

BANGLADESH WATER DEVELOPMENT BOARD**PROJECT COMPLETION REPORT: IMED-04/2003 (Rev)**

**Name of the Project: Construction of Retired Embankment including Protection of Right Bank of the Jamuna River from Kurnibari to Chandanbaisha at Sariakandi Upazila in Bogura District.
(1st Revised).**

PROJECT PERIOD: JULY 2015 TO JUNE 2019.

DVISION : BOGURA O&M DIVISION, BWDB, BOGURA.
CIRCLE : BOGURA O&M CIRCLE, BWDB, BOGURA.
ZONE : NORTH WESTERN ZONE, BWDB, RAJSHAHI.

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

PROJECT COMPLETION REPORT: IMED 04/2003 (REVISED)

A. PROJECT DESCRIPTION:

01. Name of Project : Construction of Retired Embankment including Protection of Right Bank of the Jamuna River from Kurnibari to Chandanbaisha at Sariakandi Upazila in Bogura District. (1st Revised).

02. Administrative Ministry/ Division : Ministry of Water Resources

03. Executing Agency : Bangladesh Water Development Board.

04. Location of the Project : Upazila – Sariakandi, District: Bogura.

05. Object of the Project :

- ❖ The main objective of the project is to protect existing Brahmaputra Right Bank Flood Control Embankment (BRE), vast arable lands and other public and private properties valued approximate Tk. 1,23,129.00 lakh under Kurnibari, Takulderpara, Chandanbaisha, Rahadah and adjacent area of Sariakandi Upazila in the District of Bogura from the erosion of right bank of Jamuna River by execution of 5.900 km revetment works along the vulnerable river bank.
- ❖ The other objective of the project is to protect gross 8000 ha. area of Sariakandi Upazila in the District of Bogura from the devastation flood of Jamuna River by execution of 8.000 km Retired Embankment along the vulnerable river bank.

06. Estimated Cost:

(In Lakh Taka)

	Original	1st Revised
a) Total	30152.89	33337.93
b) Taka	30152.89	33337.93
c) Foreign Currency	-	-
d) Project Aid	-	-
e) RPA	-	-

07. Date of Approval :

PCP	PP
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a) Original : - 01/09/2015

b) Latest Revised: - 04/06/2018

08. Implementation period :

	Date of Commencement	Date of Completion
a) Original	July, 2015	June, 2018
b) Latest Revised	July, 2015	June, 2019
c) Actual	July, 2015	June, 2019

09. Financial Agreement (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	
1	2	3	4	5	6	7	8

..... N. A.

b) GOB:

(In Lakh Taka)

Total Amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
33337.93	-	33337.93	-

9.2 Utilization of Project Aid: (Source wise)

(In Million)

	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

..... N/A

9.3 Reimbursable Project Aid (RPA)

(In Lakh Taka)

RPA Amount		Amount Spent	Amount claimed	Amount Reimbursed	Remarks.
As-Per-DPP	As-per Agreement				
1	2	3	4	5	6

..... N/A

B. IMPLEMENTATION POSITION**01. Implementation Period:**

Implementation Period as per DPP		Actual Implementation Period	Time Over Run (% of Original Implementation Period)	Remarks
Original	Latest Revised			
1	2	3	4	5
July/2015 to June/2018	July/2015 to June/2019	July/2015 to June/2019	33.33%	Implemented works got damaged due to severe flood & to address the issue with repair works, project duration was needed to be extended.

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	30152.89	33337.93	31728.46	5.23%	Implemented works got damaged due to severe flood & to address the issue with repair works, project cost was increased during revision.
Taka	30152.89	33337.93	31728.46	5.23%	
PA	-	-	-	-	

03. Project Personnel: Project work has been completed by the existing manpower of Bogura O&M Division, BWDB, Bogura.

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	Male	Female
1	2	3	4	5	6	7
Officer(s)						
Staff(s)						
Total						

..... Nil

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

Field of Training /Study tour/work shop/ 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 Nil

b) Local Nil



05. Component wise Progress (As per Latest approved DPP):

(In Lakh Taka)

Items of work (As per PP)	Unit	Target (as per PP)		Actual Progress		Reasons for deviation (±)
		Financial	Physical (Quantity)	Financial	Physical (Quantity)	
1	2	3	4	5	6	7
Revenue Component:						
Gas and Fuel (LS)	1 item	7.00	1 item	6.99	1 item	
Petrol and Lubricant (LS)	1 item	7.00	1 item	6.99	1 item	
Printing & Publication (LS)	1 item	5.00	1 item	5.00	1 item	
Office Stationery, Seal, Stamp (LS)	1 item	5.00	1 item	4.99	1 item	
Environmental clearance Certificate	1 item	3.00	1 item	0.00	1 item	Didn't required.
Honorarium for different Committee	1 item	6.00	1 item	3.01	1 item	
Honorarium for Mid Term Evaluation Committee	1 item	7.00	1 item	6.77	1 item	
Honorarium for Progress Monitoring Committee	1 item	5.00	1 item	0.00	1 item	
Survey & Investigation	1 item	5.00	1 item	4.99	1 item	
Repair & maintenance of existing Vehicles (Jeep 3 nos. Pick up 1 no. & Motor Cycle 5 nos.)	1 item	9.00	1 item	8.83	1 item	
Sub Total (A) :		59.00		47.57		
Capital Component:						
Motor Cycle (2 Nos.) (125CC)	nos	5.00	2 no	4.72	2 nos	
Jeep-5 Door (Made by Pragoti-1 No. (2477 CC)	no	95.00	1 no	93.16	1 no	
Total Station-1 No. & Differential GPS-1 No.	nos	12.00	1 no	12.00	1 no	
Hand GPS (2 Nos.)	nos	0.50	2 no	0.50	2 nos	
Brand Computer with Laser Printer & accessories (One Laptop & One Desktop)	nos	3.00	3 nos	2.99	3 nos	
Acquisition of Land (31.70 Ha)	Ha	1588.52	31.70 Ha	1588.51	31.70 Ha	
Bank Revetment work 5.900 km (from BRE km124.900 to km 130.800 = 5.900 km)	km	31574.91	5.900 km	29979.01	5.900 km	
Sub Total (B) :		33278.93		31680.89		
Total (A+B) :		33337.93	100.00%	31728.46	100.00%	

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
Babul Chondro Shil Superintending Engineer 50000-71200	Full		Yes	19/10/2015	21/09/2017	
Syed Hasan Imam PEng. Superintending Engineer 50000-71200	Full		Yes	13/10/2017	23/01/2019	
Tariq Abdullah Al Fayyaz Superintending Engineer 50000-71200	Full		Yes	14/03/2019	till todate	

07. Procurement of Transport (in nos.):

Type of Transport	Number as per DPP	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	1 no	20/06/2018		Bogura O&M Circle, BWDB, Bogura 04/08/2019		
Jeep						
Minibus						
Bus						
Pick-up						
Truck						
Motor Cycle	2 no	22/06/2018		Bogura O&M Division, BWDB, Bogura 04/08/2019		
By-Cycle						
Speed Boat						
Speed Boat						
Launch						
Other with name						

08. Procurement of Goods, Works and Consultancy Service.

08.1. Goods & Works of the Project costing above Tk. 200.00 lakh and Consultancy above Tk. 100.00 lakh.

Description of procurement (goods/work/consultancy) as per Bid document	Tender/Bid/Prop osal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works /services and supply of goods.	
	As per DPP	Contract value	Invitation date	Contract signing/LC opening date	As per contract	Actual
1	2	3	4	5	6	7
Bank Revetment work 5.900 km (from BRE km124.900 to km 130.800 = 5.900 km) in C/W Construction of Retired Embankment including Protection of Right Bank of the Jamuna River from Kurnibari to Chandanbaisha at Sariakandi Upazila in Bogura District. (1st Revised).	Original- 263.32 1 st Revised 315.74	Original- 263.18 1 st Revised- 302.41	CCEA Approval- 20/01/2016 CCGP Approval- 09/03/2016 Variation CCGP Approval - 19/06/2019	11/04/2016	17/04/2016	30/06/2019

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

Name of the field	Approved man month		Actual man month utilized	Remarks
	As per PP	As per contract.		
1	2	3	4	5

a) Foreign Nil

b) Local Nil

09. Construction / Erection / Installation Tools & Equipment:

Description of items	Quantity (As per DPP)	Quantity procured with date	Transferred to O&M with date	Deposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7

..... N / A.

C. FINANCIAL AND PHYSICAL PROGRAMME:**11. (a) Original and revised schedule as per DPP.**

(In Lakh Taka)

Financial year	Financial Provision & Physical target as per original DPP				Financial Provision & Physical target as per latest revised DPP			
	Total	Taka	PA	Physical %	Total	Taka	PA.	Physical %
1	2	3	4	5	6	7	8	9
2014-15	150.99	150.99	-	0.50%	0.00	0.00	-	0.00
2015-16	7625.97	7625.97	-	25.30%	2104.99	2104.99	-	6.31 %
2016-17	7820.13	7820.13	-	25.93%	8722.15	8722.15	-	26.16 %
2017-18	14555.80	14555.80	-	48.27%	16420.50	16420.50	-	49.26 %
2018-19	-	-	-	-	6090.29	6090.29	-	18.27 %
Total	30152.89	30152.89	-	100.00%	33337.93	33337.93	-	100.00%

11. (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
2014-15	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00%
2015-16	2104.99	2104.99	-	6.31 %	2106.00	2104.99	2104.99	-	6.31%
2016-17	8722.15	8722.15	-	26.16 %	8800.00	8722.15	8722.15	-	26.16%
2017-18	16420.50	16420.50	-	51.37 %	16000.00	15976.80	15976.80	-	51.37%
2018-19	6090.29	6090.29	-	16.16 %	5200.00	4924.52	4924.52	-	16.16%
Total	33337.93	33337.93	-	100.00%	32106.00	31728.46	31728.46	-	100.00%

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objective as per DPP	Actual achievement	Reasons for shortfall, if any.
(a) The main objective of the project is to protect existing Brahmaputra Right Bank Flood Control Embankment (BRE), vast arable lands and other public and private properties valued approximate Tk. 1,23,129.00 lakh under Kurnibari, Takulderpara, Chandanbaisha, Rahadah and adjacent area of Sariakandi Upazila in the District of Bogura from the erosion of right bank of Jamuna River by execution of 5.900 km revetment works along the vulnerable river bank.	Objective has been achieved by the implementation of the project.	No shortfall
(b) The other objective of the project is to protect gross 8000 ha. area of Sariakandi Upazila in the District of Bogura from the devastation flood of Jamuna River by execution of 8.000 km Retired Embankment along the vulnerable river bank.	Objective has been achieved by the implementation of the project.	

E. BENEEFIT ANALYSIS:**01. Annual Out-put:**

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-puts during the 1 st year of operation at full capacity (or during real production for newly completed project)
1	2	3	4
College	no	2	2
High School (Boys& Girls)	no	6	6
Govt. Primary School	no	31	31
Building (Pacca, Semi-pacca &Kaccha)	no	2800	2800
Union porisad	no	4	4
Cultivable land	Ha	6500	6500
Bridge & Culvert	no	40	40
Road	km	85	85

02. Cost / Benefit:

Item	Estimated	Actual
(1) Benefit cost of the project		It will be evaluated later by concern directorate of BWDB & IMED.
(i) Financial	1.38:1.00	
(ii) Economic	1.60:1.00	
(2) Internal rate of return		
(i) Financial	17.61%	
(ii) Economic	20.47%	

(3) Please give reason for shortfall, if any, between the estimated and actual benefit: No Shortfall.

F. MONITORING AND AUDITING.**01. Monitoring:**

Name & Designation of the inspecting official	Date of inspection	Identified Problems	Recommendations
1	2	3	4
(a) Ministry / Agency :			
Md. Kabir Bin Anwar Secretary, MoWR.	30/03/18	Not found	1. Physical work should be completed within stipulated time. 2. RCC staircase with boat anchoring facilities will be constructed within the revetment work.
Md. Mahfuzur Rahman DG, BWDB.	21/06/19	Not found	
S.M. Jhahedul Karim Additional Secretary, MoWR.	18/06/18	Not found	
Md. Yousuf Additional Secretary, MoWR.	30/03/18	Not found	
Mantu Kumar Biswas Joint Chief, MoWR.	30/03/18	Not found	
Md. Motaher Hossain Chief Engineer, Design, BWDB.	30/03/18	Not found	
MD. Jane Alom Deputy Chief, MoWR	07/12/18	Not found	
Md. Abdul Azim Chowdhury Joint Chief (Irrigation), Planning Commission	07/12/18	Not found	
A KM Abul Kalam Azad Deputy Chief, Planning Commission.	07/12/18	Not found	
Md. Foridul Islam Senior Assistant Chief, Planning Commission.	07/12/18	Not found	
Abu Yusuf Mohammad Rasel Senior Assistant Chief, MoWR.	07/12/18	Not found	
A K M Momtaz Uddin Chief Engineer, Rajshahi Zone, BWDB.	Several times	Not found	

Name & Designation of the inspecting official	Date of inspection	Identified Problems	Recommendations
Babul Chondro Shil PD & Superintending Engineer, Bogura O&M Circle, BWDB, Bogura.	Several times	Not found	
Syed Hasan Imam PEng. PD & Superintending Engineer, Bogura O&M Circle, BWDB, Bogura.	Several times	Not found	
Tariq Abdullah Al Fayyaz PD & Superintending Engineer, Bogura O&M Circle, BWDB, Bogura.	Several times	Not found	
(b) IMED :			
Afjal Hossain Director, IMED.	07/06/17	Not found	
MD. Mahmudul Hasan AD, IMED.	07/12/18	Not found	
MD. Mahmudul Hasan AD, IMED.	31/03/19	Not found	
(c) Others (Please specify) :			
Deputy Commissioner, Bogura.	23/06/18	Not found	

02. Auditing during and after Implementation:

2.1. Internal Audit: Not Conducted.

Period of Audit	Date of submission of Audit Report.	Major findings/ objections	Whether objection resolved or not.
1	2	3	4
-	-	-	-

2.2. External Audit:

Audit Period	Date of submission of Audit Report.	Major findings/objections	Whether objection resolved or not.
1	2	3	4
2015-16	Not Conducted	-	-
2016-17	02/10/18	Collect insurance premium VAT and Submit to National Treasury.	Answer is submitted through Competent Authority and resolution of the objection is on process.
2017-18	07/03/19	Purchase of JEEP without Finance Ministry's Approval.	Objections resolved
		All Officials of MoWR, IMED, BWDB all get same amount of honourium despite of their rank.	Objections resolved
2018-19	Yet to be conducted	-	-

G. DESCRIPTIVE REPORT

. General Observations/Remarks of the Project on:

1.1 Background

The Brahmaputra-Jamuna River system is the largest and most important in Bangladesh accounting for 93% of the total inflow into the country across the border. This river is braided with frequently shifting of channels. Along the Brahmaputra-Jamuna River, average erosion rates are 100m/year, but sometimes increase to as high as 800m/year in case of severe floods. The bank erosion along this river system has deleterious social and economic impacts leading to loss of land and property, environmental degradation and human hazards.

Flood Embankment (known as Brahmaputra-Right-Embankment-BRE) was constructed parallel to the right bank during the sixties and early seventies stretching from Teesta down to the Hurasagar confluence to protect floods and bank-line erosion. Later on, appropriate measures were taken at different important locations i.e. construction of hard points, Groyne, and Spurs etc. to mitigate devastating bank erosion and breaching of BRE. About 140.00 km out of total length of 220.00 km had to be retired over last 20 years since erection of BRE due to bank-line erosion. Hence erection of bank protection at several locations (27 strategic locations, ref: BRTS) was completed to stop westward migration of the river and prevent the possibility of merger of the Bangali & Jamuna Rivers and thus ensure protection of BRE.

Apart from above circumstances, a separate project entitled as "Spur construction project at Hasnerpara, Chandanbaisha, Shaharabari & Baniazan for erosion protection of the Jamuna River" was initiated in FY: 2000-2001. Out of total 6 Nos. erected spurs, erection of 2 Nos. spurs were accomplished at Chandanbaisha and Kamalpur union of Sariakandi Upazila in 2000-2002 (1 No. at Chandanbaisha in BRE km: 129.800 and 1 No. at Kamalpur in BRE km: 131.400). The immediate resultant effect has been safety of vast area in between BRE Km: 129.000 to km: 132.000 ensured from the extent of erosion trend of the river. However, severe erosion occurred in 2004 to 2012 flood at the upstream & downstream of said erected spurs. Set back distance at this vulnerable segment was reducing day by day. Afterwards severity of erosion again became jeopardized in 2004 & 2012 floods. Chandanbaisha Spur-2 has been engulfed in river during 2011 flood and Chandanbaisha Spur-1 has been engulfed in river during 2012 & 2013 flood.

Erosion trend at this vulnerable segment became further imperiled in flood 2012. With continuation of such erosion trend, 1.370 km BRE Embankment (from km: 128.400 to km: 129.770) was engulfed into the river. Under the above circumstances, Retired Embankment from BRE km 127.200 to km 130.900= 3.700 km has been constructed during the year 2012-2014 under Climate Change Trust Fund (CCTF). Due to river erosion at this location the newly constructed BRE has partially engulfed in river. In this situation retired embankment at a length of 8.000 km (from BRE km: 124.800 to km: 132.800) dispersed in Kurnibari, Kutubpur, Talukderpara, Chandanbaisha & Rahdah is to be constructed in order to restore effectiveness of BRE. Considering present erosion trend at said vulnerable locations from year 2004 to 2013, it is being contemplated that further erection of retired embankment would be in vain unless proper mitigation against erosion occurrence is to be taken up. At present due to continuation of river bank

erosion at said locations, notable morphological changes with channel avulsion being emerged. Hence a new form of natural hazard in conjunction with increasing erosion trend emerged at these vulnerable locations.

In the year 2010, 2011, 2012, 2013 and 2014, the erosion of the area Kurnibari, Kutubpur, Talukderpara, Chandanbaisha & Rahdah and adjacent area under Sariakandi Upazila were severe. As a result, part of BRE (0.700 km) at Chandanbaisha & Rahdah has already been engulfed into the river Jamuna during flood 2014.

In this circumstances, it is apprehended to further extend intensity of erosion in ensuing monsoon season. In this context there has been a long standing social demand for taking up immediate protective measures against devastating river erosion. The matter was discussed at higher policy level and opined for initiating immediate sustainable solution against devastating river erosion to safeguard lives, properties and natural environment.

Accordingly, present project has been formulated for immediate execution of 5.900 km bank protective work, 8.000 km Retired Embankment in Kurnibari, Kutubpur, Talukderpara, Chandanbaisha & Rahdah and adjacent area under Sariakandi Upazila in the district of Bogura.

1.2 Justification/Adequacy:

Bangladesh is a riverine country and bank line erosion of different rivers has been a recurrent effect. River bank erosion in alluvial lands of Bangladesh is a complex and dynamic thrust of nature due to strong onrush of water and major variation in between normal water flow and surges of inflow during monsoon & post-monsoon period in each year. The monsoon discharge of the major rivers is so large that there is recurrence of floods every year. Sometimes it becomes very severe and causes immense damages impacted by occurrence of devastating river erosion. This has significant social and economic impacts. The loss of land, crop and property has led to landlessness and impoverishment of thousands of dwellers living within bank lines.

The large seasonal variation in river flow results in varying sediment transportation capacity and causes river-bank erosion, migration of river-banks and meandering river channels. In this context, there have been a growing concern and reassessment of the economic and socio-political benefits of protecting important towns, infrastructure, hats and bazars as well as agricultural land. The issue has been given due importance in the national planned documents for water sector and prioritized strategic locations of river banks have been stressed for phased implementation of river bank protection program at the apex level.

The overall objective of the project is to reduce environmental degradations and human hazards due to river erosion with ensuring safety of lives and properties around the area. Throughout the erection of proposed bank revetment works and retired embankment, safety of vast tract of agricultural lands and other immovable properties total worth of Tk1,23,129.00 lakh will be ensured against river erosion.

1.3. Objectives:

- ❖ The main objective of the project is to protect existing Brahmaputra Right Bank Flood Control Embankment (BRE), vast arable lands and other public and private properties valued approximate Tk. 1,23,129.00 lakh under Kurnibari, Talukderpara, Chandanbaisha, Rahadah and adjacent area of Sariakandi Upazila in the District of Bogura from the erosion of right bank of Jamuna River by execution of 5.900 km revetment works along the vulnerable river bank.
- ❖ The other objective of the project is to protect gross 8000 ha. area of Sariakandi Upazila in the District of Bogura from the devastation flood of Jamuna River by execution of 8.000 km Retired Embankment along the vulnerable river bank.

1.4. Project revision with reasons:

The Project includes River bank protective work of length 5.900 km at Kurnibari and adjacent areas in Sariakandi Upazila in Bogura District. In approved DPP there were 15 (Fifteen) packages to implement the river bank protection work. But after approval of the DPP Dockyard Engineers Works Limited, Sonakanda, Narayanganj an autonomous enterprise of Bangladesh Navy submitted an Expression of Interest letter to MoWR to implement the 5.900 km bank protective work as an implementation contractor. On 09-03-2016 DPM was approved by CCGP (Cabinet Committee for Government Purchase). Accordingly, contract was signed with Dockyard Engineers Works Limited dated 29-03-2016. The work was started April 2016. At that time monsoon was almost knocking at the door. During FY 2016-17, contractor submitted work programme for implementation of 3.000 km protective work and completed 2.000 km. Therefore 3.900 km of the aforesaid work remained unprotected.

During the devastating flood of July/2017 and August 2017 almost 696 m of the completed 2.000 km become severely damaged. From the bathymetric survey report dated 29-08-2017 it was observed that scour depth of Jamuna river adjacent to ongoing protective work has increased to (-) 18.000 m-PWD and Thalweg of the river is adjacent to the protective work.

Jamuna is a braided river and its morphological behavior is very much uncertain. After every flood of monsoon, it changes its courses. During project planning there were several channels in Jamuna River adjacent to Kurnibari. From google image it has been observed that due to morphological changes in every year all the channels adjacent to Kurnibari have been merged to a single channel. Therefore, discharge and velocity of the channel has been increased. In the flood season of 2017 right bank of Jamuna river at Kurnibari area has been encountered by an oblique flow, huge bed scouring and back wheeling occurred. Therefore, launching apron of completed part of the work was severely damaged. Average land level in Kurnibari is almost 15.50 m-PWD. During the last years flood water level of Jamuna River at Kurnibari was 17.96 m-PWD which was almost 2.50 m above the ground level. That created a parallel flow over the block placed slope portion and also on the footpath. For this parallel flow block placing was severely damaged at different locations.

On the above circumstances a Technical committee was formulated by Board vide memo no.: BWDB(Sec.)/Plann.-1/Etc.-3/2017(1st Part)/335 dated: 03-12-2017 headed by Chief Engineer, Design to review the design to make the work sustainable against the changed morphological condition of the Jamuna River at Kurnibari area. The design of Kurnibari protective work was reviewed accordingly. Reviewed design was approved by Chief Engineer, Design dated: 24-12-2017. As per revised design Cost of 5.900 km. Protective work at Kurnibari and its adjacent area becomes 31970.16 Lakh as per Contractors quoted rate. During DPEC meeting held on 17.04.2018 at MoWR it was decided to construct stair within 5.900 km protective work with country boat mooring. It was also decided to construct permanent signboard within the site. Therefore, cost for construction of 3 no stair and 3 no permanent signboard at different places within the ongoing has been included in this DPP. In the DPEC meeting decision was given to reduce stock pile block to meet up the cost of 69442 no of 40 cm cube block to repair damaged 696 m of last year's completed 2.00 km work. That was being complied accordingly.

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

Bangladesh is a riverine country and bank line erosion of different rivers has been a recurrent effect. River bank erosion in alluvial lands of Bangladesh is a complex and dynamic thrust of nature due to strong onrush of water and major variation in between normal water flow and surges of inflow during monsoon & post-monsoon period in each year. The monsoon discharge of the major rivers is so large that there is recurrence of floods every year. Sometimes it becomes very severe and causes immense damages impacted by occurrence of devastating river erosion. This has significant social and economic impacts. The loss of land, crop and property has led to landlessness and impoverishment of thousands of dwellers living within bank lines. In the year 2010, 2011, 2012, 2013 and 2014, the erosion of the area Kurnibari, Kutubpur, Talukderpara, Chandanbaisha & Rahdah and adjacent area under Sariakandi Upazila were severe. As a result, part of BRE (0.700 km) at Chandanbaisha & Rahdah has already been engulfed into the river Jamuna during flood 2014. In this circumstances, it is apprehended to further extend intensity of erosion in ensuing monsoon season. In this context there has been a long standing social demand for taking up immediate protective measures against devastating river erosion. The matter was discussed at higher policy level and opined for initiating immediate sustainable solution against devastating river erosion to safeguard lives, properties and natural environment. Accordingly, present project has been formulated for immediate execution of 5.900 km bank protective work, 8.000 km Retired Embankment in Kurnibari, Kutubpur, Talukderpara, Chandanbaisha & Rahdah and adjacent area under Sariakandi Upazila in the district of Bogura. Implementing this project helps to protect Kurnibari, Kutubpur, Talukderpara, Chandanbaisha & Rahdah and adjacent area.



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

◆ Project Identification:

The project is located along the right bank of Jamuna River to protect Kurnibari, Kutubpur, Talukderpara, Chandanbaisha & Rahdah of Sariakandi Upazila of Bogura District. Main component of this project is to construct 5.900 km Bank Revetment Work.

◆ Project Preparation:

To protect Kurnibari, Kutubpur, Talukderpara, Chandanbaisha & Rahdah of Sariakandi Upazila of Bogura District from severe erosion of Jamuna River. A Technical Committee was formed December/2014 by BWDB. On the Recommendation of the Technical Committee, DPP was furnished.

◆ Appraisal:

The appraisal meeting was held on 26/12/2014 at Planning Commission. As per decision of appraisal meeting the DPP was corrected and sent to the ECNEC for approval the above project.

◆ 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 by ECNEC on 01/09/2015 and 1st Revised DPP was approved by MoWR on 04/06/2018.

◆ 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 stack holders are directly taking advantages of the created facilities of the project.

4.3 O & M programme of the project.

After complementation of the project major repair/rehabilitation works will be accomplished from regular O&M budget of BWDB.

✓

4.4 Impact of the project -

4.4.1 Direct.

- The main objective of the project is to protect existing Brahmaputra Right Bank Flood Control Embankment (BRE), vast arable lands and other public and private properties valued approximate Tk. 1,23,129.00 lakh under Kurnibari, Takulderpara, Chandanbaisha, Rahadah and adjacent area of Sariakandi Upazila in the District of Bogura from the erosion of right bank of Jamuna River by execution of 5.900 km revetment works along the vulnerable river bank.
- Sariakandi Upazila in the District of Bogura from the devastation flood of Jamuna River by execution of 8.000 km Retired Embankment along the vulnerable river bank.

4.4.2. Indirect

- Safety of human livelihood and properties.
- Improvement of socio-economic condition.

4.5 Transfer of Technology and Institutional Building through the project

Not Applicable.

4.6 Employment generation through the project.

A large number of skilled/unskilled workers were employed during construction period.

4.7 Possibility of Self employment

There are possibilities of self-employment as existing commercial, industrial and business centre are protected from river bank erosion and the environmental degradation.

4.8 Possibility of women-employment opportunity

Yes, there are possibilities of women-employment through the project benefited area enhanced.

4.9 Women's participation in development

Yes.

4.10 Probable Impact on Socio-Economic activity.

By protecting the river bank erosion, various infrastructures are saved from the erosion. As a result socio-economic balance in the locality is enhanced.

4.11 Impact on environment

Environmental enhancement is achieved through the implementation of the project.

4.12 Sustainability of the project

The project is sustained but requires periodic maintenance.

4.13 Contribution to poverty alleviation/reduction

The project has direct contribution and impact on poverty alleviation/reduction.

- 4.14 Opinion of the public representatives, local elite, local administration, teachers, religious leaders, women's representatives etc.**

Positive remarks regarding the project.

- 4.15 Contribution of Micro-credit programmes and Comments on overlapping with any NGO activities.**

Not Applicable.

05. Problems encountered during Implementation (with duration & steps taken to remove those)

Project Management	: N/A.
Project Director	: N/A.
Land Acquisition	: N/A.
Procurement	: N/A.
Consultancy	: N/A.
Contractor	: N/A.
Manpower	: N/A.
Law & Order	: N/A.
Natural calamity	: Due to severe flood in July/2017 and /2017, the completed work of 0.800 km was damaged. To repair the damaged portion, additional time and cost was required.
Project financing, allocation and release	: N/A.
Design formulation/approval	: N/A.
Project aid disbursement and re-imbursement	: N/A.
Mission of the development partners.	: N/A.
Time & Cost Over-run	: Due to severe flood in July/2017 and /2017, the completed work of 0.800 km was damaged. Hence the revised design was found and the damaged portion of the project was repaired according to approved revised design.
Project Supervision/Inspection	: N/A.
Delay in Decision	: N/A.
Transport	: N/A.
Training	: N/A.
Approval	: N/A.
Others	: N/A.

✓

06. Remarks & Recommendations of the Project Director:

The main objective of the project is to protect existing Brahmaputra Right Bank Flood Control Embankment (BRE), vast arable lands and other public and private properties valued approximate Tk. 1, 23,129.00 lakh under Kurnibari, Takulderpara, Chandanbaisha, Rahadah and adjacent area of Sariakandi upazilla in the District of Bogura from the erosion of right bank of Jamuna River by execution of 5.900 km revetment works along the vulnerable river bank. Due to implementation of the project, physical safety and sense of security among the project people have been developed, resulting in enhanced investment in housing and commercial buildings, enhanced investment in business and development work and have also caused positive impacts on agriculture and fish resources production and land prices. These all did shall cause enhanced opportunity of employment and poverty alleviation.

The very nature & objective of this project have direct relevance with the natural objective of attaining self-reliance, generation of rural employment, Poverty alleviation especially for rural poor section, creation of social & environmental balance & building of economic infrastructures for the future generation to sustain due to river erosion mitigation.

The commencement and completion of the project is schedule to be accomplished in 2014-2015 to 2018-2019 as per approved DPP (1st Revised) and accordingly implementation completion has been achieved.

The Project is specifically linked with SDGs. The Ministry of Water Resources has been engaged in all programs relating to water sector development and management. It will continue to deal with flood erosion protection. There are other Bangladesh Development Goals which have to be achieved through Poverty Reduction Strategy. So, Water Sector has a vision for development and management of Water Resources over medium and long term. The vision for water resources sector has been indicated in the declaration of the National Water Policy document of GOB (1999). Vision, incorporated in the document is as follows:


"Ensuring continued progress towards fulfilling the national and MDG goals of development through acquisition of water resources, optimizing its various use, managing resources for poverty reduction and sustainable development for securing their lives and properties from water related disasters".

As water is a cross cutting resource, its use is broad-based. Water is a resource on the one hand and a mainstay of livelihoods on the other. So, the goal is not confined within the water sector alone, it extends deep into the livelihoods functions of water (e.g. agriculture, fisheries, health, land reclamation, environment etc. including disasters and climate change). All of these have direct or indirect implications for poverty reduction.

Incompliance of the above, original DPP of the project costing Tk.30152.89 Lakh was approved on 01/09/2015 for implementation of 5900 meter bank protective work along the Right bank of the Jamuna River from Kurnibari to Chandanbaisha, during FY 2015-16 to FY 2018-19, and the same has been achieved accordingly. Implementation of 5.900 km River Bank Protection work under this project has connected two existing protective work i.e., Devdanga protection work and Kamalpur Bank Protection work with a length of 2.000 km and 1.500 km respectively. Therefore a Continuous length of bank protection work has been acquired which increased sustainability of the two previous River Bank Protection work with this one.

✓

Recommendation: Proper Monitoring and regular maintenance of the implemented revetment works are required for more sustainability of the project.



(Tariq Abdullah Al Fayyaz)

ID- 670114001

Project Director

Construction of Retired Embankment including Protection
of Right Bank of the Jamuna River from Kurnibari to
Chandanbaisha at Sariakandi Upazila in Bogura District.
(1st Revised).

Date 12/09/2019

Signature and Seal of the Project Director / Manager.

07. Remarks/ Comments of Agency Head.

Upon the implementation of the project, the existing Brahmaputra Right Embankment (BRE) have been protected from the severe erosion of Jamuna River thus safeguarding public and private properties at Sariakandi Upazilla in the district of Bogura. The project also provided flood protection to a gross area of 8000 ha. which in turn increases local productivity and economic growth. As objectives of the project are fulfilled, it can be said that the project is a great success.

Date.....

Signature and Seal

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

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

Date.....

Signature and Seal.