



BANGLADESH WATER DEVELOPMENT BOARD

Draft

PROJECT COMPLETION REPORT

IMED FORM NO. : 04/2003 (Revised)

NAME OF PROJECT : RIVER BANK PROTECTION OF VULNERABLE PART AT
LALMOHAN UPAZILA UNDER BHOLA DISTRICT (PHASE-II).

DIVISION : Bhola O&M Division-2, BWDB, Charfession, Bhola.

CIRCLE : Bhola O&M CIRCLE, BWDB, Bhola.

ZONE : Southern Zone, BWDB, Barisal..

Draft PCR of River Bank Protection of Vulnerable Part at Lalmohan Upazila Under Bhola District (Phase-II)

**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 work** : "River Bank Protection of Vulnerable Part At Lalmohan Upazila Under Bhola District (Phase-II)"
02. **Administrative Ministry** : Ministry of Water Resources.
03. **Executing Agency** : Bangladesh Water Development Board.
04. **Location of the work** : Monghol Sikder, Lalmohan, Bhola.
05. **Objective of the Project** :

To safeguard a vast area of Monghol Sikder in Lalmohan Upazilla which include public and private properties like Govt. and Private Offices, Homestead, Roads, School, College, Madrasha, cultivable land from severe erosion of Meghna. The target is to save establishment valued about 58450.00 lakh in Lalmohan Upazilla.

To provide a safe empoldered area by preventing intrusion of saline water which will accelerate agricultural activities and social & culture fishery, agro based cottage industry that can play a significant role in poverty alleviation.

06. Estimated Cost:

(In lakh Taka)

	Original	Latest Revised
(a) Total	10253.29	13422.51
(b) Taka	10253.29	13422.51
(c) Foreign Currency	-	-
(d) Project Aid	-	-
(e) RPA	-	-

07. Date of Approval:

	PCP	PP
(a) Original	-	18-06-2013
(b) Latest Revised	-	28-10-2014

08. Implementation Period :

	Date of Commencement	Date of Completion
(a) Original	July, 2013	June, 2015
(b) Latest Revised	July, 2013	June, 2017
(c) Actual	July, 2013	June, 2017

09. Financing Arrangement (Source-wise) : G.O.B

9.1 Status of Loan/Grant

a) Foreign Financing : Does Not arise

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
N/A							

b) GOB:

(In lakh Taka)

Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
13422.51	-	13422.51	-

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
N/A						

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
N/A					

B. IMPLEMENTATION POSITION

01. Implementation Period:

Implementation Period as per PP		Actual Implementatio n period	Time Over-run (% of original implementation period)	Remarks
Original	Latest Revised			
1	2	3	4	5
July, 2013 To June, 2016	July, 2013 To June, 2017	July, 2013 To June, 2017	33.33%	Due to sudden price hike of the construction material cost the physical work was started after first revision of the project

02. Cost of the Project:

(In lakh Taka)

Descrip tion	Estimated Cost		Actual expenditure	Cost over-run (% of original cost)	Remarks
	Original	Latest revised			
1	2	3	4	5	6
TOTAL	10253.29	13422.51	12919.68	26.00%	Original dpp was approved as per 2009-10 schedule of rate. During implementation 2012-13 schedule of rate was followed
TAKA	10253.29	13422.51	12919.68		
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 was 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 training was scheduled in this project

Field of Training /Study tour/workshop/Se miner 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	N/A				
b. Local	N/A				

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

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: Supplies and Services						
Survey and investigation	LS	5.00	100%	5.00	100%	
Petrol and Lubricant	LS	12.00	100%	12.00	100%	
Stationery	LS	5.00	100%	4.98	100%	
Printing & Publication	LS	5.00	100%	5.00	100%	
Repairs Maintenance: Motor Vehicles (3 nos. car & 1 no. motor cycle)	LS	5.00	100%	2.99	60%	
Capital Component: Acquisition of Assests						
Motor cycle- 2 nos.	Nos	3.50	2 Nos	3.50	2 Nos	
Jeep (2350 CC)	Nos	75.00	1 Nos	73.20	1 Nos	
Engineering Equipment		-				
(a) Digital GPS- 2 nos.	Nos	4.00	2 Nos	4.00	2 Nos	
(b) Levelling Machine-1no.	Nos		1 Nos		1 Nos	
Laptop Computer with Printer- 1 no	Nos	1.00	1 Nos	1.00	1 Nos	
Photocopier- 1 no.	Nos	1.50	1 Nos	1.50	1 Nos	
Construction of works:						
a) River Bank Work (from km. 70.000 to km 73.500 and 1 nos. Tearminaion Point length 0.100 km) by Geobag + C.C block revetment at Lalmohan	Km	10336.12	3.50 km + 0.10 km	9976.48	3.50 km + 0.10 km	
b) Embankment of slope protection work at Lalmohan (from km. 70.00 to km 74.00)	Km	2869.39	4 km	2830.00	4 km	
Physical Contingency		50.00		0.00		
Price Contingency		50.00		0.00		
Total (A+B+C+D):		13422.51		12919.68	100%	

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
Nasir Uddin SE (4 th Grade)	Full	-	Yes	18-06-2013	05-11-2013	
Abdur Razzak SE (4 th Grade)	Full	-	Yes	06-11-2013	22-06-2013	
Md. Harun Ur. Rashid SE (4 th Grade)	Full	-	Yes	23-06-2014	29-09-2015	
Zahir Uddin Ahmed SE (4 th Grade)	Full	-	Yes	30-09-2015	Till Today	

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/da maged with date	Remarks
1	2	3	4	5	6	7
Jeep	1 Nos (2350 CC)	1 Nos (7/5/2016)		1 nos (10/7/2017)		
Microbus	-	-	-	-	-	-
Minibus	-	-	-	-	-	-
Bus	-	-	-	-	-	-
Pick-up	-	-	-	-	-	-
Truck	-	-	-	-	-	-
Motor Cycle	2 Nos	2 Nos (20/6/2016)	-	2 nos (10/7/2017)	-	-
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 above Tk. 100.00 lakh :

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/Propo sal Cost (in Lac Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contract ed value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 70.000 to Km 70.280 = 0.280 m (Phase-II)" during the year 2014-2015 (Package No-LBRW-01/ 2014-2015).	935.19	984.87	13-01-2015	5-04-2015	29-04-2016	30-06-2017
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 70.280 to Km 70.560 = 0.280 m (Package No. LBRW-02/2013-2014).	935.18	980.23	15-12-2014	01-02-2015	15-02-2016	30-06-2017
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 70.560 to Km 70.840 = 0.280 m (Package No. LBRW-03/2013-2014).	935.18	976.71	15-12-2014	01-02-2015	15-02-2016	30-06-2017
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 70.840 to Km 71.120 = 0.280 m (Package No. LBRW-04/2013-2014).	935.18	948.16	15-12-2014	01-02-2015	15-02-2016	18-08-2017
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 71.120 to Km 71.400 = 0.280 m (Package No-LBRW-05/2014-2015).	935.18	853.91	13-01-2015	5-04-2015	29-04-2016	18-08-2017
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 71.400 to Km 71.680 = 0.280 m (Package No. LBRW-06/2013-2014).	994.74	979.47	15-12-2014	01-02-2015	15-02-2016	18-08-2017
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 71.680 to Km 71.960 = 0.280 m (Package No. LBRW-07/2013-2014).	994.74	977.48	15-12-2014	01-02-2015	15-02-2016	18-08-2017
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 71.960 to Km 72.240 = 0.280 m (Package No. LBRW-08/2013-2014).	994.74	985.29	15-12-2014	01-02-2015	15-02-2016	18-08-2017
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 72.240 to Km 72.520 = 0.280 m (Package No. LBRW-09/2013-2014).	994.74	971.23	15-12-2014	01-02-2015	15-02-2016	18-08-2017
Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 72.520 to Km 72.800 = 0.280 m (Package No. LBRW-10/2013-2014).	994.74	952.16	15-12-2014	01-02-2015	15-02-2016	18-08-2017
"Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 72.800 to Km 73.080 = 0.280 m (Package No-LBRW-11/2015-2016)	994.74	974.54	24-05-2015	03-09-2015	27-05-2016	30-06-2017
"Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 73.080 to Km 73.360 = 0.280 m (Package No-LBRW-12/2015-2016)	994.74	942.44	24-05-2015	20-09-2015	27-05-2016	30-06-2017
"Supplying, Filling & Dumping of Geo-bag & manufacturing of C.C block including dumping, placing & Slope Protection from Km 73.360 to Km 73.500 = 0.140 m (Package No-LBRW-13/2015-2016)	497.37	468.28	24-05-2015	20-09-2015	27-05-2016	30-06-2017

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/Propo sal Cost (in Lac Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contract ed value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Manufacturing of C.C block including placing for Slope Protection from Km 73.500 to Km 74.000 = 0.500 m (Package No-LSPW-14/2015-2016)	395.95	343.00	24-05-2015	20-09-2015	27-05-2016	30-06-2017
"Manufacturing of C.C. block including dumping & placing for Protection of termination end point at km 73.500 (100m) (Package No-LSPW-15/2015-2016)	673.18	654.27	31-05-2015	03-09-2015	27-05-2016	30-06-2017

8.2 Use of Project Consultant (s) (Foreign/Local): N/A

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 :	-	-	-	-
b) Local :	-	-	-	-

09. Construction/Erection/Installation Tools & Equipment: N/A

Description of items	Quantity (as per PP)	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
-	-	-	-	-	-	-

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
2013-2014	100.00	100.00	-	0.97%	-	-	-	-
2014-2015	6279.80	6279.80	-	61.24%	5147.16	5147.16	-	38.35%
2015-2016	3873.49	3873.49	-	37.79%	4461.16	4461.16	-	33.24%
2016-2017	-	-	-	-	3814.19	3814.19	-	28.41%
Total	10253.29	10253.29	-	100.00%	13422.51	13422.51	-	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
2013-2014	-	-	-	-	-	-	-	-	-
2014-2015	2200.00	2121.50	-	23.50%	2200.00	2121.50	2121.50	-	23.50%
2015-2016	3500.00	3500.00	-	29.00%	3500.00	3498.20	3498.20	-	29.00%
2016-2017	7300.00	7300.00	-	47.50%	7300.00	7300.00	7300.00	-	47.50%
Total	13000.00	13000.00	-	100.00%	13000.00	12919.70	12919.70	-	100.00%

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objectives as per PP	Actual achievement	Reasons for shortfall, if any
(a) To safeguard a vast area of Monghol Sikder in Lalmohan Upazilla which include public and private properties like Govt. and Private Offices, Homestead, Roads, School, College, Madrasha, cultivable land from severe erosion of Meghna. The target is to save establishment valued about 58450.00 lakh in Lalmohan Upazilla.	3.50 km. revetment works is completed along the vulnerable river bank near Mongol Shikdar area of Lalmohan Upazilla in the district of Bhola. As a result erosion of the Meghna River has been controlled in this area and objective is achieved partially.	
(b) To provide a safe empoldered area by preventing intrusion of saline water which will accelerate agricultural activities and social & culture fishery, agro based cottage industry that can play a significant role in poverty alleviation.	4.00 km. slope protection of embankment was completed along the vulnerable river bank near Madraz union of Charfession Upazilla in the district of Bhola. As a result, salinity intrusion has been controlled partially in this area and objective is achieved partially.	

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).
(a) Crop Saved	M.ton	21200 M ton	-
(b) Agricultural Land saved	Ha	4000.00 ha	-
(c) Homestead saved	Nos	350 nos	-
(d) Mosque	Nos	30 nos	
(e) School/College/Madrasha/Cyclone Sheltre	Nos	18 nos	
(f) Small Industries/Ice Factories	Nos	5 nos	
(g) RHD and LGED road	Km	20.00 Km	




02. Cost / Benefit:

Item	Estimated	Actual
(1) Benefit cost ratio of the project		
(i) Financial	1.13:1.00	Will be evaluated later by Directorate of Project Evaluation, BWDB & IMED.
(ii) Economic	1.30:1.00	
(2) Internal Rate of Return		
(i) Financial	13.94%	
(ii) Economic	16.48%	

03. Please give reasons for shortfall, if any, between the estimated and actual benefit: Does not arise

F. MONITORING AND AUDITING**0.1 Monitoring:**

Name & designation of the inspecting official	Date of Inspection	Identified Problems	Recommendations
1	2	3	4
(a) Ministry / Agency:			
i. Mr. Nurunnabi Chowdhury Parliament Member, 117, Bhola-3.	23/09/2016 and 10/01/2017	No problem is identified	Advised to take necessary action for rapid implementation
ii. Mr. Md. Humayan Kabir Additional Secretary, MoWR	30/04/2016	No problem is identified	Instructed to take necessary action for rapid implementation
iii. Mr. Kazi Obaidur Rahman Joint Secretary, MoWR	27/03/2015	No problem is identified	Instructed to take necessary action for rapid implementation
iv. Mr. Muhammad Ibrahim Khalil, Additional Director General, Finance, BWDB	10/04/2015	No problem is identified	Instructed to take necessary action for rapid implementation
v. Mr. Md. Ismail Hossain Director General, BWDB	06/12/2015	No problem is identified	Instructed to take necessary action for rapid implementation
vi. Mr. Md. Mahfuzur Rahman, Additional Director General, BWDB	04/02/2017	No problem is identified	Instructed to take necessary action for rapid implementation
IMED :			
i. Md. Afjol Hossain Director	28/01/2016	No remarkable problem is identified but lack of close monitoring.	Project Director should take proper steps to coordinate between contractor & taskforce so that the project must be completed with in the stipulated time.
ii. Md. Mahmudul Hasan Assistant Director	04/05/2017	No remarkable problem is identified but lack of co-ordination.	Project Director should take proper steps to coordinate between contractor & taskforce so that the project must be completed with in the stipulated time.
(b) Others:	-	-	-



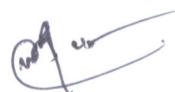
0.2. Auditing during and after Implementation:

2.1. Internal Audit:

Audit period	Date of submission of Audit Report	Major findings/ objections	Whether objections resolved or not.
1	2	3	4
2009-10 to 2011-12	10/10/2013	No Objections	-
2012-13 to 2013-14	14/10/2015	No Objections	-

2.2. External Audit:

Audit period	Date of submission of Audit Report	Major findings/ objections	Whether objections resolved or not.
1	2	3	4
2013-14 to 2014-15	31/08/2015	VAT is not deducted	Not resolved



G. DESCRIPTIVE REPORT

1.1 Background:

Bhola District is situated between latitude $90^{\circ}34'$ and 91° , longitude $21^{\circ}88'$ and $22^{\circ}41'$. It is located at the mouth of three world ranking rivers, the Ganges, the Brahmaputra and the Meghna, the combined flow ranking the 3rd highest in the world and having sediment load in the 1st rank. Bhola Island covers around 80% of the district and was empoldered between 1960's and 1970's under coastal Embankment project (CEP) financed through **USAID**. Mainland of the district is 125.00 km. in length and 12.00 km. in breadth. Total population of the district is about 17.00 lakh. In 1963, the construction of Polder 56/57 was started under Coastal Embankment Project that encompasses the whole boundary of this island. Vast area of this island has been saved from flood/tidal surge and saline water intrusion due to erection of this polder embankment. Different sections of the embankment constructed under polder 56/57 were affected and engulfed by the river due to continued bank erosion of the area. Most of the embankment and sluices were partially or fully damaged due to cyclone and tidal surge that had occurred on 12th November, 1970. Construction of 250.00 km. embankment and 23 sluices under Polder 56/57 was completed in 1980. Main land of Bhola district is surrounded by 250.00 km. embankment.

The Bhola Irrigation Project (Phase-I) was started in 1983 under ADB & EEC assistance to provide irrigation facilities for 63,000 ha. Gross area in Bhola Sadar, Borhanuddin and Lalmohon upazilla with an estimated cost of TK. 6308.00 lakh, which was completed in 1991. Net cultivable area of the project is 53,000 hac., of which about 38,850 ha. Of land are covered by irrigation facilities provided under the project. Total 600.00 km. excavation/re-excavation of khal, construction of 36.50 km. retired embankment, repair of 22.00 km. embankment, 2 sluices, 43.000 km. road including 28 bridges have been constructed under this Irrigation Project. Farmers are lifting water from the excavated khals by LLPs through own initiative and irrigating their lands. Availability of irrigation facilities farmers has helped producing more crops. Average yielding /hac. of paddy was 1.25 MT. before project which now is increased to about 5.00 MT. As a result incremental crop production stands at about 1,45,000 MT. Approximate value of said incremental crop is TK. 93400.00 lakh which is about 1.50 times of total investment cost of the project.

Following the success of the Bhola Irrigation Project (Phase-I), Bhola Irrigation Project (Phase-II) was started in 1992-93 under ADB assistance in Daulatkhan, Tajumuddin and Charfasion upazilla targeted for creation of irrigation facilities to 38,000 ha. of land (gross area 58,800 ha. of which net cultivable area 45,000 ha.). The 2nd phase of the project completed in 2000 with investment cost of TK. 12523.60 lakh.

Bhola Irrigation Project (Phase-I & II) benefited the poldered area with very rapid increase in agricultural products, provided security against cyclonic deluge and socio-economic improvement. The pace of infrastructural development rose very sharply based on protection from the devastating natural calamities of flood and cyclone. People are producing more crop and the area has been saved from flood/tidal surge and saline water intrusion.

But the suffering of the people of the island came back again due to river bank erosion of both the Meghna and the Tentulia. Annual rate of bank erosion of the Meghna and the Tentulia are 60 metre and 35 metre respectively. But along the Meghna river bank from km 36.000 to km 71.000 erosion occurred 600 metre in 2000 (July to November) and 400 metre in 2001 (June to November) as a result vast area and engulfed in the river.

To solve the problem total 16.825 km. retired embankment was constructed during 2000-2003 under revenue budget of BWDB and River/Khal Excavation/Re-excavation Project, of which 16.825 km. (in between km. 36.000 to km. 71.000) along the Meghna River.

In the meantime about 8.00 km. embankment of Polder 56/57 along the Meghna River at different Location in Lalmohan upazila was under serious threats. During monsoon joint actions like the upland pressure, tidal current, cyclone, wave action, etc. caused such massive erosion endangering the fertile agricultural lands, social overhead capital like schools, colleges, Govt. and private installations, communication infrastructures, hospital, etc. of the locality.



A DPP costing for bank protection work of 6 km. was considered in a DPP review meeting held in the Ministry of Water Resources on 27.06.2005. Accordingly, the DPP was submitted to the Planning Commission. The Planning Commission made the observations directed ministry of water resources vide Memo No. PC/WR-2/Lalmohan/161/2005/117, Date: 01/12/2005 that considering the limitation of fund only the most vulnerable portion of the protection work can be executed in an emergency basis by GOB finance through due approval of the Honourable Planning Minister and for the rest of the work can be executed involving development partner. The Planning Commission also concluded requesting to recast and resubmit the project including only the most vulnerable portion. Following this, the Ministry of Water Resources issued Memo No MoWR/P-1/12/2005/247 Date: 11/12/2005.

Accordingly, the DPP was recast reducing project cost for 2.00 km bank protection and 2.00 km slope protection work at the most vulnerable location (from Km.68.000 to Km.70.00) on urgent basis. It was mentioned that on completion of the 2 km. bank protection work proposed under that project, the remaining 4 km. would be taken up later on considering the actual situation and requirement in the field for which proposal will be initiated in due course. The said DPP costing Tk.2297.30 lakh was approved on 19.03.2006 and afterward RDPP costing Tk.2309.11 lakh was approved on 14.11.2007. Implementation of that project was completed by June, 2009. After completion, IMED visited the area and has submitted the *Terminal Report*.

Meanwhile, river bank erosion of the Meghna River along the remaining part of the vulnerable area of Lalmohan (from Km.70.00 to Km.74.00) became more in danger. Given that situations, people's demanded since long is to reduce river erosion in the project area. The honourable Member of the Parliament (Bhola-3) requested the honourable state minister for Water Resource Ministry to implement protective work at the remaining part of Lalmohan and also requested to visit the project area. Accordingly, the honourable state minister for Water Resource Ministry visited the project area on 01.01.2010 and instructed to take necessary steps for the implementation of protective works at the vulnerable part of Lalmohan. In this backdrop, BWDB taken up "**River Bank Protection of Vulnerable part at Lalmohan Upazila under Bhola District (Phase-II)**" on a priority basis for the remaining 4.00 km bank protection and 4.00 km slope protection work (from Km.70.000 to Km.74.00) on urgent basis.

1.2 Justification/Adequacy

Erosion in the project area from Km 70.000 to Km 74.000 became alarming and every year 50m. to 100m. Land was being engulfed. There was no set back distance from Km 70.000 to Km 74.000. A Major encroachment of river occurred during last monsoon. It was observed that during 6 years (1997-2003), the deep channel (thalweg line) of the Sahbajpur channel has shifted considerably towards the shoreline of Bhola Island (right bank). Annual shifting of the deep channel to wards Lalmohan Upazila was 300m/year from 1997 to 2000 whereas this shifting is 500m/year from 1997 to 2003. The analysis of river bathymetry indicated that erosion trend of shoreline especially at Bhola Sadar, Borhanuddin and Tajumuddin might continue in near future. As the erosion had a tendency to move downward, the situation in Lalmohan area would be worsen. The most vulnerable portion from Km.70.000 to Km.74.000 was taken up for implementation on priority with 1 no end termination of 0.100 Km length at Km.74.000.

1.3 Objectives:

The objective of the project is to provide safety of human lives, properties and improve economic activities by construction of protective works at the vulnerable locations along the Meghna River Valuable establishments valued **Tk.31641.00 lakh** around Lalmohan area were supposed to be saved by implementation of proposed protective works.

However, the specific objectives & targets of the project are as follows:

- To sustain the agricultural and fisheries development by reducing the risk of river bank erosion and from embankment breaches;
- To contribute to poverty alleviation by ensuring that future economic benefits are achieved;
- To improve social and economic conditions of destitute families living along the embankment;



- To provide substantial employment opportunities and cash income for landless, poor and vulnerable people, both women and men, during construction to provide a stable environment for development in areas adjacent to protected river banks.

1.4 Project revision with reasons:

The approved cost of the original DPP was Tk.10253.29 lakh. The physical works were 4.00 km bank revetment work with 1 end termination (length: 100 M) and 4.00 km embankment slope protection at Lalmohan. Costs of the works were estimated based on the Schedule of Rate of 2009. In the meantime, schedule rate of the physical works have increased. In that perspective, 1st meeting of the Steering Committee was held on 10.11.2013. The meeting decided to form a Technical Committee comprising design and planning specialist; the committee will visit the project area and will submit a report. As per recommendation of the report and based on the quoted tender price revised DPP will be prepared.

Accordingly, a Technical Committee has been formed by the Board. The committee visited the project area on 05.02.2014 and submitted a report. As per recommendations of the technical committee revised DPP has been prepared and submitted to the MoWR. A discussion meeting was held in the MoWR on the revised DPP dated 20.5.2014. Decisions and compliance of the said meeting along with the minutes of the meeting enclosed in. The estimated cost of the revised DPP now stands on Tk.13422.51 lakh based on present schedule of rates (2012-2013). The project completion period is proposed to be extended up to June 2017.



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

The progressive bank-line shifting of Bhola Island is by about 4.000km. During last few decades has endangered the flood control embankment in many places including at Lalmohan upazilla. Without immediate erosion mitigation measures further retirement of embankment and loss of land cannot be stopped.

Failure of embankment due to river erosion will have social, economic and environmental impacts. At present 4.000km. of river bank in Lalmohan upazilla is under active erosion. It is anticipated that if the erosion continued, huge land at this upazilla will be eroded over the next coming years. In such situation substantial losses of properties and infrastructures will be incurred.

In the circumstances, it seems rationale to implement erosion mitigation measures at said upazilla on an emergency basis and proposed project proposal has been formulated for erection of protective works at total length. Also slope protection of embankment for 4.000 Km has been included in this project proposal. Moreover 1 no. end termination of 0.100 Km length at Lalmohan is also included.

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

◆ Project Identification:

The Project is located along the right bank of the Shahbazpur Channel in Lalmohan Upazilla in Bhola district. River bank erosion of the Meghna River along the most vulnerable area of Lalmohan (from Km.70.00 to Km.74.00) is becoming more in danger. Given these situations, people's demand since long is to reduce river erosion in the project area. The honourable Member of the Parliament (Bhola-3) requested the honourable state minister for Water Resource Ministry to implement protective work at the remaining part of Lalmohan and also requested to visit the project area (Appendix-H). Accordingly, the honourable state minister for Water Resource Ministry visited the project area on 01.01.2010 and instructed to take necessary steps for the implementation of protective works at the vulnerable part of Lalmohan. In this backdrop, BWDB has taken up "River Bank Protection of Vulnerable part at Lalmohan Upazila under Bhola District (Phase-II)" on a priority basis for the remaining 4.00 km bank protection and 4.00 km slope protection work (from Km.70.000 to Km.74.00) on urgent basis

◆ Project Preparation:

Feasibility study for River Bank Protection of Vulnerable Part at Lalmohan Upazilla Under Bhola District (Phase-II) was being carried out by IWM.

◆ Appraisal:

The project was appraised by Planning Commission on 10-02-2011.

◆ Credit Negotiation: Not Applicable

◆ Credit Agreement: Not Applicable

◆ Credit Effectiveness: Not Applicable

◆ Loan Disbursement : Not Applicable

◆ Loan Conditionalities: Not Applicable

◆ Project Approval.:

The project was approved by ECNEC on 18-06-2013 & and subsequent revision was approved by ECNEC on 28-10-2014.

◆ 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.:**
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:**
- Protection of houses, educational institution, mosques, roads, agricultural lands from river bank erosion.
 - Protection of flood control embankment of polder 56/57 from being breached due to erosion.
- 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 and business centres 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. :**
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 sustainable but requires periodic maintenance.



4.13 Contribution to poverty alleviation/reduction :

- Huge public and private properties dispersed around the said erosion prone area with approximate total worth of Tk. 31641.00 lakh is saved from river bank erosion by the implementation of the project.
- It generated employment for skilled/unskilled workers during construction period and also in annual O&M phase. Also better employment access in business sector is enhanced.
- Natural security against river bank erosion is restored.

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.

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

5.1	Project Management	5.12	Project aid disbursement and re-imbursment
5.2	Project Director	5.13	Mission of the development partners.
5.3	Land Acquisition	5.14	Time & Cost Over-run
5.4	Procurement	5.15	Project Supervision/Inspection
5.5	Consultancy	5.16	Delay in Decision
5.6	Contractor	5.17	Transport
5.7	Manpower	5.18	Training
5.8	law & Order	5.19	Approval
5.9	Natural calamity	5.20	Others.
5.10	Project financing, allocation and release.		
5.11	Design formulation/approval		

No problems encountered during implementation of the project regarding the above facts.



6. Remarks & Recommendations of the Project Director:

The lower Meghna River is the most erosion prone river in Bangladesh. Bhola district is highly affected by the right bank erosion of the river. Many people became shelterless. Many Government and Non-Government establishment, educational institutions, mosques, roads and agricultural land have been engulfed in the river. To protect the further erosion of Mongol Shikdar, Dholigornagar, Lord Hardinge and adjacent areas from the right bank erosion of this river, "River Bank Protection of Vulnerable part at Lalmohan Upazila under Bhola District (Phase-II)" project was approved in ECNEC held on 18-06-2013. After the successful implementation of this project, the project area has been protected from severe erosion of the river Meghna. The safety of flood control embankment along the right bank of lower Meghna River (Polder 56/57) has been increased and the adverse effect due to climate change will be reduced. The socio-economic condition of the people has been improved. Scope of new jobs & works have been created. The safety Human livelihood and properties have also been improved. The project will also contribute to attain national self sufficiency in food grains. Proper monitoring and regular maintenance of the revetment works and others necessary components should be continued to ensure the sustainability of the project. Otherwise the benefit of the project may be hampered. 3.00 km of revetment work was excluded in the less vulnerable portion in the downstream of the river due to inadequacy of fund. But vulnerability of this portion was increased with time. As a result, 3.00 more km of slope protection of embankment is required for full achievement of the objective.

Date : 15-10-17

Signature and seal of the Project Director/Manager

জহীর উদ্দিন আহমেদ
তত্ত্বাবধায়ক প্রকৌশলী
ভালা পওর সার্কেল
মুন্সিগঞ্জ জেলা

7. Remarks/Comments of Agency Head

The project safeguards a vast area of Mongol Shikden in Lalmohan upazilla from severe erosion of Meghna River. About 584.50 Crore Taka valued establishments have been saved through this project. Nearly 4000 Ha of agricultural land has been saved which yields 21200 metric Ton crops each year. 20 km of RHD/UGED roads and 350 homesteads have been saved. For these reasons, it is a successful project.

Date :

Signature and Seal

22/10/2019
(Md. Mahfuzur Rahman)
Director General
BWDB, Dhaka.

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

Date :

Signature and Seal

