

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. 19

FOR

January-March 2020

Prepared by:

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691
30 June 2020

To:
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Firoz Tower, (12th Floor) Dhaka-1205, Bangladesh.

Subject: Submission of Quarterly Progress Report No. 19, January 2020 to March 2020.

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

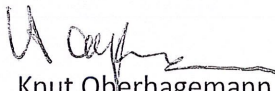
Dear Sir,

Please find enclosed two advance copies of Quarterly Progress Report No. 19 covering the period January 2020 to March 2020. 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.

Due to the lock-down from 26 March until 3 May, the compilation especially of the financial data could not be completed in time. We will prepare the final version after having received comments from your office.

Sincerely,

JV Northwest Hydraulic Consultants – Euroconsult Mott MacDonald


Knut Oberhagemann
Team Leader

Attachment: Quarterly Progress Report No. 19
Cc: Office file;
Sharif Al Kamal, Deputy Team Leader, ISPMC-FRERMIP.

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 | - | Cash Compensation under Law |
| CDMU | - | Community Development Medical Unit |
| CEGIS | - | Center for Environmental and Geographic Information Services |
| CRO | - | Chief Resettlement Officer |
| CV | - | Community 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 |
| TN | - | Technical Note |
| 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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Table 0-1 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 | | | | | |
| | 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 December 31 | 2024 August 31 | | | |
| Milestone | Date | | | | | |
| Last ADB Review Mission | 24-26 September 2019 | | | | | |
| 4. Assets and Physical Progress | | | | | | |
| Proposed Project Assets | Goods | Services | Works | eXtra | Total | Available |
| Project Program Best Estimate (Tk Mil) | 1360 | 1116 | 3609 | 2589 | 8674 | 8674 |
| Primary Component | Secondary Component | Assigned Weight (%) | Progress | | | |
| | | | Actual (%) | 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 | 100 | 6.00 | | |
| | 2.3 Tendering and Contract Award | 6 | 100 | 6.00 | | |
| | 2.4 Land Acquisition and Resettlement | 8 | 96 | 7.68 | | |
| | 2.5 Project Management | 6 | 96 | 5.76 | | |
| | 2.6 Physical Completion of Works | 32 | 97 | 31.04 | | |
| | 2.7 Financial Disbursements | 4 | 94 | 3.76 | | |
| 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 | 94 | 3.76 | | |
| 4. River Study, Piloting & Master Plan | 4.1 Long-term stabilization study | 4 | 95 | 3.80 | | |
| | 4.2 Land Recovery / Piloting | 2 | 97 | 1.94 | | |
| 5. Preparation; Project-2 | 5.1 Feasibility Study; Project-2 | 6 | 100 | 6.00 | | |
| | 5.2 Detailed Design; Project-2 | 4 | 100 | 4.00 | | |
| Totals | | 100 | | 97.42 | | |
| 5. Financial Progress | | | | | | |
| Financial Indicator | BDT Million | US\$ Million | % of Total | | | |
| Estimated Project Cost (Source: DPP Page 1) | 8,674 | 108.43 | 100 | | | |
| PMO Expenditures | 7,709 | 96.37 | 89 | | | |
| ADB and GON Disbursement | 5,566 | 69.58 | 94 | | | |
| Total Reimbursement | 5,333 | 66.66 | 90 | | | |

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

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 5,000 hectares per year to less than 2,000 hectares (Figure 1-1 below), ten thousand people are affected annually by river erosion of floodplain lands.

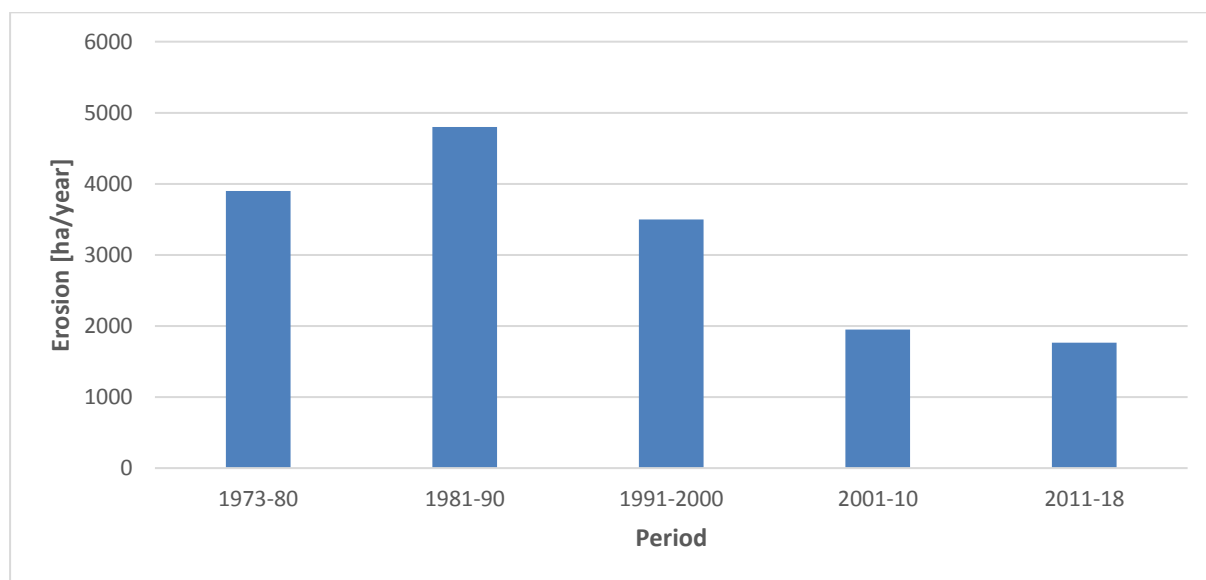


Figure 1-1 Decadal erosion rates of the Jamuna-Ganges-Padma River (Source: CEGIS 2019)

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 of embankments 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 management of riverbank erosion and flood protection is essential for the economic growth and poverty reduction in affected areas.

In 2001, the BWDB undertook the 'Jamuna-Meghna River Erosion Mitigation Project' (JMREMP) with financial assistance from ADB with 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 a 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 conditions 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 of the rivers which has persisted since the 1960s¹. 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, was completed during the dry season 2016/17. 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). 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 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 the 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 [refer to the Project Map(**Figure 0-1**)] were constructed. Adding to that, 4.4 km of grout filled jute mattress pilot work is under implementation as wave protection works 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. Table 0-1 placed at the beginning of the report, provides a summary of

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

project information including salient reference data, estimates of project assets, plus physical and financial progress indicators, in Bangladesh Taka (BDT), US dollars (USD) and percent completion. The project has been extended until June 2020 to complete the activities, namely, the embankment construction and pilot works including monitoring during the 2019 flood season. The ADB has approved the extension of one-year on 15 November 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 for second time, which was approved on 1st November 2018. The second 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 (service packages during 1st revision S-03, S-05 and S-07). A first zero-cost Variation Order for the ISPMC S01 package 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 for consultancy service was approved on 23 March 2019 and the 4th variation of the consultancy services was approved on 15 December 2019 and it extends the consultancy services until April 2020. 5th zero cost variation has been submitted on 25th March 2020 for service extension until 30 June 2020.

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

1.3 Overall Progress

Project-1 has substantially completed core activities of:

- (i) the construction of riverbank protection for a length of 17.80 km, and
- (ii) the construction of 21.3 km of flood embankment and 4 regulators, contracted during the dry season 2017/18 and substantially constructed during the dry season 2018/19, with minor finishing works expected to be completed during the following quarter.

While 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, a number of surficial failures occurred at the Chauhali site, mostly after placing the final wave protection in 2017. Initial repair and adaptation works were conducted during the 2018 dry season for a total length of some 3.8 km under existing work packages as well as a dedicated adaptation package. No further damages were observed in the adapted areas during the course of the 2018 and 2019 flood seasons. Only the downstream end section of the works was damaged after the river scoured to - 33m+PWD or 11 m below design scour level on 24 September 2018. No adaptation works were required for Harirampur and Zafarganj riverbank protection as no major erosion or river deepening occurred at these sites.

Over the years, 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 (Figure 1-2). It is noteworthy that only the works built at 40% below the average construction cost at Kaijuri between 2009 and 2011 shows some damages, while the rest is performing well. Overall, geotextile bag revetments appear to be 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 produced by ISPMC is attached in Appendix-I.

The construction of 21.30 km embankment from Kaijuri to Verakhola including 4 regulators started on 15 February 2018 for contract packages W-01 to W-05. Average progress of these packages (W1 to W5) is 97%. Construction activities are expected to be completed in April 2020.

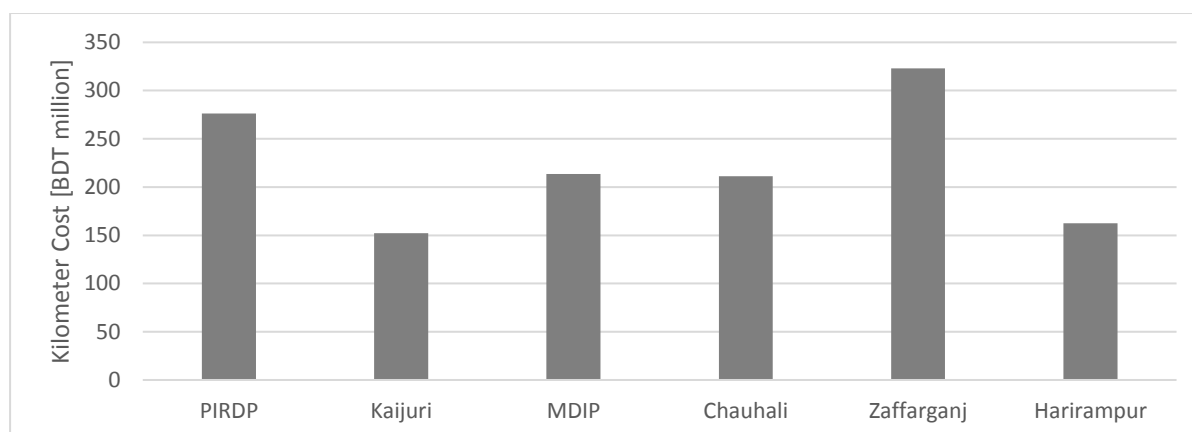


Figure 1-2 Kilometer cost of geotextile bag revetments built in Bangladesh (in 2018 prices)

Three sites were selected for building jute grout-filled mattress pilot works. Two were for embankment slope protection at Kaijuri and one was for riverbank wave protection at Harirampur. These three sites were built under two work packages: W14 and W16. Under package W14, the contractor completed the grout fill mattress work at Harirampur riverbank and a 200m section at Kaijuri embankment beside the regulator which was left during the last quarter was completed on 7th March 2020.

Package W16 was also completed in this quarter on 28th March 2020 except for the Contractor's demobilisation with all the survey works also under the same package having been completed in the last quarter.

The overall weighted project progress is presented in Table 0-1 and shows that, compared with the total estimated projected cost, the physical progress is 97.42%, PMO expenditure is 89% and ADB (plus GON) disbursement is 72.6%. 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 (until 31 March 2019)

| Total Project Cost (BDT Million) | Total Project Aid (ADB and GoN) (BDT Million) | ADB and GoN Disbursement Progress compared to the total cost (%) | ADB and GoN Disbursement Progress compared to the Aid amount (%) |
|----------------------------------|-----------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|
| 8,674.44 | 5,907.49 | 72.6 | 94.2 |

1.4 This Report

Quarterly Progress Report No. 19 covers the period 01 January 2020 to 31 March 2020. The report describes activities carried out during the quarter, which included: summary of implementation activities and other project sub project activities.

2. PROJECT ACTIVITIES

2.1 Introduction

The BWDB FRERMIP Project Management Office (PMO) started functioning in April 2014. In 2014/15 it was initially engaged in preconstruction and procurement activities, and since November 2015 with construction activities at three sites (through two Sub-Project Management Offices (SMOs) at Tangail

and Manikganj). After the riverbank construction was completed in 2016/17 adaptation works was implemented at Chauhali in 2017/18 and the Kojuri embankment construction started at which point a third Sub-Project Management Office in Koitala was activated. During the 2018/19 dry season, construction work largely related to the Kojuri embankment and pilot works started. The PMU DDM has implemented the CbFRM sub-component from 30 August 2018 until 30 June 2019.

The Joint Venture of Northwest Hydraulic Consultants (nhc) and Euroconsult Mott Macdonald (EMM) is working as Institutional Strengthening and Project Management Consultant (ISPMC) since 8th September 2015 and has completed numerous activities including a) preparing i) the Project Inception and Mid-Term reports, ii) a number of technical memos, iii) summary study team and feasibility report for tranche 2; b) supporting overall project management and capacity building activities; c) advising on design, construction and resettlement activities during implementation; d) preparing management support tools including data bases; e) providing regular quarterly progress reports; f) and preparing the terms of reference for several supporting studies. The status of implementation activities in the reporting quarter is discussed in the following sections, and summaries and detailed tables are provided in Appendix-A and Appendix-B respectively.

Table 2-1 provides the status of annual ADP expenditures. All the grout fill mattress work were completed in March 2020 and some embankment construction activities are expected to be completed in early April 2020. Work progress hampered due to the unavailability of the labors for the pandemic COVID-19 issue. The PMO expects to spend the remaining fund allocation within June 2020.

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

| Fiscal Year | ADP/RADP/RADP Reallocation | Actual expenditure | Percentage of Budget Utilization |
|-------------|----------------------------|--------------------|----------------------------------|
| 2014/15 | 311.20 | 217.78 | 70% |
| 2015/16 | 2,108.20 | 2,074.34 | 98% |
| 2016/17 | 2,290.80 | 2,246.11 | 98% |
| 2017/18 | 1,331.50 | 1,106.21 | 80% |
| 2018/19 | 1,676.30 | 1,633.77 | 97% |
| 2019/20 | 9570.0* | | - |

*Up to December 2019, Fiscal Year Ongoing; Source: IMED Report 05/2003

2.2 PROJECT ASSET IMPLEMENTATION

2.2.1 Introduction

Tables A-1 and A-2 (Appendix A) show the type, number and total cost of the project according to the 2nd revised DPP. The cost of the 21.30 km of embankment (plus associated structures) is BDT 1,202.943 million, as per awarded contract (Table A-5). The 17.8 km of riverbank revetment 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) (source, PMO December 2019). The total estimated expenditure will vary due to contract variations which are currently under preparation.

Using cross-link tables that connect these category items (and Asset Types) with other financial indicators, it is possible 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.

2.2.2 Bidding Activities

All bidding activities under the FRERMIP project have been completed. Bidding details are provided in Table B-2 (Appendix-B).

2.2.3 Design Activities

The design work for Tranche-1 is complete with work undergoing on the design for Tranche 2 riverbank protection works and an addendum to the feasibility study.

2.2.4 Implementation Activities

In this quarter all work packages could be substantially completed. Data as recorded by IMED are shown in the following table.

Table 2-2 Summary of Implementation activities – up to 31 March 2019

| Contract | Locations | Start date | Completion date | Contract Amount in Lac | Amount paid in Lac | Percent completed |
|--------------|---------------------|----------------------------------------------|----------------------------------|------------------------|--------------------|-------------------|
| W-01 to W-05 | Kaijuri | 05-03-18 15-02-18 01-03-18 15-03-18 | 31-03-20 02-03-20 31-03-20 | 12029.43 | 10948.34 | 97 |
| W-6 & W-7 | Chauhali | 25-10-15 | 15-04-18 | 8895.6 | 8293.58 | 100 |
| W-8 | Zaffarganj | 20-02-16 | 20-01-18 | 4850.00 | 4668.69 | 100 |
| W-9 & W 10 | Harirampur | 15-01-16 | 09-02-18 | 5705.15 | 5673.15 | 100 |
| W-11 | Chauhali | 20-03-18 | 31-01-19 | 670.119 | 639.4695 | 100 |
| W-14 & W-16 | Pilot | 01-10-18 18-09-19 | 02-04-20 12-06-2020 | 3197.69 1232.2 | 3142.4 794.92 | 97 |
| W-15 | Inspection Bungalow | 25-06-18 | 26-12-19 | 70.452 | 67.15 | 100 |

Details of the ongoing contract works are:

Construction work of the embankments under contract packages W-01/2016-17 to W-05/2016-17 started again in mid-December after the flood season and were extended through contract variations at the end of December. The remaining works are the provision of clay cladding and vetiver grass and excavation of approach channels to the regulators.

Under pilot works package W-14/2017-18, all the work will complete on early April 2020.

The W-16/2018-19 pilot works package has both a grout mattress construction and survey component. Survey work was completed in the last quarter and the survey contractor, IWM, provided the draft survey report on 27 March 2020. The grout fill mattress work was completed on 28th March 2020 except for the demobilization of the contractor.

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 activities. The status of the four ongoing 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 90 % complete. After the 4 th variation which was approved on 12 December 2019, the contract was extended from December 2019 to April 2020. |
| S-02 | Resettlement Plan Implementation | The Resettlement INGO signed a contract with BWDB on 16-Mar-2016, and their work is estimated to be 92 percent complete. Details are provided in Section 2.3.3. |
| S-04 | NGO Service for Community based Flood Risk Management (DDM) | The contract was signed on 30 August 2018 with implementation starting on 01 September, 2018. The contract has ended in 30 June 2019. More details are provided in Section 2.3.5. |
| S-06 | Erosion Prediction | CEGIS has completed the contracted work under this project in April, 2018. |

2.3.2 Environmental Management

The National Environmental Specialist visited embankment packages W-03,W-04 and W-05 on 21 December 2019 with Mr Jahangir Alam, Executive Engineer PMO, FRERMIP and Mr Md Al Amin, Sub Assistant Engineer/Sectional Officer Bera. The semi-annual environmental monitoring report was finalized and submitted to the PMO on 6th Feb 2020.

2.3.3 Resettlement Services

There was some progress in resettlement service during this quarter as summarized in Table 2-4 showing increased disbursements of compensations in all sites except Harirampur.

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

| SI 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 Dec 2019 | |
| | | | | | | | | | | | | CCL | Resettlement Grant |
| 1 | Embankment (Kojjuri 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 ² | 2081 | 229 | 84% CCL payment for structure holders done & 88% CCL | 2124 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 | 89% CCL payment done at Tangail part. 64% CCL payment done at Sirajgonj part | Resettlement Grant among 52 EPs on 16/07/17 Replacement Cost (RC) for 36 APs |
| 3 | Riverbank protection work at Zafarganj JLB-2 (1.4 Km) | Shibaloy of Manikganj | Residence & Business structure, Business loss, Agriculture plot | Approved by JVT | 38 | 40 | 12 | | 90 ³ | 77 | 13 | 61% CCL payment done | Resettlement Grant distributed among 90 EPs and replacement cost for 8 Aps |
| 4 | Riverbank protection work at Zafarganj JLB-2 (0.6 km) | Shibaloy, Manikganj | Residence & Business structure, Business loss, Agriculture plot | Approved by JVT | 26 | | | | 26 | 22 | 04 | 80% CCL payment done | Resettlement Grant distributed among 26 EPs |
| 5 | Riverbank protection work at Harirampur PLB-1 | Harirampur, Manikganj | Residence & Business structure, Business loss, Agriculture plot | Not Done | 66 | 13 | | 02 | 81 | 72 | 07 | Not yet started | Not yet started |
| | Total | | | | 1255 | 1372 | 68 | 15 | 2710 | | | 2956 | |

2.3.4 Gender and Development

There was little progress in gender and development during this quarter. The progress report is compiled as per the approved revised GAP which is provided in Appendix F.

2.3.5 Community-based Flood Risk Management (CbFRM)

The CbFRM component was completed. CbFRM component's consultant team submitted their final report on 27th March 2020.

2.3.6 Capacity building

In this quarter no capacity development took place. Table 2-5 summarises the total number of trainings so far conducted. Travel restrictions associated with the spread of the corona virus indicate that the completion of this program will be hampered.

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

| Item | Total | Completed | Pending |
|---------------------------------|-----------|-----------|----------|
| 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.

A current summary list of all surveys in the River Survey (2297) and ADCP (259) database is presented in Appendix - H.

2.3.8 River Study

Significant progress was made on the 37 Supplementary Annexes (SAs) during the reporting quarter. TN C and TN G were submitted on 23rd Feb 2020, letter reference ISPMC-FRERMIP-671.

The annexes A, D, F, and H, are completed and final review is going on for printing.

The individual status of all 37 Supplementary Annexes is available in Appendix-D.

2.3.9 Feasibility Study Design

The Tranche 2 feasibility report was approved on 8th September 2019. Considering the morphological analysis and geotechnical review of the riverbank protection at upstream Chauhali, it was understood and found necessary to amend the present approved feasibility report to cope the river situation and reduce vulnerability. ISPMC is now working to amend the document and it will be submitted at the start of next quarter in April 2020. ISPMC Consultant is preparing the Tranche 2 documents including updating the EIA report following BWDB comments.

2.3.10 ISPMC Performance Compliance with ToR

So far, the ISPMC has complied with the terms and conditions defined in the Terms of Reference (ToR) of the consultancy contract. Appendix-E presents a detailed summary of the ISPMC performance so far in accordance with 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.

While the PMO and the three SMOs are understaffed, the present staff strength is sufficient to complete the remaining works. 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 | 0 | 2 |
| Executive Engineer | 4 | 1 | 3 |
| System Analyst | 1 | 0 | 1 |
| Sub-Divisional Engineer | 2 | 0 | 2 |
| Assistant Engineer | 2 | 2 | 0 |
| Assistant Director | 1 | 1 | 0 |
| Accounts Officer/DD (Accounts) | 1 | 1 | 0 |
| Accounts Assistant/Sr. Accounts Assistant | 1 | 1 | 0 |
| Data Entry Operator | 2 | 0 | 2 |
| Driver | 2 | 2 | 0 |
| Guard | 2 | 2 | 0 |
| MLSS | 4 | 3 | 1 |
| Total | 25 | 15 | 11 |

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 | 1 (additional charge) | 0 |
| Assistant Engineer | 1 | 0 | 1 |
| 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 | 2 | 1 |
| 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 | 13 | 3 |

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.

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.

3.3 Important Events During This Quarter

- 05 January 2020 – Submitted EMP compliance report
- 10-11 January 2020 – Site Visited by Government Mid Term Evaluation Committee
- 20 to 31st January 2020 – JMREMP Project Performance Evaluation Mission
- 23 February 2020 – 5th Technical Advisory Committee Meeting
- 06 March 2020 – Field Trip of Dutch Ambassador and First Secretary to the site

4. FINANCIAL ARRANGEMENTS

4.1 *Statements of Expenditure*

Using the project implementation database, and with help from the PMO- FRERMIP, the ISPMC generate reports on 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 31 March for progress, expenses and reimbursements, for all DPP categories. This table also includes the 2018/19 fiscal targets (and fiscal progress) as defined 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.

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

First corona case was detected in Bangladesh on 8 March 2020 and soon thereafter travel restrictions have been started being imposed. Due to the global pandemic corona issue, arranging overseas training will not be possible until the situation improves and international travel restrictions are lifted .

Offices were closed from 26th March as per government order (Memo No- 05.00.0000.173.08.014.07-72, Public Administration, Peoples Republic of Bangladesh).

ISPMC professionals and key support staff worked from home to update QPR, completing the SESA, EIA, the RSP and preparation of tranche 2 focusing on the ADB processing documents allowing the ADB to proceed with the loan fact finding mission.

6. REFERENCES

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ADB, 2014: Loan Agreement, Flood and Riverbank Erosion Risk Management Investment Program - Project 1, between People's Republic of Bangladesh and Asian Development Bank, 2014 August 14

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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 Management

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.

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

| 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 Partner

| Component Code | Categories | Total Cost Est | Value of Physical Progress | PMO expenses | Reimbursed Amount | | |
|----------------|--------------------------------------------------------------|----------------|----------------------------|--------------|-------------------|--------|--------|
| | | | | | ADB | GON | Total |
| 1 | Works | 3609 | 3222 | 3425.37 | 2665 | 423.1 | 3088.1 |
| 2 | Materials | 1312.8 | 1312.8 | 1312.8 | 1312.9 | 0 | 1312.9 |
| 3A | Vehicles-BWDB | 34.9 | 34.5 | 34.94 | 1.5 | 0 | 1.5 |
| 3B | Equipment -BWDB | 11.1 | 11.1 | 11.1 | 10.6 | 0 | 10.6 |
| 3C | Equipment -DDM | 0.5 | 0.5 | 0.5 | 0.5 | 0 | 0.5 |
| 4 | Resettlement | 90 | 79.2 | 78.76 | 78.76 | 0 | 78.76 |
| 5 | Training | 76.9 | 63.8 | 65.34 | 60.14 | 0 | 60.14 |
| 6A | Consulting Services-Project Management BWDB | 1018.2 | 868.2 | 890.15 | 156 | 568.64 | 725.06 |
| 6B | Consulting Services-INGO/ Erosion Prediction Services - BWDB | 45.1 | 42.9 | 41.05 | 26.8 | 0 | 26.8 |
| 6C | Consulting Services-Project Management DDM | 50.5 | 37.4 | 30.00 | 0 | 0 | 0 |
| 7A | Project Management - BWDB | 32.29 | 30.6 | 25.16 | 21.7 | 0 | 21.7 |
| 7B | Project Management -DDM | 2.1 | 1.5 | 1.54 | 0.4 | 0 | 0.4 |
| 8 | Service Charge of ADB loan & GoN Grants | 199.2 | 149.4 | 170.00 | 0 | 0 | 0 |
| 9 | Unallocated | 2191 | 1775.7 | 1623.62 | 6.6 | 0 | 6.6 |
| | | | | | | | 0 |
| | Grand Total | 8674 | 7630 | 7709 | 4341 | 992 | 5333 |

Table A-4 RDPP Categories: Reimbursed Amount by Development Partners

| Sl no | Economic Code | Category | PMO expenses | Reimbursed Amount | | |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------|-------------------|--------|---------|
| | | | | ADB | GON | Total |
| | | (a) Revenue Cost | | | | |
| 1 | 3111201, 3111301, 3111325, 3111335 | Salary for suppor staffs | 6.80 | 0 | 0 | 0 |
| 2 | 3111332 | Honorarium Allowances | | 0 | 0 | 0 |
| 3 | 3211103 | Resettlement Support Program | 78.76 | 78.6 | 0 | 78.76 |
| 4 | 3231101, 3231201 | BWDB Capacity Development Program | 65.34 | 60.33 | 0 | 60.14 |
| 5 | 325701 | Implementation Consultant | 385.17 | 59 | 273 | 332.11 |
| 6 | 325701 | River Stabilization and Land Recovery | 369.41 | 67 | 213 | 279.53 |
| 7 | 325701 | Feasibility Study of Tranche 2/3 Project | 135.57 | 30 | 83 | 113.42 |
| 8 | 325701 | Resettlement Implementation Support | 12.28 | 10.66 | 0 | 10.66 |
| 9 | 325701 | Community based Disaster Maanement Program (DDM) | 30.00 | 26.09 | 0 | 26.09 |
| 10 | 3257104 | Land/River Survey and Data Processing | 7.48 | 6.6 | 0 | 6.6 |
| 11 | 3257104 | Survey and Inverstigation/Data Processing | 28.77 | 25.1 | | 25.1 |
| 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 | 25.16 | 21.3 | 0 | 21.73 |
| 13 | Same as PMO expenses | PIU-DDM Operational expenses | 1.54 | 1.32 | | 1.32 |
| 14 | 3221110, 3411101 | ADB loan interest during implmentation and service charge for Netherlands grant | 170.00 | 0 | | 0 |
| 15 | | Sub-total Revenue Component of (a) | 1315.20 | 386 | 568.64 | 955.46 |
| 16 | | (b) Capital Component | | | | |
| 17 | | | | | | |
| 18 | 3821104, 3821101 | CD/VAT | | 0 | 0 | 0 |
| 19 | 4111201 | Construction of Inspection banglow at Manikganj | 6.72 | 6.72 | 0 | 6.72 |
| 20 | 4111307 | Regulator/Sluice gate in JRB1 subproject area | 222.69 | 193.18 | 0 | 193.18 |
| 21 | 4111321 | 21.30 km embankment along the Right Bank of Jamuna and left bank of Baral-Hurasagar | 872.13 | 744.51 | 0 | 744.51 |
| 22 | 4111321 | Riverbank Protective Works | 2920.43 | 2711 | 0 | 2711 |
| 23 | 4111321 | Adaptive Protection and Emergency Works | 322.47 | 284.66 | 0 | 284.66 |
| 24 | 4111321 | Land Recovery/ River training pilot works | 393.73 | 0 | 423.15 | 261.35 |
| 25 | 4112101 | Transport vehicles | 34.94 | 4.1 | 0 | 4.1 |
| 26 | 4112202, 4112310, 4113301 | Computer and office Equipment | 4.40 | 4.2 | 0 | 4.2 |
| 27 | 4112202, 4112310, 4113301 | Computer and office Equipment (DDM) | 0.50 | 0.5 | 0 | 0.47 |
| 28 | 4112304 | Survey equipment | 6.70 | 6.4 | 0 | 6.4 |
| 29 | 4141101 | Land acquisition (136.00 ha) | 1609.34 | 0 | 0 | 0 |
| 30 | | Sub-total revenue component (b) | 6394.10 | 3955.27 | 423.15 | 4215.98 |
| 31 | | Sub total a+b | 7709.30 | 4341.27 | 991.79 | 5171.44 |
| 32 | | Physical contingency © | 0.00 | 0 | | 0 |
| 33 | | Price Contingency (d) | 0.00 | | | 0 |
| 34 | | Grand total (a+b+c+d) | 7709.30 | 4341 | 992 | 5333 |

Table A-5 DPP Categories: Financial and Physical Progress Indicator

| Sl no | Economic Code | Category | Budget | Fiscal year 2019/20 | | Progress up to the month of March 2020 | |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|---------------------|------------|----------------------------------------|------------|
| | | | | Financial | Physical % | Financial | Physical % |
| | | | | Provisional Target | | | |
| | | (a) Revenue Cost | RDPP | | | | |
| 1 | 3111201, 3111301, 3111325, 3111335 | Salary for support staffs | 83.7 | 2.88 | 94.05 | 6.80 | 8.14 |
| 2 | 3111332 | Honorarium Allowances | 0.8 | 0.8 | 100 | | |
| 3 | 3211103 | Resettlement Support Program | 90 | 0.9 | 12.48 | 78.76 | 87.52 |
| 4 | 3231101, 3231201 | BWDB Capacity Development Program | 76.9 | 12.86 | 16.73 | 65.34 | 83.44 |
| 5 | 325701 | Implementation Consultant | 387.3 | 10.4 | 2.69 | 385.17 | 99.46 |
| 6 | 325701 | River Stabilization and Land Recovery | 461.2 | 174.09 | 37.75 | 369.41 | 80.25 |
| 7 | 325701 | Feasibility Study of Tranche 2/3 Project | 169.7 | 45.59 | 26.87 | 135.57 | 88.13 |
| 8 | 325701 | Resettlement Implementation Support | 17.5 | 1.5 | 11 | 12.28 | 92.00 |
| 9 | 325701 | Community based Disaster Management Program (DDM) | 50.6 | 7.416 | 40.7 | 30.00 | 59.30 |
| 10 | 3257104 | Land/River Survey and Data Processing | 8 | 0.39 | 6.44 | 7.48 | 93.56 |
| 11 | 3257104 | Survey and Investigation/Data Processing | 28.9 | | | 28.77 | 100.00 |
| 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 | 32.3 | 7.42 | 25.73 | 25.16 | 77.93 |
| 13 | Same as PMO expenses | PIU-DDM Operational expenses | 2.1 | 0.28 | 26.67 | 1.54 | 73.33 |
| 14 | 3221110, 3411101 | ADB loan interest during implementation and service charge for Netherlands grant | 199.2 | 29.2 | 14.66 | 170.00 | 85.34 |
| 15 | | Sub-total Revenue Component of (a) | 1608.1 | 3028 | 24.76 | 1315.20 | 86.74 |
| 16 | | (b) Capital Component | | | | | |
| 17 | | | | | | | |
| 18 | 3821104, 3821101 | CD/VAT | 12.1 | | 100 | | |
| 19 | 4111201 | Construction of Inspection bungalow at Manikganj | 7.8 | 2.33 | 22 | 6.72 | 100.00 |
| 20 | 4111307 | Regulator/Sluice gate in JRB1 subproject area | 247.7 | 35.57 | 11 | 222.69 | 98.00 |
| 21 | 4111321 | 21.30 km embankment along the Right Bank of Jamuna and left bank of Baral-Hurasagar | 955.2 | 136.94 | 15 | 872.13 | 97.00 |
| 22 | 4111321 | Riverbank Protective Works | 2920.4 | | | 2920.43 | 100.00 |
| 23 | 4111321 | Adaptive Protection and Emergency Works | 325.5 | | | 322.47 | 100.00 |
| 24 | 4111321 | Land Recovery/ River training pilot works | 467.9 | 259.98 | 35.18 | 393.73 | 96.97 |
| 25 | 4112101 | Transport vehicles | 34.9 | | | 34.94 | 100.00 |
| 26 | 4112202, 4112310, 4113301 | Computer and office Equipment | 4.4 | | | 4.40 | 100.00 |
| 27 | 4112202, 4112310, 4113301 | Computer and office Equipment (DDM) | 0.5 | | | 0.50 | 100.00 |
| 28 | 4112304 | Survey equipment | 6.7 | | | 6.70 | 100.00 |
| 29 | 4141101 | Land acquisition (136.00 ha) | 2083.1 | 219.37 | 8 | 1609.34 | 96.00 |
| 30 | | Sub-total revenue component (b) | 7066.4 | 654.2 | 2.53 | 6394.10 | 99.42 |
| 31 | | Sub total a+b | 8674.4 | 957 | 6.28 | 7709.30 | 97.42 |
| 32 | | Physical contingency © | 0 | | | 0.00 | |
| 33 | | Price Contingency (d) | 0 | | | 0.00 | |
| 34 | | Grand total (a+b+c+d) | 8674.4 | 957 | 6.28 | 7709.30 | 97.42 |

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): Kajjuri - 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.: Kajjuri Reg 2V 1.5x1.8m: Kojjuri | | 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

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

Table B-2 Tender Progress Details

| Project Code | Description | Dates | | | | | | | | | | | | | |
|---------------------------------------------|------------------------------------------------------------|-------------------------------------|----------|------------------------------|--------------|-------------------------------------|--------------|-------------|---------------|-----------------|-----------|------------|------------------------|--------------|--|
| | | ISPMC ToR | ADB ToR | Eol Notice | Eol Received | BWDB Eol Eval | ADB Eol Eval | ADB Bid Doc | Tender Notice | Tender Received | Eval Comp | ADB Consur | 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, Kojjuri & Benotia | | | | | | | 13Sep16 | 27Sep16 | 14Nov16 | 19Dec16 | 20Jan17 | 31Jan17 | 12Feb17 | |
| Component Totals | | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Goods; C: Vehicles & Equipment | | | | | | | | | | | | | | | |
| G-05 | 2016 Supply of Jeep; | | | | | | | 26Feb16 | 29Feb16 | 31Mar16 | 13Apr16 | 19Apr16 | 19Apr16 | 07Jun16 | |
| G-06.1 | 2015 Supply of Jeeps; | | | | | | | | 01Jun16 | 05Jun16 | 09Jun16 | 12Jun16 | 16Jun16 | 30Jun16 | |
| G-06.2 | 2016 Supply of Jeep; | | | | | | | | 10Mar16 | 24Mar16 | 14Apr16 | 21Apr16 | 28Apr16 | 05May16 | |
| G-06.3 | 2016 Supply of Motorcycles; | | | | | | | | 10Mar16 | 24Mar16 | 14Apr16 | 21Apr16 | 28Apr16 | 05May16 | |
| G-07.1 | 2015 Office Equipment; BWDB PMO | | | | | | | | 13Apr15 | 17May15 | | | | 28May15 | |
| G-07.2 | 2016 Office Equipment; BWDB PMO | | | | | | | 10Apr15 | 03Jan16 | 04Feb16 | 29Feb16 | 28Mar16 | 28Mar16 | 30Mar16 | |
| G-08 | 2016 Supply of Survey Equipments; | | | | | | | 10Apr15 | 03Jan16 | 04Feb16 | 29Feb16 | 14Mar16 | 14Mar16 | 16Mar16 | |
| G-09 | 2017 Supply of Office Equip; DDM | | | | | | | | 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 | |
| W-02 | Embankment; km 5-8.5 | | | | | | | | 06Nov17 | 07Nov17 | 11Dec17 | 27Dec17 | 21Jan18 | 23Jan18 | |
| W-03 | Embankment; 8.5-12.5 | | | | | | | | 06Nov17 | 07Nov17 | 11Dec17 | 27Dec17 | 21Jan18 | 23Jan18 | |
| W-04 | Embankment & 1 Regulator; km 12.5-17.3 | | | | | | | | 06Nov17 | 07Nov17 | 11Dec17 | 27Dec17 | 21Jan18 | 12Feb18 | |
| W-05 | Embankment & 1 Regulator; km 17.3-21.3 | | | | | | | | 06Nov17 | 07Nov17 | 11Dec17 | 27Dec17 | 29Jan18 | 20Feb18 | |
| 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; Manikganj | | 05Apr18 | | | | | 15Apr18 | 15Apr18 | 17May18 | 29May18 | 07Jun18 | 11Jun18 | 11Jun18 | |
| W-16 | Piloting Work; Shahzadpur | | | | | | | 1Aug19 | 1Aug19 | 22Aug19 | | 09Sep19 | 11Sep19 | 11Sep19 | |
| 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 | | Concur. - Concurrence | | Eol - Expression of Interest | | | | | | | | | |
| | | BDT - Bangladesh Taka | | Doc. - Document | | Notif. - Notification | | | | | | | | | |
| | | Comp. - Completion | | | | | | | | | | | | | |

| Table B4 ADB & GON Disbursement Details (until 31 March) | | | | |
|---------------------------------------------------------------------|-------------|----------------------|----------------------|-------------------------|
| ADB Disbursements | | | | |
| ADB Loan Account | | | | |
| Appl. No | Date | US\$ | Rate | BDT |
| WL001 | 09/Dec/2014 | 3,682,433.00 | 77.85 | 286,677,409.05 |
| WI007 | 17/Dec/2015 | 11,069,711.01 | 78.70 | 871,186,256.49 |
| BW006 | 15/Oct/2015 | | 77.80 | |
| BW008 | 20/Dec/2015 | 1,198,478.59 | 78.70 | 94,320,265.03 |
| BW013 | 30/Jun/2016 | 3,889,762.94 | 78.40 | 304,957,414.50 |
| BW011 | 02/Oct/2016 | 1,627,548.73 | 78.40 | 127,599,820.43 |
| BW017 | 27/Nov/2016 | 3,567,316.77 | 78.65 | 280,569,463.96 |
| BW018 | 04/May/2017 | 10,263.46 | 78.40 | 804,655.17 |
| BW020 | 02/May/2017 | 6,561,484.21 | 78.84 | 517,302,907.94 |
| BW023 | 22/Jun/2017 | 1,746,397.55 | 78.84 | 137,685,982.91 |
| BW029 | 06/Nov/2017 | 4,715,885.93 | 80.51 | 379,675,976.22 |
| BW030 | 22/Dec/2017 | 1,148,309.32 | 80.51 | 92,450,383.35 |
| BW034 | 12/Sep/2018 | 1,708,882.48 | 80.85 | 138,163,148.51 |
| BW037 | 05/Dec/2018 | 3,546,512.56 | 80.85 | 286,735,541.67 |
| BW042 | 19/Feb/2019 | 510,691.02 | 78.22 | 39,946,120.74 |
| | | 44,983,677.57 | | 3,558,075,345.97 |
| Grant Imprest Account | | | | |
| Appl. No | Date | US\$ | Rate | BDT |
| WG002 | 09/Dec/2014 | 1,189,354.00 | 77.85 | 92,591,208.90 |
| WG007 | 17/Dec/2015 | 20,651.00 | 78.70 | 1,625,233.70 |
| WG008 | 04/Oct/2016 | 319,995.00 | 78.40 | 25,087,608.00 |
| ED002 | 24/Nov/2016 | 43,392.97 | 78.63 | 3,411,989.23 |
| ED006 | 24/Nov/2016 | 341,134.29 | 78.63 | 26,823,389.22 |
| ED007 | 04/May/2017 | 58,422.77 | 78.40 | 4,580,345.17 |
| ED008 | 02/May/2017 | 349,549.87 | 78.84 | 27,532,857.98 |
| ED011 | 22/Jun/2017 | 160,051.52 | 78.84 | 12,618,462.00 |
| ED015 | 10/Nov/2017 | 435,718.95 | 80.66 | 35,145,342.16 |
| ED016 | 22/Dec/2017 | 218,279.52 | 77.58 | 17,647,898.88 |
| ED019 | 08/Aug/2018 | 163,006.74 | 80.85 | 13,179,094.93 |
| ED021 | 10/Oct/2018 | 164,795.19 | 80.85 | 13,323,691.11 |
| ED024 | 19/Dec/2018 | 656,219.52 | 80.85 | 54,511,119.84 |
| ED027 | 24/May/2019 | 1,090,542.52 | 83.95 | 91,549,128.14 |
| ED030 | 11/Sep/2019 | 805,534.72 | 84.35 | 67,950,398.37 |
| ED031 | 18/Nov/2019 | 833,894.02 | 84.63 | 70,571,212.35 |
| | | 6,850,542.60 | | 558,148,979.98 |
| Reimbursement | | | | |
| Dir.Pay | | | ADB & GoN | |
| Appl. No. | 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 |
| BW014 | 23/Jun/2016 | 5 | 95,517 | 7,488,568 |
| BW015/ED004 | 29/Jun/2016 | 6A | 374,096 | 29,020,474 |
| BW016/ED005 | 29/Jun/2016 | 6A | 306,512 | 23,777,655 |
| BW019 | 20/Jan/2017 | 5 | 19,044 | 1,503,562 |
| BW021/ED009 | 10/Mar/2017 | 6A | 410,184 | 31,819,987 |
| BW022/ED010 | 06/Apr/2017 | 6A | 689,643 | 53,499,087 |
| BW024 | 06/Jun/2017 | 5 | 92,993 | 7,497,996 |
| BW025/ED012 | 07/Jun/2017 | 6A | 290,620 | 22,544,814 |
| BW026/ED013 | 22/Jun/2017 | 6A | 199,295 | 15,460,289 |
| BW027/ED014 | 06/Jul/2017 | 6A | 74,843 | 5,805,907 |
| BW028 | 06/Jul/2017 | 5 | 94,000 | 7,520,000 |
| BW031/ED017 | 12/Jan/2018 | 6A | 110,259 | 8,553,380 |
| BW032 | 01/Feb/2018 | 5 | 52,911 | 4,232,858 |
| BW033/ED018 | 26/Mar/2018 | 6A | 485,343 | 37,650,472 |
| BW035/ED020 | 08/Jun/2018 | 6A | 409,309 | 31,752,167 |
| BW036 | 18/Jul/2018 | 5 | 37,601 | 3,083,316 |
| 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 | 41,682,606 |
| BW041/ED023 | 21/Nov/2018 | 6A | 495,613 | 38,447,167 |
| BW043 | 04/Jan/2019 | 5 | 23,359 | 1,915,422 |
| BW045/ED026 | 30/May/2019 | 6A | 220,448 | 17,101,271 |
| BW046 | 05/Jul/2019 | 5 | 23,405 | 1,977,697 |
| BW047/ED028 | 30/Jun/2019 | 6A | 414,965 | 32,190,946 |
| BW048/ED029 | 18/Jul/2019 | 6A | 109,534 | 8,497,116 |
| ED032 | 16/Jan/2020 | 6A | 171,298 | 13,288,425 |
| ED033 | 13/Jan/2020 | 6A | 186,345 | 14,455,735 |
| ED034 | 03/Feb/2020 | 6A | 239,333 | 18,566,250 |
| ED037 | 18/Mar/2020 | 1 | 256,858 | 21,789,292 |
| ED038 | 16/Mar/2020 | 6A | 190,992 | 14,816,224 |
| BW001 (LC) | 30/Oct/2019 | 2 | 8,687,840 | 675,998,236 |
| Capitalization | | | 1,967,102 | 161,302,351 |
| Subtotal | | | 18,511,391 | 1,450,211,009 |

Appendix-C

Table C-1 Utilization of Consultant Person-Months

| N o. | Position | Firm | Name | Person-Months - updated for month of March - 2020 | | | | | | | | | | | | Balanc e VO-4 |
|---------|--------------------------------------------------|------------|------------------------|---------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|---------------|
| | | | | VO-4 | Jun '19 | Jul' 19 | Aug '19 | Sep '19 | Oct '19 | Nov '19 | Dec '19 | Jan' 20 | Feb '20 | Mar '20 | Use d | |
| | MAIN TEAM - INTERNATIONAL | | | | | | | | | | | | | | | |
| I-1-1 | Team Leader / River Management Specialist | NHC | Knut Oberhagemann | 38.50 | 0.61 | 0.58 | 0.32 | 0.89 | 0.54 | 0.83 | 0.40 | 0.92 | 0.69 | 0.90 | 38.90 | -0.40 |
| I-2 | Institutional Development Specialist/ | EMM | Robert A. van de Putte | 2.51 | | | | | | | | | | | 2.51 | 0.00 |
| I-3 | Morphologist | DELTA ARES | Erik Mosselman | 5.00 | | 0.02 | 0.01 | | | | 0.07 | 0.00 | 0.02 | 0.04 | 4.95 | 0.05 |
| I-4 | River Engineer | NHC | Bruce Walsh | 5.90 | 0.10 | | 0.08 | 0.07 | | | | | 0.16 | | 5.44 | 0.46 |
| I-5 | Construction / Quality Control Engineer | EMM | Basistha Adhikari | 0.78 | | | | | | | | | | | 0.87 | -0.09 |
| I-6 | Flood Risk Management Specialist | NHC | Dave Burkholder | 11.30 | | | | | | | | | | | 11.30 | 0.00 |
| I-7 | Social Development / Resettlement Specialist | EMM | Jean Louis Leterme | 11.25 | | | | | | | | | | | 10.52 | 0.73 |
| I-8 | Economist | NHC | John D. M. Roe | 2.90 | | | | | | | | 0.50 | | | 2.42 | 0.48 |
| | CRVA (Climate Risk and Vulnerability Assessment) | | | | | | | | | | | | 0.45 | | | |
| I-9 | Financial Management Specialist | EMM | J. Spurr | 0.00 | | | | | | | | | | | 0.00 | 0.00 |
| I-10 | Hydrologist | NHC | Derek Stuart | 7.90 | 0.01 | 0.02 | 0.01 | | | | 0.03 | | | | 7.91 | 0.00 |
| I-11 | Environmental Specialist | EMM | Mr. Wim Giesen | 4.60 | 0.01 | | | 0.05 | | | | | 0.30 | 0.43 | 4.25 | 0.35 |
| I-12 | Information and Data Management Specialist | NHC | Dave Burkholder | 9.00 | 0.01 | 0.01 | | 0.02 | 0.02 | 0.04 | 0.02 | 0.05 | 0.02 | 0.28 | 8.41 | 0.59 |
| I-13 | Unallocated Engineering Services | NHC | TBN | | | | | | | | | | | | 0.00 | 0.00 |
| I-13-1 | Int'l Construction Advisor-Engineer | NHC | Graeme Vass | 3.00 | | | | | | | | | | | 3.00 | 0.00 |
| I-13-2 | Junior Engineer | NHC | Jesper Mathiesen | 21.02 | 0.30 | 0.83 | 0.67 | 0.23 | 0.30 | 0.53 | 0.17 | 0.17 | 0.37 | 0.53 | 20.90 | 0.12 |
| | CRVA (Climate Risk and Vulnerability Assessment) | | | | | | | | | | | | | | 0.36 | |
| I-13-3a | Geotextile Specialist (Unallocated) | NHC | Michael Heibaum | 0.65 | | | | | | | | | | | 0.65 | 0.00 |
| I-13-3 | Numerical Modeller | NHC | Angela Thompson | 11.33 | | | | | 0.60 | 1.00 | 0.03 | 0.05 | | 0.11 | 11.49 | -0.16 |
| I-13-4 | Unallocated Engineering Services | NHC | Seth Bryant | 4.00 | | | | | | | | | | | 3.95 | 0.05 |

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

| | | | | | | | | | | | | | | | | |
|---------|-------------------------------------------------|-------|---------------------------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|
| I-1-3-5 | Unallocated Engineering Services | NHC | TBN/Brecht D'Haeyer | 2.50 | | | | | | | | | | | 2.55 | -0.05 |
| I-1-3-6 | Unallocated Engineering Services | NHC | Yannik Gunther | 0.50 | | | | 0.07 | 0.83 | 0.87 | 0.97 | | | | 2.74 | -2.24 |
| I-1-6 | Geotechnical/Construction Engineer | EMM | Hiba Khan | 17.00 | 1.00 | 0.31 | 0.17 | 0.39 | 0.29 | 0.73 | 0.61 | 0.95 | 0.94 | 0.90 | 15.80 | 1.20 |
| I-1-4 | Senior Geotechnical Engineer | NHC | Dr. Horst Kramer | 1.10 | | | | | | | | | | | 1.04 | 0.06 |
| I-1-5 | River Engineer | NHC | Brad Hall | 6.48 | | | | | | | | | | | 6.48 | 0.00 |
| I-1-7 | Water Resources Specialist | NHC | Marieke Niewaal | 0.00 | | | | | | | | | | | 0.00 | 0.00 |
| I-1-3 | Design and Specification Engineer | EMM | John Prytherch | 4.50 | | 0.14 | | | 0.05 | 0.02 | 0.01 | | | 0.04 | 3.15 | 1.35 |
| I-1-8 | Geotechnical Engineer | EMM | James Gelder | 0.50 | | | | | | | | | 0.01 | 0.03 | 0.04 | 0.46 |
| | | | Totals | 172.22 | 2.04 | 1.91 | 1.26 | 1.65 | 1.87 | 4.05 | 2.11 | 3.61 | 2.51 | 3.26 | 164.31 | 2.14 |
| | Main Team National | | | | | | | | | | | | | | | |
| N-1 | DTL / Flood & Erosion Risk Management Spec. | EMM | Sharif Al Kamal | 46.00 | 0.77 | 0.05 | 0.50 | 0.64 | 0.73 | 0.79 | 0.32 | 0.23 | 0.91 | 0.91 | 45.95 | 0.05 |
| N-2 | Institutional / Capacity Development Specialist | RPMC | Dr. M. A. Qassem | 9.86 | | | | | | | | | | | 9.86 | 0.00 |
| N-3 | River Engineer (Morphologist) | CEGIS | Dr. Maminul Haque Sarker | 7.00 | | 0.04 | | 0.03 | | 0.03 | 0.14 | | | | 7.00 | 0.00 |
| N-4 | Community-based Flood Risk Mngt. Spec. | RPMC | Quazi Towfique Islam | 38.00 | 0.23 | 0.18 | | | | | | | | | 37.27 | 0.73 |
| N-5 | Resettlement Specialist | EMM | Shireen Akhter/Begum S. Nahar | 16.50 | | | | | | | | | 0.66 | | 17.11 | -0.61 |
| N-6 | Project Economist | RPMC | Amiul Islam | 11.50 | | | | | | | | | 0.91 | 0.41 | 10.46 | 1.04 |
| N-7 | Procurement Specialist | RPMC | A. Abdullah Chowdhury / Md Abdullah Sadeque | 1.89 | | | | | | | | | | | 1.89 | 0.00 |
| N-8 | Construction Engineer | RPMC | Mirza Harunar Rashid | 34.90 | | | | | | | | | | | 34.94 | -0.04 |
| N-9 | Financial Management Specialist | EMM | Md. Habibur Rahman/Ektedar Rahman | 12.50 | 0.09 | 0.05 | 0.05 | 0.27 | 0.09 | | 0.23 | 0.50 | 0.32 | 0.05 | 11.58 | 0.92 |
| N-10-1 | River Engineer Flood Management Infr.- 1 | RPMC | Mukhles uz zaman | 13.74 | | | | | | | | | | | 13.74 | 0.00 |
| N-10-2 | River Engineer Flood Management Infr.- 2 | RPMC | Md. Motiur Rahman | 18.00 | | | | | | | | | | | 18.01 | -0.01 |
| N-11 | Social Development and Gender Specialist | EMM | Ruh Afza Ruhi/Begum S. Nahar | 11.00 | | | | | | | | | | | 9.36 | 1.64 |

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

| | | | | | | | | | | | | | | | | | |
|--------|------------------------------------------------------------|-------|----------------------------------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---------------|--------------|
| N-12 | Environment Specialist | RPMC | Dr. Md. Nurul Islam/ Md. Amir Faisal | 18.5 | | | | | | 0.23 | | | | | | 16.79 | 1.71 |
| N-13 | Training Coordinator | EMM | Jahangir Kabir/ Shameem Ahmed | 19.3 | | | | | | | | | | | | 19.29 | 0.01 |
| N-14 | Information and Data Management Specialist | EMM | Asrafuzza men | 0.00 | | | | | | | | | | | | 0.00 | 0.00 |
| N-15 | Hydraulic Structural Engineer | RPMC | Md. Dabir Uddin/ Am inul Haque Shah | 3.02 | | | | | | | | | | | | 3.02 | 0.00 |
| N-16 | Road Engineer | RPMC | Zakir Hossain | 4.21 | | | | | | | | | | | | 4.21 | 0.00 |
| N-17 | Geotechnical Engineer / Geotechnical Expert (Local) | EMM | Md. Korban Ali / Md. Shamsul Islam | 8.50 | | | | | | | | | | | | 8.08 | 0.42 |
| N-18-1 | Site Engineer 1 (PRB-1) | RPMC | Md. Nurul Amin | 44.00 | 0.55 | 0.62 | | 0.20 | | | | | | | | 40.88 | 3.12 |
| N-18-2 | Site Engineer 2 (JLB-2 Chauhali) | RPMC | KM Nazmul Haque/ Ekram Sarder/M ainul Islam | 14.24 | 0.82 | | | | | | | | | | | 14.24 | 0.00 |
| N-18-3 | Site Engineer 3 (JLB-2 Zaffarganj) | EMM | Md Faridul Alam/Moin Uddin/AZM Abdullah/Ziaul Alam | 40.00 | | | | | | | 0.58 | 1.00 | 1.00 | | | 37.56 | 2.44 |
| N-18-4 | Site Engineers 4 (PLB-1 Harirampur) | EMM | Abdul Jalil/ Saiful Islam | 8.04 | | | | | | | | | | | | 8.04 | 0.00 |
| N-19 | Surveyor | EMM | Osman Ghani | 14.00 | | 0.49 | | 0.32 | | | | | | | | 13.07 | 0.93 |
| N-20 | Unallocated Engineering Services | RPMC | TBN Mukhles uz zaman | 1.50 | | | | | | | | | | | | 1.00 | 0.50 |
| N-21 | Morphologist | CEGIS | Sudipta Kumar Hore | 5.00 | | 0.53 | 0.11 | 0.12 | 0.03 | 0.08 | 0.13 | | | 0.04 | | 5.04 | -0.04 |
| | | | | | | | | | | | | | | | | 0.00 | |
| | | | Totals | 401.20 | 2.46 | 1.96 | 0.66 | 1.58 | 0.85 | 1.13 | 0.82 | 1.31 | 3.14 | 3.07 | | 388.39 | 12.81 |

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

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

| | | | | | | | | | | | | | | | | |
|-------|-----------------------------------------------------------------------|-----------|----------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|
| | RIVER STUDY TEAM - INTERNATIONAL | | | | | | | | | | | | | | | |
| IR-1 | Task Leader / Flood & River Management Spec. | NHC | Carsten Stuab | 10.98 | | | | | | | | | | | 10.98 | 0.00 |
| IR-2 | Institutional Development Specialist/Capacity Development Specialist. | EMM | Robert A. van de Putte | 0.50 | | | | | | | | | | | 0.50 | 0.00 |
| IR-3 | Morphologist | DELT ARES | Sanjay Giri | 6.50 | | | | | | | 0.05 | | | | 6.22 | 0.28 |
| IR-4 | River Engineer (River Training) | NHC | Gerritt Klaassen | 10.60 | | | | | | | | | 0.17 | | 10.50 | 0.10 |
| IR-5 | Water Resources Management Specialist | DELT ARES | W. J. Oliemans | 2.95 | 0.05 | | | | | 0.03 | | 0.07 | | | 2.91 | 0.04 |
| IR-6 | Economist | EMM | Alexander Mueller/John D.M. Roe | 2.47 | | | | | | | | | | | 2.47 | 0.00 |
| | 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 |
| IR-8 | Environmental Specialist | EMM | Wandert Benthem | 4.10 | | | | | | | | | | | 4.01 | 0.09 |
| IR-9 | Hydrologist | NHC | Malcolm Leytham | 3.65 | | | | | 0.03 | | | | | | 2.95 | 0.70 |
| | 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 |
| | CRVA (Climate Risk and Vulnerability Assessment) | | | | | | | | | | | | | | 0.07 | -0.07 |
| IR-11 | Dredging Specialist | NHC | Pieter Van Groen | 2.11 | | | | | | | | | | | 2.11 | 0.00 |
| IR-12 | Urban & Master Planner | NHC | Dr. Douglas Webster | 2.90 | | | | | | | | | | | 2.82 | 0.08 |
| IR-13 | Morphologist Modeller | DRS | Mohammed Yossef | 1.40 | | 0.01 | | | | | | | | | 1.38 | 0.02 |
| IR-14 | Sedimentologist | NHC | Dan Haught | 1.42 | | | | | | | | | | | 1.42 | 0.00 |
| IR-15 | Geomorphologist | NHC | Andrew Nelson | 1.75 | 0.01 | | 0.01 | | | | | | | | 1.65 | 0.10 |
| IR-16 | Community Development/ Flood Management Specialist | EMM | Judith de Bruijne | 0.18 | | | | | | | | | | | 0.18 | 0.00 |
| IR-17 | Report Editor | NHC | Dr.Sara Bennett, | 2.00 | 0.07 | | | | | | | | | | 0.53 | 1.47 |
| IR-18 | Report Publisher | NHC | Sabrina Asche | 7.00 | 0.23 | 0.18 | 0.23 | 0.36 | 0.18 | | 0.18 | | 0.14 | 0.50 | 6.78 | 0.22 |
| | | | Totals | 68.93 | 0.36 | 0.19 | 0.24 | 0.39 | 0.18 | 0.00 | 0.21 | 0.05 | 0.21 | 0.67 | 66.34 | 2.59 |
| | | | Grand Total International | 241.2 | 2.40 | 2.10 | 1.50 | 2.04 | 2.05 | 4.05 | 2.32 | 3.66 | 2.72 | 3.93 | 230.66 | 4.72 |

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

| | RIVER STUDY TEAM - NATIONAL | | | | | | | | | | | | | | | | |
|--------|-------------------------------------------|-------|------------------------------------------|---------------|------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|---------------|--------------|------|
| N R-1 | Water Resources Management Specialist | RPMC | G M Akram Hossain | 9.92 | | | | | | | | | | | | 9.92 | 0.00 |
| N R-2 | Flood Management Specialist | RPMC | Md. Makbul Hossain | 7.55 | | | | | | | | | | | | 7.55 | 0.00 |
| N R-3 | River Engineer (Morphologist) | CEGIS | Dr. Maminul Haque Sarker | 4.00 | 0.06 | 0.11 | | | | 0.03 | | | | | | 4.00 | 0.00 |
| N R-4 | Economist | EMM | Dr. Shaker Ahmed | 0.01 | | | | | | | | | | | | 0.00 | 0.01 |
| N R-5 | Regional / Spatial Planner | RPMC | Dr. Shamim M Haque | 3.37 | | | | | | | | | | | | 3.37 | 0.00 |
| N R-6 | Institutional Development Specialist | RPMC | Dr. M. A. Qassem | 3.94 | | | | | | | | | | | | 3.94 | 0.00 |
| N R-7 | River Engineer | RPMC | Md. Motiur Rahman Jewel | 11.7 | | | | | | | | | | | | 11.70 | 0.00 |
| N R-8 | Hydrologist | EMM | Imdadul Haque Siddiqui | 0.00 | | | | | | | | | | | | 0.00 | 0.00 |
| N R-9 | Social Development and Gender Specialist | EMM | Ruh Afza Ruhi/Begum S. Nahar | 4.00 | | | | | | | | | | | | 3.99 | 0.01 |
| N R-10 | Environment / Climate Change Specialist | EMM | Md. Rakibul Haque/Amir Faisal | 2.50 | | | | | | | | | | | | 2.49 | 0.01 |
| N R-11 | Water Supply and Water Quality Specialist | EMM | Md. Mozammel Hossain/ Dr. Khairul Bashar | 3.63 | | | | | | | | | | | | 3.63 | 0.00 |
| N R-12 | Agriculture Specialist | RPMC | Dr Quazi Reasul Islam | 3.34 | | | | | | | | | | | | 3.34 | 0.00 |
| N R-13 | Fishery Specialist | RPMC | Dr. Md. S. Howlader | 9.00 | | 0.73 | 0.45 | 0.82 | 0.32 | 0.32 | 0.07 | | | | | 8.71 | 0.29 |
| N R-14 | Environmental Avisor | EMM | Dr. Alnun Nishat | 0.30 | | | | | | | | | | | | 0.18 | 0.12 |
| | | | | | | | | | | | | | | | | 0.00 | |
| | | | Totals | 63.26 | - | 0.06 | - | 0.84 | 0.45 | 0.82 | 0.35 | 0.32 | 0.07 | - | 62.83 | 0.43 | |
| | | | Grand Total National | 464.46 | 2.5 | 2.0 | 0.7 | 2.4 | 1.3 | 2.0 | 1.2 | 1.6 | 3.2 | 3.1 | 451.22 | 13.24 | |

Table C-1 Utilization of Consultant Person-Months

| No. | Position | Firm | Name | Person-Months - updated for month of March' 2020 | | | | | |
|----------------------------------|------------------------------------------|-----------|------------------------|--------------------------------------------------|----------|--------|--------|-------|---------|
| | | | | VO-4 | Jan'2020 | Feb'20 | Mar'20 | Used | Balance |
| MAIN TEAM - INTERNATIONAL | | | | | | | | | |
| I-1 | Team Leader / River Mangement Specialist | NHC | Knut Oberhagemann | 38.50 | 0.92 | 0.69 | 0.90 | 38.00 | 0.50 |
| I-2 | Institutional Development Specialist | EMM | Robert A. van de Putte | 2.51 | | | | 2.51 | 0.00 |
| I-3 | Morphologist | DELTA RES | Erik Mosselman | 5.00 | 0.00 | 0.02 | 0.04 | 4.91 | 0.09 |
| I-4 | River Engineer | NHC | Bruce Walsh | 5.90 | | 0.16 | | 5.44 | 0.46 |
| I-5 | Construction / Quality Control Engineer | EMM | Basistha Adhikari | 0.78 | | | | 0.87 | -0.09 |
| I-6 | Flood Risk Management Specialist | NHC | Dave Burkholder | 11.30 | | | | 11.30 | 0.00 |

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

| | | | | | | | | | |
|---------|--------------------------------------------------|-----|------------------------------|---------------|-------------|-------------|-------------|---------------|-------------|
| I-7 | Social Development / Resettlement Specialist | EMM | Jean Louis Leterme | 11.25 | | | | 10.52 | 0.73 |
| I-8 | Economist | NHC | John D. M. Roe | 2.90 | 0.50 | | | 2.42 | 0.48 |
| | CRVA (Climate Risk and Vulnerability Assessment) | | | | | | 0.45 | -0.45 | |
| I-9 | Financial Management Specialist | EMM | J. Spurr | 0.00 | | | | 0.00 | 0.00 |
| I-10 | Hydrologist | NHC | Derek Stuart | 7.90 | | | | 7.91 | 0.00 |
| I-11 | Environmental Specialist | EMM | Mr. Wim Giesen | 4.60 | | 0.30 | 0.43 | 3.82 | 0.78 |
| I-12 | Information and Data Management Specialist | NHC | Dave Burkholder | 9.00 | 0.05 | 0.02 | 0.28 | 8.13 | 0.87 |
| I-13 | Unallocated Engineering Services | NHC | TBA (see I-13-1 to 5 & I-16) | | | | | 0.00 | 0.00 |
| I-13-1 | Int'l Construction Advisor-Engineer | NHC | Graeme Vass | 3.00 | | | | 3.00 | 0.00 |
| I-13-2 | River Engineer | NHC | Jesper Mathiesen | 21.02 | 0.17 | 0.37 | 0.53 | 20.37 | 0.65 |
| | CRVA (Climate Risk and Vulnerability Assessment) | | | | | | 0.36 | -0.36 | |
| I-13-3b | Geotextile Specialist (Unallocated) | NHC | Michael Heibaum | 0.65 | | | | 0.65 | 0.00 |
| I-13-3 | Numerical Modeller | NHC | Angela Thompson | 11.33 | 0.05 | | 0.11 | 11.38 | -0.05 |
| I-13-4 | Unallocated Engineering Services | NHC | Seth Bryant | 4.00 | | | | 3.95 | 0.05 |
| I-13-5 | Unallocated Engineering Services | NHC | TBN/Brecht D'Haeyer | 2.50 | | | | 2.55 | -0.05 |
| I-13-6 | Unallocated Engineering Services | NHC | Yannik Gunther | 0.50 | 0.97 | | | 2.74 | -2.24 |
| I-16 | Geotechnical/Construction Engineer | EMM | Hiba Khan | 17.00 | 0.95 | 0.94 | 0.90 | 14.90 | 2.10 |
| I-14 | Senior Geotechnical Engineer | NHC | Dr. Horst Kramer | 1.10 | | | | 1.04 | 0.06 |
| I-15 | River Engineer | NHC | Brad Hall | 6.48 | | | | 6.48 | 0.00 |
| I-17 | Water Resources Specialist | EMM | Marieke Niewaal | 0.00 | | | | 0.00 | 0.00 |
| I-13 | Design and Specification Engineer | EMM | John Prytherch | 4.50 | | | 0.04 | 3.11 | 1.39 |
| I-18 | Geotechnical Engineer | EMM | James Gelder | 0.50 | | 0.01 | 0.03 | 0.01 | 0.49 |
| | | | | | | | | | |
| | | | Totals | 172.22 | 3.61 | 2.51 | 3.26 | 164.31 | 5.40 |

Table C-1 Utilization of Consultant Person-Months continued

| RIVER STUDY TEAM - INTERNATIONAL | | | | | | | | | |
|----------------------------------|--------------------------------------------------|----------|---------------------------------|-------|------|------|------|-------|------|
| IR-1 | Task Leader / Flood & River Management Spec. | NHC | Carsten Staub | 10.98 | | | | 10.98 | 0.00 |
| IR-2 | Institutional Development Specialist | EMM | Robert A. van de Putte | 0.50 | | | | 0.50 | 0.00 |
| IR-3 | Morphologist | DELTARES | Sanjay Giri | 6.50 | 0.05 | | | 6.22 | 0.28 |
| IR-4 | River Engineer (River Training) | NHC | Gerritt Klaassen | 10.60 | | | 0.17 | 10.50 | 0.10 |
| IR-5 | Water Resources Management Specialist | DELTARES | W. J. Oliemans | 2.95 | | 0.07 | | 2.91 | 0.04 |
| IR-6 | Economist | EMM | Alexander Mueller/John D.M. Roe | 2.47 | | | | 2.47 | 0.00 |
| | 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 |
| IR-8 | Environmental Specialist | EMM | Wandert Benthem | 4.10 | | | | 4.01 | 0.09 |
| IR-9 | Hydrologist | NHC | Malcolm Leytham | 3.65 | | | | 2.95 | 0.70 |
| | CRVA (Climate Risk and Vulnerability Assessment) | | | | | | 0.73 | -0.73 | |
| IR-10 | Climate Change Specialist | NHC | Mariza Coba Cabralle | 2.05 | | | | 1.98 | 0.07 |
| | CRVA (Climate Risk and Vulnerability Assessment) | | | | | | 0.07 | -0.07 | |
| IR-11 | Dredging Specialist | NHC | Pieter Van Groen | 2.11 | | | | 2.11 | 0.00 |

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| | | | | | | | | | |
|-------|----------------------------------------------------|-----|----------------------------------|---------------|-------------|-------------|-------------|---------------|-------------|
| IR-12 | Urban & Master Planner | NHC | Dr. Douglas Webster | 2.90 | | | | 2.82 | 0.08 |
| IR-13 | Morphologist Modeller | DRS | Mohammed Yossef | 1.40 | | | | 1.38 | 0.02 |
| IR-14 | Sedimentologist | NHC | Dan Haught | 1.42 | | | | 1.42 | 0.00 |
| IR-15 | Geomorphologist | NHC | Andrew Nelson | 1.75 | | | | 1.65 | 0.10 |
| IR-16 | Community Development/ Flood Management Specialist | EMM | Judith de Bruijne | 0.18 | | | | 0.18 | 0.00 |
| IR-17 | Report Editor | NHC | Dr.Sara Bennett, | 2.00 | | | | 0.53 | 1.47 |
| IR-18 | Report Publisher | NHC | Sabrina Asche | 7.00 | | 0.14 | 0.50 | 6.78 | 0.22 |
| | | | Totals | 68.93 | 0.05 | 0.21 | 0.67 | 66.34 | 2.59 |
| | | | Grand Total International | 241.15 | 3.66 | 2.72 | 3.93 | 230.66 | 7.98 |

Flood & Riverbank Erosion Risk Management Investment Program (FRERMIP) Time Sheet (Man-Month) Summary as of November 2015 to March 2020

| No. | Position | Firm | Name | Man-month | | | | | |
|------|------------------------------------|------|--------------------------------|---------------|-------------|-------------|-------------|---------------|--------------|
| | | | | Vo-4 | Jan'20 | Feb'20 | Mar'20 | Used | Balance |
| | Reimbursable | | | | | | | | |
| | TECHNICAL SUPPORT STAFF | | | | | | | | |
| TS-4 | Junior Engineer - 1 | RPMC | Soelem Aafnan Bhuiyan | 32.35 | | | | 32.35 | 0.00 |
| TS-2 | Junior Engineer - 2 | RPMC | Saleh Adib Turash | 54.86 | 1.00 | 1.00 | 1.00 | 52.86 | 2.00 |
| TS-6 | Junior Engineer - 3 | EMM | Shohely Sultana / Jinat Najnin | 23.81 | 1.00 | 1.00 | 1.00 | 22.13 | 1.68 |
| TS-3 | GIS Specialist | RPMC | Hamida Khatun Popy | 42.54 | | | | 42.54 | 0.00 |
| TS-5 | GIS Specialist -2 | EMM | Faisal Mahmood | 23.00 | | | | 23.00 | 0.00 |
| TS-1 | AutoCAD Technician | RPMC | Md. Mostafizur Rahamn | 42.87 | | 0.36 | 0.68 | 39.91 | 2.96 |
| | | | | | | | | 0.00 | 0.00 |
| | | | | | | | | 0.00 | 0.00 |
| | | | Totals | 219.43 | 2.00 | 2.36 | 2.68 | 212.79 | 6.64 |
| | NON-TECHNICAL SUPPORT STAFF | | | | | | | 0.00 | |
| 1 | Account's Officer | EMM | Malay kumar Sen | 54.00 | 1.00 | 1.00 | 1.00 | 52.00 | 2.00 |
| 2 | Office Manager | EMM | Sonia Rahman | 56.36 | 1.00 | 1.00 | 1.00 | 54.18 | 2.18 |
| 3 | Office Secretary | EMM | Masud Parvez | 57.19 | 1.00 | 1.00 | 1.00 | 54.59 | 2.60 |
| 4 | Office Assistant | EMM | Nue A Alam and Bellel | 57.00 | 1.00 | 1.00 | 1.00 | 54.00 | 3.00 |
| 5 | Account's Assistance | EMM | MD.Lutfur Rahman Khan | 35.00 | 1.00 | 1.00 | 1.00 | 33.00 | 2.00 |
| | | EMM | | | | | | 0.00 | |
| | | | Totals | 259.55 | 5.00 | 5.00 | 5.00 | 247.77 | 11.78 |
| | | | Grand Total | | 7.00 | 7.36 | 7.68 | 460.56 | 18.42 |

Appendix-D

Table D-1 Status of River Study Technical Notes

| New Number | Title | Main Author(s) | Review/Approval | A | B | C | D | E | F | G | H | Status |
|------------|-----------------------------------------------------------------------------------------------|----------------|-----------------|-------------------------------------|----------------------|--------------------------------------|-------------------|-----------------------|-----------------------------|----------------------------|------------------------------|--------------------------------------------|
| | | | | Background information & Morphology | Morphology - General | Morphology - Bifurcations & Offtakes | River Engineering | Flood Risk Management | River Stabilization Impacts | Water Resources Management | Land Use & Economic Benefits | |
| A1 | Strategic Framework for River Stabilization & Development | DW | KO | x | | | | | | | | Formatting completed. |
| A2 | Preliminary Regional Master Plan for the North-Central Zone | DW | KO | x | | | | | | | | Formatting completed. |
| A3 | Strategic-Environmental and Social Assessment of River | WB | NCEA | x | | | | | | | | In late-Dec, NCEA agreed to review report. |
| A4 | Inland Navigation and Dredging | HK | KO | x | | | | | | | | Formatting completed. |
| B1 | Holistic river morphology analysis for the Brahmaputra river system | MHS | CS/E M | | x | | | | | | | Formatting completed. |
| B2 | Long term view of Brahmaputra/Jamuna channel planform | AN | EM | | x | | | | | | | Formatting completed. |
| B3 | Cross-Section Analysis on Brahmaputra, Jamuna and Padma Rivers | MRJ | GJK | | x | | | | | | | Formatting completed. |
| B4 | Char characteristics and dynamics – past and present conditions on basis of satellite imagery | MHS | GJK | | x | | | | | | | Formatting completed. |
| B5 | Upper Meghna - present conditions and issues | JAA/MHS | CS | | x | | | | | | | Formatting completed. |
| C1 | River bifurcations: Theory and model experience | EM | KO | | | x | | | | | | Formatting completed. |
| C2 | Anabranching Channels of the Jamuna and Padma Rivers | MHS | CS | | | x | | | | | | Formatting completed. |
| C3 | River bifurcations: Simplified numerical modelling | AT | SG/GJK | | | x | | | | | | Formatting completed. |
| C4 | Reach 3 and bifurcation: numerical modelling | AT/S G | EM | | | x | | | | | | Formatting completed. |

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|----|---------------------------------------------------------------------------------------------|-------------------|------------|--|--|--|---|---|---|---|--|------------------------------------------|
| C5 | Offtake and Flow Dynamics of the Major Rivers | MHS | CS | | | | x | | | | | Formating completed. |
| C6 | Offtakes part 2 Numerical model studies and generic guidelines | MY | EM | | | | x | | | | | Formating completed. |
| D1 | River Stabilization Plan -Technical Basis | GJK | KO | | | | x | | | | | Review completion |
| D2 | River stabilization of other main rivers | GJK/ BH/ EM | BH/GJ K | | | | x | | | | | Review completion |
| D3 | Earlier proposals and attempts for stabilization of Jamuna River (include capital dredging) | MZ/ BW/ JM | KO | | | | x | | | | | Review completion |
| D4 | Intermediate and final planform alternatives | MRJ /GJK | KO | | | | x | | | | | Updated draft expected by end-Apr-2020. |
| D5 | Feasible techniques and methods for riverbank protection and future channel narrowing | AN | BH | | | | x | | | | | Revised Appendix Completed; 14-Feb-2019. |
| D6 | Underwater Apron for Chandpur Confluence | MRJ /AT | SG | | | | x | | | | | Completed |
| E1 | Main river flood risk and management | Mho /DS | DS | | | | | x | | | | Formating completed. |
| E2 | Flooding numerical modelling | DS | BH | | | | | x | | | | Formating completed. |
| F1 | Long-term effects of river narrowing on water levels | EM | KO | | | | | | x | | | Formating completed. |
| F2 | Effects of sinuosity on channels and bars | MY | EM | | | | | | x | | | Formating completed. |
| F3 | River stabilization and Sediment Management | GJK | BH | | | | | | x | | | Completed Sep-2019. |
| F4 | Char Stabilization Impact Modelling | SB/G JK | EM | | | | | | x | | | Formating completed. |
| F5 | Impact of Earthquake Induced Sediment Supply Variability | EM/ AN | GJK/B H | | | | | | x | | | Formating completed. |
| F6 | Future conditions affecting flows | MCC | ML | | | | | | x | | | Formating completed. |
| G1 | Distributaries: Water resources preparation and baseline | WO/ ML | ML | | | | | | | x | | Formating completed. |
| G2 | Potential Impacts of Flow Augmentation and Study Needs | WO/ ML | EM | | | | | | | x | | Formating completed. |
| H1 | Socio-economic Aspects | MH/ SN | JLL | | | | | | x | | | Formating completed. |
| H2 | Environmental and social aspects of river stabilization: Remedial measures | WB/ MH | CS | | | | | | x | | | Formating completed. |
| H3 | Fisheries Impacts of FRERMIP and their | SH | CS/W B | | | | | | x | | | Formating completed. |

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|----|-------------------------------------------------------------------------|--------|----|--|--|--|--|--|--|--|---|-------------------------|
| | Management: A Pre-project Status Review | | | | | | | | | | | |
| H4 | Planning the Use of Stabilized and Reclaimed Land, Procedure and Issues | MH | CS | | | | | | | | x | Completed |
| H5 | Charland amelioration and agriculture development | QRI/AC | AC | | | | | | | | x | Completed; 10-June-2018 |
| H6 | Economic Assessment of River Stabilization | JR/AI | KO | | | | | | | | x | Formatting completed |

Abbreviations:

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

| <u>Reports</u> | |
|----------------|--------------------------------|
| 0 | Annex Submitted |
| 0 | Formatting Reviewed |
| 27 | Formatted Technically Complete |
| 5 | Draft Complete |
| 4 | Complete Under Preparation |
| 0 | <u>n</u> |
| #REF! | 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, 18 Quarterly Progress Reports, 1 Mid-term Review Report, have been submitted. | The Quarterly Progress Report-19 for January-March 2020 quarter is under preparation | Project completion reports will be submitted. |
| 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 of 7 local trainings and 6 of 9 overseas trainings have been implemented. | 1. Institutional capacity strengthening: From DPP Budget, 1 more local and 3 overseas trainings will be implemented in fiscal year 19/20. |
| | 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 prepared for hand- over to BWDB. One BWDB official has been trained on database over a number of weeks to ensure more effective handover. The project monitoring database is currently being used by the ISPMC to generate quarterly progress reports and assist the 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. |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | 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 reports accordingly. |
| | 4. Support DDM for implementing Community-based Flood Risk Management: Implementation NGO has been contracted in August 2018 with the help of ISPMC expert | 4. The INGO has finished implementing their contract assigned. | The ISPMC will evaluate the final report |
| Task-3: Supporting BWDB for preparation of Tranche-2, including verification of site selections, feasibility studies, preparation of loan approval documents meeting requirements for the government and ADB. | 1. Site Selection Report submitted in May 2017 | Final Feasibility Report is approved. ISPMC is working on the amendent of feasibility report. ADB evaluation of safeguard documents ongoing. | Updated EIA will be submitted based on comments followed by the Department of Environment approval of the Environmental Impact Assessment (EIA) and approval of the DPP through ECNEC. |
| | 2. Technical and social field surveys completed in December 2017 | | |
| | 3. Basic Structural design complete in March 2018 | | |
| | 4. Design of non-structural activities completed in March 2018 | | |
| | 5. Safeguard, gender and poverty assessment completed in March 2018 | | |
| | 6. Project economic assessment | | |

| | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| | was updated with the final 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 to the Technical Advisory Committee on September 2017. | 4 main reports are being finalized. | 4 main reports with necessary annexes will be submitted |
| 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 to be submitted |
| 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 both pilot work contract, W06 and W07 were completed on 7 th March and 28 th March 2020 respectively. | Completion report will be submitted |
| 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 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 finalized. | 4 main reports with necessary annexes will be submitted in June 2020. |

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 : | 31/03/2020 | Submission Date: | 28/04/2020 - |
| Agency : | Bangladesh Water Development Board (BWDB) | | |
| 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 (01 Jan 2020 – 31 Mar 2020) | Cumulative Progress (up to 31 Mar 2020) | Remarks/Comments |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 is in place (incl. separate toilets) | 1. Specific condition included contractors' bidding document whereby 5% unskilled labor opportunities be given to women. 2. Orientation sessions targeting 45 SMO staffs (at least one orientation in each SMO) i.e. SDE, Section Officers, surveyors and contractors' site manager, site engineer and supervisors to verify and ensure that conditions are met | - Total 7232 person worked during this quarter in all 7 contract packages. Among them 654 were female and 6578 were male worker. - | A total of 3123 female labours (8% of total) out of total 35919 labour worked in construction sites till date. 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 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 | All the ongoing contract packages W-01 to 05 , W-14 and W-16 work packages are revised and as per revised contract agreement Contractors are now appointing min 5 % females as unskilled labors. There are 3 SMOs under the project. But presently work site is running only at Koitola SMO. The training sessions held for Contract Packages No. W-01 to 05 under Koitola SMO. |

| Output/Activities | Indicators and Targets | Progress in this Quarter (01 Jan 2020 – 31 Mar 2020) | Cumulative Progress (up to 31 Mar 2020) | Remarks/Comments |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| | | | 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 7 places of 7 contract packages separate toilet for women built at running work sites. | 7 Separate toilets for women in 7 Contract Packages (W-01 to 05 & W-14,W-16) 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) | 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 Leader/Deputy Leader. | CbFRM component implementation started from 1 September 2018 and completed on 30 June 2019. |
| Develop a community flood risk assessment and community risk reduction plan | 6. Community Flood Risk Assessment prepared identifying: (i) risks for women, men, children and | - | 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 | Community Flood Risk Assessment were introduced in Community based Disaster Preparedness Plan (CDPP) at page 2. |

| Output/Activities | Indicators and Targets | Progress in this Quarter (01 Jan 2020 – 31 Mar 2020) | Cumulative Progress (up to 31 Mar 2020) | Remarks/Comments |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| | vulnerable groups; and (ii) disaster response mechanism related to flood and erosion warning; | | related to flood and early erosion/disaster warning. | |
| | 7. Community Risk Reduction Plan 20 plans prepared for 40 Units through participation of women volunteers specifying roles, provisions for women and men in terms of disaster preparedness at HH and community level; (iii) risk reduction measures | - | 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 vulnerable communities - Installation of flood markers - Linkage between relevant govt. officials and vulnerable community - Raising household plinth, tube- | 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 (01 Jan 2020 – 31 Mar 2020) | Cumulative Progress (up to 31 Mar 2020) | Remarks/Comments |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | 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 line with national warning network | 9. 50% of the units have flood warning mechanisms [Source: end-line beneficiary survey] | - | 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 to the community people through 100% units, which are yet to be tested during flood cycle between July to August 2019 or | National warning may not reach communities 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 Agreement signed with DDM. |

| Output/Activities | Indicators and Targets | Progress in this Quarter (01 Jan 2020 – 31 Mar 2020) | Cumulative Progress (up to 31 Mar 2020) | Remarks/Comments |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| | | | next. | |
| | 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%) women were present. | - |
| | 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. | 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 maintain sex disaggregated data | 12.Full compensation for 100% women PAPs as per RP entitlement | - | Total 2336 out of 2720 Aps received resettlement grant/benefit and replacement cost. Among them 211 are women (100% women PAPs paid). | - |

| Output/Activities | Indicators and Targets | Progress in this Quarter (01 Jan 2020 – 31 Mar 2020) | Cumulative Progress (up to 31 Mar 2020) | Remarks/Comments |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| on Project Affected Persons (PAPs) along with entitlement benefits, as per Resettlement Plan (RP) | | | Total 3657 out of 4256 EPS received CCL through DC Office. Among them 104 are women (100% women Eps paid). | |
| - Ensure that gender issues are considered when planning resettlement villages and community facilities | 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 more 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 | 14.10% women in training programs | | 40 % women (16 out of 40) have participated in the Gender specific training held in March 2019. | - |
| - Build capacity of female staff in BWDB | 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 | | 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 (14.29%) were female. -In June 2017, 1 (one) Gender specific course has been held for building capacity of female staff in BWDB HQ. Out of 32 |

| Output/Activities | Indicators and Targets | Progress in this Quarter (01 Jan 2020 – 31 Mar 2020) | Cumulative Progress (up to 31 Mar 2020) | Remarks/Comments |
|-----------------------------------------------------------|------------------------|-----------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | <p>participants, 25 (78.13%) 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.</p> <p>-In October 2017, "Training for River Survey Database" was held, where 1 participant was female out of 6 (16.67%).</p> <p>-In March 2019, one gender specific training was held in Design Office, BWDB. In total of 40 participants including 16 (40%) females attended</p> <p>- On 16 April 2019, "Updation of specifications of geotextile' training was held where 13 (32.50%) female engineers from BWDB design wing out of 40 participated.</p> |
| Output III: Program Management Systems Operational | | | | |

| Output/Activities | Indicators and Targets | Progress in this Quarter (01 Jan 2020 – 31 Mar 2020) | Cumulative Progress (up to 31 Mar 2020) | Remarks/Comments |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 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 till Quarterly Project Progress Report No. 19 (January-March 2020). | 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 1 st revision of project DPP. |

Appendix-G

Table G 1 Compliance status with Loan and Grant Agreement Covenants

| Sl.No. | Covenant Description | Comply ² | Evidence to Support Claim |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Implementation Arrangements | | | |
| 1 | Project is implemented in accordance FAM. | Yes | All Environmental, Social and Financial provisions outlined in the FAM are being satisfactorily implemented. |
| 2 | PMO, SMOs and PMU shall employ sufficient and experienced staff. | No No | <ul style="list-style-type: none"> • BWDB: on average, the PMO has only 55% of Senior Staff as specified in DPP. • DDM: PMU only has only 2 staff, and the Project Manager is on additional charges. |
| 3 | PMO, SMOs and PMU staff shall remain for a reasonable period of time. | Yes No | <ul style="list-style-type: none"> • BWDB: PD stayed for over 4 years. new PD has been in role for more than two years • DDM: had 3 Project Managers in 2.5 years |
| 4 | The PMO PD shall have a rank not less than a Superintending Engineer. | Yes | PMO both PDs had rank of Superintending Engineer. |
| 5 | BWDB shall establish a CE River Management office responsible for flood and riverbank erosion risk management. | Yes | On 22-Nov-2017, BWDB established the office of CE River Management, and appointed a Chief Engineer. |
| Counterpart Support | | | |
| 6 | If Borrower cannot avail of the proceeds of the Grant, the Borrower shall find an alternative source of funding. | Yes | No problem has occurred in availing Grant money. |
| 7 | The Borrower shall reimburse BWDB for any taxes and duties imposed for Goods, Works and Consulting Services. | Yes | Typically, taxes and duties are being reimbursed by the Borrower as per their portion of each Loan Category. |
| Selection of Subproject areas | | | |
| 8 | BWDB shall ensure that Subprojects are selected in accordance with FFA Schedule 4. | Yes | All 3 selected Subprojects are included in the approved Project-1 Feasibility Study completed in Dec-2013. |
| Environment | | | |
| 9 | Project facilities comply with environmental safeguards, laws and regulations, EARF, EIA/EMP, and reported upon in Monitoring Reports. | Yes | EIA approved, EMP being implemented, SESA drafted, and Quarterly and Semi-Annual Monitoring Reports submitted. These reports document satisfactory compliance with environmental safeguards. |
| Land Acquisition and Involuntary Resettlement | | | |

| | | | |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 | BWDB shall ensure that all land and all rights-of-way are available to contractors in a timely manner. | No | Contractors' work have not been delayed due to land acquisition issues for riverbank protection |
| | (a,b,c&d) Land acquisition and resettlement comply with applicable laws, Involuntary Resettlement Safeguards, RF, and RP. | No Yes | Riverbank Protection: land acquisition done after construction, due to severe erosion potential and local public demand. A Corrective Action Plan is currently being implemented. Embankment: land acquisition and resettlement processes have been properly followed. |
| 11 | BWDB shall ensure that there is no physical or economic displacement until: | | |
| | (a) compensation and other entitlements have been provided to affected people | Yes | • Refer to Sl.No. 10 above. However, compensation process is now actively ongoing for embankment. |
| | (b) a comprehensive income and livelihood restoration program has been established | No | • Deferred to Tranche-2 |
| Indigenous Peoples | | | |
| 12 | BWDB shall ensure that the Project does not have any indigenous peoples' impacts. | Yes | No indigenous people affected by project. |
| Human and Financial Resources to Implement Safeguards Requirements | | | |
| 13 | BWDB shall fully implement the EMPs and the RPs. | Yes | EMPs included in all Civil Work contracts, and an INGO is actively engaged to develop all RPs. Monitoring results are regularly being reported. |
| Safeguards | | | |
| 14 | BWDB shall ensure that all Works contracts require contractors to: | | |
| | (a) comply with EIA, EMP and RP; and Safeguards Monitoring Report actions | Yes | Covered in 'Technical Specifications' under Section 2. Environmental Management Plan and Safety at the Site. |
| | (b) include a budget for environmental and social measures | Yes | Included in Bill of Quantities, Bill No. 02: Environmental Management Works. |
| | (c) provide written notice of unanticipated environmental, resettlement or indigenous peoples' risks | No | No special clause found to provide written notice of unanticipated environmental, resettlement or indigenous peoples' risks. Clause to be added to all 5 pending embankment contracts. |
| | (d) adequately record pre-Work condition of roads, agricultural land and infrastructure | No | No special clause found requiring contractors to record pre-work condition in riverbank protection contracts. |

| | | | |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | Embankment contracts contain clause 2.2.2 in the technical specifications requiring access roads to be inspected for appropriateness before use. There is no mention of agricultural land or infrastructure. |
| | (e) fully reinstate pathways, other local infrastructure, and agricultural land pre-Work condition | Yes | Adequately covered in Section 2. 'Environmental Management Plan and Safety at the Site' of the Technical Specifications. |
| Safeguards Monitoring and Reporting | | | |
| 15 | BWDB shall: | | |
| | (a) submit semi-annual Safeguards Monitoring Reports to ADB | Yes | ISPMC submit Monitoring Reports on quarterly and bi-annual basis on environmental and social issues. |
| | (b) promptly document any unanticipated environmental and social risks and impacts | Yes Yes | Environmental: No serious unanticipated risks or impacts have occurred. Social: Resettlement Issues documented in QPR. |
| | (c) within 6 months, engage external experts to verify information regarding land acquisition and involuntary resettlement | No | The bid document has been received and evaluated, short-listing completed, and negotiations are ongoing for External Expert. Contract award is expected by early Feb-2018. |
| | (d) promptly report any breach of compliance with EMP or RP | Yes Yes | Environment: Non-compliances reports are submitted by ISPMC. A joint ISPMC/ PMO inspection took place in July 2019 Social: Resettlement Issues documented in QPR. |
| Prohibited List of Investments | | | |
| 16 | BWDB shall ensure that Loan or Grant funds are not used for prohibited investment activities. | Yes | Accounting procedures are being rigorously maintained by PMO and no evidence of misuse has been found. |
| Labour Standards | | | |
| 17 | All civil works contracts require contractors to: | | |
| | (a) comply with labour standards, labor laws and applicable health and safety principles | Yes | Covered in 'Conditions of Contracts for Construction', under Section: 6. Staff and Labour. |
| | (b) eliminate discrimination between men and women for work of equal value | Yes | Adequately covered in 'Conditions of Contracts for Construction', under clause: 6.24 NonDiscrimination and Equal Opportunity. |
| | (c) eliminate child labour, and forced or compulsory labour; and allow freedom of association | Yes | Covered in 'Conditions of Contracts for Construction', under clause: 6.21 Child Labour. |

| | | | |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | (d) maximize employment of local poor and disadvantaged persons | No | No special clause found to employ local poor and disadvantaged person. |
| | (e) disseminate information on sexually transmittable infections and HIV/AIDS | Yes | Covered in 'Conditions of Contracts for Construction', under clause: 6.7 'Health and Safety'. |
| | (f) implement applicable provisions of GAP | Yes | No special clause found related to provisions of GAP in the contract documents. Requirements e.g. for a minimum % of women labourers were followed by the embankment contractors |
| Gender and Development | | | |
| 18 | BWDB shall implement the GAP, and monitor and report on key gender outcome and output targets. | Yes | GAP outcomes and outputs are being documented in QPR. |
| Quality Assurance | | | |
| 19 | Engage external experts to inspect and store results of completed riverbank protection works using accurate surveying equipment. | Yes | ISPMC performs a rigorous and regular Flood Monitoring Program including Multi-Beam EchoSunder surveys which are currently ongoing under package W16. Scuba diving investigations were also conducted for riverbank protection. |
| Panel of Experts | | | |
| 20 | BWDB shall engage experts to analyze project implementation constraints, and advise on remedial measures. | Yes | There has been four Technical Advisory Committee (TAC) Meetings to review Project technical issues and make recommendations. A Technical Committee was also formed by BWDB to investigate slope failures at Chauhali. |
| Inter-agency Coordination | | | |
| 21 | BWDB shall timely notify all relevant agencies of their riverbank protection works. | Yes | ISPMC has one Specialist permanently deputed to DDM, who updates PM PMU on project activities. |
| Operation and Maintenance of Project Facilities | | | |
| 22 | Ensure that: | | |
| | (a) BWDB inspect and maintains all Works rehabilitated according to O&M plans | Yes | ISPMC performs a rigorous Flood Monitoring Program to identify status of Riverbank Protection Works. |
| | (b) BWDB submits annual budgets to MoWR for O&M works according to the plans | Yes | Provisional 2017/18 ADP funding for Adaptive Protection and Emergency work is BDT 89 million; other funding also available. |
| | (c) Borrower allocates adequate resources for BWDB to carry out O&M works | Yes | Funding for 2017/18 Emergency/Adaptive work is expected to be around BDT 160 million. Koitola riverbank protection transferred to O&M Division in Dec-2017. |

| | | | |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 23 | BWDB shall maintain adequate stockpiles of geo-textile bags for emergency riverbank protection works and repairs. | No | Geobag stockpiles prepared in places |
| 24 | BWDB shall provide local communities with land use rights for embankment to promote livestock grazing and tree cultivation. | No | Deferred to Tranche-2 |
| Road Map and Policy and Institutional Reforms | | | |
| 25 | BWDB shall implement timely institutional reform actions identified under Investment Program policy framework. | Yes | Refer to Sl.No. 5 reply regarding the establishment of CE River Management office. |
| Policy Dialogue and Coordination with Development Partners | | | |
| 26 | BWDB shall keep ADB informed of discussions with government and quasi-government bodies responsible for water sector development. | Yes | This is being done through periodic ADB Missions, and regular discussions and correspondence between PMO and ADB BRM. |
| Governance and Corruption | | | |
| 27 | BWDB shall comply with ADB's Anticorruption Policy and cooperate with any investigations. | Yes | No evidence of corruption in dealing with any project activities have been reported or found. |
| 28 | BWDB shall include anticorruption provisions in contracts, allowing ADB to audit records of contractors, suppliers, and consultants. | Yes | Covered in the 'Conditions of Contracts for Construction' Section, under clause: 15.6 Corrupt and Fraudulent Practices. |
| 29 | BWDB shall announce all business opportunities on their websites, including participating bidders, winning bidders and contract award amounts. | Yes | Adequate contract information is available on: www.bwdb.gov.bd/index.php/site/live_tender |
| 30 | Borrower shall periodically inspect financial activities related to the procurement of Goods, Works and Consulting Services. | Yes | Foreign Aided Project Audit Directorate (FAPAD) audits carried out on a annual basis. |

Notes: 1. Implementation Arrangement Covenants are defined in Loan Agreement Schedule 5.

2. Valid Comply answers include: Yes, No or na (non-applicable)

Appendix-H

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 | April 2016 | BUET |
| River Training 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 Allied 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 Trainees | | | FY 15-16 | FY 16-17 | FY 17- | | FY 18-19 |
| | | | M | F | Total | | | | | |
| ISPMC Line Item-1: Workshops, Training and Seminars (Provisional Sum) | | | | | | | | | | |
| A. | Workshops | | | | | | | | | |
| 1 | Workshop on Draft Inception Report | 1 | 83 | 40 | 123 | 09-Dec-2015 | | | Pan Pacific Sonargaon, Dhaka | |
| 2 | River Stabilization and Preliminary Master Plan | 1 | 99 | 41 | 140 | | 07-Dec-2016 | | Pan Pacific Sonargaon, Dhaka | |
| 3 | National Stakeholder Workshop on the River Stabilization Plan | 1 | 170 | 80 | 250 | | | 29-Nov-2017 | Hotel Radisson, Dhaka | |
| Sub Total | | 3 | 352 | 161 | 513 | | | | | |
| B. | Training: | | | | | | | | | |
| 1 | Training on Environmental Management at 3 sites | 3 | 30 | 0 | 30 | 26-28 Apr-2016 | | | Chauhali, Harirampur & | |
| 2 | Training on International River Stability | 1 | 90 | 20 | 110 | | 08-Dec-16 | | Level-4 of WAPDA Building | |
| 3 | Training for Task Force on Sand-filled Geotextile Bags | 1 | 24 | 0 | 24 | | 22-Dec-16 | | Level-4 of WAPDA Building | |
| 4 | Training: Gender Awareness for BWDB Engineers | 1 | 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 | | | Oct-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-2017 | | Delhi, India with solely ISPMC | |
| 3 | a) Round Table Discussion: River Management | 1 | 20 | 0 | 20 | 28-Mar-16 | | | Pan Pacific, Sonargaon | |
| | b) Round Table Discussion: Presentation from the DG, | 1 | 20 | 0 | 20 | 25-May-16 | | | Lake Castle, Gulshan | |
| | c) Round Table Discussion: Capacity Development | 1 | 30 | 0 | 30 | | 28-Oct-16 | | Pan Pacific Sonargaon | |
| Sub Total | | 5 | 76 | 0 | 76 | | | | | |
| ISPMC Totals | | 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 | 26 | 26-Oct-2019 | 04-May-2016 |
| East Guide Bun | 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 | 12 | 03-Nov-2019 | 15-Jun-2012 |
| Hasnapara Spur | 1 | 30-Jul-2002 | 30-Jul-2002 |
| Kalitola Groyne | 56 | 28-Oct-2016 | 04-Sep-2001 |
| Koijuri | 10 | 05-Nov-2019 | 23-Nov-2004 |
| Lower Jamuna Full River | 9 | 22-Sep-2019 | 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 | 109 | 06-Nov-2019 | 30-Apr-1992 |
| Ranigram Sirajganj | 443 | 04-Nov-2019 | 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 | 10 | 28-Jul-2019 | 19-Jul-2016 |
| Total | 2297 | | |

Table I 2 ADCP (Velocity) Survey Summary

| Project | Transects | End Date | Start Date |
|---------------------|------------------|-----------------|-------------------|
| Bachamara Zafarganj | 12 | 26-Aug-2017 | 05-Aug-2016 |
| Char Salimabad | 11 | 26-Aug-2017 | 01-Aug-2017 |
| Chauhali Down | 22 | 22-Dec-2017 | 05-Aug-2016 |
| Chauhali Middle | 14 | 22-Dec-2017 | 05-Aug-2016 |
| Chauhali Up | 23 | 22-Dec-2017 | 06-Aug-2016 |
| Enayetpur | 20 | 22-Dec-2017 | 15-Oct-2016 |
| Ganges | 15 | 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 | 16 | 25-Aug-2017 | 04-Aug-2016 |
| Mahespur | 2 | 15-Oct-2016 | 15-Oct-2016 |
| Nagarbari | 15 | 26-Aug-2017 | 05-Aug-2016 |
| Paturia | 12 | 27-Aug-2017 | 18-Oct-2016 |
| Sthal Chauhali | 13 | 25-Aug-2017 | 15-Oct-2016 |
| Zafarganj | 26 | 21-Oct-2016 | 08-Aug-2016 |
| Total | 259 | | |

Appendix-J

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-Feb-2016 |
| 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 | ISPMC-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 |
| 23 | Current status of riverbank protection at Zafarganj and Harirampur. | ISPMC-FRERMIP-626 | 17-Jul-19 |
| 24 | Status of Riverbanks and Riverbank protection at Benotia, Chauhali, Harirampur and Zafarganj | ISPMC-FRERMIP-630 | 8-Aug-19 |

Appendix-L

Photos



Figure L 1: Government mid-term review mission, 10 January 2020



Figure L 2: Government mid-term review mission, at new Kaitola embankment, 10 Jan 2020



Figure L 3: Government mid-term review mission, inspecting grout-filled jute mattress at Kaijuri, 10 January 2020



Figure L 4: Government mid-term review mission, 10 January 2020



Figure L 5: Government mid-term review mission, inspecting vetiver plantation, Kaijuri 10 January 2020



Figure L 6: Government mid-term review mission, 10 January 2020



Figure L 7: Dutch Ambassador visits FRERMIP works, 6 March 2020



Figure L 8: Dutch Ambassador visits FRERMIP, grout-filled juste mattress works at Kaijuri, 6 March 2020



Figure L 9: Dutch Ambassador and First Secretary inspecting new regulator at Kaijui, FRERMIP, 6 March 2020



Figure L 10: Dutch Ambassador visits FRERMIP works, 6 March 2020



Figure L 11: Jute fabrication for grout filled mattress at Sahzadpur, W16 package



Figure L 12: Jute fabrication for grout filled mattress at Sahzadpur, W16 package



Figure L 13: Slope preparation for Grout filled mattress, W16 package



Figure L 14: Slope preparation for Grout filled mattress, W16 package



Figure L 14: Grout filling, W16 package



Figure L 15: Concrete cylinder curing for concrete cylinder compression test, W16 package



Figure L 16: Focus group discussion at Badolbari, Sah Habibullah Nogar, Union 7 (Date: 20.03.2020)



Figure L 17: Focus group discussion at Ratankandi, Uttarpara (Date: 20.03.2020)