

BANGLADESH WATER DEVELOPMENT BOARD



PROJECT MONITORING FORM-IMED-04/2003(Revised)

PROJECT COMPLETION REPORT

Name of Project : Protection of Sonaikandi to Bolonpur area in Rajshahi City Corporation from erosion of Padma River (1st Revised).

Project Implementation Period : July 2016 to June 2019.

Name of Division : Rajshahi O&M Division, BWDB, Rajshahi.
Name of Circle : Rajshahi O&M Circle, BWDB, Rajshahi.
Name of Zone : North-Western Zone, BWDB, Rajshahi.

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

PROJECT COMPLETION REPORT : IMED 04/2003 (Revised)

A. PROJECT DESCRIPTION

- 01. Name of the Project** : Protection of Sonaikandi to Bolonpur area in Rajshahi City Corporation from erosion of Padma River. (1st Revised).
- 02. Administrative Ministry/Division** : Ministry of Water Resources
- 03. Executing Agency** : Bangladesh Water Development Board (BWDB)
- 04. Location of the Project** : District: Rajshahi, Upazilla: Rajshahi City Corporation and Paba-Upazilla.
- 05. Objective of the Project** :

Main objectives of the project are to provide protection against extended river bank erosion and flood protection coverage against flood of the Ganges/Padma River to an area of land of 8000 ha. that promote to environmental sustainability. Such as:

- Protect valuable immovable public and private properties approximate total worth of Tk. 126500.00 lakh (Viz. 20 Km Regional & Local Metalled Road, 20 Km Flood Control Embankment, 15 Nos. WCS, 1 No. BOP, Rajshahi City Corporation establishments, many markets & bazar, Schools & Colleges, Mosque & Madrasas, Mango Gardens & Important Govt./Semi-Govt. Offices, Agriculture Firms and many public & private houses and establishments etc.) and huge valuable agriculture & settlement lands dispersed from Sonaikandi to Bolonpur in Rajshahi City Corporation and Paba-Upazilla under Rajshahi District by the proper implementation of the project.
- Stabilize left bank of the Padma River and thereby protecting shifting of main course of the river, resulting in protection of loss of Bangladeshi lands in Rajshahi City Corporation and Paba-Upazila.

06. Estimated Cost :

(In lakh Taka)

	Original	Latest Revised
(a) Total	26817.00	28690.89
(b) Taka	26817.00	28690.89
(c) Foreign Currency	0.00	0.00
(d) Project Aid	0.00	0.00
(e) RPA	0.00	0.00

07. Date of Approval :

PCP	PP
-----	----

(a) Original : 21 July, 2016

(b) Latest Revised : 18 October, 2018

08. Implementation Period :

	Date of Commencement	Date of Completion
(a) Original	July 2016	June 2019
(b) Latest Revised	July 2016	June 2019
(c) Actual	July 2016	June 2019

09. Financing Arrangement (Source-wise) :

9.1 Status of Loan/Grant:

a) Foreign Financing :

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
Not Applicable							

b) GOB :

(In lakh Taka)

Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
28690.89	-	28690.89	-

9.2 Utilization of Project Aid : (Source wise)

(In million)

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
Not Applicable						

9.3 Re-imbursible Project Aid (RPA):

(In lakh Taka)

R P A Amount		Amount Spent	Amount Claimed	Amount Re-imbursed	Remarks
As per PP	As per Agreement				
1	2	3	4	5	6
Not Applicable					

B. IMPLEMENTATION POSITION

01. Implementation Period:

Implementation Period as per PP		Actual Implementation Period	Time Over-run (% of original implementation period)	Remarks
Original	Latest Revised			
1	2	3	4	5
July 2016 to June 2019	July 2016 to June 2019	July 2016 to June 2019	-	-

02. Cost of the Project:

(In lakh Taka)

Description	Estimated Cost		Actual expenditure	Cost over-run (% of original cost)	Remarks
	Original	Latest revised			
1	2	3	4	5	6
TOTAL	26817.00	28690.89	23960.49	(-) 10.65%	As per post work measurement dredging earth volume got reduced which has implemented by BWDB's dredger.
TAKA	26817.00	28690.89	23960.49	(-) 10.65%	
PA	-	-	-	-	

03. Project Personnel:

Sanctioned strength as per PP	Manpower employed during execution	Status of the existing manpower			Manpower Employed	
		Manpower requirement for O&M as per pp	Existing manpower for O & M	Others		
1	2	3	4	5	Male	Female
Officer (s)	Existing manpower of the implementing agency were deployed during execution of the project. No separate manpower was engaged for the project.					
Staff(s)						
Total :						

04. Training of Project Personnel (Foreign/Local) : No provision of training in this project.

Field of Training /Study tour/workshop/ Seminar etc.	Provision as per PP		Actual		Remarks
	Number of person	Man -months	Number of person	Man -months	
1	2	3	4	5	6
a. Foreign	Not Applicable				
b. Local	Not Applicable				

05. Component-wise Progress (As per latest approved PP) :

(In lakh Taka)

Items of work (as per PP)	Unit	Target (as per PP)		Actual Progress		Reasons for deviation (±)
		Financia 1	Physical (Quantity)	Financia 1	Physical (Quantity)	
1	2	3	4	5	6	7
(a) Revenue Component						
Petrol & Lubricant	1item	20.00	1 item	10.80	1 item	
Printing & Publication	1item	6.00	1 item	5.97	1 item	
Stationery, Seal & Stamps	1item	6.00	1 item	5.60	1 item	
Honorium/Fee/ Remuneration for Different Committee	1item	6.00	1 item	2.39	1 item	
Mid Term Evaluation	1item	6.00	1 item	5.82	1 item	
Survey & Investigation	1item	20.00	1 item	7.99	1 item	
Computer Accessories	1item	2.00	1 item	1.91	1 item	
Repair & maintenance of existing vehicles	1item	10.00	1 item	8.21	1 item	
Rehabilitation of Sopura, BWDB's Office & Colony	1item	200.00	1 item	199.49	1 item	
Sub-Total (a)		276.00		248.18		
(b) Capital Component						
(i) Acquisition of asset						
Jeep (4 wheel, not more than 2500cc, made by Pragoti) 1no.	Nos	60.00	1 No	54.93	1 No	
(ii) Contruction of Works						
River Bank protection work	Km	19897.12	4.905 km	19607.40	4.905 km	
Strengthening of Groyne /Spur.	Nos	2674.06	3 nos.	2628.36	3 nos.	
Dredging work	Km (Lac cum)	5768.71	6.00 Km (26.43 Lac cum)	414.62	2.704Km (5.03 Lac cum)	Dredging work was executed by BWDB's dredger directorate. Due to lack of navigability, dredger cannot be deployed in time at work place and it was also delay to start dredging due to shortage of floating pipes.
				1007.00	Temporary protection of Dredged Materials	
Sub Total (b)		28399.89		23712.31		
Sub-Total (a+b)		28675.89		23960.49	96.04%	
(c)PhysicalContingency		5.00		0.00	-	
(d) Price Contingency		10.00		0.00	-	
GrandTotal (a+b+c+d)		28690.89	100.00%	23960.49	96.04%	

06. Information regarding Project Director (s):

Name & Designation with pay Scale.	Full time	Part time	Responsible for more than one project	Date of		Remarks
				Joining	Transfer	
1	2	3	4	5	6	7
Mohammad Ali Chief Engineer North Western Zone BWDB, Rajshahi. scale : 66000-76490/-	Full	-	Yes	14-11-2016	Till to date	

07. Procurement of Transport (in Nos.):

Type of transport	Number as per P.P.	Procured with date	Transferred to Transport Pool with date	Transferred to O & M with date	Condemned/damaged with date	Remarks
1	2	3	4	5	6	7
Car	-	-	-	-	-	Reg. No. Raj Metro Gha 11-0162 Executive Engineer, Rajshahi O&M Division, BWDB, Rajshahi.
Jeep	1 nos	17-01-2019	-	01-07-2019	-	
Microbus	-	-	-	-	-	
Minibus	-	-	-	-	-	
Bus	-	-	-	-	-	
Pick-up	-	-	-	-	-	
Truck	-	-	-	-	-	
Motor Cycle	-	-	-	-	-	
By-cycle	-	-	-	-	-	
Speed Boat	-	-	-	-	-	
Launch	-	-	-	-	-	
Others with name	-	-	-	-	-	

08. Procurement of Goods, Works and Consultancy Services:

08.1 Goods & Works of the Project costing above Tk. 200.00 lakh. and consultancy services above 100.00 lakh:

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/ Proposal Cost (in CroreTaka)		Tender/Bid/ Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
1. Bank protection work on the left bank of the Padma river at Bolonpur from Km.5.220 to Km.5.720 =500m. under Rajshahi O&M Division, BWDB, Rajshahi.	20.55	20.55	12-1-2017	07-05-2017	20-06-2018	20-06-2018

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/ Proposal Cost (in CroreTaka)		Tender/Bid/ Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
2. Bank protection work on the left bank of the Padma river at Bolonpur from Km.4.720 to Km.5.220 = 500 m. under Rajshahi O&M Division, BWDB, Rajshahi.	20.03	20.03	12-1-2017	11-05-2017	27-06-2018	27-06-2018
3. Bank protection work on the left bank of the Padma river at Naboganga from Km.4.170 to Km.4.720 = 550 m. under Rajshahi O&M Division, BWDB, Rajshahi.	21.19	21.19	12-1-2017	11-05-2017	27-06-2018	27-06-2018
4. Bank protection work on the left bank of the Padma river at Naboganga from Km.3.620 to Km.4.170 = 550 m. under Rajshahi O&M Division, BWDB, Rajshahi.	20.82	20.82	12-1-2017	11-05-2017	20-06-2018	20-06-2018
5. Bank protection work on the left bank of the Padma river at Naboganga from Km.3.070 to Km.3.620 = 550 m. under Rajshahi O&M Division, BWDB, Rajshahi.	20.76	20.76	12-1-2017	07-05-2017	20-06-2018	20-06-2018
6. Bank protection work on the left bank of the Padma river at Naboganga from Km.2.500 to Km.3.070 = 570 m under Rajshahi O&M Division, BWDB, Rajshahi.	24.00	23.43	18-2-2018	18-07-2018	27-06-2019	27-06-2019
7. Bank protection work on the left bank of the Padma river at Sonaikandi from Km.1.900 to Km.2.500 = 600 m under Rajshahi O&M Division, BWDB, Rajshahi.	24.46	24.35	18-2-2018	19-07-2018	27-06-2019	27-06-2019
8. Bank protection work on the left bank of the Padma river at Sonaikandi from Km.1.350 to Km.1.900 = 550 m under Rajshahi O&M Division, BWDB, Rajshahi.	23.76	22.41	18-2-2018	23-07-2018	27-06-2019	27-06-2019
9. Bank protection work on the left bank of the Padma river at Sonaikandi from Km. 0.815 to	23.40	22.64	18-2-2018	25-07-2018	27-06-2019	27-06-2019

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/ Proposal Cost (in CroreTaka)		Tender/Bid/ Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Km. 1.35 0 =535 m under Rajshahi O&M Division, BWDB, Rajshahi.						
10.Rehabilitation/strengthening of Groyne No-3, 5 & 2B-Spur on the left bank of the Padma river under Rajshahi O&M Division, BWDB, Rajshahi.	26.74	26.29	18-2-2018	06-11-2018	27-06- 2019	27-06- 2019
11. Dredging of the Padma river at Sonaikandi to Bulonpur from km. 0.815 to km. 6.815 = 6.000 km. under Rajshahi O&M Division, BWDB, Rajshahi.	47.58	47.58		Implemented by BWDB's Dredger		30-6- 2019
12.Temporary protection of Dredged Materials in between groyen no.3 and groyen no.5 on the left bank of the Padma river under Rajshahi O&M Division, BWDB, Rajshahi.	10.11	10.10	24-3-19	21-05-2019	30-06- 2019	30-06- 2019
13. Rehabilitation of Sopura, BWDB's Office & Colony	2.00	1.99	19-3-18	08-5-2018	30-06- 2019	30-06- 2019

8.2 Use of Project Consultant (s) (Foreign/Local): No provision of deploying consultants in this project.

Name of the Field	Approved man month		Actual man month utilised	Remarks
	As per PP	As per contract		
1	2	3	4	5
a) Foreign			N/A	
b) Local			N/A	

09. Construction/Erection/Installation Tools & Equipment:

Description of items	Quantity (as per PP)	Quantity procured with date	Transfere d to O & M with date	Disposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7
N/A						

C. FINANCIAL AND PHYSICAL PROGRAMME

01. (a) Original and revised schedule as per PP:

(In lakh Taka)

Financial Year	Financial provision & physical target as per original PP				Financial provision & physical target as per latest revised PP			
	Total	Taka	P.A.	Physical %	Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9
2016-17	8064.00	8064.00	-	30.97%	101.46	101.46	-	1.00%
2017-18	11203.27	11203.27	-	43.02%	9891.04	9891.04	-	34.00%
2018-19	7549.73	7549.73		26.01%	18698.39	18698.39		65.00%
Total=	26817.00	26817.00	-	100.00%	28690.89	28690.89	-	100.00%

01. (b) Revised ADP allocation and progress :

(In lakh Taka)

Financial Year	Revised Allocation & target				Taka release	Expenditure & physical progress			
	Total	Taka	P. A.	Physical %		Total	Taka	P. A.	Physical %
1	2	3	4	5	6	7	8	9	10
2016-17	700.00	700.00	-	1.00%	500.00	101.46	101.46	-	1.00%
2017-18	10000.00	10000.00	-	38.68%	10000.00	9891.04	9891.04	-	38.68%
2018-19	15419.00	15419.00		60.32%	15418.03	13967.99	13967.99		56.36%
Total =	26119.00	26119.00	-	100%	25918.03	23960.49	23960.49	-	96.04%

10/8

E. BENEFIT ANALYSIS

01. Annual Out-put:

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-put during the 1st year of operation at full capacity (or during, real production for newly completed project).
Metalled Road	km.	20.00	20.00 km.
Bridge/Culvert (Large/Medium/Small)	nos	15	15 nos
Flood Control Embankment	km.	20.00	20.00 km.
Primary School (Permanent Establishment)	nos	15	15 nos
High School (Permanent Establishment)	nos	05	05 nos
Collage (Permanent Establishment)	nos	02	02 nos
Girls High School (Permanent Establishment)	nos	05	05 nos
Mosque (Pucca & Temporary)	nos	15	15 nos
Border Out Post (Bolonpur)	nos	01	01 nos
Police Lines	nos	01	01 nos
Police Station	nos	03	03 nos
Hat Bazar/Permanent Market	nos	03	03 nos
Office Building (Goverment/Semo.Govt)	nos	12	12 nos
Rajshahi Court	nos	01	01 nos
Eidgah	nos	05	05 nos
Madrassa	nos	05	05 nos
Food Godown	nos	02	02 nos
Local Rice Mill/Chatal	nos	02	02 nos
Mango Gardens (Trees+Lands)	nos	10	10 nos
Grave Yard	nos	05	05 nos
House: Pucca/Permanent	nos	1800	1800 nos
House : Kucha/Temporary	nos	1200	1200 nos
Electrical Transmission lines	km.	50.00	50.00 km.

02. Cost / Benefit:

Item	Estimated	Actual
(1) Benefit cost ratio of the project (i) Financial (ii) Economic	(1) Benefit cost ratio of the project (i) Financial =1.25:1 (ii) Economic =1.58:1	Actual Cost /Benefit will be evaluated later by BWDB's concern office & IMED.
(2) Internal Rate of Return (i) Financial (ii) Economic	(2) Internal Rate of Return (i) Financial = 16.45% (ii) Economic = 20.07%	

03. Please give reasons for shortfall, if any, between the estimated and actual benefit:

No Shortfall Found.

WJ

F. MONITORING AND AUDITING

0.1 Monitoring:

Name & designation of the inspecting official	Date of Inspection	Identified Problems	Recommendations
1	2	3	4
Ministry / Agency:			
Kabir-Bin-Anwar Secretary, MoWR.	14-06-2019	No major problems identified.	Project progress was satisfactory.
Rokon-ud-Dowla Addl. Secretary, MoWR.	26-04-2019	No major problems identified.	Project progress was satisfactory.
Md. Nayeb Ali Mondol, Joint Secretary(admin-1), MoWR.	11-5-2018 to 12-5-2018	No major problems identified.	Project progress was satisfactory.
Md. Jane Alam, Deputy Chief, MoWR.	23-12-2017	No major problems identified.	The project is effective
Abu Yousuf Mohammad Rasel, Senior Assistant Chief, MoWR.	23-12-2017	No major problems identified.	The project is effective.
BWDB:			
Khondaker Khalequzzaman, ADG (West Region)	4-11-2018	No major problems identified.	Project progress was satisfactory.
Khondaker Md. Ruhul Amin ADG (Finance)	16-4-2019	No major problems identified.	Project progress was satisfactory.
Mohammad Ali Chief Engineer, North-Western Zone, BWDB, Rajshahi.	Several times	No major problems identified.	Instructed to follow approved designs for construction works and to complete within the stipulated time.
Md. Motahar Hossain Chief Engineer, Design, BWDB, Dhaka.	10-12-2018	Dredging Spoil Management	Given decision for Dredged Materials Management.
Musa Nurur Rahman Superintending Engineer, Design Circle-6, BWDB, Dhaka.	10-12-2018	river bed of bank line has been silted up.	Design data must be submitted quickly. As per design data revised design may be needed.
Mir Mosarraf Hossain Superintending Engineer, Rajshahi O&M Circle	Several times	No major problems identified.	Not Available.
Muhammad Amirul Haq Bhuiya Superintending Engineer, Rajshahi O&M Circle	Several times	No major problems identified.	Approved design must be followed.

IMED :			
Lasmi Chakma Assistant Director	18-09-2018	No major problems identified.	Project must be completed in time.
Other :			
Abdul Azim Choudhury, Joint Chief, Planning commission.	23-12-2017	No major problems identified.	Project progress was satisfactory.
Nikhil Kumar Das Deputy Chief, Planning commission.	23-12-2017	No major problems identified.	Project progress was satisfactory.

2. Auditing during and after Implementation:

2.1. Internal Audit:

Period of Audit	Date of submission of Audit Report	Major findings/ objections	Whether objections Resolved or not.
1	2	3	4
No internal audit done during the project implementation period.			

2.2. External Audit:

Audit period	Date of submission of Audit Report	Major findings/ objections	Whether objections Resolved or not.
1	2	3	4
2016-17	Not conducted.		
2017-18	18-3-19 to 24-3-2019	পাউবোর নিজস্ব বিশেষায়িত প্রতিষ্ঠান মরফোলজী বিভাগ থাকা সত্ত্বেও বেসরকারী প্রতিষ্ঠানের মাধ্যমে জরীপ কাজ সম্পাদন।	A reply has been sent to resolve the objection.
2018-19	Not conducted.		

My

G. DESCRIPTIVE REPORT

1. **General Observations/Remarks of the Project on:** Implementation of the project ensured protection of Sonaikandi to Bolonpur area in Rajshahi City Corporation from erosion of Padma River.

1.1 Background:

The area of Bangladesh is about 147570 square kilometer with a population of about 160.00 million. The country serves as the drainage route of about 1.72 million square kilometer area of India, Nepal, Bhutan, China and Bangladesh. About 30% of the land of the country is the flood prone of three major rivers of the region namely the Ganges, the Brahmaputra and the Meghna. About 50% of the land lies within +8 meter PWD from the mean sea level. River bank erosion has been considered as one of the most devastating natural hazards in alluvial lands of river in Bangladesh.

The project area is located in Rajshahi City Corporation area also Paba Upazila in Rajshahi District. The security of Ganges Left Bank Flood Embankment and consequently the area projected by the embankment has been seriously threatened by continued bank erosion at several most vulnerable locations. The flood water onrush of the rivers causes erosion in almost each year with the resultant havoc to both lives and properties in the vicinity of the vast affected areas. During the last few years the Ganges/Padma swallowed huge areas of lands at many locations of left bank in Rajshahi City Corporation & Paba Upazila area including several important establishments, like; school, collage, hospital and mosque, madrasa/mondir, important Govt./Semi-Govt. offices, private & public homes and others establishments etc. It has also disrupted communication as well as drainage and flood control facilities of some areas also Land reclamation, Drainage facilities improvement that promote to environment sustainability. At a few locations the river is very close to the important infrastructures and establishments. If the erosion is allowed to continue further, the consequence could be devastating. **Under this circumstances, erosion affected Peoples, Local Elites, Public Representatives, Honorable Mayor, Honorable Local MP, Local Administration are repeatedly urging BWDB authority & Ministry of Water Resources to under take immediate implementation of sustainable River Training Work at those erosion affected areas & thereby ensuring safety and security of lives and properties of the proposed project area.** Since the economic and social consequences of the present approach in dealing with the problem may be not acceptable in the long-term, the Government of Bangladesh through BWDB had been conducted the River Training Studies/Hydraulic Modeling Study of the Ganges-Padma River for the most threatened/vulnerable reaches to seek a long-term strategy for the protection of Left Bank. BWDB appointed Institute of Water Modeling(IWM) to make Hydraulic Modeling Study for the protection of Embankment from Rajbari to Baliaghata against Erosion of the Ganges-Padma River in Godagari Upazila of Rajshahi District. It comes out from the study that revetment type of protection measure with provision for post construction monitoring may be taken up. An adaptive approach of bank protection could be followed in this regard. It involves identification of the priority bank protection

and its implementation. The need for the subsequent work would then be determined based on the river responses to the already constructed work. The model study covers predication of consequences of such partial measures that could be further fine-turned by inclusion of updated field data. Accordingly recommendation have been made by the IWM study group to project the left bank by construction of improved Bank Revetment Work.

Accordingly, BWDB authority constituted a Technical Committee by order of its vide memo no বাপাউবো (সচি)/পরি-১/বিবিধ-৩/২০০২(৬ষ্ঠ খণ্ড)/১৬৩ তারিখঃ ১০/১১/২০১৩ খ্রিঃ to devise the best option of river bank protection work. Strengthening of Groyne; Constuction of 1 vent (1.50m x 1.80m) Regulator, ascertain the necessity of works on, priority basis, preparation of approved design with cost estimate & preparation of recommendations with justifications. Accordingly, Technical Committee prepared their report under title, (“পদ্মা নদীর ভাঙ্গন হইতে রাজশাহী মহানগরীর অন্তর্ভুক্ত সোনাইকান্দি হইতে বুলনপুর পর্যন্ত এলাকা রক্ষা প্রকল্প”) conducting several times field visits, making interaction with the erosion affected peoples, local public representatives & elite persons, & local administrations, reviewing physical existence of Rive Training Structures on the left bank of the Padma River, constructed earlier & their performance records. The Technical Committee ultimately opined on construction of Bank Revetment Work as the best option for sustainable river bank erosion protection work at those above stated vulnerable locations & other works such as Strengthening of Groyne; construction of 1vent (1.50m x 1.80m) Regulator. The members of the Technical Committee reviewed the latest river morphology & hydrological data of the project areas. Accordingly cost-estimate of physical work has been prepared following the approved design and as per specifications & rates incorporated in the schedule of rates effective for FY 2013-14 of works of Rajshahi O&M Circle. Under the above stated circumstances, this DPP has been prepared and submitted to the Board. The DPP has been approved in ECNEC meeting held on 21.07.2016. The estimated cost of the approved DPP of the project was Tk. 26817.00 lakh. The approval of the project (DPP) has been circulated by the Planning Commission vide memo no. 20.00.0000.411.14.21.16-342, dated 11-08-2016 The Administrative approval of the project issued by Ministry of Water Resources (MoWR) vide memo no. 42.00.0000.041.014.09.14-232, dated 21-08-2016.

1.2 Justification/Adequacy: The project has been executed with commencement in FY 2016-2017 and completion in FY 2018-2019. The overall objective of the project was to reduce environmental degradation and human hazards due to river erosion & flood damages with ensuring safety of lives & properties around the project area.

Throughout the implementation of bank revetment works, safety of Rajshahi City corporation establishments, flood control embankment, road, important Govt./semi Govt. offices, agricultural lands, mango garden etc. and other immovable public & private properties total worth of approximate Tk. 126500.00 lakh. be ensured against river erosion.



1.3 Objectives:

The main objectives of the project to provide extended river bank erosion and flood protection coverage against cumulatively increased erosion and floods of the Ganges/ Padma River to an area of 8000 Ha lands that promote to environmental sustainability.

- Protect valuable immovable public and private approximate total worth of Tk. 126500.00 lakh (Viz. 20 Km. regional and local metalled road, 20 Km. flood control embankment, 15 nos. WCS, 1 no. BOP, Rajshahi City corporation establishments, many markets and bazars, schools & colleges, mosque & madrasas, mango garden & important Govt./semi Govt. offices, agriculture firms and many public and private homes and establishments etc.) and huge valuable agriculture & settlement lands dispersed from Sonaikandi to Bolonpur in Rajshahi City Corporation and Paba-Upazilla under Rajshahi District by the proper implementation of the project.
- Stabilize leftbank of the Padma River and thereby protecting shifting of main course of the river, resulting in protection of loss of Bangladeshi lands in Rajshahi City corporation and Paba Upazilla.
- To prevent river bank erosion and to save the immovable public and private properties;
- To provide flood control benefits; and
- To improve environmental sustainability and enhance socio-economic development in the project area by reducing the intensity of river erosion.

1.4 Project revision with reasons:

The project named as "Protection of Sonaikandi to Bolonpur area in Rajshahi City Corporation from erosion of Padma River" has been approved in ECNEC meeting held on 21.07.2016. The estimated cost of the approved DPP of the project was Tk. 26817.00 lakh. The approval of the project (DPP) has been circulated by the Planning Commission vide memo no. 20.00.0000.411.14.21.16-342, dated 11-08-2016. The Administrative approval of the project issued by Ministry of Water Resources (MoWR) vide memo no. 42.00.0000.041.014.09.14-232, dated 21-08-2016.

The expenditure of the project upto June, 2018 was Tk. 9992.50 lakh and physical progress was 39.68%. The main physical work under the project is (i) River Bank Protection Work (from km. 0.815 to km. 5.720) = 4.905km, (ii) Strengthening of Groyne /Spur =3 nos. (Groyne no. 3, 5 and 2B Spur) and (iii) Dredging work (from km. 0.815 to km. 6.815) = 6.00 km. (iv) Rehabilitation of Sopura BWDB's Office & Colony

As per approved DPP River Bank Protection Work consists of 09 no. packages and total length of these 09 no. packages is 4.905 km which costs Tk. 20796.57 lakh. Out of 4.905km. bank protection work 2.650 km (Package no. BPWTP-1, BPWTP-2, BPWTP-3, BPWTP-4 and BPWTP-5) has already been completed within June, 2018 costing Tk.10335.39 lakh. For the rest 2.225 km. of the bank protection works (Package no BPWTP-6, BPWTP-7, BPWTP-8 and BPWTP-9) costing Tk. 9561.73 lakh, whose work-order has been issued and expected to complete within scheduled time i.e.

June 2019. Total cost of the river bank protection work is Tk. (10335.39+9561.73) lakh= Tk. 19897.12 lakh. In this component Tk. 899.45 lakh has been saved from approved DPP cost of the project.

The project has 01 no. package (Package no. SGTP-1) of Strengthening of groyne/spur (3 nos.) which cost Tk. 1782.27 lakh as per approved DPP. Considering approved design, current schedule of rates and present field conditions, the estimated cost has been increased than the approved DPP cost.. Beside this for easy accessibility to the Bangabandhu Sheikh Mujib Hi-tech park project area, project Authority requested to construct bituminous road on the shank of BWDB's groyne no-3. For this purpose additional Tk. 105.70 lakh is required to construct the bituminous road on groyne no-3. Hence, Total revised cost of this component is Tk.2674.06 lakh which has increased by an amount Tk. 891.79 lakh than the approved DPP cost.

The project has 01 no. package of dredging work (Package no. DRE-01) for which approved DPP cost is Tk. 3127.32 lakh which is estimated Based on approved design, (design no. NWZ/4(B)-8338, 8339 & 8340 dated 02-05-2016). After approval of design of said work, two flood seasons (i.e. 2016 & 2017) had already been passed and a vast morphological changes in the Ganges River during the two flood seasons, huge siltation occurred along the dredging alignment. By considering field condition of implementation period the design of the dredging work has been reviewed and approved by the concerned design office vide drawing no. RAJ-DRN-1165 Dated: 10-07-2018 and the estimated cost has increased according to the design reviewed, which is Tk. 4757.74 lakh. As per decision of DPEC meeting held on 26/07/2018 and under dredged material management plan a groyne has been constructed between Groyne no. 3 and Groyne no. 5 used by partial dredged materials. As per the approved design the temporary protection cost of the dredged materials between Groyne no. 3 and Groyne no. 5 (used by geo bags and geo filter and other required materials) is Tk 1010.97 lakh. So the total cost of dredging component is Tk. (4757.74+1010.97) lakh= Tk 5768.71 lakh which has increased by an amount Tk. (5768.71 -3127.32) lakh= Tk 2641.39 lakh than the approved DPP cost.

In view of the above situation and as per the decisions of Project Implementation Committee (PIC) and Project Steering Committee (PSC) meeting the DPP of the project needs to be revised without time extension. The administrative approval of revised DPP of the project has been issued by the Ministry of Water Resources vide Memo No. 42.00.0000.041.014.09.14(Part-1)-319 dated 18-10-2018.

2. Rationale of the project in respect of Concept, Design, Location and Timing:

Bangladesh is a densely populated with poor natural resources base. Lack of Industrialization and vulnerability to natural disasters, like flooding, river bank erosion, saline inundation and cyclones etc. made Bangladesh as one of the undeveloped countries in the world. The major problems responsible for poverty includes flooding, drainage congestion, high level of landless due to river bank erosion, unemployment, illiteracy and malnutrition. The population of the project area is very dense. Socio-economic development of the people through agriculture and business generation development providing of flood control support and protection of potential lands, infrastructure of the project areas

from erosion damages is the main objective to alleviate poverty of the area. The project is placed in environmental screening category since it's bank protective works by construction of improved bank revetment work and development have very little impacts or no negative impacts in and around the area. The project prevent the erosion loss of about 8000 ha and Paba would be helpful for effective flood control, mitigation of the project area of Sonaikandi to Bolonpur in Rajshahi City Corporation and Paba-Upazilla under Rajshahi District. It would also prevent severe flood damage to crops, property and infrastructure.

3. Brief description on planning and financing of the project and its applicability:

◆ Project Identification :

The project was initially identified by local politicians, local elites, Public Representatives, Honorable Mayor, Honorable Local MP, Local Administration etc. Those stakeholders earnestly requested the Honourable Member of Parliament to addressing the problem of river erosion from River Padma. Accordingly Honourable Member of Parliament sent a Do letter to the Honourable Minister, Ministry of Water Resources to take up the project.

◆ Project Preparation :

According to the instruction of Honorable Minister, Ministry of Water Resource & the Secretary, Ministry of Water Resource & the Director General, BWDB, the project was prepared. A Technical Committee was formed vide BWDB memo no: BWDB(Secret)/Plan-1/Mis-3/2002(6th part)/163 dated: 10/11/2013 to submit a Technical Report in respect of social, economical & environmental impact, safety of properties & infrastructures and also sustainability in the project areas. On the basis of Technical Report submitted by Committee, the project was prepared.

◆ Appraisal :

PEC meeting was held on 30-08-2015 in Planning Commission and decision was taken to incorporate dredging work. Technical Committee of the project also recommended the alignment on the basis of the latest river morphology & hydrological data where as the dredging work will be more sustainable. Then PEC meeting was held on 29-02-2016 in Planning Commission. As per decision of PEC the DPP was corrected and finally the project was approved by the ECNEC on 21-07-2016.

- ◆ **Credit Negotiation** : Not applicable
- ◆ **Credit Agreement** : Not applicable
- ◆ **Credit Effectiveness** : Not applicable
- ◆ **Loan Disbursement** : Not applicable
- ◆ **Loan Conditionality** : Not applicable
- ◆ **Project Approval** : The project was approved on 21-07-2016 & subsequent revision was approved on 18-10-2018.
- ◆ **Others (if any)** : Nil



4. Analysis of the Post-Implementation situation and result of the project:

4.1 Whether the beneficiaries of the project have clear knowledge about the Target/ Objectives of the project: Yes.

4.2 Programme for use of created-facilities of the project: The stakeholders are directly taking advantages of the created facilities of the project.

4.3 O & M programme of the project: Post Project recurrent O&M works will be arranged from the regular O&M allocation.

4.4 Impact of the Project -

4.4.1 Direct:

- Area of 8000 Ha lands that promote to environmental sustainability and valuable properties approximate total worth of Tk. 126500.00 lakh located on left bank of Padma river from Sonaikandi to Bolonpur in Rajshahi City Corporation and Paba-Upazilla under Rajshahi District have been saved from river erosion.
- 20 Km. regional and local metalled road, 20 Km. flood control embankment, 15 nos. WCS, 1 no. BOP, Rajshahi City corporation establishments, many markets and bazars, schools & colleges, mosque & madrasas, mango garden & important Govt./semi Govt. offices, agriculture firms and many public and privet homes and establishments etc have been saved from river erosion.
- Flood control embankment of Padma river has been protected.

4.4.2 Indirect:

Environmental enhancement from river erosion hazards.
Sustainable socio-economic enhancement.

4.5 Transfer of Technology and Institutional Building through the project: Not Applicable

4.6 Employment generation through the project : Employment generation for skilled/unskilled during construction period is more than 30000 man-days.

4.7 Possibility of Self-employment: There are possibilities of self-employment as existing commercial and business centers are protected from river bank erosion.

4.8 Possibility of women-employment opportunity: Yes, there is possibility of women-employment through the project.

4.9 Women's participation in development: Yes.

4.10 Probable Impact on Socio-Economic activity:

Protecting the river bank erosion, various infrastructures are saved from the erosion & flood damage problem . The impact of socio-economic is balanced in the locality.

4.11 Impact on environment:

Environmental enhancement is achieved through the implementation of the Project. Bank erosion hazards of environment are eradicated.

4.12 Sustainability of the project:

The project is sustainable but requires periodic maintenance.

6. Remarks & Recommendations of the Project Director:

Main objectives of the project are Protection of Sonaikandi to Bolonpur area in Rajshahi City Corporation and Paba-Upazilla under Rajshahi District and its establishment, important other installation and also provide protection against extended river bank erosion and ensuring flood protection of lands of about 8000 ha. from the flood of Ganges/Padma river in project area. The objectives have been achieved by construction of 4.905 km new bank protection works along the left bank of the Padma/Ganges river at Sonaikandi to Bolonpur area and Strengthening existing 3 nos. Groyne/Spur (Groyne 3, Groyne 5 & 2B spur) of Rajshahi Town Protection Project. Dredging work also has been done in the Padma/Ganges river as well as a new structure has been constructed (Groyne 4) by temporary protection of Dredged Materials in between existing groyne no.3 and groyne no.5 along the left bank. Newly constructed groyne no-4 is changing the course of the river away from the left bank of the Padma/Ganges effectively. Due to implementation of the Project, physical safety and security among the people inhabiting in the Project area have been developed, resulting enhance investment to build up new houses and commercial establishment which has brought positive impact on agriculture production and business. These all are being caused to enhance the employment opportunity and trim down poverty.

By implementation of the project in time of approved DPP/RDPP, the land of the area has been secured and protected valuable immovable public and private properties approximate total worth of Tk. 126500.00 lakh of the area. Due to stable bank, new business of retail outlets, grocery shops, hat-bazar, market etc. are being established along the bank which created sustainable employment opportunities of the local people.

The whole physical work of the Project has been done within stipulated time frame as per approved design and specification. During construction work several high officials of BWDB, concerned Ministry as well as IMED visited in field level.

Quality control of all physical works verified by Taskforce, formed by BWDB. For transparency of all dumping materials were re-counted regularly by the same. Dredging work has been implemented by BWDB's Dredger.

Recommendations:

To ensure proper monitoring and regular maintenance of the revetment works and other necessary components allocation of budget from revenue head to be ensured for sustainability of the project.

For sustainability of the Groynes/Spurs of the Rajshahi Town Protection Project, some portion of the newly developed chars to be removed in future under a project.


Date:


30.09.2019
(Mohammad Ali)
Chief Engineer
North Western Zone
BWDB, Rajshahi.
&
Project Director.
Tel No. 0721-761303
Fax No. 0721-761643
#8/00/2019

7. Remarks/Comments of Agency Head

After implementation of this project, nearly 8000 Ha area on the left bank of Ganges/Padma river is protected from river bank erosion. Many valuable immovable public & private properties including establishments of Rajshahi City Corporation and agriculture land worth monetary value of approx 1265 Cr Taka have been protected from river bank erosion & flood. Apart from river bank protection, during implementation phase this project has generated employment opportunities more than 30000 man-days. Thus derived infrastructure development socio-economic development has made this project a success

Date:


06/10/2020

Signature and Seal

(Md. Mahfuzur Rahman)
Director General
BWDB, Dhaka.

8. Remarks/Comments of the officer in- charge of the Ministry/Division

Date:

Signature and Seal

