

BANGLADESH WATER DEVELOPMENT BOARD



PROJECT COMPLETION REPORT: IMED-04/2024

**Name of the
Project:**

**Feasibility Study for the Management of the Padma River
Basin and Rehabilitation of Pabna Irrigation and Rural
Development Project in Pabna District.**

PROJECT PERIOD: June 2022- December 2023

**OFFICE : Office of the Superintending Engineer
Directorate of Planning -2
Pani vaban, Dhaka.**

Government of the People's Republic of Bangladesh
Ministry of planning
Implementation Monitoring and Evaluation Division

PROJECT COMPLETION REPORT (PCR): IMED 04/2024 (Revised)

A. PROJECT DESCRIPTION

01.	Name of the Project	:	Feasibility Study for the Management of the Padma River Basin and Rehabilitation of Pabna Irrigation and Rural Development Project in Pabna District.	
02.	Administrative Ministry/Division	:	Ministry of Water Resources (MoWR)	
03.	Executing Agency	:	Bangladesh Water Development Board (BWDB)	
04.	Planning Commission Sector/Division	:	Sector: 09-Environment, Climate change and Water Resources Division: Agriculture, Water Resources and Rural Institutions Division	
05.	Type of Project (Investment/Technical/Feasibility Study): Feasibility Study			
06.	Location of the Project (As per Project Document):			
Sl. No	Division	District	City Corporation/ Municipality/Upazila	
1.	Rajshahi	Pabna	Ishwardi, Pabna Sadar, Shujanagar, Bera, Santhia, Bhangura, Atgharia, Chatmohar, Faridpur	
		Natore	Lalpur, Baraigram	
		Rajshahi	Bagha	
		Sirajganj	Ullah para, Shahjadpur	
2.	Khulna	Kushtia	Kushtia Sadar, Daulatpur, Bheramara, khoksa, Mirpur, Kumarkhali	
3.	Dhaka	Rajbari	Rajbari Sadar, Goalandaghat, Kalukhali, Pangsha	

07. Estimated Cost, Implementation Period and Approval:

(In Lakh Taka)

Subject	Approved Estimated Cost				Implementation Period	Date of Approval	Approved by
	Total	GOB (Foreign Exchange)	PA (RPA)	Self-finance			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Original	442.57	442.57			June 2022-March 2023	06 June 2022	MoWR
1 st Revised (if applicable)							
2 nd Revised (if applicable)							

1 st No Cost Extension (If Applicable)	442.57	442.57			June 2022- December 2023	22 January 2023	MoWR
2 nd No Cost Extension (If Applicable)							

Intercomponent Adjustment (If applicable)							

08. Objective of the Project

Overall objective:

The main objective of the study is the management and agricultural development of the Padma river basin in Pabna district.

Specific Objectives (in bullets):

- Protection of the banks of the Padma river from erosion in Pabna district;
- Rehabilitation of "Pabna Irrigation and Rural Development Project";
- Design of proposed interventions;
- Environmental and Social Impact Assessment;
- Preparation of DPP of the subsequent investment project.

09. Background of the Project (In brief):

Padma River:

The Ganges is one of the three major rivers of the Greater G-B-M (Ganges- Brahmaputra-Meghna) Basin. Originating from the Himalayas, the river enters into Bangladesh at Shibganj Upazila of Chapai Nawabganj district. The entire course of the Ganges inside Bangladesh is popularly known as the Padma which is one of the major rivers of the country. It flows through Chapai Nawabganj, Rajshahi, Pabna, Kushtia, and meets with the Brahmaputra-Jamuna river near Goalondo Ghat of Rajbari district. The confluence flows downstream as Padma river and meets with upper Meghna river at Chandpur district and flows downstream as Meghna river which finally falls into the Bay of Bengal.

The Pabna district is located on the left bank of the Padma river. The river is experiencing severe bank erosion at several locations of Sadar Upazila and Shujanagar Upazila in Pabna District. The increasing erosion along the left bank of Padma river is threatening the Flood Control Embankment of BWDB which is protecting Bera, Shujanagar, Sadar and Ishwardi Upazila of Pabna districts. Also, the communication system of these areas are also dependent on the embankment. Besides that, bank protection work is urgent to protect "Rooppur Power Plant Project" which is also located at the left bank of Padma river in Pabna district. In Kushtia district, the right bank of the river is susceptible to bank erosion in Daulatpur upazila. The Rajbari Sadar and Goalandaghat upazila of Rajbari district is also suffering from riverbank erosion.

Pabna Irrigation and Rural Development Project:

"Pabna Irrigation and Rural Development Project" was adopted to protect 183,543 ha of land from flood, 138,812 ha of agricultural land from drainage congestion and provide irrigation to 30,000 ha of agricultural land. The project is surrounded by the Baral-Hurasagor river in the north, the Jamuna river in the east and the Padma river in the south and west side. The project area covered 9 upazilas of Pabna

district, 2 upazilas of Natore district, two upazilas of Sirajganj district, 1 upazila of Rajshahi district, six upazilas of Kushtia district and four upazilas of Rajbari district. Phase-1 of the project was completed in 1992. The project results in significant expansion of crop production of the area along with flood control and drainage improvement. The project is also contributing to ground water recharge and environmental balance of the area.

As most of the irrigation canals of the project were earthen canals, those are being damaged with time and therefore requires re-sectioning and remodeling of the irrigation canals along with rehabilitation of the existing flood control embankment.

In view of the above, BWDB has decided to conduct a detailed feasibility study to protect the left and right banks of the Padma river under Pabna, Kushtia and Rajbari districts and rehabilitation of "Pabna Irrigation and Rural Development Project".

10. Major Activities:

- Bathymetric survey of the selected reach of the concerned river as per requirement of the morphological study;
- Primary data collection on water level, discharge and sediment concentration, bed material and existing bankline;
- Application of appropriate one-dimensional (1 D) and two-dimensional (2D) model for:
 - hydrological, hydraulic and morphological analysis of the study reaches of Padma river;
 - identification of the vulnerable locations from the base model (without proposed measure condition);
 - assess the river bank protection strategy and to test its performance in terms of erosion restrain and sustainability;
 - investigation of alternative options to mitigate the erosion process such as dredging of existing islands/sand bars should be established using model results;
 - analysis of the impact of the existing and proposed interventions on the hydro-morphological aspects of the river;
 - Preparation of flood inundation map showing extent and depth of inundation;
 - Updating the existing irrigation model incorporating the restructured irrigation layout system with regards to changed hydrological situation for "Pabna Irrigation and Rural Development Project" and assessment of the impact of surface water based irrigation system on groundwater;
- Base map preparation showing detailed features and proposed irrigation infrastructure;
- Recommendation on hydraulic design parameters of the protective measure(s);
- Preparation of detailed engineering design, drawing & cost estimate of proposed interventions;
- Assessment of the quality of the surface water, ground water and soil sample of the study area;
- Selection of valued environmental and social components impacted by the existing and proposed interventions in the project area;
- Identification of important ecosystem (land/aquatic) and measures for conservation/restoring of those ecosystem;
- Preparation of Environmental and Social Impact Assessment (ESIA) report following approved format of DoE, and presentation of EIA report at the DoE in getting requisite clearance certificate thereof;

- Preparation of Environmental Management Plan (EMP) for conservation of wetland, aquatic resources, fisheries resources, bird sanctuaries etc.;
- Preparation of environmental enhancement and conservation plan;

11. Reasons for Revision (if applicable): **Not Applicable**

- 1st Revision:
- 2nd Revision

11.1 Reasons for No-Cost Time Extension (if applicable):

- 1st time No-Cost Time Extension:

Data collection and mathematical model development of the project took more time than planned for which the consultant could not accomplish the task as scheduled.

- 2nd time No-Cost Time Extension

12. Financing Arrangement (Source-wise):

12.1 Status of Loan/Grant

a) Foreign Financing: **Not Applicable**

Source (s)	Currency as per Agreement	Amount in US\$ (million)	Nature (Loan/Grant/supplier's credit)	Date of Agreement	Date of Effectiveness	Date of Closing	
						Original	Revised
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

b) GOB:

Total amount	Loan	Grant	Cash Foreign Exchange
(1)	(2)	(3)	(4)
442.57	-	442.57	-

c) Self-finance/Equity: **Not Applicable**

Total amount	Self-finance	Equity	Cash Foreign Exchange
(1)	(2)	(3)	(4)

12.2 Utilization of Project Aid (Source wise): **Not Applicable**

Source (s)	Total Amount		Actual Expenditure		Unutilized Amount	
	In Us\$	In Local Currency	In Us\$	In Local Currency	In Us\$	In Local Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)

12.3 Reimbursable project Aid (RPA): **Not Applicable**

Source (s)	RPA Amount		Amount	Amount	Amount	Remarks
	As per Project Document	As per Agreement	Spent	Claimed	Re-imbrued	
(1)	(2)	(3)	(4)	(5)	(6)	(7)

B. IMPLEMENTATION POSITION

13. Implementation Period:

Implementation Period as per Project Document		Actual implementation	Time Over-run (% of original implementation period)	Remarks
Original	Latest Revised			
(1)	(2)	(3)	(4)	(5)
June 2022-March 2023 (10 months)	June 2022-December 2023 (19 months)	June 2022 - December 2023 (19 months)	(90%)	Data collection and mathematical model development of the project took more time than planned for which the consultant could not accomplish the task as scheduled.

14. Cost of the Project:

Description	Estimated Cost		Actual expenditure	Cost over-run (% of original cost)	Remarks
	Original	Latest revised			
(1)	(2)	(3)	(4)	(5)	(6)
TOTAL	442.57	-	384.49	(-13.12%)	The actual expenditure was less than the estimated cost.
TAKA	442.57	-	384.49		
PA	-	-	-		

2

15. Information regarding Project Director (s):

Name, Main Designation & Grade. Mobile Number (From Beginning)	Full time (Yes/No)	Part time (Yes/No)	Responsible for more than one project	Period		Remarks
				Joining	Transfer	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Bidyut Kumar Saha Additional Chief Engineer (Civil) (In Charge), South-Western Zone, BWDB, Khulna; Grade-4; 01911059497	Yes	No	Yes	08 August 2022	05 February 2024	-

16. Personnel:

16.1 Personnel of Project implementation Unit (PIU): Existing manpower of Directorate of Planning-2, BWDB were engaged with implementation of the project.

Sl. No.	Name of Post (Grade)	Approved Strength	Employed during Implementation
(1)	(2)	(3)	(4)
	-	-	-
Total=	-	-	-

16.2 Personnel Required after the Project Completion: **Not Applicable**

Sl. No.	As Proposed in Project Document (PD)		Recruited (Yes/No)	If not recruited explain reason and latest status
	Name of Post	Number		
(1)	(2)	(3)	(4)	(5)
Total=				

17. Training (Foreign/Local): An on-the job training for BWDB officials was arranged under this project.

Category	Sl. No.	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
		As in Project Document			Achievement		
		D/W/M	Batch (s)	Participants(s)	D/W/M	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Local Training	1.	2 Days	02	10	2 Days	02	10
Sub Total=		2 Days	02	10	2 Days	02	10
Foreign Training	1.	07 Days	01	05	-	-	-
Sub Total=		07 Days	01	05	-	-	-
Total=					2 Days	02	10

(PD= Project Document)

9

18. Component-wise Progress (As per latest approved Project Document):

Name of Component	Unit	Quantity	Estimated Cost (Taka in Lac)					Actual Progress (Taka in Lac)				
			Total	GOB	PA	Self-finance	Others	Total	GOB	PA	Self-finance	Others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(a) Revenue:												
1. Honorarium	LS	LS	2.00	2.00	-	-	-	0.42	0.42	-	-	-
2. Domestic Travel Expenses (TA & DA)	LS	LS	1.00	1.00	-	-	-	0.92	0.92	-	-	-
3. Other Stationary	LS	LS	0.50	0.50	-	-	-	0.50	0.50	-	-	-
4. Consultancy	LS	LS	436.57	436.57	-	-	-	382.15	382.15	-	-	-
5. Furniture (Cabinet to preserve project documents) (Repairs and Maintenance)	LS	LS	0.50	0.50	-	-	-	0.50	0.50	-	-	-
Sub-total (Revenue)			440.57	440.57	-	-	-	384.49	384.49	-	-	-
(b) Capital												
1. Computers & Accessories (1 no. of Desktop computer with printer and scanner)	LS	LS	2.00	2.00	-	-	-	0.00	0.00	-	-	-
Sub-total (Capital)			2.00	2.00	-	-	-	0.00	0.00	-	-	-
Total a+b (Revenue+ Capital)			442.57	442.57	-	-	-	384.49	384.49	-	-	-

19. Procurement of Transport (in Nos.): **Not Applicable**

Type of transport	Number as per Project Document	Number Procured with date	Transferred to Transport Pool with date	Transferred to O & M with date	Condemned/ damaged with date	Returned or transferred to following project	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Car							
Jeep							
Microbus							
Minibus							
Bus							
Pick-up							
Truck							
Motor - Cycle							

By-cycle							
Speed Boat							
Launch							
Others with name							

20. Project Consultant (s) (Local/Foreign):

Name of the Field	Approved man month		Actual man month utilized	Number of Deliverables		Remarks
	As per Project Document	As per contract		As per Project Document	Actual	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
a) Local:	Mathematical Modelling Component: 41 man month	Mathematical Modelling Component: 41 man month	Mathematical Modelling Component: 41 man month	Inception Report, Progress Report, Draft Final Report, Final Report.	Inception Report, Progress Report, Draft Final Report, Final Report.	Mathematical Modelling Component was conducted by IWM and Environmental and Social Study Component was conducted by CEGIS.
	Environmental and Social Study Component: 15 man month	Environmental and Social Study Component: 15 man month	Environmental and Social Study Component: 15 man month	Inception Report, Progress Report, Draft Final Report, Final Report.	Inception Report, Progress Report, Draft Final Report, Final Report.	
b) Foreign:	-	-	-	-	-	-

21. Infrastructure/Erection/Installation Tools & Equipment: **Not Applicable**

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	-	-	-	-	-	-

22. Procurement of Goods, Works and Services:

22.1 Information on packages:

a) Total number of packages as per Project Document: 5 (Goods- 3 Works- 0 Services-2)

b) Total number of packages procured: 4 (Goods- 2 Works- 0 Services- 2)

c) Reason for not procuring (if any): Computers & accessories were enough and sufficient at that time for the officials engaged in this project. Hence, Computers & accessories were not procured under this project.

d) Number of packages for which the estimated cost is more than 1% of the estimated cost of the project: 0 (Goods- 0 Works- 0 Services- 0)

22.2 Detailed Package-wise information of Goods, Works and Services (For each case the highest 50 (fifty) packages) (Please use the format as in Annexure-I (a), I(b) and I(c))

2

C. FINANCIAL AND PHYSICAL TARGET AND PROGRESS

23. Original and Revised Financial Provision and physical Target (as per Project Document):

Financial Year	Financial provision & physical target as per original Project Document						Financial provision & physical target as per latest revised Project Document					
	Total	GOB	P.A.	Self-finance	Others	Physical %	Total	GOB	P.A.	Self-finance	Others	Physical %
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2022-23	442.57	442.57	-	-	-	100%	-	-	-	-	-	-
and 2023-24												
Total	442.57	442.57	-	-	-	100%	-	-	-	-	-	-

24. Revised ADP allocation and progress:

Financial Year	Revised Allocation & target						GOB Release	Expenditure & physical progress						Unspent* GoB Released
	Total	GOB	P.A.	Self-Finance	Others	Physical %		Total	GOB	P.A.	Self-Finance	Others	Physical %	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)= 8-10
2022-23	150.00	150.00	-	-	-	70%	149.00	144.49	144.49	-	-	-	65%	-
2023-24	292.00	292.00	-	-	-	30%	251.64	240.00	240.00	-	-	-	34.17%	11.64
Total=	442.00	442.00	-	-	-	100%	400.64	384.49	384.49	-	-	-	99.17%	11.64

*Attach the Proof for Reconciliation of Unspent GOB Released

**To determine the physical quantity, use the formula as in the circular of Planning Division

9

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT

25. Project objective, Actual achievement and Reason for shortfall (if any):

Objectives as per Project Document	Actual achievement	Reasons for shortfall (if any)
(a) Protection of the banks of the Padma river from erosion in Pabna district.	Completed. Protection of the banks of the Padma river from erosion in Pabna district is incorporated in Section-4 and section-10 of the final report.	-
(b) Rehabilitation of "Pabna Irrigation and Rural Development Project".	Completed. Rehabilitation of "Pabna Irrigation and Rural Development Project" is described and incorporated in section 4 of the final report.	-
(c) Design of proposed interventions.	Completed. Design of all proposed interventions are incorporated in Section-4 and section-10 of the final report.	-
(d) Environmental and Social Impact Assessment.	Completed. A detailed ESIA is done and incorporated in Section-5 of the Final Report together with a separate ESIA report.	-
(e) Preparation of DPP of the subsequent investment project.	Completed. All necessary documents to prepare DPP are attached in the Final Report. The respective DPP will be prepared by the concerned field office of BWDB.	

b) BENEFIT ANALYSIS

26. Annual Out-put: Not Applicable for the Study Project.

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-put during the 1 st year of operation at full capacity (or during, real production for newly completed project)
a)			
b)			

9 ✓

c)			
d)			
e)			
f)			

27. Cost/Benefit: **Not Applicable (It is not an investment project, hence not applicable)**

Item	Estimated	Actual
(1) Benefit cost ratio of the project:		
(i) Financial		
(ii) Economic		
(2) Internal Rate of Return:		
(i) Financial		
(ii) Economic		

Please give reasons for shortfall, if any, between the estimated and actual benefit: **Not Applicable**

c) MONITORING AND AUDITING

28. Monitoring: **Nil.**

Name & Designation of the inspecting official	Date	Identified Problems	Recommendations
1	2	3	4
a) IMED:			
b) Ministry/Agency:			
c) Others: (Please specify)			

29. Auditing during and after Implementation:

29.1 Internal Audit: **Not conducted yet.**

Period of Audit	Date of submission of Audit Report	Sl. No.	Major findings/objections and Money involved	Whether objections resolved or not (if not, mention status)
1	2	3	4	5
Total findings/objections and Money involved=				

2

29.2 External Audit: **Not conducted yet.**

Period of Audit	Date of submission of Audit Report	Sl. No.	Major findings/objections and Money involved	Whether objections resolved or not (if not, mention status)
1	2	3	4	5
Total findings/objections and Money involved=				

d) POST-PROJECT REMARKS

30. General Observations/Remarks on the Project

30.1 Background

Padma River:

The Ganges is one of the three major rivers of the Greater G-B-M (Ganges- Brahmaputra-Meghna) Basin. Originating from the Himalayas, the river enters into Bangladesh at Shibganj Upazila of Chapai Nawabganj district. The entire course of the Ganges inside Bangladesh is popularly known as the Padma which is one of the major rivers of the country. It flows through Chapai Nawabganj, Rajshahi, Pabna, Kushtia, and meets with the Brahmaputra-Jamuna river near Goalondo Ghat of Rajbari district. The confluence flows downstream as Padma river and meets with upper Meghna river at Chandpur district and flows downstream as Meghna river which finally falls into the Bay of Bengal.

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Pabna Irrigation and Rural Development Project:

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As most of the irrigation canals of the project were earthen canals, those are being damaged with time and therefore requires re-sectioning and remodeling of the irrigation canals along with rehabilitation of the existing flood control embankment.

In view of the above, BWDB has decided to conduct a detailed feasibility study to protect the left and right banks of the Padma river under Pabna, Kushtia and Rajbari districts and rehabilitation of “Pabna Irrigation and Rural Development Project”.

30.2 Justification/Adequacy

The project is relevant in terms of compliance of the project with the national master plan(s), national development goals, compliance of the project with the missions and visions of the existing government and the relevance of the project with the visions of the executing agencies. Key documents which contextualized and guided the overall design of this project, are:

- **Perspective Plan of Bangladesh 2021-2041:** This Plan addresses governance, human development, industry and trade, agriculture, power and energy, climate change and environment. The Plan presents a path to shift Bangladesh from a rural agrarian economy to a primarily industrial and digital economy.
- **Bangladesh Delta Plan 2100:** The Plan focuses primarily on the delta agenda through 2050 while reflecting the longer-term challenges of sustainably managing water, ecology, environment, and land resources in the context of natural disaster and climate change risk. The Delta Plan addresses flood control, sea level rise, water logging, river-bank erosion, irrigation, urban and rural water supply, water pollution, land reclamation, river dredging for inland water traffic, environmental protection, fisheries, and preservation of biodiversity.
- **8th Five Year Plan, FY2021 to FY2025:** The 8th FY Plan initiates the transition to the goals of the Perspective Plan and is built around six themes: (i) rapid recovery from COVID; (ii) GDP growth acceleration; employment generation, and rapid poverty reduction, (iii) a broad-based strategy of inclusiveness; (iv) a sustainable development pathway that is resilient to disaster and climate change; (v) improvement of critical institutions; and (vi) achieving the United Nations 17 sustainable development goals.

Linkage with 8th Five Year Plan:

The impact (goal) of the project is aligned with these documents, and particularly the 8th Five Year Plan for “sustainable, inclusive development resilient to disaster and climate change generating employment and leading to rapid poverty reduction”.

The project implementation will ensure safety from bank erosion and climate change related disaster”. This project implementation would be protecting Ganges River banks under Pabna, Kushtia and Rajbari districts which will protect many other government non-government establishments situated along the bank of the river. In addition, rehabilitation of Ichamati unit of PIRDP will enhance the production of food grain and fish production of Bera and Santhia upazila of Pabna district.

Linkage with Sustainable Development Goal (SDG):

The following goals of SDGs is related to the present study:

- Goal-2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal-6: Ensure availability and sustainable management of Water and Sanitation for All

9

Linkage with Bangladesh Delta Plan 2100:

The project is located under “Barind and Drought Prone Areas” which is one of the hotspots of Bangladesh Delta Plan 2100 (BDP 2100). The main strategy for development of the area as specified in the Delta Plan is balancing supply and demand for sustainable and inclusive growth, minimizing losses due to floods and drainage congestion and ensuring water supply and sanitation. Some measures to attain the strategy are extension of irrigation using the surface water, regulating ground water extraction, water retention for the dry season usage, reclaiming encroached river banks etc.

The concept of the project is in line with BDP2100. Particularly, the Project contributes to the following strategies and sub-strategies:

Strategy at National Level:

- Sub-strategy FR 1.5: Improvement of drainage
- Sub-strategy FR 2.5: River management, excavation and smart dredging preceded by appropriate feasibility study.
- Strategy FR 3: Safeguarding Livelihoods of Vulnerable Communities.
- Sub-strategy FR 3.7: River management as well as improved flood management, drainage, O&M and flow management.

Fresh Water (FW) Strategies:

- Sub-strategy FW 1.3: Excavation of local water reservoirs (canals, ponds, and baors) for restoration of water and rain water harvesting;
- Sub-strategy FW 1.7: Preserving ground water level by restriction on excessive extraction of ground water;

Hotspot Specific Strategies:

- Barind and Drought Prone Areas
- Protection of vulnerable communities from water induced disasters e.g. river bank erosion and wave erosion.
- Boosting up agricultural production through irrigation.

Also, dependency on the surface water will be reduced and ground water will be recharged which would help to achieve the goals of BDP 2100.

Therefore, the goals of the project are in the same line of the Vision Bangladesh 2100-50.

30.3 Objectives

(a) Overall objective:

The main objective of the study is the management and agricultural development of the Padma river basin in Pabna district.

(b) Specific Objectives:

- Protection of the banks of the Padma river from erosion in Pabna district;
 - Rehabilitation of “Pabna Irrigation and Rural Development Project”;
 - Design of proposed interventions;
 - Environmental and Social Impact Assessment;
 - Preparation of DPP of the subsequent investment project.
- 

30.4 Project revision with reasons: Not Applicable.

31. Rationale of the project (Consider the following issues):

- 31.1 Concept
- 31.2 Design
- 31.3 Location and
- 31.4 Timing.

The project is located under "Barind and Drought Prone Areas" which is one of the hotspots of Bangladesh Delta Plan 2100 (BDP 2100). The main strategy for development of the area as specified in the Delta Plan is balancing supply and demand for sustainable and inclusive growth, minimizing losses due to floods and drainage congestion and ensuring water supply and sanitation. Some measures to attain the strategy are extension of irrigation using the surface water, regulating ground water extraction, water retention for the dry season usage, reclaiming encroached river banks etc. The proposed project is aimed for management of the left and right banks of Padma river and rehabilitation of "Pabna Irrigation and Rural Development Project". If the project is implemented successfully, it would result in flood control, erosion protection, environmental balance and agricultural expansion. Also dependency on the surface water will be reduced and ground water will be recharged which would help to achieve the goals of BDP 2100.

32. Brief description on planning and financing of the project and its applicability (Consider the following issues):

32.1 Project Identification:

The Ganges/Padma River is experiencing severe bank erosion at several locations under Sujanagar and Pabna Sadar upazila of Pabna district; Daulatpur upazila of Kushtia district and Rajbari Sadar and Goalandaghat upazila of Rajbari district. The increasing erosion along the left bank of Ganges River is threatening the existing Flood Control Embankment of BWDB due to the increasing of bank erosion. Besides that, bank protection work is urgent to protect "Rooppur Power Plant Project" at the left bank of Ganges/Padma River in Pabna district. Moreover, the Phase-1 of "Pabna Irrigation and Rural Development Project (PIRDP)" was completed in 1992 to improve drainage congestion and provide surface water irrigation. As most of the irrigation canals are being damaged with time and therefore requires re-sectioning and remodelling of the irrigation canals. In view of the above, BWDB has taken up a detailed feasibility study to protect the left and right banks of the Padma river under Pabna, Kushtia and Rajbari districts and rehabilitation of "Pabna Irrigation and Rural Development Project".

32.2 Project Preparation:

In view of the above, BWDB prepared a PFS to execute the feasibility study project.

- 32.3 Appraisal: The DPEC meeting was held on 10/04/2022.
- 32.4 Credit Negotiation: N/A
- 32.5 Credit Agreement: N/A
- 32.6 Credit Effectiveness: N/A
- 32.7 Loan Disbursement: N/A
- 32.8 Loan Conditions: N/A
- 32.9 Project Approval: The project was approved by honorable state minister, MoWR on 06/06/2022.
- 32.10 Others(specify)

9

33. Analysis of the post- implementation situation and result of the project (Consider following issues): **Not Applicable for this study project.**
- 33.1 Whether the beneficiaries of the project have clear knowledge about the Target/Objectives of the project.
 - 33.2 Programme for use of created-facilities of the project
 - 33.3 O & M Program of the project.
 - 33.4 Impact of the project (Direct & Indirect)
 - 33.5 Transfer of Technology and Institutional Building through the project.
 - 33.6 Employment generation through the project.
 - 33.7 Possibility of Self employment.
 - 33.8 Possibility of Women-employment opportunity.
 - 33.9 Women's participation in development.
 - 33.10 Probable Impact on Socio-Economic activity.
 - 33.11 Impact on environment.
 - 33.12 Sustainability of the project.
 - 33.13 Contribution to poverty alleviation/reduction.
 - 33.14 Opinion of the public representatives, local elite, local administration, teachers, religious leaders, women's representatives etc.
 - 33.15 Contribution of Micro-credit programs and Comments on overlapping with any NGO activities.
34. Problems encountered during Implementation (with duration & steps taken to resolve those) (Consider following issues):
- 34.1 Project management:
 - 34.2 Project Director:
 - 34.3 Land Acquisition:
 - 34.4 Procurement:
 - 34.5 Consultancy:
 - 34.6 Contractor:
 - 34.7 Manpower:
 - 34.8 Law & Order:
 - 34.9 Natural calamity:
 - 34.10 Project financing:
 - 34.11 Allocation and release:
 - 34.12 Design formulation/approval:
 - 34.13 Project aid disbursement and re-imbursement:
 - 34.14 Mission of the development partners:
 - 34.15 Time & Cost Over-run:
 - 34.16 Project Monitoring:
 - 34.17 Delay in Decision:
 - 34.18 Transport, Training:
 - 34.19 Approval and Others:

This is a consultancy service procurement project. No such problems were occurred.

2

35. Remarks & Recommendations of the Project Director:

The study was approved by the Ministry of Water Resources (MoWR) vide memo number :42.00.0000.041.14.059.22-352, dated 06 June 2022. The project was accomplished on 19 December 2023.

The main objective of the study is the management and agricultural development of the Padma river basin in Pabna district.

The study has been framed to attain its objectives through two components: Mathematical Modelling Component and Environmental and Social Study Component. Under Mathematical Modelling Component, detailed hydromorphological analysis of the concerned area was done through mathematical modelling. Based on the outputs of the mathematical modelling, project interventions have been proposed. Under Environmental and Social Study Component of the project, detailed environmental and social impact assessment (ESIA) has been completed to analyse the impact of the proposed interventions on the environment and the society of the project area.

Recommendation of the study domain is divided into two major parts: (a) Ganges/Padma river bank protection works under Pabna, Kushtia and Rajbari districts and (b) Rehabilitation of Ichamati unit of Pabna Irrigation and Rural Development Project (PIRDP).

After assessing the field condition and model results, the study recommended 15100m protective work along with 2900m of strengthening work at the left bank of the Ganges/Padma River in Pabna district. Also, 14300m Protective work along the right bank of the Ganges/ Padma River has been recommended for implementation in Kushtia district. It is to be noted that, 7800m length of Ganges right bank from Koldier to Hatkhulapur in Kushtia is vulnerable but as it is located at char area and there are no valuable settlements, protection work is not required immediately. Moreover, 8500m length at the right bank of the Ganges/Padma River in Rajbari district has been suggested for protection in this study. Also, 7500m length along the right bank of Ganges/Padma River located near char area at upstream under Kalukhali Upazilla of Rajbari district requires observation in the next monsoon before implementation of any protective work. The 1D model simulation has been carried out for existing and design conditions of both irrigation and drainage system of Ichamati unit of PIRDP to investigate the existing condition of canal system. No significant drainage congestion has been found. The irrigation canal is silted up and re-excavation of canal has been proposed in this study. The whole length of the Ichamati river is occupied by fish traders and segmented the main canal by bamboo fencing has been recommended to recover and clean so that free flow condition during irrigation is restored. Again, the water hyacinth occupies more than 50% of the water area and is recommended for clean and to be maintained every year under routine maintenance. Construction of 10 nos. of ghat at suitable location of main canal has been proposed which is suitable for taking baths for local people. Also, a total of 8 nos. of RCC bridges have been proposed in study to replace the temporary bamboo bridges for safe crossover from one side to the other side and minimize the obstruction of flow.

In addition to that, considering the lifetime and efficiency of the pumps, five pumps of Bera pump station and four pumps of Kaitala pump Station have been suggested for replacement.

The proposed interventions are district-wise separated and recommended for preparation of DPP circle-wise/division-wise for smooth implementation of the project. These works would be implemented under

Bera/Pabna O&M Division, BWDB; Kushtia O&M Division, BWDB and Rajbari O&M Division, BWDB.
The project is proposed to be implemented within 4 consecutive years.

It is anticipated that the study project output would help in DPP preparation and implementation of the subsequent investment project.

Date.....19.09.2024.....

Signature and seal of the Project Director

বিদ্যাৎ কামরুজ্জামান সাহা
অতিরিক্ত প্রবানঃ প্রকৌশলী
দক্ষিণ-পশ্চিমাঞ্চল
বাগাইচৌরী, খুলনা

36. Remarks/Comments of Agency Head:

The proposed project is aimed for protection of the banks of the Padma river from erosion and rehabilitation of "Pabna Irrigation and Rural Development Project". It is expected that implementation of the project based on the study outcomes would bring lots of benefits to the people living in the project area. It is also anticipated that the project will generate a significant number of employment opportunities during implementation and post project condition.

Date.....

Signature and seal of Agency Head

(A.K.M. Tahmidul Islam)

ID No. 660715001

Director General
BWDB, Dhaka.

37. Remarks/Comments of the Secretary/Senior Secretary of the Ministry/Division

The project has been done successfully and subsequent investment project will be taken as per recommendations of the study.

Date.....

Signature and seal of Secretary

Information Related to Procurement of Goods:

As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
Package No	Description of Package											As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
PABNA-PG01/21-22	Other Stationary	Plan Actual Deviation	DPM DPM	PD PD	- -		- -	- -	- -	- -	50,000/-	-	-
PABNA-PG02/21-22	Repair and Maintenance of Furniture (Cabinet to preserve project documents)	Plan Actual Deviation	DPM DPM	PD PD	- -		- -	- -	- -	- -	50,000/-	-	-

* Please mention Dates for plan and actual

* Deviation in days (difference between plan and actual)

* Plan as per procurement plan described in project document

Information Related to Procurement of Works: Not Applicable

As per Project Document Package No	Description of Package	Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
												As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Plan											
		Actual											
		Deviation											
		Plan											
		Actual											
		Deviation											
		Plan											
		Actual											
		Deviation											

* Please mention Dates for plan and actual

* Deviation in days (difference between plan and actual)

* Plan as per procurement plan described in project document

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Information Related to Procurement of Services:

As per Project Document Package No	Description of Pack age	Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion As per Contract	Date of Completion Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
PABNA- PS01/21- 22	Plan	344.57	SSS (National)	ADG (Planning, Design and Research)	07.06.22		07.07.22	19.07.22	19.07.22	3,39,87,800.00/- (02/10/2022)	2,91,99,456/-	15/11/2023	15/11/2023
	Actual	344.57	SSS (National)	ADG (Planning, Design and Research)	30.06.22		16.08.22	30.08.22	30.08.22				
	Deviation				24		41	43	43				
PABNA- PS02/21- 22	Plan	92.00	SSS (National)	ADG (Planning, Design and Research)	11.10.22		09.11.22	17.11.22	17.11.22	90,15,544/- (02/10/2022)	90,15,544/-	15/11/2023	15/11/2023
	Actual	92.00	SSS (National)	ADG (Planning, Design and Research)	30.06.22		16.08.22	07.09.22	07.09.22				
	Deviation				-104		-86	-72	-72				

* Please mention Dates for plan and actual

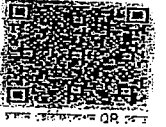
* Deviation in days (difference between plan and actual)

* Plan as per procurement plan described in project document

গ্রাহকের কপি

ট. আর. ফরম নং-৬ (৪)
(এস আর অনুলেখন ৩৭ টুকরা)

চালান ফরম



সোনালী ব্যাংক লিমিটেড, বি-ওয়াশপদা ভবন কর্পোরেট শাখা শাখায় টাকা জমা দেওয়ার চালান

যে সরকারি প্রতিষ্ঠানের অনুকূলে অর্থ জমা হচ্ছে	যার মাধ্যমে টাকা প্রদত্ত হলো তার নাম, সনাক্তকরণ নম্বর ও ঠিকানা	যে ব্যক্তির প্রতিষ্ঠানের পক্ষ হতে টাকা প্রদত্ত হলো তার নাম, সনাক্তকরণ নম্বর ও ঠিকানা	চালান নং	কি বাবদ জমা দেওয়া হলো তার বিবরণ	জমার পরিমাণ
সচিবালয়, অর্থ বিভাগ	Parichalok Doptor Artho Poridaptor BWDB Dhaka Pani Bhaban(8th floor) Block-A, 72. Green Road Dhaka	BANGLADESH PANI UNNAYAN BOARD DHAKA ***Identity not shown*** Pani Bhaban(8th floor) Block-A, 72. Green Road Dhaka	২৪২৫-০০০৫০৯০৫৯১১	১৪৪১২০২-পূর্ববর্তী অর্থবছরের অতিরিক্ত গৃহীত অর্থ ফেরত	১.১৬৩.৭৬৪.০০

নতুন কোড: ১০৯০১০১১০১৪৩৫-১১০০০০০০০-১১০০১০০০-১৪৪১২০২ অন্যান্য বিবরণ মন্তব্য (যদি থাকে):

মোট (অংকে) = ১.১৬৩.৭৬৪.০০

টাকা (কথায়): এগার লক্ষ তেঘটি হাজার সাত শত ত্রিশটি টাকা

তারিখ: ২১/০৮/২০২৪ খ্রি

এটি একটি সিস্টেম জেনারেটেড চালান, কোন স্বাক্ষর প্রয়োজন নেই

গ্রাহকের কপি

ট. আর. ফরম নং-৬ (৪)
(এস আর অনুলেখন ৩৭ টুকরা)

চালান ফরম



সোনালী ব্যাংক লিমিটেড, বি-ওয়াশপদা ভবন কর্পোরেট শাখা শাখায় টাকা জমা দেওয়ার চালান

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সচিবালয়, অর্থ বিভাগ	Parichalok Doptor Artho Poridaptor BWDB Dhaka Pani Bhaban(8th floor) Block-A, 72. Green Road Dhaka	BANGLADESH PANI UNNAYAN BOARD DHAKA ***Identity not shown*** Pani Bhaban(8th floor) Block-A, 72. Green Road Dhaka	২৪২৫-০০০৫০৯০৫৯১১	১৪৪১২০২-পূর্ববর্তী অর্থবছরের অতিরিক্ত গৃহীত অর্থ ফেরত	১.১৬৩.৭৬৪.০০

নতুন কোড: ১০৯০১০১১০১৪৩৫-১১০০০০০০০-১১০০১০০০-১৪৪১২০২ অন্যান্য বিবরণ মন্তব্য (যদি থাকে):

মোট (অংকে) = ১.১৬৩.৭৬৪.০০

টাকা (কথায়): এগার লক্ষ তেঘটি হাজার সাত শত ত্রিশটি টাকা

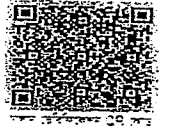
তারিখ: ২১/০৮/২০২৪ খ্রি

এটি একটি সিস্টেম জেনারেটেড চালান, কোন স্বাক্ষর প্রয়োজন নেই

সচিবালয়, অর্থ বিভাগ-এর কপি

ট. আর. ফরম নং-৬ (৪)
(এস আর অনুলেখন ৩৭ টুকরা)

চালান ফরম



সোনালী ব্যাংক লিমিটেড, বি-ওয়াশপদা ভবন কর্পোরেট শাখা শাখায় টাকা জমা দেওয়ার চালান

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সচিবালয়, অর্থ বিভাগ	Parichalok Doptor Artho Poridaptor BWDB Dhaka Pani Bhaban(8th floor) Block-A, 72. Green Road Dhaka	BANGLADESH PANI UNNAYAN BOARD DHAKA ***Identity not shown*** Pani Bhaban(8th floor) Block-A, 72. Green Road Dhaka	২৪২৫-০০০৫০৯০৫৯১১	১৪৪১২০২-পূর্ববর্তী অর্থবছরের অতিরিক্ত গৃহীত অর্থ ফেরত	১.১৬৩.৭৬৪.০০

নতুন কোড: ১০৯০১০১১০১৪৩৫-১১০০০০০০০-১১০০১০০০-১৪৪১২০২ অন্যান্য বিবরণ মন্তব্য (যদি থাকে):

মোট (অংকে) = ১.১৬৩.৭৬৪.০০

টাকা (কথায়): এগার লক্ষ তেঘটি হাজার সাত শত ত্রিশটি টাকা

তারিখ: ২১/০৮/২০২৪ খ্রি

এটি একটি সিস্টেম জেনারেটেড চালান, কোন স্বাক্ষর প্রয়োজন নেই

