata School	Kash Kawlia	110	370	480
9	15.06.2019	House of Alamgir Sardar	Umarpur	75	400	475
10	16.06.2019	Union Parishad	Sthal	60	150	210
11	13.06.2019	Ritpur Primary School	Ghorjan	180	100	280
12	16.06.2019	Boalkandi Koraitola	Sadia Chandpur	200	60	260
District: Tangail						
Upazila: Nagarpur						
13	15.06.2019	Sahjani High School	Varra	230	270	500
Upaziia: Headquarter						
14	18.06.2019	House of Latif Member	Katuli	160	210	370
District: Manikgonj						
Upazila: Shibalaya						
15	19.06.19	Bororia Krishnochondra HS	Arua	550	650	1,200

Sl.	Date	Venue	Union	Participants		
				Male	Female	Total
16	19.06.19	Aricha Bazar	Shibalaya	100	40	140
17	20.06.19	Shatghar Teota High School	Teota	350	450	800
18	20.06.19	Baradia Bazar	Uthali	150	100	250
19	23.06.19	Katir Hatbazar	Kanchanpur	350	50	400
Upazila: Harirampur						
20	21.06.19	Dhulshura bazar	Dhulshura	216	37	253
21	21.06.19	Dkhshin Chandpur Bazar	Harukandi	337	118	455
22	22.06.19	Patgram Chowrastar Mor	Boyra	240	66	306
23	22.06.19	Bahirchar Bazar	Ramkrishnopur	360	52	412
24	23.06.19	Bhatipara bazar	Gopinathpur	433	190	623
Upazila: Daulatpur						
25	22.06.19	Khulshi (Yard of Sathi, CV)	Khulshi	10	30	40
26	22.06.19	Baghutia UP Field	Baghutia	50	10	60
27	23.06.19	Bachamara UP Field	Bachamara	40	100	140
28	23.06.19	Uttar Para Primary School	Jiyonpur	50	30	80
			Total	5,366	5,662	11,028

4. Open discussion-sessions in primary and high schools were held, which were, in most cases, jointly conducted by the field level Junior Community Mobilization Experts (JCMEs) and schoolteachers, assisted by the CVs, in a number of groups in each school. These types of school sessions covered 28 schools with a total of about 1,700 students across the project areas. Specific information on the school program are presented in Table-3 below:

Table-3: Discussions-Sessions at Schools

Sl.	Date	Venue	Union	Participants		
				Male	Female	Total
District: Sirajganj						
Upazila: Shahzadpur						
1	22.6.19	Gopalganj Veka Primary School	Jalalpur	40	25	65
2	22.6.19	Jalalpur Model High School	Jalalpur	30	25	55
3	20.6.19	Vatdigholia Govt. Primary School	Koijuri	35	25	60
4	20.6.19	Thutia High School	Koijuri	33	30	63
5	20.6.19	Bantiar High School	Sonatony	37	28	65
6	17.6.19	Sreepur Govt. Primary School	Sonatony	28	19	47
7	17.6.19	Jamirta High School	Potjona	36	25	61
8	16.6.19	Porjona Govt.Primary School	Porjona	32	23	55
9	22.6.19	Bherakhola High School	Gala	33	24	57
10	22.6.19	Tarutia Govt. Primary School	Gala	34	20	63
Chowhali, Sirajganj						
11	18.6.19	Kukuri Govt. Primary School	Kash Kawlia	14	31	45
12	18.6.19	Bir Bawnia Govt. Primary School	Kash Kawlia	20	30	50
13	19.6.19	BM High School	Kash Pukuria	29	36	65
14	19.6.19	Kudilia Primary School	Kash Pukuria	15	35	50
15	20.6.19	Binanu Govt. Primary School	Baghutia	20	50	90
16	23.6.19	Somvudia Madarasa	Baghutia	-	50	50
17	23.6.19	Boalkandi Junior High School	Sadia Chandpur	20	25	45
18	23.6.19	Barbala Govt. Primary School	Sadia Chandpur	15	20	35
19	17.6.19	Char Jajuria Girls School	Ghorjan	-	42	42
20	17.6.19	Rahu Kawlia Primary School	Ghorjan	32	28	60
21	19.6.19	Hapania Govt. Primary School	Umarpur	30	32	62

Sl.	Date	Venue	Union	Participants		
				Male	Female	Total
22	19.6.19	Hapani Hatil Primary School	Umarpur	20	25	45
23	20.6.19	Basantapur Junior High School	Sthal	35	40	75
24	20.6.19	Tagory Primary School	Sthal	40	42	82
District: Tangail						
Upazila: Nararpur						
25	15.6.19	Khash Shahjani Primary School	Varra	30	40	70
26	15.6.19	Khash Shahjani High School	Varra	52	28	80
Upazila: Headquarter						
27	18.6.19	Ispahani Primary School	Katuli	40	35	75
28	18.6.19	Bagh Bari High School	Katuli	50	40	90
			Total	**800**	**873**	**1,673**

5. As explained above, 7 upazila level local advocacy workshops were also held at different suitable venues, which were attended by a total of 370 participants. Detailed information on each of these workshops are depicted in the following Table-4.

Table-4: Local Advocacy Workshop

Sl.	Date	Venue	Upazila	Participants
District: Manikgonj				
1	18-06-2019	Upazila Hall Room	Daulatpur	58
2	18-06-2019	Upazila Conference Room	Harirampur	50
3	20-06-2019	Upazila Hall Room	Shibalaya	60
District: Sirajgonj				
4	12-06-2019	Upazila Hall Room	Chowhali	57
5	19-06-2019	PPD Training Centre	Shahzadpur	50
District: Tangail				
6	17-06-2019	Upazila Conference Room	Nagarpur	45
7	18-06-2019	Upazila Hall Room	Headquarter	50
			Total	**370**

5. National Level Advocacy Workshop

The National Level Advocacy Workshop on the project was organized jointly by the Department of Disaster Management (DDM) and Bangladesh Disaster Preparedness Centre (BDPC) on 19 June 2019 at the CIRDAP International Conference Centre, Dhaka**. A total of 130 participants**, including national and local level stakeholders, selected community volunteers, all project staffs, participated in the workshop. The detailed description of the workshop activities, its findings and others are presented in a separate workshop document being finalized by BDPC. Below only the highlights of the workshop are presented.

Mr. Md. Nojibur Rahman, Principal Secretary to the Honorable Prime Minister, graced the occasion as the Chief Guest. Mr. Shah Kamal, Senior Secretary, Ministry of Disaster Management and Relief, Mr. Kabir Bin Anwar, Secretary, Ministry of Water Resources, Mr. Manmohan Parkash, Country Director, Asian Development Bank (ADB) and Engr. Md. Mahfuzur Rahman, Director General, Bangladesh Water Development Board (BWDB), were present as the Special Guests. Mr. Abu Syed Mohammad Hashim, Director General, Department of Disaster Management, Chaired the workshop.

The overall objective was to share the challenges faced and achievements made in the project and advocate for mainstreaming the demonstrated effective outcomes to enhance disaster resilience of the communities vulnerable to floods and riverbank erosions.

The workshop started with the address of welcome by Mr. Jahidul Islam, Project Manager of CbFRM and Deputy Director of Department of the Disaster Management (DDM). Mr. Siadur Rahman, Director, BDPC, thereafter, presented his thought provoking and interesting presentation with statistics about the project including its background, huge activities piloted over a very short period of time, results and learning. He specifically pointed to the potentials of the project for institutional mainstreaming from local to the national level, in order to have a sustainable impact on achieving resilient grassroots communities to flood and riverbank erosion risks on both sides of major rivers Jamuna and Padma.

Given the time constraint of the invited speakers, there was a little change in the workshop program schedule by giving the speakers to deliver their speeches prior to the open flood discussions.

As indicated above, detailed reporting on the workshop is underway, therefore, only the concepts of the speeches delivered by the esteemed speakers are given below.

Special guest, **Mr. Manmohan Parkash,** Country Director, Asian Development Bank (ADB): He said that taking initiatives for preventions is the first step in the disaster risk management. The best way to reduce flood and riverbank erosion induced loss is to avoid floods entirely and take the precautionary measures appropriately long before the disaster strikes. The next step is the effective dissemination of flood early warning messages. He liked the contextualization of the warning messages, saying that it can play a significant role in warning the vulnerable community about the disaster before it happened.

Engr. Md. Mahfuzur Rahman, Director General, Bangladesh Water Development Board (BWDB), appreciated the achievements of the CbFRM project, particularly the contextualization of flood early warning, formation of CDMU and Participatory Operation & Management Groups etc. which can help greatly in disaster risk management. However the sustainability of these outcomes is in question after the project is phased out. As such, it is important that BWDB and DDM should work together also in other ongoing projects for disaster management.

Mr. Kabir Bin Anwar, Secretary, Ministry of Water Resources, appreciated the CbFRM project and mentioned that there have been a large number of studies on floods and riverbank erosions conducted by different government and non-government agencies in the past. He said that there is no need for further study or consultation on this subject, instead physical, structural initiatives should be taken in preventing floods and riverbank erosions.

Mr. Shah Kamal, Senior Secretary, Ministry of Disaster Management and Relief appreciated the initiatives taken by DDM and BWDB in making Bangladesh resilient to disasters. He said that the project was insightful and appreciated the contextualization of flood early warning messages, which can be used in effective ways but there are needs to work on choosing appropriate messages for disseminating at community level.

Md. Nojibur Rahman, Principal Secretary to the Honorable Prime Minister in his speech as the Chief Guest, expressed his satisfaction with the achievements made by CbFRM project. Mentioning it as the timely initiative, he appreciated the engagement of the members of VDP as Community Volunteers in disaster risk reduction measures.

He mentioned specifically the risk and resource maps drawn by the volunteers and community people, identifying the most vulnerable areas and important landmarks. He also appreciated the contextualization of flood early warning messages relevant to local situations.

During the open floor discussions other participants from the line ministries, departments and other organizations asked clarifications and gave their valuable and critical views regarding replication and institutionalization of CbFRM approach for sustainability and mainstreaming. High officials of Ansar/VDP highlighted the importance of their volunteers' involvement in grassroots community flood and erosion risk preparedness side by side in various other community development initiatives and responsibilities. Voluntary services of these Ansar/VDP members are acclaimed in local communities, who basically belong to the same communities and have their own individual professions for income generation.

In his closing remarks, **Mr. Abu Syed Mohammad Hashim,** Director General, Department of Disaster Management and the Chair of the Workshop, appreciated the achievements of the CbFRM project.

Speaking about the contribution and commitment of the Government of Bangladesh to disaster risk reduction, he mentioned that similar initiatives in other flood-prone districts in Bangladesh can significantly reduce loss of life, property and livelihood of the grassroots vulnerable communities. He thanked the Chief Guest, Mr. Md. Nojibur Rahman, Principal Secretary to the Honorable Prime Minister, for managing time out of his busy schedule to participate in the workshop. He also thanked the Special Guests and the participants for actively taking part in the event.

The outcomes of the Workshop are presented below:

- The national level leaders of the disaster management in Bangladesh have appreciated the achievements made in CbFRM project in the shortest possible time. They are convinced that this will contribute to ensure disaster resilience of vulnerable communities in the risk areas.
- The participants appreciated FRERMIP initiatives for construction of flood and riverbank erosion mitigation infrastructures without disturbing the natural flow of rivers and flood waters during the season in a sustainable way, contextualization of national early flood warning in local situations and nationwide online registration of community volunteers.
- Assurance of Asian Development Bank's continuous support for disaster risk management and development in Bangladesh.
- Appreciation of the top civil servants (e.g. Principal Secretary to the Honorable Prime Minister, Senior Secretary of MoDMR, Secretary of MoWR) for the achievements of CbFRM and their commitments towards mainstreaming flood risk management in Bangladesh.

2.3.6 Capacity Building

The following capacity development activities took place during this quarter:

National Advocacy Workshop on " Community-based Flood Risk Management (CbFRM)"

On 19 June 2019, a workshop on **Community-based Flood Risk Management (CbFRM**)- A sub component of FRERMIP was organized by Department of Disaster Managementin CIRDAP International Conference Centre. Officials from MoDMR, MoWR, DDM, BWDB, including staffs from PMO participated in the workshop.

ISPMC Training Activities

On 16 April 2019, 1 (one) training session has been held on " Updataion of specifications of geotextile "under FRERMIP Tranche-I project in the Conference Room, CE-Design. The geotextile specialist Mr.Michael Heibaum was deployed to conduct the training and he shared his experiences in river engineering projects involving uses of geotextile filters in revetments works, hydraulic applications oif

geosynthetic and also physical and numerical modelling. 40 officials from different design circles of BWDB participated in the training.

Table 2-5 summarises the total number of trainings that took place up to this quarter of the project.

Table 2-5 Capacity Building Progress as per RDPP (2nd Revised)

Item	Total	Completed	Remaining
A. Local Training	7	6	1
B. Overseas Training/Study Tour	9	6	3
Total	16	12	4

2.3.7 MIS Development Activities

No additional survey data was added to the database in this quarter. The progress upto this quarter is summarized below:

There has been a number of significant improvements to the MIS, including the addition of 160 bathymetric surveys from the West Guide Bund of the Jamuna Bridge. Other recent developments include an integrated interface for converting and importing a batch of surveys from raw xyz-text files into PostgreSQL tables. Additional summary and detailed reports have been added to both the River Survey and ADCP (Velocity) databases. Improved 'cascading' filters have been added to both databases to facilitate selection of individual surveys. Cascading means that the filter supports more than one filter condition, and that the contents in the remaining drop-down boxes only contain valid options still available, given the filter condition already specified.

An option to calculate and display survey water levels on charts and tables, using available BWDB Water Level Station data, has also been added to the database. Available water levels have made it easy to check the validity of the bathymetric data. A quality check revealed that over 200 surveys obtained from the Special Sirajganj Right Embankment Division BWDB contained survey water depths rather than bathymetric bed levels. These surveys have recently been rectified, using the available survey water levels. At present, water levels are only available for 1194 of the 2288 surveys in the River Survey database. On 26 February 2019, a letter was written requesting BWDB Hydrology for the remaining water levels but as of the end of the reporting period, the data had not yet be been received.

Raw data files related to each of the 237 surveys in the ADCP (Velocity) database have been organized and linked to the database survey records. These raw data files will facilitate possible future developments.
The River Survey Spatial MIS Database documentation has been revised to include all recent innovations. The documentation includes a brief summary, followed by 6 detailed Appendices that provide 'step-by-step' instructions on every available function in both the Bathymetric and Velocity databases:

A ADCP (Velocity database) User Manual
B ADCP Administrator Manual
C River Survey (Bathymetry database) User Manual
D River Survey Administrator Manual
E General Spatial Topics
F River Survey Topics

A current summary list of all surveys in the River Survey (2288) and ADCP (237) database are presented in Appendix - H.

2.3.8 River Study

Significant progress was made on the 35 Technical Notes (TNs) during the reporting quarter. Draft reports were completed for 2 Technical Notes (D1 and F6), and report formatting was completed for 8 Technical Notes (E4, F1, F2, F3, F4, F5, F8 and F9).
It is expected that final reports for 3 Technical Notes (D1, D3 and F6) will be completed by mid-July,2019. Once the prerequisite report on the River Stabilization Plan (D1) is completed, work on the Economic Assessment (G3) will be able to resume.
The individual status of all 35 Technical Notes is available in Appendix-D.

These Technical Notes will form Annexes to the main study documents including:

(i) Long term strategic river stabilization plan study for the Jamuna and Padma and Lower Meghna rivers covering from the Indian border to estuary.
(ii) Preliminary Regional (Master) Plan Study for the Jamuna, Padma and Lower Meghna-Upper Meghna river system.
(iii) Development, Implementation support, and monitoring of land recovery/river training piloting schemes, including piloting using building with nature concept.
(iv) Hydraulic and morphological analyses for the Jamuna -Meghna and Jamuna- Padma- Ganges confluences.

Apart from presenting the context at two national workshops in 2016 and 2017, the Strategic Framework was recommended for approval by the Technical Advisory Committee in September 2017.

A Strategic Environmental and Social Assessment (SESA) of the MFF was carried out by the ISPMC (NHC/EMM, Strategic Environmental and Social Assessment (SESA) of River Stabilisation, September 2018) and reviewed by the Netherlands' Commission for Environmental Assessment in mid-2017 and a second time in early 2019. The SESA differs from a usual EIA in that it focuses on regional development comprising several interventions over a long period of time rather than on a local site-specific intervention.

Mitigation measures include fish passes and inland waterways (distributary) excavation. To evaluate environmental sustainability, identification of indicators to monitor the following is proposed:

(i) For the river and floodplain:

(a) Conservation of biological diversity
(b) Maintenance of a productive river and floodplain fisheries
(c) Maintenance of ecosystem's health and vitality
(d) Conservation and maintenance of wildlife populations
(e) Legal, institutional and economic framework for conservation and sustainable management.

(ii) For the floodplain:

(a) Maintenance of wetlands

(b) Maintenance and enhancement of long-term economic benefits to meet the needs of local communities

The Strategic Environmental and Social Assessment (SESA) was reviewed by the Dutch Government Organization National Commission for Environmental Assessment (NCEA) and has been update and sent to the PMO on 09-Sep-2018 (Ref: Memo No. ISPMC-FRERMIP-528) reflecting the latest standard of the river stabilization plan and the regional master plan. The preliminary findings of the second version (of November 2018) were presented by the NCEA in Dhaka in January 2019. ISPMC team members discussed the draft SESA with the NCEA team in Utrecht on 4 March and agreed to add further technical details by early June for the final NCEA review including a final visit in July 2019 to Bangladesh for sharing the findings.

The SESA differs from a usual EIA in that it focuses on regional development comprising several interventions over a long period of time rather than on a local site-specific intervention. The potentially long-term impacts of proposed works as detailed in the River Stabilisation Plan, (NHC/EMM, November 2017), pertain to the river as well as the floodplain and include changes in river morphology and aquatic habitat caused by riverbank revetments; effects on water bodies and associated habitats caused by disruption of hydrological and ecological connectivity between main and internal rivers, beels and khals, and so on.

Special Environmental field study conducted by the environmental Team under the direct supervision of the Fisheries Specialist from September 2017 ended in January 2019 and detailed report on the work is being finalized.

2.3.9 Feasibility Study Design

All the drawings for Tranche 2 feasibility study have been submitted and approved by the design office, BWDB. The design and drawing for W-16, pilot works contract have been submitted to the design office, BWDB in June, 2019.
The updated draft feasibility report for Tranche 2 has been submitted with 5 annexes on 29 April, 2019 and resubmitted on 5 May, 2019. (ISPMC letter no 608 & 609). The design office, BWDB is yet to make official comments on the updated draft feasibility report.

2.3.10 ISPMC Performance Compliance with ToR

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

3. ADMINISTRATIVE ARRANGEMENTS

3.1 Establishment of Project Offices

The PMO and 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 7th floor respectively.

Some responsibilities of Koitola construction division of BWDB, Bera, Pabna have been transferred to other O&M Divisions by the office order Memo No. 11/BWDB/Sec/DS (OD) on 06 March 2019.

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

Table 3-1 PMO-FRERMIP Staffing

Post Name	No. of Posts in the approved setup	Currently appointed in the post	Vacant post
Project Director	1	1	0
Superintending Engineer	2	1	1
Executive Engineer	4	1	3
System Analyst	1	0	1
Sub-Divisional Engineer	2	1	1
Assistant Engineer	2	2	0
Assistant Director	1	1	0
Accounts Officer	1	1	0
Accounts Assistant	1	1	0
Data Entry Operator	2	1	1
Driver	2	2	0
Guard	2	2	0
MLSS	4	4	0
Total	**25**	**18**	**7**

Table 3-2 SMO-Koitola Staffing

Post Name	No. of Posts in the approved setup	Currently appointed in the post	Vacant Post
Executive Engineer	1	1	0
Sub-Divisional Engineer	1	0	1
Assistant Engineer	1	1	0
Sub-Assistant Engineer	3	3	0
Accounts Assistant	1	0	1
Data Entry Operator	1	0	1
Revenue Surveyor	1	0	1
Work Assistant	3	1	2
Guard	2	2	0
MLSS	1	1	0
Total	**15**	**9**	**6**

Table 3-3 SMO-Tangail Staffing

Post Name	No. of Posts in the approved setup	Currently appointed in the post	Vacant Post
Executive Engineer	1	1	0
Sub-Divisional Engineer	1	1	0
Assistant Engineer	1	0	1
Sub-Assistant Engineer	2	1	1
Accounts Assistant	1	1	0
Data Entry Operator	1	1	0
Revenue Surveyor	1	1	0
Work Assistant	2	1	1
Guard	1	1	0
MLSS	2	2	0
Total	**13**	**10**	**3**

Table 3-4 SMO-Manikganj Staffing

Post Name	No. of Posts in the approved setup	Currently appointed in the post	Vacant Post
Executive Engineer	1	1	0
Sub-Divisional Engineer	2	1	1
Assistant Engineer	1	1	0
Sub-Assistant Engineer	3	3	0
Accounts Assistant	1	1	0
Data Entry Operator	1	1	0
Revenue Surveyor	1	1	0
Work Assistant	3	3	0
Guard	1	0	1
MLSS	2	2	0
Total	**16**	**14**	**2**

Appendix-C Utilization of Consultant Person-Months details the man-months spent by all international and national specialists to the end of the reporting period, which includes information from the approved Variation memo-3 (VO) for the ISPMC. According to Variation Order-3, a total of 46 international specialists have expended 197 out of 221 total person-months (89% of total), and 39 national specialists have expended 434 out of 443 person-months (98% of total) up to the end of June 2019.

3.2 Compliance with Loan and Grant Agreement Covenants

Schedule 5 of the FRERMIP Loan Agreement (Ref. 6) contains a set of 32 specific covenants to be followed during project implementation. These 32 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 32 covenants: 24 are being complied, 5 are to be complied and 3 have been already complied.

3.3 Important Events During This Quarter

- 12 April and 20 April, 2019-- Senior Policy Advisor, Water Management from The Dutch Embassy, Head of the Delta Plan including other dutch officials visited Harirampur, Chauhali, Kaijuri and Enayetpur river bank protection works with the ISPMC consultant team.
- 29 April, 2019-- the updated feasibility study for Tranche 2 was submitted to the PMO and the Design office, BWDB.
- 3 May, 2019 -- Mr. Kabir Bin Anwar, the Secretary of Ministry of Water Resources and Mr. Mahfuzur Rahman, the Director General, BWDB visited the work sites of the project.
- 15 June, 2019 -- The ADG western and ADG planning, BWDB visited Koijuri embakment and grout filled jute mattress pilot works with ISPMC International Construction Engineer**.**

4. FINANCIAL ARRANGEMENTS

4.1 Statements of Expenditure

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

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

PMO- FRERMIP expenditures by individual contract are provided in Table B-4. Only the total expenditure values are exactly correct. The individual developing values have been calculated using total expenditure values and the percent distribution by financial component.

Table B-5 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.

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

5. ISSUES FOR DISCUSSION AND AGREEMENT

5.1 Completion of Embankment Construction and Pilot Works

The 31st May,2019 was the completion time for construction of 21.30 km Embankment and 4 nos Regulators along the right bank of the Jamuna and left bank of Hurasagar river at Shahjadpur , Sirajganj under 5 no Contract Packages. On the basis of the up to date progress of works and other parameters -it can be said that the embankment construction works as per design and specification was not possible to complete in time and so all the contracts may be extended up to 31st December, 2019.

The 30th June, 2019 was the completion date for Pilot works with grout filled jute mattress at Harirampur, Shahjadpur and vetiver plantation at Salimabad The overall progress of 1.20km of grout filled jute mattress work at Harirampur, Manikganj is 100% complete. The 1.90km pilot works by grout filled jute mattress at Shahjadpur is also under progress (87%). Within the stipulated time 30th June the contractor has been able to complete the grout filled jute mattress work up to 1700 meter, as the contractor of the embankment has not completed and handed over the site to the contractor of Contract Package W-14/2017-18 for work. Still there will remain a gap of 200 meter at 4 vent regulator site at Verakhola. At Salimabad the land for vetiver plantation is not yet ready for plantation. The work has not been executed by this quarter and the flood will inundate the char-land site and the water level will rise upto the mark in the next quarter, so it is assumed that the work would not take place.

Considering the above status of works under different Contract Packages, this may be concluded that the completion time for all the works may be extended up to 31st December,2019 .

6. REFERENCES

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ISPMC, 2016: Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP) Project-1, Inception Report, 2016 March

NHC, 2013: Project Preparatory Technical Assistance 8054 BAN, Main River Flood and Bank Erosion Risk Management Program, Main Report, 2013 December

Appendices

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 & Regulator Works	New: Embank	km	0.0	0.0	0.0	12.5	0.0	**12.5**
	Cons/ReCon: Embank	km	0.0	0.0	0.0	8.8	0.0	**8.8**
	New: Insp.Banglow	BDTM	0.0	0.0	7.8	0.0	0.0	**7.8**
	New: Regulator	Nos.	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	0.0	0.0	0.0	0.0	67.0	**67.0**
A4: Pilot Land Recovery	New: RivTrnWrk	BDTM	330.0	0.0	0.0	146.0	0.0	**476.0**
B: Materials								
B1: Geotextile, Riverbank Prot.Works	Procure: GeoBag	Mil Nos.	0.0	0.0	3.2	0.0	1.5	**4.6**
B2: Geotextile, Adaptation	Procure: AdpGeoBag	Mil Nos.	0.0	0.0	1.3	0.0	0.0	**1.3**
C: Vehicles & Equipment								
C1: Vehicles/Transport	Procure: Veh/Trans	Nos.	15.0	0.0	0.0	0.0	0.0	**15.0**
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/NGO Services								
D1: ISPM; Consultant Serv.	Service: 1 Impl.Consult	BDTM	387.0	0.0	0.0	0.0	0.0	**387.0**
	Service: 2 River.Stabil	BDTM	461.0	0.0	0.0	0.0	0.0	**461.0**
	Service: 3 Feasi.Study	BDTM	170.0	0.0	0.0	0.0	0.0	**170.0**
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	50.5	0.0	0.0	0.0	**50.5**
D4: Survey & Investigation	Service: Eros.Pred	BDTM	28.9	0.0	0.0	0.0	0.0	**28.9**
E: Capacity Development								
E1: BWDB Training & Study	Service: Training	BDTM	76.9	0.0	0.0	0.0	0.0	**76.9**
F: Land Acqn & Resettle								
F1: Land Acquisition	Compensate: Land.Acqu	BDTM	2,083.	0.0	0.0	0.0	0.0	**2,083.0**
F2: Resettle Benefits	Compensate: Resettle.B	BDTM	90.0	0.0	0.0	0.0	0.0	**90.0**
G: Program Management								
G1: Staff Salaries BWDB	Service: Prog.Mngt	BDTM	83.7	0.0	0.0	0.0	0.0	**83.7**
G2: Honorarium Allowance	Service: Honor.Allow	BDTM	0.8	0.0	0.0	0.0	0.0	**0.8**
G3: Office Opns BWDB	Service: Prog.Mngt	BDTM	32.3	0.0	0.0	0.0	0.0	**32.3**
G4: Office Opns DDM	Service: Prog.Mngt	BDTM	0.0	2.1	0.0	0.0	0.0	**2.1**
G5: BWDB Surveys	Service: Land/Riv.Surv	BDTM	8.0	0.0	0.0	0.0	0.0	**8.0**
X: Misc. Costs								
X1: Misc. Costs	Misc. Costs: CD&VAT	BDTM	12.1	0.0	0.0	0.0	0.0	**12.1**
	Misc. Costs: Service Charge	BDTM	199.2	0.0	0.0	0.0	0.0	**199.2**

Abreviations:
DDM - Department of Disaster Managment
MAN - Manikganj WD Division, BWDB (SMO-FRERMIP)
KOI - Koitola WD Division, BWDB (SMO-FRERMIP)
TAN - Tangail WD Division, BWDB (SMO-FRERMIP)

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

Table A.2 - RDPP estimates of the project according to IMED Report					all values in BDT lacs	
Sl no	Category	GoB fund	Project Aid RPA			Total
			GOB	Special Account	DPA	
	(a) Revenue Cost					
1	Salary & allowances for support staffs	836.60	0.00	0.00	0.00	836.60
2	Honorarium Allowances	8.00	0.00	0.00	0.00	8.00
3	Resettlement Support Program	0.00	0.00	900.00	0.00	900.00
4	BWDB Capacity Development Program	46.13	0.00	722.75	0.00	768.88
5	Implementation Consultant	503.46	0.00	3369.36	0.00	3872.82
6	River Stabilization and Land Recovery	599.60	0.00	4012.71	0.00	4612.31
7	Feasibility Study of Tranche 2/3 Project	220.58	0.00	1476.16	0.00	1696.74
8	Resettlement Implementation Support	22.75	0.00	152.25	0.00	175.00
9	Community based Disaster Management Program (DDM)	65.78	0.00	440.12	0.00	505.90
10	Land/River Survey and Data Processing	10.40	0.00	69.60	0.00	80.00
11	Survey and Inverstigation/Data Processing	37.51	0.00	251.04	0.00	288.55
12	PMO Operational expenses	38.75	0.00	284.18	0.00	322.93
13	PIU-DDM Operational expenses	2.52	0.00	18.48	0.00	21.00
14	ADB loan interest during implmentation and service charge for Netherlands grant	0.00	0.00	0.00	1992.00	1992.00
15	Sub-total Revenue Component of (a)	2392.08	0.00	11696.65	1992.00	16080.73
	(b) Capital Component					
17	CD/VAT	120.74	0.00	0.00	0.00	120.74
18	Construction of Inspection banglow at Manikganj	7.04	0.00	71.17	0.00	78.21
19	Regulator/ Sluice (new construction 4 nos) in JRB subproject area	222.93	0.00	2254.08	0.00	2477.01
20	21.30 km embankment along the Right Bank of Jamuna and left bank of Baral-Hurasagar	859.72	1625.70	7067.00	0.00	9552.42
21	Riverbank Protective Works	2094.24	0.00	27110.10	0.00	29204.34
22	Adaptive Protection and Emergency Works	380.82	0.00	2874.53	0.00	3255.35
23	Land Recovery/ River training pilot works	421.11	0.00	4257.87	0.00	4678.98
24	Transport vehicles	334.11	0.00	15.37	0.00	349.48
25	Computer and office Equipment	2.09	0.00	41.54	0.00	43.63
26	Computer and office Equipment (DDM)	0.25	0.00	4.74	0.00	4.99
27	Survey equipment	3.37	0.00	64.10	0.00	67.47
28	Land acquisition (136.00 ha)	20831.09	0.00	0.00	0.00	20831.09
29	Sub-total revenue component (b)	25277.51	1625.70	43760.50	0.00	70663.71
	Sub total a+b	27669.59	1625.70	55457.15	1992.00	86744.44
30	**Physical contingency ©**	0.00	0.00	0.00	0.00	0.00
31	**Price Contingency (d)**	0.00	0.00	0.00	0.00	0.00
	Grand total (a+b+c+d)	**27669.59**	**1625.70**	**55457.15**	**1992.00**	**86744.44**

Table A.3 - ADB Categories : Reimbursed Amount by Development Partners

all values in BDT million

Component Code	Categories	Total Cost Est	Value of Physical Progress	PMO expenses	Reimbursed Amount		
					ADB	GON	Total
1	Works	3609	3222.00	3162.97	1855.00	76.20	1931.20
2	Materials	1312.8	1312.80	1312.90	1247.10	0.00	1247.10
3A	Vehicles-BWDB	34.9	34.90	34.90	1.50	0.00	1.50
3B	Equipment -BWDB	11.1	11.10	11.10	10.60	0.00	10.60
3C	Equipment -DDM	0.5	0.50	0.50	0.50	0.00	0.50
4	Resettlement	90	79.20	78.76	27.70	0.00	27.70
5	Training	76.9	63.80	64.02	57.80	0.00	57.80
6A	Consulting Services-Project Management BWDB	1018.2	785.50	788.10	78.74	597.71	676.45
6B	Consulting Services-INGO/ Erosion Prediction Services -BWD	45.1	42.90	39.20	26.80	0.00	26.80
6C	Consulting Services- Project Management DDM	50.5	22.10	30.00	0.00	0.00	0.00
7A	Project Management -BWDB	32.29	30.60	28.96	21.70	0.00	21.70
7B	Project Management -DDM	2.1	1.50	1.53	0.40	0.00	0.40
8	Service Charge of ADB loan & GoN Grants	199.2	149.40	170.00	0.00	0.00	0.00
9	Unallocated	2191	1775.70	1555.28	0.00	0.00	0.00
	Grand Total	**8674.4**	**7532.00**	**7278.22**	**3327.84**	**673.91**	**4001.75**

Table A.4- RDPP Categories : Reimbursed Amount by Development Partners				all values in BDT million		
Sl no	Economic Code	Category	PMO expenses	Reimbursed Amount		
				ADB	GON	Total
		(a) Revenue Cost				
1	3111201, 3111301, 3111325, 3111335	Salary and allowances for support staffs	4.97	0.00	0.00	0.00
2	3111332	Honorarium Allowances		0.00	0.00	0.00
3	3211103	Resettlement Support Program	78.80	27.70	0.00	27.70
4	3231101, 3231201	BWDB Capacity Development Program	64.02	57.80	0.00	57.80
5	325701	Implementation Consultant	299.80	31.62	220.50	252.12
6	325701	River Stabilization and Land Recovery	357.00	39.82	267.40	307.22
7	325701	Feasibility Study of Tranche 2/3 Project	131.30	7.32	109.81	117.13
8	325701	Resettlement Implementation Support	12.28	5.90	0.00	5.90
9	325701	Community based Disaster Manaement Program (DDM)	30.00		0.00	0.00
10	3257104	Land/River Survey and Data Processing	7.48	0.40	0.00	0.40
11	3257104	Survey and Inverstigation/Data Processing	28.90	21.00	0.00	21.00
12	3111302, 3111329, 3111332, 3111338, 3211119, 3211125, 3211128. 3211129, 3241101, 3243101, 3243102, 3255101, 3255105, 3256101, 3258104, 3258107, 3258129, 3258140, 3258129, 3255102, 3255104	PMO operational expenses	23.99	21.30	0.00	21.30
13	Same as PMO expenses	PIU-DDM Operational expenses	1.53	0.40	0.00	0.40
14	3221110, 3411101	ADB loan interest during implmentation and service charge for Netherlands grant	170.00	0.00	0.00	0.00
		Sub-total Revenue Component of (a)	1210.07	213.26	597.71	810.97
		(b) Capital Component				
15	3821104, 3821101	CD/VAT		0.00	0.00	0.00
16	4111201	Construction of Inspection banglow at Manikganj	5.39	0.60	0.00	0.60
17	4111307	Regulator/ Sluice (new construction 4 nos) in JRB subproject area	212.12	31.20	0.00	31.20
18	4111321	21.30 km embankment along the Right Bank of Jamuna and left bank of Baral-Hurasagar	818.31	107.30	0.00	107.30
19	4111321	Riverbank Protective Works	2920.43	2723.20	0.00	2723.20
20	4111321	Adaptive Protection and Emergency Works	322.34	239.70	0.00	239.70
21	4111321	Land Recovery/ River training pilot works	199.87	0.00	76.20	76.20
22	4112101	Transport vehicles	34.90	1.50	0.00	1.50
23	4112202, 4112310, 4113301	Computer and office Equipment	4.40	4.20	0.00	4.20
24	4112202, 4112310, 4113301	Computer and office Equipment (DDM)	0.50	0.50	0.00	0.50
25	4112304	Survey equipment	6.70	6.40	0.00	6.40
26	4141101	Land acquisition (136.00 ha)	1543.16	0.00	0.00	0.00
27		Sub-total revenue component (b)	6068.13	3114.60	76.20	3190.80
		Sub total a+b	7278.20	3327.84	673.91	4001.75
28		**Physical contingency ©**	0.00	0.00	0.00	0.00
29		**Price Contingency (d)**	0.00	0.00	0.00	0.00
		Grand total (a+b+c+d)	**7278.20**	**3327.84**	**673.91**	**4001.75**

Table A-5 DPP categories : Financial and Physical Progeress Indicators

all values in BDT million

Sl no	Economic Code	Category	Budget	Fiscal year 2018/19		Progress up to the month of June 2018		Reimbursement
				Financial	Physical %	Financial	Physical %	
		(a) Revenue Cost	RDPP	Provisional Target				
1	3111201, 3111301, 3111325, 3111335	Salary and allowances for support staffs	83.70	3.18	3.80	4.98	5.85	0.00
2	3111332	Honorarium Allowances	0.80	0.50	62.50	0.00	0.00	0.00
3	3211103	Resettlement Support Program	90.00	55.90	62.11	78.76	87.52	27.70
4	3231101, 3231201	BWDB Capacity Development Program	76.90	17.50	22.77	64.03	83.27	57.80
5	325701	Implementation Consultant	387.30	70.00	18.07	376.87	97.31	252.12
6	325701	River Stabilization and Land Recovery	461.20	101.06	21.91	287.14	62.25	307.22
7	325701	Feasibility Study of Tranche 2/3 Project	169.70	65.00	38.31	124.08	73.13	117.13
8	325701	Resettlement Implementation Support	17.50	3.00	17.14	12.28	89.00	5.90
9	325701	Community based Disaster Manaement Program (DDM)	50.60	30.00	59.30	30.00	59.30	0.00
10	3257104	Land/River Survey and Data Processing	8.00	1.40	17.50	7.59	77.61	0.40
11	3257104	Survey and Inverstigation/Data Processing	28.90	4.85	16.80	28.77	94.82	21.00
12	3111302, 3111329, 3111332, 3111338, 3211119, 3211125, 3211128. 3211129, 3241101, 3243101, 3243102, 3255101, 3255105, 3256101, 3258104, 3258107, 3258129, 3258140, 3258129, 3255102, 3255104	PMO operational expenses	32.30	6.00	18.58	24.24	75.06	21.30
13	Same as PMO expenses	PIU-DDM Operational expenses	2.10	0.70	33.33	1.54	73.33	0.40
14	3221110, 3411101	ADB loan interest during implmentation and service charge for Netherlands grant	199.20	50.00	25.10	170.00	85.34	0.00
		Sub-total Revenue Component of (a)	1608.10	409.08	28.50	1210.27	76.16	810.97
		(b) Capital Component				0.00		
15	3821104, 3821101	CD/VAT	12.10	2.00	16.56	0.00	0.00	0.00
16	4111201	Construction of Inspection banglow at Manikganj	7.80	6.34	100.00	5.39	78.00	0.60
17	4111307	Regulator/ Sluice (new construction 4 nos) in JRB subproject area	247.70	200.00	85.00	212.12	89.00	31.20
18	4111321	21.30 km embankment along the Right Bank of Jamuna and left bank of Baral-Hurasagar	955.20	700.00	94.50	818.31	85.00	107.30
19	4111321	Riverbank Protective Works	2920.40			2920.43	100.00	2723.20
20	4111321	Adaptive Protection and Emergency Works	325.50	58.80	18.08	322.45	100.00	239.70
21	4111321	Land Recovery/ River training pilot works	467.90	199.80	45.00	199.87	92.00	76.20
22	4112101	Transport vehicles	34.90			34.95	100.00	1.50
23	4112202, 4112310, 4113301	Computer and office Equipment	4.40			4.36	100.00	4.20
24	4112202, 4112310, 4113301	Computer and office Equipment (DDM)	0.50			0.50	100.00	0.50
25	4112304	Survey equipment	6.70			6.75	100.00	6.40
26	4141101	Land acquisition (136.00 ha)	2083.10	100.14	24.74	1543.16	85.42	0.00
		Sub-total revenue component (b)	7066.40	1267.08	20.10	6068.28	97.47	3190.80
		Sub total a+b	8674.40	1676.30	18.00	7278.22	93.72	4001.75
27		**Physical contingency ©**	0.00	0.00	0.00	0.00	0.00	0.00
28		**Price Contingency (d)**	0.00	0.00	0.00	0.00	0.00	0.00
		Grand total (a+b+c+d)	**8674.40**	**1676.30**	**18.00**	**7278.22**	**93.72**	**4001.75**

Appendix-B Work Program Details

Table B-1 Design Progress Details

Description	Total	Design Data Collection			Prog (%)		Remarks
		Surv	Hydraul	Geotech	Desn	Dwg	
Component A: Civil Works							
BWDB PMO							
New: RivTrnWrk: 330 BDTM: River Training Pilot Work: & Land Recovery		c	c	na	100	100	Desn. & Dwg. Complete
BWDB PMO Totals	***1***	***1***	***1***	***1***	***1***	***1***	
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. (4 km): Baghabari - Verakhola; km 17.3-21.3		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: 5 km: Embankment (5 km): Kaijuri - Bhatpara; km 0-5		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 Nos.: Kaijuri Reg 2V 1.5x1.8m: Koijuri		c	c	c	100	100	Desn. & Dwg. Complete
New: Regulator: 1 Nos.: Rohindakandi Reg 2V 1.5x1.8m: Ruhindakandi		c	c	c	100	100	Desn. & Dwg. Complete
New: Regulator: 1 Nos.: Verakhola Reg 2V 1.5x1.8m: Verakhola		c	c	c	100	100	Desn. & Dwg. Complete
New: Regulator: 1 Nos.: Andhar Manik Reg 4V 1.5x1.8m: Andharmanik		c	c	c	100	100	Desn. & Dwg. Complete
New: RivTrnWrk: 146 BDTM: Piloting Work; Jute Mattress: Shahzadpur		c	c	c	100	100	Dwgs Complete
Koitola SMO Totals	***10***	***10***	***10***	***10***	***10***	***10***	
Manikganj SMO							
New: Insp.Banglow: 7.8 BDTM: Construction of Inspection Banglow		c	na	na	100	100	Desn. & Dwg. Complete
New: Revetment: 2 km: Revetment (2 km): Zaffarganj; km 6.1-8.1		c	c	na	100	100	Desn. & Dwg. Complete
New: Revetment: 3.6 km: Revetment (3.6 km): Harirampur; km 0-3.5		c	c	na	100	100	Desn. & Dwg. Complete
New: Revetment: 5.2 km: Revetment (5.2 km): Harirampur; km 3.5-7		c	c	na	100	100	Desn. & Dwg. Complete
Manikganj SMO Totals	***4***	***4***	***4***	***4***	***4***	***4***	
Tangail SMO							
New: Revetment: 2.5 km: Revetment (2.5 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
Emerg: AdpRivProt: 67 BDTM: Emergency/Adaptive 1: Riverbank Protection		c	c	na	100	100	Desn. & Dwg. Complete
Tangail SMO Totals	***3***	***3***	***3***	***3***	***3***	***3***	
Component Totals	***18***	**18**	**18**	**18**	**18**	**18**	

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	EoI Notice	EoI Received	BWDB EoI Eval	ADB EoI 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; Chauhali &Sirajganj							26Dec14	31Dec14	19Feb15	04Aug15	29Apr15	07Jan15	01Jul15
G-02	Supply of Geobags; Zaffarganj, 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, Koijuri & 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								01Jun17	08Jun17	08Jun17	15Jun17	22Jun17	22Jun17
Component Totals		***0***	***0***	***0***	***0***	***0***	***0***	***3***	***8***	***8***	***7***	***7***	***7***	***8***
Services; D: Consulting/NGO Services														
S-01	ISPMC;			23Oct14	15Dec14				01Apr15	01Jun15				08Sep15
S-02	Resettlement Impl.Support; Sirajganj, Tangail, Manikganj		22Apr15	09Jun15	09Jul15	24Aug15		22Oct15	11Nov15	10Dec15	11Jan16	04Mar16	15Mar16	16Mar16
S-04	Community Based Flood Risk Mngmt; DDM	30Sep15	01Mar16	28Mar16	26Apr16	27Mar17	23Oct17	23Oct17	12Nov17	17Dec17	05Aug18	28Aug18		30Aug18
S-06.1	2015 Erosion & Morphological Chg;								23Dec14	01Jan15				29Jan15
S-06.2	2016, 2017 & 2018 Erosion Prediction;		23Feb16						23Feb16	15Mar16	24Mar16	28Mar16	09May16	10May16
Component Totals		***1***	***3***	***3***	***3***	***2***	***1***	***2***	***5***	***5***	***3***	***3***	***3***	***5***
Works; A: Civil Works														
W-01	Embankment, & 2 Reg.; km 0-5							06Nov17	07Nov17	11Dec17	27Dec17	21Jan18	12Feb18	12Feb18
W-02	Embankment; km 5-8.5							06Nov17	07Nov17	11Dec17	27Dec17	21Jan18	23Jan18	29Jan18
W-03	Embankment; 8.5-12.5							06Nov17	07Nov17	11Dec17	27Dec17	21Jan18	23Jan18	29Jan18
W-04	Embankment & 1 Regulator; km 12.5-17.3							06Nov17	07Nov17	11Dec17	27Dec17	21Jan18	12Feb18	12Feb18
W-05	Embankment & 1 Regulator; km 17.3-21.3							06Nov17	07Nov17	11Dec17	27Dec17	29Jan18	20Feb18	22Feb18
W-06	Revetment; Jamuna at Chauhali, R1; km 0-2.5							30Mar15	04May15	08Jun15	28Jul15	14Aug15	22Sep15	23Sep15
W-07	Revetment; Jamuna at Chauhali, R2; km 2.5-7.0							30Mar15	04May15	08Jun15	28Jul15	14Aug15	22Sep15	23Sep15
W-08	Revetment; Jamuna at Zaffarganj, km 6.1-8.1							11May15	22Jun15	27Jul15	08Oct15	04Dec15	03Feb16	03Feb16
W-09	Revetment; Padma at Harirampur, R1; km 6.7-10.2							11May15	22Jun15	27Jul15	04Nov15	10Dec15	30Dec15	30Dec15
W-10	Revetment; Padma at Harirampur, R2; km 3.2-6.7							11May15	22Jun15	27Jul15	04Nov15	10Dec15	30Dec15	30Dec15
W-11	Emergency/Adaptive 1; Riverbank Protection							31Dec17	14Jan18	15Feb18	25Feb18	01Mar18	14Mar18	19Mar18
W-14	Piloting Work; Manikganj, Tangail, Sirajganj	04Oct17						21May18	21May18	25Jun18	28Jun18	30Jul18	29Aug18	30Aug18
W-15	Construction of Inspection Banglow; Manikgonj		05Apr18					15Apr18	15Apr18	17May18	29May18	07Jun18	11Jun18	11Jun18
W-16	Piloting Work; Shahzadpur	In Progress												
Component Totals		***1***	***1***	***0***	***0***	***0***	***0***	***13***	***13***	***13***	***13***	***13***	***13***	***13***
Project Totals		**2**	**4**	**3**	**3**	**2**	**1**	**22**	**30**	**30**	**27**	**27**	**26**	**30**

Abbreviations:

ADB - Asian Development Bank
BDT - Bangladesh Taka
Comp. - Completion
Concur. - Concurrence
Doc. - Document
Eval. - Evaluation
EoI - Expression of Interest
Notif. - Notification
ToR - Terms of Reference

Table B-3 Implementation Progress Details, by Contract

Contract Code	Description	Contractor	Best Estimate of Final Cost (BDT Mil)	Value of Cumulate Progress during Qtr%	30-Jun-2019 Current Qtr (%)	30-Jun-2019 Current Qtr (BDT Mil)	30-Sep-2019 Next Qtr (%)	30-Sep-2019 Next Qtr (BDT Mil)	Remarks
Goods									
B: Materials									
G-01	Supply of Geobags: Chauhali &Sirajganj	BJ Geo-Textile	322.5	100	100	322.5	100	322.5	Financially Complete
G-02	Supply of Geobags: Zaffarganj, Harirampur & Manikganj	BJ Geo-Textile	417.8	100	100	417.8	100	417.8	Financially Complete
G-03	Supply of Geobags: Harirampur & Manikganj	DFL-DCTL(JV)	314.0	100	100	314.0	100	314.0	Financially Complete
G-04	Supply of Geobags: Chauhali, Harirampur, Koijuri & Benotia	DIRD FELT LTD	258.5	100	100	258.5	100	258.5	Implemenation Complete
Component Totals			***1,312.8***			***1,312.8***		***1,312.8***	
C: Vehicles & Equipment									
G-05	2016 Supply of Jeep:	Pacific Motors Ltd.	5.5	100	100	5.5	100	5.5	Implemenation Complete
G-06.1	2015 Supply of Jeeps:	Progoti Industries	20.8	100	100	20.8	100	20.8	Implemenation Complete
G-06.2	2016 Supply of Jeep:	Progoti Industries	6.9	100	100	6.9	100	6.9	Implemenation Complete
G-06.3	2016 Supply of Motorcycles:	Atlas Bangladesh Ltd.	1.3	100	100	1.3	100	1.3	Implemenation Complete
G-07.1	2015 Office Equipment: BWDB PMO	Logitech Computer Ltd.	2.2	100	100	2.2	100	2.2	Implemenation Complete
G-07.2	2016 Office Equipment: BWDB PMO	Source & Service	2.2	100	100	2.2	100	2.2	Implemenation Complete
G-08	2016 Supply of Survey Equipments:	Logitech Computers Ltd.	6.7	100	100	6.7	100	6.7	Implemenation Complete
G-09	2017 Supply of Office Equip: DDM	DDM	0.5	100	100	0.5	100	0.5	Implemenation Complete
Component Totals			***46.1***			***46.1***		***46.1***	
Goods Totals			***1,358.9***			***1,358.9***		***1,358.9***	
Services									
D: Consulting/NGO Services									
S-01	ISPMC:	NHC-EMM (JV)	1,018.2	9	77	784.0	88	896.0	Satisfactory Progress
S-02	Resettlement Impl.Support: Sirajganj, Tangail, Manikganj	VRDS-HCL-JV	16.2	13	87	14.1	100	16.2	Satisfactory Progress
S-04	Community Based Flood Risk Mngmt: DDM	BDPC	37.4	33	59	22.1	100	37.4	Construction Ongoing
S-06.1	2015 Erosion & Morphological Chg:	CEGIS	4.6	100	100	4.6	100	4.6	Implemenation Complete
S-06.2	2016, 2017 & 2018 Erosion Prediction:	CEGIS	24.3	100	100	24.3	100	24.3	Implemenation Complete
Component Totals			***1,100.7***			***849.0***		***978.5***	
Services Totals			***1,100.7***			***849.0***		***978.5***	
Works									
A: Civil Works									
W-01	Embankment, & 2 Reg.: km 0-5	Md. Moyenuddin (Bashi)-Gol	323.0	19	83	268.1	100	323.0	Satisfactory Progress
W-02	Embankment: km 5-8.5	Taher Brothers Ltd.-MA Ente	118.2	15	97	114.7	100	118.2	Good Progress
W-03	Embankment: 8.5-12.5	Taher Brothers Ltd.-MA Ente	112.3	15	97	108.9	100	112.3	Good Progress
W-04	Embankment & 1 Regulator: km 12.5-17.3	HB-SSECL (JV)	362.4	18	75	271.8	100	362.4	Construction Ongoing
W-05	Embankment & 1 Regulator: km 17.3-21.3	Md. Moyenuddin (Bashi)-Gol	287.1	18	77	221.1	100	287.1	Satisfactory Progress
W-06	Revetment: Jamuna at Chauhali, R1; km 0-2.5	I-J (JV)	422.7	100	100	422.7	100	422.7	Financially Complete
W-07	Revetment: Jamuna at Chauhali, R2; km 2.5-7.0	I-J (JV)	407.2	100	100	407.2	100	407.2	Financially Complete
W-08	Revetment: Jamuna at Zaffarganj, km 6.1-8.1	WEL-NZK-PTSL (JV)	466.9	100	100	466.9	100	466.9	Financially Complete
W-09	Revetment: Padma at Harirampur, R1; km 6.7-10.2	M.M.Builders & Engineers Lt	309.0	100	100	309.0	100	309.0	Financially Complete
W-10	Revetment: Padma at Harirampur, R2; km 3.2-6.7	M.M.Builders & Engineers Lt	258.3	100	100	258.3	100	258.3	Financially Complete
W-11	Emergency/Adaptive 1: Riverbank Protection	M/S. Hassan & Brothers	62.7	100	100	62.7	100	62.7	Construction Complete
W-14	Piloting Work: Manikganj, Tangail, Sirajganj	JV Khondoker Shaheen Ahm	330.0	63	92	303.6	100	330.0	Good Progress
W-15	Construction of Inspection Banglow: Manikgonj	MS Builders	7.0	13	78	5.5	90	6.3	Construction Ongoing
W-16	Piloting Work: Shahzadpur		137.9	0	0	0.0	0	0.0	Dwgs Complete
Component Totals			***3,604.7***			***3,220.4***		***3,466.1***	
Works Totals			***3,604.7***			***3,220.4***		***3,466.1***	
ProjectTotals			**6,064.3**			**5,428.4**		**5,803.5**	

Table B-4 PACKAGE WISE EXPENDITURE REPORT UP TO JUNE '19 all Values in BDT

Code	Description	ADB	GON	GOB	Total
Goods					
B1	***Geotextile, Riverbank Prot.Works***				
G-01	Supply of Geobags; Chauhali &Sirajganj	322,601,911.63	0	0	322,601,911.13
G-02	Supply of Geobags; Zaffarganj, Harirampur & Manikganj	417,777,104	0	0	417,777,104
G-03	Supply of Geobags; Harirampur & Manikganj	313,997,430	0	0	313,997,430
G1+G2	L/C Commision & others	0	0	2517347.00	2517347.00
Component Total		***1,054,376,446***	***0***	***2517347.00***	***1,056,893793***
B2	***Geotextile, Adaptation***				
G-04	Supply of Geobags; Chauhali, Harirampur, Koijuri & Benotia	258,522,975	0	0	258,522,975
Component Total		***258,522,975***	***0***	***0***	***258,522,975***
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	2,078,361.50	0	109,387	2,187,748.50
G-07.2	2016 Office Equipment; BWDB PMO	2,066,333	0	108,754	2,175,087
Component Total		***4,144,693.50***	***0***	***218,142***	***4,362,835.50***
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	473,955	0	24,945	498,900
Component Total		***473,955***	***0***	***24,945***	***498,900***
Goods Total		***1,333,713,160***	***0***	***28,260,344***	***1,361,973,504***
Services					
D1	***ISPM; Consultant Serv.***				
S-01	ISPMC;	102,699,286.4	583,185,495	102,203,725.25	788,088,506.63
Component Total		***102,699,286.4***	***583,185,495***	***120,203,725,25***	***788,088,506.63***
D2	***INGO BWDB***				
S-02	Resettlement Impl.Support; Sirajganj, Tangail, Manikganj	10,662,100.55	0	1,613,550.45	12,275,651
Component Total		***10,662,100.55***	***0***	***1,613,550.45***	***12,275,651***
D3	***INGO DDM***				
S-04	Community Based Flood Risk Mngmt; DDM	26,098,638.81	0	3,899,796.59	29,998,435.40
Component Total		***26,098,638.81***	***0***	***3,899,796.59***	***29,998,435.40***
D4	***Survey & Investigation***				
S-06.1	2015 Erosion & Morphological Chg;	4,002,000	0	598,000	4,600,000
S-06.2	2016, 2017 & 2018 Erosion Prediction;	21,101,842.34	0	3,067,897.32	24,169,739.66
Component Total		***25,103,842.34***	***0***	***3,665,897.32***	***28,769,739,66***
Services Total		***164,563,868.1***	***583,185,495***	***129,382,969.6***	***877,132,332.7***
Works					

Table B-4 PACKAGE WISE EXPENDITURE REPORT UP TO JUNE '19 all Values in BDT

Code	Description	ADB	GON	GOB	Total
A1	***Embankment & Regulator Works***				
W-01	Embankment, & 2 Reg.; km 0-5	257,144,130.72	0	25,431,837.12	282,575,967.84
W-02	Embankment; km 5-8.5	91,027,876.05	0	9,002,756.95	100,030,633.00
W-03	Embankment; 8.5-12.5	81,788,662.41	0	8,088,988.59	89,877,651.00
W-04	Embankment & 1 Regulator; km 12.5-17.3	287,503,834.82	0	28,434,445.18	315,938,280.00
W-05	Embankment & 1 Regulator; km 17.3-21.3	220,027,012.81	0	21,780,693.58	242,007,706.39
W-15	Construction of Inspection Banglow; Manikgonj	4,900,775.88	0	484,692.12	5,385,468.00
Component Total		***942,392,292.60***	***0***	***93,223,413.54***	***1,035,615,706***
A2	***Riverbank Prot Works***				
W-06	Revetment; Jamuna at Chauhali, R1; km 0-2.5	384,141,612.67	0	37,992,026.93	422,133,639.60
W-07	Revetment; Jamuna at Chauhali, R2; km 2.5-7.0	370,574,468.89	0	36,650,222.45	407,224,691.34
W-08	Revetment; Jamuna at Zaffarganj, km 6.1-8.1	424,850,087.43	0	42,018,138.97	466,868,226.40
W-09	Revetment; Padma at Harirampur, R1; km 6.7-10.2	281,164,655.18	0	27,807,493.42	308,972,148.60
W-10	Revetment; Padma at Harirampur, R2; km 3.2-6.7	235,090,297.49	0	23,250,688.81	258,340,986.30
Component Total		***1,695,821,121***	***0***	***167,718,570.6***	***1,863,539,692***
A3	***Emerg & Adaptation***				
W-11	Emergency/Adaptive 1; Riverbank Protection	58,191,731.60	0	5,755,226.20	63,946,957.80
Component Total		***58,191,731.60***	***0***	***5,755,226.20***	***63,946,957.80***
A4	***Pilot Land Recovery***				
W-14	Piloting Work; Manikganj, Tangail, Sirajganj	0	181,878,676.43	17,988,000.97	199,866,677.40
Component Total		***0***	***181,878,676.43***	***17,988,000.97***	***199,866,677.40***
Works Total		***2,696,405,145***	***181,878,676.43***	***284,685,211.3***	***3,162,969,033***
Others					
E1	***BWDB Training & Study***				
X-05	BWDB Capacity Development;	60,143,398.97	0	3,884,600.00	64,027,998.27
Component Total		***60,143,398.97***	***0***	***3,884,600.00***	***64,027,998.27***
F1	***Land Acquisition***				
X-07	Land Acquisition; Tangail and Manikganj	0	0	1,543,163,761.23	1,543,163,761.23
Component Total		***0***	***0***	***1,543,163,761.23***	***1,543,163,761.23***
F2	***Resettle Benefits***				
X-08	Resettlement Benefits;	78,764,506	0	0	78,764,506
Component Total		***78,764,506***	***0***	***0***	***78,764,506***
G1	***Staff Salaries BWDB***				
X-02	BWDB Staff Salaries;	0	0	4,979,467.65	4,979,467.65
Component Total		***0***	***0***	***4,979,467.65***	***4,979,467.65***
G3	***Office Opns BWDB***				
X-03	BWDB Office Operations;	21,002,198.91	0	2,983,107.21	23,985,306.12
Component Total		***21,002,198.91***	***0***	***2,983,107.21***	***23,985,306.12***
G4	***Office Opns DDM***				
X-04	DDM Office Operations;	1,321,864.32	0	217,374.68	1,539,221.00
Component Total		***1,321,864.32***	***0***	***217,374.68***	***1,539,221.00***
G5	***BWDB 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 Mymenshingh	1,753,294	0	239,086	1,992,380
X-10.5	2018 Bathymetric River Survey; Manikganj	4,434,555.98	0	578,661.36	5,013,217.34
Component Total		***6,609,370.98***	***0***	***875,226.36***	***7,484,597.34***

Table B-4 PACKAGE WISE EXPENDITURE REPORT UP TO JUNE '19 all Values in BDT

Code	Description	ADB	GON	GOB	Total
X1	***Misc. Costs***				
X-01	Service Charge ADB Loan & GoN Grant;	170,000,000	0	0	170,000,000
Component Total		***170,000,000***	***0***	***0***	***170,000,000***
Others Total		***337,841,339.20***	***0***	***1,556,103,537***	***1,893,944,876***
Project Total		**4,453,245,106**	**765,064,171.4**	**2,059,910,451.68**	**7,278,219,728.09**

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

Table B5 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
Wl007	17/Dec/2015	11,069,711.00	78.70	871,186,256
BW006	15/Oct/2015		77.80	
BW008	20/Dec/2015	1,198,478.59	78.70	94,320,265
BW013	30/Jun/2016	3,889,762.94	78.40	304,957,414
BW011	02/Oct/2016	1,627,548.73	78.40	127,599,820
BW017	27/Nov/2016	3,567,316.77	78.65	280,569,464
BW018	04/May/2017	10,263.46	78.40	804,655
BW020	02/May/2017	6,561,484.21	78.84	517,307,415
BW023	22/Jun/2017	1,746,397.55	78.84	137,685,983
BW029	06/Nov/2017	4,715,885.93	80.51	379,675,976
BW030	22/Dec/2017	1,148,309.32		17,370,057
BW034	12/Sep/2018	1,708,882.48	80.85	138,163,149
BW037	05/Dec/2018	3,546,512.56	80.85	286,735,540
BW042	19/Feb/2019	510,691.00	80.85	41,289,367
		44,983,677.54		**3,484,342,771.45**

Grant Imprest Account

Appl. No	Date	US$	Rate	BDT
WG002	09/Dec/2014	1,189,354.00	77.85	92,591,209
WG007	17/Dec/2015	20,651.00	78.70	1,625,234
WG008	04/Oct/2016	319,995.00	78.40	25,087,608
ED002	24/Nov/2016	43,392.97	78.63	3,411,989
ED006	24/Nov/2016	341,134.29	78.63	26,823,389
ED007	04/May/2017	58,422.77	78.40	4,580,345
ED008	02/May/2017	349,549.87	78.84	27,558,512
ED011	22/Jun/2017	160,051.52	78.84	12,618,462
ED015	10/Nov/2017	435,718.95	80.66	35,145,091
ED016	22/Dec/2017	218,279.52	77.58	16,934,125
ED019	08/Aug/2018	163,006.75	80.85	13,179,095
ED021	10/Oct/2018	164,795.19	80.85	13,323,691
ED024	19/Dec/2018	656,219.52	80.85	53,055,348
ED027	24/May/2019	1,090,542.52	83.95	91,549,128
		5,211,113.87		**437,124,815**

Reimbursement

Dir.Pay			ADB & GoN	
Applic	Date	Category	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
BW015/ED004	29/Jun/2016	6A	374,096	29,020,474
BW016/ED005	29/Jun/2016	6A	306,512	23,777,655
BW021/ED009	10/Mar/2017	6A	410,184	31,819,987
BW022/ED010	06/Apr/2017	6A	689,589	53,499,087
BW025/ED012	07/Jun/2017	6A	290,620	22,544,814
BW026/ED013	22/Jun/2017	6A	199,295	15,460,289
BW027/ED014	06/Jul/2017	6A	74,843	5,805,907
BW028	06/Jul/2017	2	94,000	7,520,000
BW031/ED017	12/Jan/2018	6A	110,260	8,553,382
BW032	01/Feb/2018	5	52,910	4,232,857
BW033/ED018	12/Mar/2018	2	485,343	37,650,474
BW035/ED020	08/Jun/2018	6A	61,161	4,744,577
BW036	18/Jul/2018	5	37,601	3,029,546
BW038	12/Oct/2018	5	15,246	1,250,199
BW039	17/Oct/2018	5	35,231	2,888,974
BW040/ED022	14/Nov/2018	6A	408,413	31,682,607
BW041/ED023	21/Nov/2018		495,613	38,447,167
BW043	04/Jan/2019	5	23559	1,915,422
BW045/ED027	30/May/2019	6A	220448.22	17,101,271
BW046	05/Jun/2019	5	23252.43	1,964,830
BW047	16/Jun/2019	6A	414965.46	62,190,946
Totals			**15,041,774**	**1,200,422,680**

Total Disbursement	
Currency	ADB & GON
BDT Mil	5,279
US$ Mil	67.55

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

Appendix C

Table C1: Staff Deployment Sheet Update June 2019

No.	Position	Firm	Name	Person-Months - updated for month of June 2019			
				VO-3	Used	Balance VO-3	
	MAIN TEAM - INTERNATIONAL						
I-1	Team Leader / River Mangement Specialist	NHC	Knut Oberhagemann	34.50	32.83	1.67	Knut Oberhagemann
I-2	Institutional Development Specialist/	EMM	Robert A. van de Putte	2.51	2.51	0.00	Robert A. van de Putte
I-3	Morphologist	DELTARES	Erik Mosselman	5.00	4.79	0.21	Erik Mosselman
I-4	River Engineer	NHC	Bruce Walsh	5.23	5.08	0.15	Bruce Walsh
I-5	Construction / Quality Control Engineer	EMM	Basistha Adhikari	0.87	0.87	0.00	Basistha Adhikari
I-6	Flood Risk Management Specialist	NHC	Dave Burkholder	11.05	11.30	-0.25	Dave Burkholder
I-7	Social Development / Resettlement Specialist	EMM	Jean Louis Leterme	11.00	10.52	0.48	Jean Louis Leterme
I-8	Economist	NHC	John D. M. Roe	2.40	1.92	0.48	John D. M. Roe
	CRVA (Climate Risk and Vulnerability Assessment)				0.45	-0.45	
I-9	Financial Management Specialist	EMM	J. Spurr	0.00	0.00	0.00	J. Spurr
I-10	Hydrologist	NHC	Derek Stuart	7.90	7.86	0.04	Derek Stuart
I-11	Environmental Specialist	EMM	Wandert Benthem	4.20	3.47	0.73	Wandert Benthem
I-12	Information and Data Management Specialist	NHC	Dave Burkholder	8.50	7.96	0.54	Dave Burkholder
I-13	Unallocated Engineering Services	NHC	TBN				TBN
I-13-1	Int'l Construction Advisor-Engineer	NHC	Graeme Vass	3.00	3.00	0.00	Graeme Vass
I-13-2	Junior Engineer	NHC	Jesper Mathiesen	17.80	17.10	0.70	Jesper Mathiesen
	CRVA (Climate Risk and Vulnerability Assessment)				0.36	-0.36	
I-13-3	Numerical Modeller	NHC	Angela Thompson	10.20	9.70	0.50	Angela Thompson
I-13-4	Unallocated Engineering Services	NHC	Seth Bryant	4.00	3.95	0.05	Seth Bryant
I-13-5	Unallocated Engineering Services	NHC	TBN/Brecht D'Haever	2.50	2.62	-0.12	TBA
I-16	Geotechnical/Construction Engineer	EMM	Hiba Khan	13.00	10.52	2.48	Hiba Khan
I-14	Senior Geotechnical Engineer	NHC	Dr. Horst Kramer	1.20	1.04	0.16	Dr. Horst Kramer
I-15	River Engineer	NHC	Brad Hall	6.40	6.48	-0.08	Brad Hall
I-17	Water Resouurces Specialist	NHC	Marieke Niewaal	0.00	0.00	0.00	Marieke Nlewaal
I-13	Design and Specification Engineer	EMM	John Prytherch	4.00	2.89	1.11	John Prytherch
			Totals	**155.26**	**132.46**	**8.03**	
	Main Team National						
N-1	DTL / Flood & Erosion Risk Management Spec.	EMM	Sharif Al Kamal	42.00	40.87	1.13	Sharif Al Kamal
N-2	Institutional / Capacity Development Specialist	RPMC	Dr. M. A. Qassem	9.86	9.86	0.00	Dr. M. A. Qassem
N-3	River Engineer (Morphologist)	CEGIS	Dr. Maminul Haque Sarker	7.00	6.76	0.24	Dr. Maminul Haque Sarker
N-4	Community-based Flood Risk Mngt. Spec.	RPMC	Quazi Towfique Islam	38.0	37.09	0.91	Quazi Towfique Islam
N-5	Resettlement Specialist	EMM	Shireen Akhter/**Begum S. Nahar**	16.50	16.45	0.05	Shireen Akhter/**Begum S. Nahar**
N-6	Project Economist	RPMC	Amiul Islam	10.00	9.14	0.86	Amiul Islam
N-7	Procurement Specialist	RPMC	A. Abdullah Chowdhury / **Md Abdullah Sadeque**	1.90	1.89	0.01	A. Abdullah Chowdhury / **Md Abdullah Sadeque**
N-8	Construction Engineer	RPMC	Mirza Harunar Rashid	33.94	34.94	-1.00	Mirza Harunar Rashid
N-9	Financial Management Specialist	EMM	Md. Habibur Rahman/**Ektedar Rahman**	10.50	10.02	0.48	Md. Habibur Rahman/**Ektedar Rahman**
N-10-1	River Engineer Flood Management Infr.- 1	RPMC	Mukhles uz zaman	13.74	13.74	0.00	Mukhles uz zaman
N-10-2	River Engineer Flood Management Infr. -2	RPMC	Md. Motiur Rahman	18.00	18.01	-0.01	Md. Motiur Rahman
N-11	Social Development and Gender Specialist	EMM	Ruh Afza Ruhi/**Begum S. Nahar**	9.5	9.36	0.14	Ruh Afza Ruhi/**Begum S. Nahar**
N-12	Environment Specialist	RPMC	Dr. Md. Nurul Islam/**Md. Amir Faisal**	18.0	16.56	1.44	Dr. Md. Nurul Islam/**Md. Amir Faisal**
N-13	Training Coordinator	EMM	Jahangir Kabir/ **Shameem Ahmed**	19.3	19.29	0.01	Jahangir Kabir/ **Shameem Ahmed**
N-14	Information and Data Management Specialist	EMM	Asrafuzzamen	0.00	0.00	0.00	Asrafuzzamen
N-15	Hydraulic Structural Engineer	RPMC	Md. Dabir Uddin/**Aminul Haque Shah**	3.00	3.02	-0.02	Md. Dabir Uddin/**Aminul Haque Shah**
N-16	Road Engineer	RPMC	Zakir Hossain	4.21	4.21	0.00	Zakir Hossain
N-17	Geotechnical Engineer / **Geotecnical Expert (Local)**	EMM	Md. Korban Ali / **Md. Shamsul Islam**	8.50	8.08	0.42	Md. Korban Ali / **Md. Shamsul Islam**
N-18-1	Site Engineer 1 (PRB-1)	RPMC	Md. Nurul Amin	41.00	40.06	0.94	Md. Nurul Amin
N-18-2	Site Engineer 2 (JLB-2 Chauhali)	RPMC	KM Nazmul Haque/ **Ekram Sarder/Mainul Islam**	14.50	14.24	0.26	KM Nazmul Haque/ **Ekram Sarder**
N-18-3	Site Engineer 3 (JLB-2 Zaffarganj)	EMM	Md Faridul Alam/Moin Uddin/ AZM Abdullah	35.00	34.98	0.02	AZM Abdullah
N-18-4	Site Engineers 4 (PLB-1 Harirampur)	EMM	Abdul Jalil/**Saiful Islam**	8.04	8.04	0.00	Abdul Jalil/**Saiful Islam**
N-19	Surveyor	EMM	Osman Ghani	14.00	12.26	1.74	Osman Ghani
N-20	Unallocated Engineering Services	RPMC	TBN Mukhles uz zaman	1.50	1.00	0.50	Mukhles uz zaman
N-21	Morphologist	CEGIS	Sudipta Kumar Hore	5.00	4.00	1.00	Sudipta Kumar Hore
					0.00		
			Totals	**382.99**	**373.87**	**9.12**	

Table C-1 Utilization of Consultant Person-Months continued ...

	RIVER STUDY TEAM - INTERNATIONAL						
IR-1	Task Leader / Flood & River Management Spec.	NHC	Carsten Stuab	10.98	10.98	0.00	Carsten Stuab
IR-2	Institutional Development Specialist/**Capacity Development Specialist.**	EMM	Robert A. van de Putte	0.50	0.50	0.00	Robert A. van de Putte
IR-3	Morphologist	DELTARES	Sanjay Giri	6.50	6.17	0.33	Sanjay Giri
IR-4	River Engineer (River Training)	NHC	Gerritt Klaassen	10.50	10.33	0.17	Gerritt Klaassen
IR-5	Water Resources Management Specialist	DELTARES	W. J. Oliemans	2.80	2.76	0.04	W. J. Oliemans
IR-6	Economist	EMM	Alexander Mueller/**John D.M. Roe**	2.30	2.47	-0.17	Alexander
	CRVA (Climate Risk and Vulnerability Assessment)				0.00	0.00	
IR-7	Social / Regional Development Specialist	NHC	Mark Hopkins	6.37	6.15	0.22	Mark Hopkins
IR-8	Environmental Specialist	EMM	Wandert Benthem	4.00	4.01	-0.01	Wandert Benthem
IR-9	Hydrologist	NHC	Malcolm Leytham	3.80	2.92	0.88	Malcolm Leytham
	CRVA (Climate Risk and Vulnerability Assessment)				0.73	-0.73	
IR-10	Climate Change Specialist	NHC	Mariza Costa-Cabral	2.05	1.98	0.07	Mariza Costa Cabral
	CRVA (Climate Risk and Vulnerability Assessment)				0.07	-0.07	
IR-11	Dredging Specialist	NHC	Pieter Van Groen	2.11	2.11	0.00	Pieter Van Groen
IR-12	urban & Master Planner	NHC	Dr. Douglas Webster	3.20	2.82	0.38	Dr. Douglas Webster
IR-13	Morphologist Modeller	DRS	Mohammed Yossef	1.40	1.37	0.03	Mohammed Yossef
IR-1	Sedimentologist	NHC	Dan Haught	1.40	1.42	-0.02	Dan Haught
IR-2	Geomorphologist	NHC	Andrew Nelson	1.50	1.63	-0.13	Andrew Nelson
IR-3	Community Development/ Flood Management Specialist	EMM	Judith de Bruijne	0.18	0.18	0.00	Judith de Bruijne
IR-4	Report Editor	NHC	Dr.Sara Bennett,	2.00	0.53	1.47	Dr.Sara Bennett,
IR-5	Report Publisher	NHC	Sabrina Asche	5.00	5.01	-0.01	Sabrina Asche
			Totals	**66.59**	**64.14**	**2.45**	
			Grand Total International	**221.9**	**196.60**	**10.48**	
	RIVER STUDY TEAM - NATIONAL						
NR-1	Water Resources Management Specialist	RPMC	G M Akram Hossain	9.92	9.92	0.00	G M Akram Hossain
NR-2	Flood Management Specialist	RPMC	Md. Makbul Hossain	7.51	7.55	-0.04	Md. Makbul Hossain
NR-3	River Engineer (Morphologist)	CEGIS	Dr. Maminul Haque Sarker	4.00	3.80	0.20	Dr. Maminul Haque Sarker
NR-4	Economist	EMM	Dr. Shaker Ahmed	0.03	0.00	0.03	Dr. Shaker Ahmed
NR-5	Regional / Spatial Planner	RPMC	Dr. Shamim M Haque	3.37	3.37	0.00	Dr. Shamim M Haque
NR-6	Institutional Development Specialist	RPMC	Dr. M. A. Qassem	3.94	3.94	0.00	Dr. M. A. Qassem
NR-7	River Engineer	RPMC	Md. Motiur Rahman Jewel	11.7	11.70	0.00	Md. Motiur Rahman Jewel
NR-8	Hydrologist	EMM	Imdadul Haque Siddiqui	0.00	0.00	0.00	Imdadul Haque Siddiqui
NR-9	Social Development and Gender Specialist	EMM	Ruh Afza Ruhi/**Begum S. Nahar**	4.00	3.99	0.01	Ruh Afza Ruhi/**Begum S. Nahar**
NR-10	Environment / Climate Change Specialist	EMM	Md. Rakibul Haque/**Amir Faisal**	2.50	2.49	0.01	**Amir Faisal**
NR-11	Water Supply and Water Quality Specialist	EMM	Md. Mozammel Hossain/ **Dr. Khairul Bashar**	3.63	3.63	0.00	Md. Mozammel Hossain/ **Dr. Khairul Bashar**
NR-12	Agriculture Specialist	RPMC	Dr Quazi Reasul Islam	3.34	3.34	0.00	Dr Quazi Reasul Islam
NR-13	Fishery Specialist	RPMC	Dr. Md. S. Howlader	6.00	6.00	0.00	Dr. Md. S. Howlader
NR-14	Environmental Avisor	EMM	Dr. Alnun Nishat	0.50	0.18	0.32	Dr. Alnun Nishat
					0.00		
			Totals	**60.44**	**59.92**	**0.52**	
			Grand Total National	**443.43**	**351.88**	**9.64**	

Appendix D

Table D-1 Status of River Study Technical Notes

New Number	Old Number	Title	Main Author(s)	Review/Approval	A Background information	B Morphology - General	C Morphology - Bifurcations & Offtakes	D River Engineering	E Water Resources and Flood Modelling	F Social and Environmental Impacts	G Land Use & Economic Benefits	Status
A1	1	Background data, river use, studies and plans	MH	CS	x							Formating completed.
A2	40	Inland Navigation and Dredging	HK	KO	x							Formating completed.
B1	2	Holistic river morphology analysis for the Brahmaputra river system	MHS	CS/EM		x						Formating completed.
B2	44	Long term view of Brahmaputra/Jamuna channel planform	AN	EM		x						Formating completed.
B3	39	Cross-Section Analysis on Brahmaputra, Jamuna and Padma Rivers	MRJ	GJK		x						Formating completed.
B4	5	Char characteristics and dynamics – past and present conditions on basis of satellite imagery	MHS	GJK		x						Formating completed.
B5	4	Upper Meghna - present conditions and issues	JAA/MHS	CS		x						Formating completed.
C1	6	River bifurcations: Theory and model experience	EM	KO			x					Formating Reviewed.
C2	7	Anabranching Channels of the Jamuna and Padma Rivers	MHS	CS			x					Formating Reviewed.
C3	8	River bifurcations: Simplified numerical modelling	AT	SG/GJK			x					Formating Reviewed.
C4	9	Reach 3 and bifurcation: numerical modelling	AT/SG	EM			x					Formating Reviewed.
C5	10	Offtake and Flow Dynamics of the Major Rivers	MHS	CS			x					Formating Reviewed.
C6	11	Offtakes part 2 Numerical model studies and generic guidelines	MY	EM			x					Formating Reviewed.
D1	13	River Stabilization Plan -Technical Basis	GJK	KO				x				Final expected by mid-July-2019.
D2	14	River stabilization of other main rivers	GJK/BH/EM	BH/GJK				x				Completed; 04-Jan-2019.
D3	15	Earlier proposals and attempts for stabilization of Jamuna River (include capital dredging)	MZ/BW	KO				x				Final expected by mid-Jul-2019.
D4	1	Intermediate and final planform alternatives	MRJ	GJK				x				Final expected by end-Jul-2019.
D5	18	Feasible techniques and methods for riverbank protection and future channel narrowing	AN	BH				x				Revised Appendix Completed; 14-Feb-2019.
D6	16	Underwater Apron for Chandpur Confluence	MRJ/AT	SG				x				Completed
E1	19	Main river flood risk and management	Mho/DS	DS					x			Formating completed.
E2	20	Flooding numerical modelling	DS	BH					x			Formating completed.
E3	21	Distributaries: Water resources preparation and baseline	WO/ML	ML					x			Formating completed.
E4	22	Potential Impacts of Flow Augmentation and Study Needs	WO/ML	EM					x			Formating completed.
F1	23	Socio-economic Aspects	MH/SN	JLL						x		Formating completed.
F2	24	Environmental and social aspects of river stabilization: Remedial measures	WB/MH	CS						x		Formating completed.
F3	25	Fisheries Impacts of FRERMIP and their Management: A Pre-project Status Review	SH	CS/WB						x		Formating completed.
F4	27	Long-term effects of river narrowing on water levels	EM	KO						x		Formating completed.
F5	36	Effects of sinuosity on channels and bars	MY	EM						x		Formating completed.
F6	26	River stabilization and Sediment Management	GJK	BH						x		Final expected by mid-Jul-2019.
F7	43	Char Stabilization Impact Modelling	SB/GJK	EM						x		Formating completed.
F8	37	Impact of Earthquake Induced Sediment Supply Variability	EM/AN	GJK/BH						x		Formating completed.
F9	28	Future conditions affecting flows	MCC	ML						x		Formating completed.
G1	29	Planning the Use of Stabilized and Reclaimed Land, Procedure and Issues	MH	CS							x	Completed
G2	30	Charland amelioration and agriculture development	QRI/AC	AC							x	Completed; 10-June-2018
G3	31	Economic Assessment of River Stabilization	JR/AI	KO							x	Work on report suspended, pending prerequisite data from TN-D1.

Abbreviations:

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

Reports	
0	Annex Submitted
6	Formatting Reviewed
19	Formatted
5	Technically Complete
5	Draft Complete
0	Under Preparation
35	Total

Appendix-E

Table E 1 ISMPC performance compliance with TOR

Tasks by ToR	Tasks Done	Current Tasks	Future Tasks
Task-1: Supporting BWDB for institutional capacity strengthening of the holistic and strategic management of the main rivers	1 Inception Report, 15 Quarterly Progress Reports, 1 Mid-term Review Report, have been submitted.	The Quarterly Progress Report-16 for April-June, 2019 quarter is being prepared	The Quarterly Progress Report-17 to 18 will be submitted as scheduled. The Tranche-1 completion report will be submitted at the end of the consultancy period in December 2019
Task-2: Supporting BWDB and DDM for project implementation management of Tranche-1	1. Institutional capacity strengthening: From DPP Budget 12 Trainings and tours done.	1. Institutional capacity strengthening: From DPP Budget, 6 local trainings out of 7 and 6 overseas trainings have been implemented out of 9, rest are under progress..	1. Institutional capacity strengthening: From DPP Budget, 1 more local and 3 overseas trainings will be implemented in fiscal year 2019-2020.
	2. Data and knowledge base development for flood and river management: basic river survey database, project maintenance database, resettlement and socio-economic survey database for Tranche-2 Feasibility studies have been built.	2. Data and knowledge base development for flood and river management: the river survey database is being populated and preparation being taken for hand- over to BWDB. One BWDB official (SDE-Design II) has been trained on database for better handling of the data. The project monitoring database is currently being used by the ISPMC to generate quarterly progress reports and assisting PMO.	2. Data and knowledge base development for flood and river management: river survey database will be fully populated and handed over to the BWDB.

	3. Support BWDB for supervising physical works: Supervising for Riverbank protection works at three sites since October 2015. The ISPMC submitted 6 construction completion report.	3. The supervising of embankment construction works is currently ongoing.	ISPMC will finish supervising the embankment construction works and the river training pilot works and will submit construction completion report.
	4. Support DDM for implementing Community-based Flood Risk Management: Implementing NGO has been contracted in August 2018 with the help of ISPMC expert	4. The INGO has finished implementing their contract assignment and ISPMC has supported the NGO for implementing Community- based Flood Risk Management.	The ISPMC evaluate the final report submitted on CbFRM.
Task-3: Supporting BWDB for preparation of Tranche-2, including verification of site selections, feasibility studies, preparation of loan approval documents meeting requirements for the government and ADB.	1. Site Selection Report submitted in May 2017	Updated Draft Feasibility Study Report and Detailed design update has been submitted and ADB evaluation of safeguard documents ongoing.	Updated Draft Feasibility Study report and detailed design has been submitted in May 2019 based on comments followed by the Department of Environment approval of the Environmental Impact Assessment (EIA) and approval of the DPP through ECNEC and ISPMC is expecting comments from Design Office, BWDB.
	2. Technical and social field surveys completed in December 2017		
	3. Basic Structural design completed in March 2018		
	4. Design of non-structural activities completed in March 2018		
	5. Safeguard, gender and poverty assessment completed in March 2018		
	6. Project economic assessment		

	was updated as per draft feasibility report in March 2019.		
Task-4: A long-term strategic river stabilization plan study for the Jamuna, Padma and Lower Meghna rivers covering from the Indian border to the estuary (by the river study task team)	Strategic framework on long-term river stabilization plan was presented in a workshop on December 2016. It was submitted on May 2017 and recommended by the Technical Advisory Committee on September 2017.	4 main reports are being finalised.	4 main reports with necessary annexes will be submitted with in December, 2019.
Task-5: A preliminary master plan study for river management of the Jamuna- Padma-Lower Meghna.	Draft regional plan has been submitted in September 2018 (part of Task-4)	Final regional master plan is under preparation.	Final regional master plan will be submitted with in December, 2019.
Task-6: Development, implementation support, and monitoring of land recovery/river training piloting schemes, including piloting using building with nature concept (by the river study task team)	ISPMC has assisted PMO, BWDB on preparing technical specifications and bid documents for implementing grout-filled jute mattress as riverbank protection works as a part of river training piloting schemes for first contract. The work package on pilot works has started in March 2019.	The contractor has finished implementing grout filled jute mattress river training pilot works on one site and has started building the works in other site and ISPMC is monitoring the works.	Second Pilot works contract will be prepared.
Task-7: Hydraulic and morphological analyses for the Jamuna-Meghna and Jamuna-Padma-Ganges confluences (by the river study task team)	Strategic framework on long-term river stabilization plan was presented in a workshop on December 2016. It was submitted on May 2017 and recommended by the Technical Advisory Committee on September 2017.	4 main reports are being finalised.	4 main reports with necessary annexes will be submitted with in December, 2019.

Appendix F

Revised Gender Action Plan

Quarterly Progress Report on Revised Gender Action Plan (GAP) Implementation Monitoring

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

Project Title :	Flood and Riverbank Erosion Risk Management Investment Program (Tranche-1)
Date of Update :	30/06/2019 **Submission Date:** 15-07-2019
Agency :	Bangladesh Water Development Board
Timeframe :	April 2014 to June 2020
Gender Category :	EGM
Project Impact (from PAM) :	The expected impact of the investment program will be improved livelihoods of people in the project area along the main rivers of Bangladesh.
Project Outcome (from DPP log frame) :	The outcome of the program will be reduced flood and riverbank erosion risks in the Subproject reaches
Whether there is a Gender Action Plan :	Yes
Is there a Gender Specialist :	A Gender Specialist worked (intermittent basis) in Institutional Strengthening and Project Management Consultant (ISPMC). Presently the Gender specialist has utilized all her man months. An Executive Engineer of PMO is appointed as Gender Focal Point. He is working for GAP implementation till date.
If not, how gender mainstreaming is supported ?	N/A

Output/Activities	Indicators and Targets	Progress in this Quarter (April - June 2019)	Cumulative Progress (up to June 2019)	Remarks
Output I: Flood and Riverbank Erosion Risk Mitigation Functioning at Priority Reaches				
A1 Construction of riverbank protection structures using appropriate technology and methods A1-2 Rehabilitation/construction of embankments				
- 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)	1. Specific condition included contractors' bidding document whereby 5% unskilled labor opportunities be given to women.	Presently at the construction sites, total 55 female labors are working daily basis. Out of which 6 are as cook, 8 with brick crushing machine, 12 with concrete mixture machine and the rest are Vetiver plantation worker.	A total of 1023 female labors (5% of total) out of total 21274 labor worked in construction sites till date.	Last Aide Memoire of Midterm Review Mission (15-26 February) was received by PMO on 19.03.2018. During that Mission, Revised Gender Action Plan was finalized, and these targets were set. Contract W-01 to 05 signed before the date and W-14 signed after the date. As per decision of the Aide-memoire, contractors of W-01 to 05 and W-14 are now appointing min 5 % females as unskilled labors.
	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	-	One training session covering three courses on "Gender Awareness Training for SMO's engineers and contractor's staff" for work package W-04 and W-05 was held on 21 December 2018 at XEN office, Koitola. Three courses on "Orientation session to verify and ensure that Core Labor Standard conditions are met for SMOs Engineers and Contractors Staff" have	There are 3 SMOs under the project. But presently work site is running only at Koitola SMO. The training sessions held for Package W-01 to 05 packages under the Koitola SMO only.

Output/Activities	Indicators and Targets	Progress in this Quarter (April - June 2019)	Cumulative Progress (up to June 2019)	Remarks
	and ensure that conditions are met		been held at the Koitola work site for work packages W-01, W-02 & W-03 on 22 December 2018 at XEN office, Koitola. During these sessions 1 XEN, 1 SDE, 2 Section Officers, 5 site managers, 5 site supervisors, 3 site engineers of Koitola SMO were present. Out of total 78 participants 6 were female.	
	3. Provisions for either separate toilets for women or arrangements for use of facilities in nearby communities and/or households	In 6 places of 6 contract packages separate toilet for women built at running work sites.	6 Separate toilets for women in 6 Contract Packages along with arrangements for use of facilities in nearby communities and/or household have been provided till date at running work sites.	-
	4. Sex-disaggregated information in field monitoring quarterly reports and contractors' compliance reports	Sex-disaggregated data collection is on-going till this quarter.	Sex-disaggregated data collection is on-going till date.	-
A2 Formulating Community Disaster Management Units				
- Form 40 Community Disaster Management Units (CDMUs) - Develop a community flood risk assessment and	5. CDMUs (40) - consisting of 15 male and female volunteers/each-established with minimum 33% units led by women (baseline=0).	-	Out of 40 CDMUs, 39 CDMUs consist of total 15 volunteers which include both male and female members and the rest 01 CDMU consists of 20 volunteers. Out of total 605 volunteers, females are 244 (40.33%) nos. 100% CDMUs are led by women as	CbFRM component implementation started from the date of 1 September 2018.

Output/Activities	Indicators and Targets	Progress in this Quarter (April - June 2019)	Cumulative Progress (up to June 2019)	Remarks
community risk reduction plan			Leader/Deputy Leader.	
	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;	-	40 Community Risk Assessments were conducted in 40 identified CDMUs, identifying: (i) risks for vulnerable groups i.e. women, children, elderly, disabled and other, and (ii) disaster response mechanism related to flood and early erosion/disaster warning.	A sample copy of Community based Disaster Preparedness Plan (CDPP) attached here as Attachment-01 where at page 2 ***Community Flood Risk Assessment*** were introduced.
	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	-	40 plans were prepared in 40 CDMUs through participation of male and female volunteers, specifying roles, provisions for women and men in terms of disaster preparedness at HH and community level. In each of these planning processes, 30-35 community people participated among which at least 27 were female (90%) and they participated as representative from their household/family. iii) the risk reduction measures included but not limited to: - Dissemination of flood early warning in local context using local reference points - Raising awareness among	A sample copy of ***Community based Disaster Preparedness Plan (CDPP)*** attached here as Attachment-01. It is notable here that ***Community Risk Reduction Plan*** was named as ***Community based Disaster Preparedness Plan (CDPP)*** in the ToR of signed Contract with DDM.

Output/Activities	Indicators and Targets	Progress in this Quarter (April - June 2019)	Cumulative Progress (up to June 2019)	Remarks
			vulnerable communities - Installation of flood markers - Linkage between relevant govt. officials and vulnerable community - Raising household plinth, tube-wells and latrines - Storing dry foods, medicine and fuel Assisting flood affected people to evacuate in flood shelters, particularly women, children, elderly and people with disabilities	
	8. 60 locations identified and build community flood markers for flood warning information	-	114 densely populated locations were identified in the vicinity of the rivers and canals. In these identified locations, a total of 114 flood marker posts were installed which are easily identifiable by men, women and children as flood warning information.	-
A3 Formulating Community Disaster Management Units				
- Initiate community-based flood warning dissemination procedures building on indigenous techniques - Disseminate regular warning messages in relevant to local context/language in	9. 50% of the units have flood warning mechanisms [Source: end-line beneficiary survey]	Procedure developed like collecting warning messages from local Union Digital Centre which are linked with the national warning network. Then the messages are contextualized in local language to understand and to match with local parameters (flood markers) for easily understanding to the local community.	Trained 604 male and female volunteers from 40 CDMUs to follow flood warning procedure and disseminate warnings by- i. using local language; ii. using mosque mikes; iii. using megaphone from local Union Parishad; iv. using local reference point to explain danger level Introduced flood-warning mechanisms	National warning may not reach to the community as the warning are not relevant to the local contexts. End-line beneficiary survey was not conducted as it was not included in the ToR of the Contract

Output/Activities	Indicators and Targets	Progress in this Quarter (April - June 2019)	Cumulative Progress (up to June 2019)	Remarks
line with national warning network			to the community people through 100% units, which are yet to be tested during the next flood cycle between July to August 2019.	Agreement signed with DDM.
	10.20 knowledge events held [Target: 100 women]	A total of 7,260 knowledge events i.e. courtyard sessions were conducted by all 605 female and male volunteers to share knowledge and practices on flood warning mechanism in local context. Representatives from 60,000 beneficiary households participated while almost 45,000 (75%) were present.	A total of 7,260 knowledge events were held where representatives (=>75% women) of 60,000 beneficiary households participated.	-
	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].	100% of the 60,000 identified beneficiary households, including low-income households, and poor women living on the embankment participate have increased resilience through preventive measures at household level.	100% of the 60,000 identified beneficiary households, including low-income households, and poor women living on the embankment participate have increased resilience through preventive measures at household level.	End-line beneficiary survey was not conducted as it was not included in the ToR of the Contract Agreement signed with DDM.
A4 Construction of Resettlement Areas with Basic Infrastructure and Facilities				
- Ensure effective consultation with women in the affected areas and	12.Full compensation for 100% women PAPs as per RP entitlement	Total 112 women out of 1353 APs received resettlement grant/benefit and replacement cost.	Total 147 women out of 2425 APs received resettlement grant/benefit and replacement cost.	-

Output/Activities	Indicators and Targets	Progress in this Quarter (April - June 2019)	Cumulative Progress (up to June 2019)	Remarks
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		Total 17 women out of 494 EPs received CCL through DC office.	Total 102 women out of 3450 EPs received CCL through DC office.	
	13.33% women involved in planning meetings	-	Total 324 planning meetings were held till date where more than 16200 persons attended and out of which female are mora than 9072 nos (56%). .	Gender Issues were considered while forming resettlement villages and communities
Output II: Strengthened Institutional Systems for Flood and Riverbank Erosion Risk Management				
A5 Capacity Enhancement of BWDB				
- Integrate a gender-specific module in the BWDB training - Build capacity of female staff in BWDB	14.10% women in training programs	A gender specific module has been kept and is under implementation in the BWDB training programs.	40 % women (16 out of 40) have participated in the Gender specific training held in March 2019.	-
	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	On 16 April 2019, "Updation of specifications of geotextile' training was held where 13 female engineers from BWDB design wing out of 40 participants were participated.	Total 5 training program held. Total 132 participants attended out of which 57 participants were female (43.18%)	-In November 2018, "training/ orientation session for SMOs" was held where all staff of site offices attended. Out of 14 participants 2 were female. -In June 2017, 1 (one) Gender specific course has been held for building capacity of female staff in BWDB

Output/Activities	Indicators and Targets	Progress in this Quarter (April - June 2019)	Cumulative Progress (up to June 2019)	Remarks
				HQ. Out of 32 participants, 25 were female. The main discussions were Importance of gender in water management project and concept of gender with government's commitment. ADB's Gender Specialist attended as resource person in this workshop. -In October 2017, "Training for River Survey Database" was held, where 1 participant was female out of 6 (17%). -In March 2019, one gender specific training was held in Design Office, BWDB. In total of 40 participants including 16 females attended - On 16 April 2019, "Updation of specifications of geotextile' training was held where 13 female engineers from BWDB design wing out of 40 participated

Output/Activities	Indicators and Targets	Progress in this Quarter (April - June 2019)	Cumulative Progress (up to June 2019)	Remarks
Output III: Program Management Systems Operational				
A6: Implementation Management				
- Establish MIS system with sex disaggregated data base for project reporting	16. - Identify gender indicators, incorporate in monitoring system and ensure regular reporting of progress of GAP implementation	Regular reporting of progress of GAP implementation identifying gender indicators are in progress. Sex disaggregated data being used for processing Quarterly Project Progress Report No. 16 (April-June 2019).	Regular reporting of progress of GAP implementation identifying gender indicators and incorporating in regular monitoring system are being done regularly till date.	Establishment of MIS system was dropped during the 1st revision of project DPP.

Appendix-G

Update June 2019

Table G 1 Compliance status with Loan and Grant Agreement Covenants

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

Para. 6, Schedule 5	In the unforeseen event that the Borrower cannot avail of the proceeds of the Grant when needed, the Borrower shall undertake best efforts to find an alternative source of funding for the expenditures set out in the Grant Agreement, failing which ADB may require the Borrower to seek a reduction of the Project scope. In all other respects, the Borrower shall make available to BWDB all counterpart funds required for timely and effective implementation of the Project, including, without limitation, any funds required to keep the PMO and the SMOs fully equipped and fully staffed in accordance with the requirements set out in the FAM, to mitigate unforeseen environmental and social impacts, and to meet additional costs arising from design changes, price escalation in construction costs and/or unforeseen circumstances. The Borrower shall make the resources thus required available to BWDB on a quarterly basis for each fiscal year.	To be complied.
Para. 7, Schedule 5	The Borrower shall reimburse BWDB for any taxes sand duties imposed in the territory of the Borrower for Goods, Works and Consulting Services used in carrying out of the Project no later than the fiscal year after the year in which the taxes and duties were incurred.	Being complied.
Para. 8, Schedule 5	The Borrower and BWDB shall ensure that each Sub project area is selected and approved in accordance with the selection criteria and approval process set out in Schedule 4 of the FFA. The Borrower and BWDB shall ensure that all relevant documents forming the basis for screening, selection and processing of Subproject areas are made available to ADB upon request and are kept available for such purposes for a minimum period of five years from the date of the project completion report for the Project.	Complied for Project-1. To be complied for succeeding tranches.
Para. 9, Schedule 5	The Borrower and BWDB shall ensure that the preparation, design, construction, implementation, operation and decommission of all Project facilities comply with (an all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d} all measures and requirements set forth in the respective EIA and EMP, and any corrective or preventive actions set forth in a Safeguards Monitoring Report.	Being complied.

Para. 10, Schedule 5	The Borrower and BWDB shall ensure that all land and rights-of- way required for all Project facilities are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; (c} the RF; (d) all measures and requirements set forth in the respective RP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being complied.
Para. 11, Schedule 5	Without limiting the application of the Involuntary Resettlement Safeguards, the RF or the RP,the Borrower and BWDB shall ensure that no physical or economic displacement takes place in a Subproject area until: (a) compensation and other entitlements have been provided to affected	Being complied.

Appendix-H

Table H 1 Status of Local Trainings, PMO-FRERMIP

Name of Training	Trainees	Number	Unit	Status	Time	Executing Agency
River Engineering	20	2	Course	Complete	Apriil 2016	BUET
River Trainig Techniques	20	2	Course	Complete	February 2017	BUET
Riverbank Protection	20	1	Course	Complete	July 2018	BUET
Topographical, Morphological & Hydrometric Survey and Data Collection	10	1	Course	Complete	January-February 2019	IWM
Land Acquisition and Resettlement Management Course	15	1	Course	Complete	January 2019	CEGIS
Environmental Impact Assessment	15	1	Course	Complete	October 2018	CEGIS
Capacity Building for DDM	15	2	LS	Pending	-	-

Table H 2 Status of Overseas Training/Study Tour, PMO-FRERMIP

Name of Training/Course	Number	Trainees	Unit	Status	Time	Place
River Morphodynamics and Erosion Protection Practices	1	8	Course	Complete	September-October, 2016	UNESCO-IHE, Netherlands
River Morphodynamics and River Training Techniques	1	8	Course	Complete	June-July, 2017	UNESCO-IHE, Netherlands
Study of the Management of Yellow and Yangtse River and Flood and Erosion Protection Works	1	5	Tour	Complete	August, 2016	Renmin University,China
Missisipi River Management and Alied Erosion Protection Work	1	10	Tour	Complete	October, 2017	USA and Canada
Geofabrics Geotextile Factory and the Coastal Protection Works	1	10	Tour	Complete	July, 2018	Australia

Application of Geotextile on Innovative Interventions and Experience Sharing	1	10	Tour	Complete	September 2018	The Netherlands and Germany
Study Tour-2	1	5	Tour	Pending	-	-
Study Tour-3	1	8	Tour	Pending	-	-
Study Tour-4	1	8	Tour	Pending	-	-

Table H 3 Implementation Progress of Training Activities by ISPMC

Sl.	Description	Completed				Date				Remarks
		No. of Courses	No. of Attendee							
			M	F	Total	FY 15-16	FY 16-17	FY 17-18	FY 18-19	
ISPMC Line Item-1: Workshops, Training and Seminars (Provisional Sum)										
A.	**Workshops**									
1	Workshop on Draft Inception Report	1	83	40	123	09-Dec-				Pan Pacific Sonargaon, Dhaka
2	River Stabilization and Preliminary Master Plan	1	99	41	140		07-Dec-			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-				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	31	41	32			31-Jul-17	20 Mar-19	BWDB Design Office Conference Room
5	Training: Gender Awareness for SMO Engineers and Contractors	7	32	3	35				21-22-Dec-2018	XEN Office, Koitola
6	Training :River Survey Database Management Training and On the job training	6	5	1	6				October-2018	ISPMC Office
7	Updation of specifications of geotextile	1	27	13	40				16 April, 2019	BWDB Design Office Conference Room
Sub Total		**20**	**215**	**62**	**277**					
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			Delhi, India with solely ISPMC
3	a) Round Table Discussion: River Management	1	20	0	20	28-Mar-16				Pan Pacific, Sonargaon
	b) Round Table Discussion: Presentation from the DG,	1	20	0	20	25-May-16				Lake Castle, Gulshan
	c) Round Table Discussion: Capacity Development	1	30	0	30		28-Oct-16			Pan Pacific Sonargaon
Sub Total		**5**	**76**	**0**	**76**					
ISPMC Totals		**22**	**635**	**225**	**860**					

Appendix-I

Table I 1

Bathymetric Survey Summary

Project	Surveys	End Date	Start Date
Bazar Station Groyne	16	12-Jul-2014	17-Jun-1998
Betil Spur	10	20-Sep-2014	26-Oct-2002
Chandan Baisha Groyne	5	26-Nov-2011	05-Jul-2002
Chandpur	6	01-Aug-2003	01-May-2001
Chauhali	24	26-Feb-2019	04-May-2016
East Guide Bund	10	25-Jul-2004	11-Apr-2004
Enayetpur Spur	28	05-Oct-2018	26-Oct-2002
Ganges	4	19-Oct-2001	19-Oct-2001
Harirampur	11	11-Sep-2018	15-Jun-2012
Hasnapara Spur	1	30-Jul-2002	30-Jul-2002
Kalitola Groyne	56	28-Oct-2016	04-Sep-2001
Koijuri	9	07-Oct-2018	23-Nov-2004
Lower Jamuna Full River	8	10-Sep-2018	15-Sep-2015
Mathuapara Groyne	66	08-Aug-2016	23-Dec-1998
MDIP	8	15-Jan-2009	23-Aug-2006
Meghal Spur	25	31-Jul-2016	01-Sep-2001
PIRDP	108	07-Oct-2018	30-Apr-1992
Ranigram Sirajganj	442	03-Aug-2016	30-May-1998
RBIP	1	27-Aug-2013	27-Aug-2013
Sailbari Revetment	11	17-Oct-2003	08-Sep-2001
Sailbari Revetment Down	23	13-Jul-2016	02-Oct-1998
Sailbari Revetment Up	43	13-Jul-2016	02-Oct-1998
Sariakandi Groyne	45	08-Aug-2016	29-Oct-2001
Simla Spur	13	11-Sep-2016	26-Oct-2003
Sirajganj Full River	81	11-Sep-2016	17-Jun-1998
Sirajganj Hard Point	1057	20-Dec-2016	06-May-1998
Subagacha Spur	9	04-Jul-2013	01-Sep-2001
West Guide Bund	160	20-Jul-2009	13-Apr-2004
Zaffarganj	8	09-Sep-2018	19-Jul-2016
Total	**2288**		

Emergency survey for 2019 flood occurace is currently being conducted in Chauhali, Benotia and Zafarganj from 23 July, 2019. Regular bathymetric survey for 2019 season will be conducted under W-16 package in 3 project sites- Chauhali, Harirampur, Zafarganj, 1 JMREMP site- Koijuri and 1 PIRDP site- Koitola in the next quarter.

Table I 2 ADCP (Velocity) Survey Summary

Project	Transects	End Date	Start Date
Bachamara Zafarganj	12	26-Aug-2017	05-Aug-2016
Char Salimabad	9	26-Aug-2017	01-Aug-2017
Chauhali Down	20	22-Dec-2017	05-Aug-2016
Chauhali Middle	12	22-Dec-2017	05-Aug-2016
Chauhali Up	21	22-Dec-2017	06-Aug-2016
Enayetpur	18	22-Dec-2017	15-Oct-2016
Ganges	13	27-Aug-2017	06-Aug-2016
Harirampur Down	12	08-Aug-2017	07-Aug-2016
Harirampur Middle	13	08-Aug-2017	07-Aug-2016
Harirampur Up	21	19-Aug-2017	07-Aug-2016
Hurasagar	12	22-Dec-2017	01-Aug-2017
Jamuna Bridge Down	14	25-Aug-2017	04-Aug-2016
Mahespur	2	15-Oct-2016	15-Oct-2016
Nagarbari	13	26-Aug-2017	05-Aug-2016
Paturia	10	27-Aug-2017	18-Oct-2016
Sthal Chauhali	11	25-Aug-2017	15-Oct-2016
Zafarganj	24	21-Oct-2016	08-Aug-2016
Total	**237**		

Appendix-J

Table J 1 List of Memos

Sl. No.	Memo Subject	Memo No.	Memo Date
1	Implementation Design of the Riverbank protection at Chauhali	ISPMC-FRERMIP-18 /80	29-Oct-2015, updated 03-
2	First quality checking of geobag delivery, contract G1	ISPMC- FRERMIP-028	16-Nov-2015
3	Design of underwater works at Harirampur	ISPMC- FRERMIP-073	28-Jan-2016
4	Design Guidance for Zaffarganj	ISPMC- FRERMIP-079	02-Feb-2016
5	Use of resources for 1 km of riverbank protection works at Kaijuri	ISPMC- FRERMIP-154	02-Jun-2016
6	Geotechnical stability of JRB-1 embankment	ISPMC- FRERMIP-427	22-Nov-2017
7	Savings in Concrete Blocks at Chauhali and Zaffarganj	ISPMC- FRERMIP-243	03-Nov-2016
8	Memo on Pilot Works	ISPMC- FRERMIP-0264	15 Dec-2016
9	Slope failure during construction of permanent wave protection at Chauhali	ISPMC- FRERMIP-0314	23-Feb-2017
10	Draft memo on site monitoring from 2015 to 2017	ISPMC- FRERMIP-316	02-Mar-2017
11	Background memo and bidding document for pilot works involving grout-filled jute mattresses	ISPMC- FRERMIP-408	04-Oct-2017
12	Updated guideline for riverbank protection: additional investigations on the stability of geotextile bags	ISPMC- FRERMIP-469	08-Mar-2018
13	Adaptation works summary of Chauhali April 2018	ISPMC- FRERMIP-487	12-Apr-2018
14	Submission of Site Monitoring Report 2017	ISPMC- FRERMIP-495	09-May-2018
15	Background on launching aprons – follow up of discussions with the design office.	ISPMC- FRERMIP-517	18-Jul-2018
16	Review of bank protection design and bank failures in Chauhali By ISPMC for Chauhali committee	ISPMC- FRERMIP-522	31-Jul-2018
17	Assessment of slope failure at Chauhali	ISPMC- FRERMIP-534	27-Sep-2018
18	Updated memo about the downstream failure at Chauhali	ISPMC- FRERMIP-557	29-Nov-2018
19	Pilot works site visit report	ISPMC- FRERMIP-581	12-Feb-2019
20	Review of clay cladding requirements for Kaijuri embankment	ISPMC- FRERMIP-583	17-Feb-2019
21	Proposed changes to grout mattress design	ISMPC-FRERMIP-595	11-March-2019
22	Analysis of erosion of the Upstream end of main protective work of Chauhali in February 2019 and future recommendations	ISPMC-FRERMIP 596	13- March-2019

Appendix-K
Photos

Figure K-1: Harirampur, visit of Dutch Embassy team, 12 April 2019

Figure K-2 : Harirampur, visit of Dutch Embassy team, 12 April 2019

Figure K3: Chauhali, stabilized bank requiring future flattening and berm widening, 20 April 2019

Figure K4 : Chauhali, stabilized latest slope failure at km … (Feb 2019), 20 April 2019

Figure K5 :Chauhali, temporary wave protection between km 5 and 7 intact after 3 years, 20 April 2019

Figure K6: Harirampur embankment, visit of Dutch Embassy team and Delta Plan Team Leader, 20 April 2019

Figure K7 : Harirampur embankment, plantation of vetiver on countryside slope, contract package 4, 20 April 2019

Figure K8: Harirampur embankment, regulator construction package 4, 20 April 2019

Figure K9: Site visit lower Jamuna, 20 April 2019

Figure K 10 :PIRDP, the grout-filled mattress installed in 2006 has performed without maintenance

Figure K11 : PIRDP, revetment protection constructed between 2004 and 2006, maintenance free performance

Figure K12 : Vetiver Plantation on Embankment Slope near Jamirdahbazaar,Koijuri

Figure K13 : Concrete pumping in grout filled jute mattress works

Figure K 14 :Slope preparation in grout filled jute mattress works

Figure K 15 : National Advocacy Workshop CbFRM

Figure K 16 : Mock Drill Training of CbFRM in Daulatpur

Figure K 17 : Mock Drill Training of CbFRM in Daulatpur

Figure K 18 : 2019 Flood situation in Harirampur (July 2019)