

BANGLADESH WATER DEVELOPMENT BOARD



PROJECT COMPLETION REPORT: IMED-04/2003 (Revised)

Name of the Project : Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of the Meghna River in Bhola District (1st Revised).

PROJECT PERIOD: JULY 2018 TO JUNE 2022

DIVISION : Bhola O&M Division-II, BWDB, Charfession, Bhola

CIRCLE : Bhola O&M Circle, BWDB, Bhola

ZONE : Southern Zone, BWDB, Barishal

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 : Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of the Meghna River in Bhola District (1st Revised).

02. Administrative Ministry/ Division : Ministry of Water Resources (MoWR)

03. Executing Agency : Bangladesh Water Development Board (BWDB)

04. Location of the Project : Upazila: Lalmohan, District: Bhola.

05. Objectives of the Project :

The main objective of the project:

- ❖ Flood Protection & Reduction of Riverbank Erosion by Bank Revetment Work & Protection of Embankment Slope;
- ❖ To Increase Conveyance Capacity of the Meghna River, ensuring Optimum Navigation Capacity, Development of Hilsha Sanctuary by River Dredging;
- ❖ To save Lalmohan Upazila including all immovable public and private properties approximate value of which Tk. 219611.75 Lakh by implementation of riverbank protection work.

06. Estimated Cost:

(In Lakh Taka)

	Original	Latest Revised (1 st)
a) Total	43255.42	39360.00
b) Taka	43255.42	39360.00
c) Foreign Currency	-	-
d) Project Aid	-	-
e) RPA	-	-

07. Date of Approval:

PCP	PP
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a) Original : - 20/03/2018

b) Latest Revised (1st) : - 06/06/2022

08. Implementation period :

	Date of Commencement	Date of Completion
a) Original	July, 2018	June, 2022
b) Latest Revised (1 st)	July, 2018	June, 2022
c) Actual	July, 2018	June, 2022

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
39360.00	-	39360.00	-

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/2018 to June/2022	July/2018 to June/2022	July/2018 to June/2022	-	-

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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	43255.42	39360.00	34574.84	(-20.07%)	As per recommendation of Consultant team Institute of Water Modelling (IWM), volume & extent of Dredging required has been finalized & accordingly cost is decreased. Hence the cost of the project has been decreased.
Taka	43255.42	39360.00	34574.84		
PA	-	-	-	-	

03. Project Personnel: Project work has been implemented by existing manpower of Bhola O&M Division-II, BWDB, Charfession, Bhola. There is no provision of project personnel recruitment on this project.

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)	Existing manpower of the implementing agency were deployed during execution of the project.					
Staff (s)						
Total						

..... Nil

04. Training of project Personnel (Foreign/Local): There was no provision of any sort of training under 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:						
Conveyance Expenditure	L.S.	10.00	100%	10.00	100.00%	
Petrol, Oil and Lubricant	L.S.	8.50	100%	8.50	100.00%	
Printing & Binding	L.S.	1.00	100%	0.89	89.42%	
Other Stationary	L.S.	1.50	100%	1.50	99.99%	
Stamps and seals	L.S.	1.50	100%	1.50	99.98%	
Labor Wages to non-employees	L.S.	13.75	100%	13.72	99.78%	
Consultancy (Model Study)	L.S.	200.00	100%	198.00	99.00%	
Honorarium (Various Committees)	L.S.	12.50	100%	12.42	99.36%	
Honorarium (Mid Term Evaluation)	L.S.	10.00	100%	10.00	100.00%	
Survey	L.S.	8.25	100%	8.25	100.00%	

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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
Repairs Maintenance (Motor Vehicles)	L.S.	5.00	100%	5.00	100.00%	
(A) Sub-Total:		272.00		269.78	99.18%	
Capital Component:						
Acquisition of Assets						
Motorcycl	Nos.	3.50	2	3.50	2	
Computers & Accessories (Desktop Computer & Scanner)	Nos.	0.80	2	0.80	2	
Office Equipment (Printer)	Nos.	0.60	2	0.60	2	
Computers & Accessories (Laptop Computer)	Nos.	1.60	2	1.60	2	
Construction of works:						
Slope Protection of Embankment (From Ch. Km 74.000 to Km 76.700 = 2.700 Km)	Km	6519.58	2.700	6280.87	2.700	
Riverbank Revetment Work (From Ch. Km 73.500 to Km 76.300 = 2.800 Km)	Km	15533.34	2.800	14964.58	2.800	
Dredging of Meghna River (7.000 Km)	Km/ Cum	16978.58	7.000 km/ 61.48 Lakh Cum	13053.11	7.000 km/ 59.18 Lakh Cum	As per recommendation of Consultant team Institute of Water Modelling (IWM), volume & extent of Dredging required has been finalized & accordingly cost is decreased. Hence the cost of the project has been decreased.
Sub-Total (B) :		39038.00		34305.06		
(C) Physical Contingency	L.S.	25.00	L.S.	0.00	-	
(D) Price Contingency	L.S.	25.00	L.S.	0.00	-	
Total (A+B+C+D):		39360.00	100%	34574.84	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
Jahir Uddin Ahmed Superintending Engineer 50000-71200 (4 th Grade)	-	Yes	Yes	27/05/2018	01/10/2018	
MD. Abdul Hannan Superintending Engineer 50000-71200 (4 th Grade)	-	Yes	Yes	01/10/2018	05/11/2020	
MD. Babul Akhter Superintending Engineer 50000-71200 (4 th Grade)	-	Yes	Yes	05/11/2020	till to date	

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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
Motorcycle	2	30/06/2019	N/A	Bhola O&M Division II, BWDB, Charfession, Bhola. Date: 01/07/2022	N/A	Are being Used by Sectional Officers for Monitoring & Supervision of the Project works.

Nil

08. Procurement of Goods, Works and Consultancy Service.

08.1. Goods & Works of the Project Costing above Tk. 200.00 lakh and Consulting above 100.00 lakh.

Description of procurement (goods/work/consultancy) as per Bid document	Tender/Bid/Proposal Cost (in Lakh 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
Mathematical Model Study for Integrated Development and Sustainable Management Plan of Lower Meghna River along Bhola Island. (Package No: BS-1)	Original: 200.00 Revised: 200.00	198.00	09/01/2019	04/03/2019	30/06/2020	30/06/2020
Protection of Embankment From Km. 74.000 to Km. 74.300 = 0.300 Km & River Bank Protective Work From Km. 73.500 to Km. 73.800 = 0.300 Km in Polder 56/57 in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District". (Package No:LBP-01/2018-2019).	Original: 2388.68 Revised: 2388.68	2321.17	1st: 11/07/2018 2nd: 30/09/2018	12-Nov-18	30-Jun-20	23-Jun-21
Protection of Embankment From Km. 74.300 to Km. 74.600 = 0.300 Km & River Bank Protective Work From Km. 73.800 to Km. 74.100 = 0.300 Km in Polder 56/57 in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District". (Package No:LBP-02/2018-2019).	Original: 2388.68 Revised: 2388.68	2322.85	1st: 11/07/2018 2nd: 30/09/2018	12-Nov-18	30-Jun-20	5-Apr-21

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Description of procurement (goods/work/consultancy) as per Bid document	Tender/Bid/Proposal Cost (in Lakh 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
Protection of Embankment From Km. 74.600 to Km. 74.900 = 0.300 Km & River Bank Protective Work From Km. 74.100 to Km. 74.400 = 0.300 Km in Polder 56/57 in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District". (Package No:LBP-03/2018-2019).	Original: 2388.68 Revised: 2388.68	2314.26	1st: 11/07/2018 2nd: 30/09/2018	12-Nov-18	30-Jun-20	23-Jun-21
Protection of Embankment From Km. 74.900 to Km. 75.200 = 0.300 Km & River Bank Protective Work From Km. 74.400 to Km. 74.700 = 0.300 Km in Polder 56/57 & exposure visit in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District". (Package No:LBP-04/2018-2019).	Original: 2388.68 Revised: 2377.48	2353.28	1st: 11/07/2018 2nd: 30/09/2018	13-Nov-18	30-Jun-20	25-Jun-21
Protection of Embankment From Km. 75.200 to Km. 75.500 = 0.300 Km & River Bank Protective Work From Km. 74.700 to Km. 75.000 = 0.300 Km in Polder 56/57 & exposure visit in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District". (Package No:LBP-05/2018-2019).	Original: 2388.68 Revised: 2388.68	2355.98	1st: 11/07/2018 2nd: 30/09/2018	13-Nov-18	30-Jun-20	30-May-21
Protection of Embankment From Km. 75.500 to Km. 75.800 = 0.300 Km & River Bank Protective Work From Km. 75.000 to Km. 75.300 = 0.300 Km in Polder 56/57 in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District". (Package No:LBP-06/2018-2019).	Original: 2388.68 Revised: 2388.68	2353.61	1st: 11/07/2018 2nd: 30/09/2018 3rd: 14/11/2018	10-Jan-19	30-Jun-20	30-June-20
Protection of Embankment From Km. 75.800 to Km. 76.100 = 0.300 Km & River Bank Protective Work From Km. 75.300 to Km. 75.600 = 0.300 Km in Polder 56/57 in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District". (Package No:LBP-07/2018-2019).	Original: 2388.68 Revised: 2388.68	2256.24	1st: 11/07/2018 2nd: 30/09/2018 3rd: 14/11/2018	20-Jan-19	30-Jun-20	25-Jun-21

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Description of procurement (goods/work/consultancy) as per Bid document	Tender/Bid/Proposal Cost (in Lakh 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
Protection of Embankment From Km. 76.100 to Km 76.400 = 0.300 Km & River Bank Protective Work From Km. 75.600 to Km. 75.900 = 0.300 Km in Polder 56/57 in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District". (Package No:LBP-08/2018-2019).	Original: 2388.68 Revised: 2388.68	2305.17	1st: 11/07/2018 2nd: 30/09/2018	12-Nov-18	30-Jun-20	25-Jun-21
Protection of Embankment From Km. 76.400 to Km 76.700 = 0.300 Km & River Bank Protective Work From Km. 75.900 to Km. 76.200 = 0.300 Km in Polder 56/57 in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District". (Package No:LBP-09/2018-2019).	Original: 2388.68 Revised: 2388.68	2299.12	1st: 11/07/2018 2nd: 30/09/2018	31-Oct-18	30-Jun-20	25-Jun-21
Protection of River Bank Protective Work From Km. 76.200 to Km. 76.300 = 0.100 Km in Polder 56/57 in Connection with "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of The Meghna River in Bhola District".(Package No:LBP-10/2018-2019).	Original: 554.80 Revised: 566.00	564.32	1st: 11/07/2018 2nd: 30/09/2018 3rd: 14/11/2018	20-Jan-19	30-Jun-20	6-Sep-20
Dredging of Meghna river from km. 70.000 to km 74.000 4.000 km in connection with Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of the Meghna river in Bhola district project. (Package No: DRML-1-L1/2020-21)	*Revised: 8990.87	Original: 6145.44 Approved Variation: 7005.20	27/10/2020	19-Jan-21	30-Jun-22	30-Jun-22
Dredging of Meghna river from km. 74.000 to km 77.000 3.000 km in connection with Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of the Meghna river in Bhola district project. (Package No: DRML-2-L1/2020-21)	*Revised: 7987.71	Original: 5828.22 Approved Variation: 6468.88	27/10/2020	25-Jan-21	30-Jun-22	30-Jun-22

*Dredging work was Divided into 6 packages (Value: 4808.46, 5931.50, 4906.75, 2664.65, 1535.57 & 1034.07 Lakh respectively) as per original DPP. It was decided in PSC meeting to implement the work in 2 packages for speedy implementation by more capable contractors. Accordingly, the DPP was revised.

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08.2. Use of Project Consultant (s) (Foreign / Local): Institute of Water Modelling (IWM)

Name of the field	Approved man month		Actual man month utilized	Remarks
	As per PP	As per contract.		
a) Local				
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Team Leader/ Senior Coastal Morphologist	4	4	4	
Coastal Morphologist/ Morphological Modeler	7	7	7	
Hydrodynamic Modeler	3	3	3	
Planning and Dredging Specialist	4	4	4	
Sociologist	4	4	4	
Survey Specialist	4	4	4	
GIS Specialist	3	3	3	
Data Analyst	6	6	6	
b) Foreign	 Nil			

09. Construction / Erection / Installation Tools & Equipment:

Description of items	Quantity (As per DPP)	Quantity procured with date	Transferred to O&M with date	Disposed off as per rule with date	Balance	Remarks
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
Desktop Computer	2	30/06/2019	Bhola O&M Division II, BWDB, Charfession, Bhola. Date: 01/07/2022			Used for official Purpose
Printer	2	30/06/2019				
Laptop Computer	2	30/06/2019				

..... 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 %
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
2018-19	5523.25	5523.25	-	12.77	5300.00	5300.00	-	13.47
2019-20	14015.75	14015.75	-	32.40	6700.00	6700.00	-	17.02
2020-21	18338.03	18338.03	-	42.39	9600.00	9600.00	-	24.39
2021-22	5378.39	5378.39	-	12.43	17760.00	17760.00	-	45.12
Total	43255.42	43255.42	-	100.00%	39360.00	39360.00	-	100.00%

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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
2018-19	5300.00	5300.00	-	13.47 %	5300.00	5299.78	5299.78	-	13.00 %
2019-20	12500.00	12500.00	-	22.51 %	6700.00	6699.99	6699.99	-	30.00 %
2020-21	15000.00	15000.00	-	17.02 %	9600.00	9600.00	9600.00	-	10.00 %
2021-22	13000.00	13000.00	-	47.00 %	13000.00	12975.07	12975.07	-	47.00 %
Total	45800.00	45800.00	-	100.00 %	34600.00	34574.84	34574.84	-	100.00 %

*During FY 2019-20 & 2020-21, funds weren't released as allocated.

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objective as per DPP	Actual achievement	Reasons for shortfall, if any.
(a) Flood Protection & Reduction of Riverbank Erosion by Bank Revetment Work & Protection of Embankment Slope;	Permanent Embankment with CC block protection ensured protection against flood; Bank has been stabilized through revetment work; accordingly, erosion has been stopped.	No shortfall
(b) To Increase Conveyance Capacity of the River, Ensuring Optimum Navigation Capacity, Development of Hilsha Sanctuary by River Dredging;	Dredging of submerged char adjacent to mainland increased conveyance capacity of the river as well as navigation capacity of the channel and helped in development of Hilsha sanctuary.	
(c) To save Lalmohan Upazila including all immovable public and private properties approximate value of which Tk. 219611.75 Lakh by implementation of riverbank protection work.	Sustainable embankment, well designed bank revetment work & dredging of submerged chars ensured protection of Lord Hardinge & Dholigouranagar Union of Lalmohan upazila from engulfing into Meghna.	

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
Ensured Safeguard from river bank erosion of the following items:			
Water Control Structure	nos.	4	4
Flood Control Embankment	km	8	8
Kacha/Semi Pucca/Pucca House	nos.	1170	1170
Agricultural Lands	hec	2000	2000
Ponds/Fisheries	nos.	300	300

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
Poultry	nos.	10	10
Union Parishad Bhaban	nos.	2	2
Ice Factory	nos.	7	7
Culvert Box	nos.	15	15
Health Complex	nos.	1	1
Madrassha/High Complex	nos.	30	30
Govt. & Non-Govt. Primary School	nos.	15	15
College	nos.	1	1
Village Market	nos.	15	15
Post Office	nos.	1	1
Cyclone Shelter	nos.	15	15
R&H, LGED, Pourashava road etc.	km	40	40

02. Cost / Benefit:

Item	Estimated	Actual
(1) Benefit cost of the project		
(i) Financial	-	It will be evaluated later by concerned directorate of BWDB & IMED.
(ii) Economic	2.06:1.00	
(2) Internal rate of return		
(i) Financial	-	
(ii) Economic	27.02%	

(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
Ministry/Agency :			
Zaheed Farooque, MP Honorable State Minister, MoWR	04/09/2020	No major problems identified	Instructed to follow approved designs for construction works & to complete within the stipulated time.
Kabir Bin Anwar Senior Secretary, MoWR	01/01/2020	No major problems identified	Project must be completed within stipulated time. Dredged earth must be managed in planned way to reclaim land.
Alam Ara Begum	28/03/2021	No major problems	Project must be completed

Name & Designation of the inspecting official	Date of inspection	Identified Problems	Recommendations
1	2	3	4
Additional Secretary (Admin), MoWR		identified.	within stipulated time.
Mahmudul Islam Additional Secretary, MoWR	24/10/2020	No major problems identified.	Project Progress was satisfactory
Mantu Kumar Biswas Addl Sec (Planning), MoWR.	24/10/2020	No major problems identified.	Project Progress was satisfactory
S M Rejaul Mostofa Kamal Joint Secretary, MoWR.	24/10/2020	No major problems identified.	Project Progress was satisfactory
MD Toufiqul Islam Deputy Chief, MoWR.	24/10/2020	No major problems identified.	Project Progress was satisfactory
Abul Kalam Azad Deputy Chief, Planning Commission	24/10/2020	No major problems identified.	Project Progress was satisfactory
MD. Mahmud Hasan Deputy Secretary, MoWR.	04/12/2020	No major problems identified.	Project must be completed within stipulated time.
BWDB:			
Md.Sajidur Rahman Sardar Chief Engineer, Southern Zone, BWDB, Barisal.	Several times	No major problems identified.	Instructed to follow approved designs for construction works.
Zulfiqur Ali Hawlader Chief Engineer, Southern Zone, BWDB, Barisal.	Several times	No major problems identified.	Instructed to follow approved designs for construction works.
Md. Harun-Ar-Rashid Chief Engineer, Southern Zone, BWDB, Barisal.	Several times	No major problems identified.	Instructed to follow approved designs for construction works & to complete within the stipulated time.
Md. Nurul Islam Sarker Chief Engineer, Southern Zone, BWDB, Barisal.	Several times	No major problems identified.	Instructed to follow approved designs for construction works & to complete within the stipulated time.
Zahir Uddin Ahmed Superintending Engineer, Bhola O&M Circle, BWDB, Bhola.	Several times	No major problems identified.	Approved design must be followed.
Md. Abdul Hannan Superintending Engineer, Bhola O&M Circle, BWDB, Bhola.	Several times	No major problems identified.	Approved design must be followed.
Md. Babul Akhter Superintending Engineer, Bhola O&M Circle, BWDB, Bhola.	Several times	No major problems identified.	Instructed to follow approved designs for construction works & to complete within the stipulated time.
IMED :			
Muhammad Shahadat Hossain Director, IMED	17/12/2021	No major problems identified.	Project must be completed in time
Md. Afzal Hosen Director, IMED.	24/10/2020	No major problems identified.	Project must be completed in time
Md. Mahmudul Hasan, PhD Deputy Director, IMED	17/12/2019	No major problems identified.	Project must be completed in time
Lasmi Chakma	20/03/2019	No major problems	Project must be completed in

Name & Designation of the inspecting official	Date of inspection	Identified Problems	Recommendations
1	2	3	4
Assistant Director, IMED.		identified.	time
Others:			
Nurunnabi Chowdhury Shawon, M.P. Member of Parliament, Bhola-3.	Several times	No major problems identified.	Project Progress was satisfactory

02. Auditing during and after Implementation:

2.1. Internal Audit:

Period of Audit	Date of submission of Audit Report.	Major findings/ objections	Whether objection resolved or not.
1	2	3	4
No internal Audit			

2.2. External Audit:

Audit Period	Date of submission of Audit Report.	Major findings/objections	Whether objection resolved or not.
1	2	3	4
2018-19	29/01/2020	No objection arisen	N/A
2019-20	31/01/2021	No objection arisen	N/A
2020-21	30/09/2021	Insurance Premium related Objection.	Answer is submitted through Competent Authority and mitigation of the objection is under process.
		Honorarium of Midterm Evaluation	Answer is submitted through Competent Authority and mitigation of the objection is under process.
2021-22	Yet to be conducted		

G. DESCRIPTIVE REPORT

General Observations/Remarks of the Project on:

1.1 Background

Bhola is the largest coastal island of Bangladesh. The island was formed approximately in 1235 AD by the alluvium of River Meghna and Ganges and wastes carried through those rivers. Bhola is the place of more than 2 million inhabitants with an area of 3403.48 sq. km. North of this island is Barishal district, Patuakhali district on the west side and Noakhali district on the east. It consists of 7 Upazilas, 66 Unions, 381 Mauzas and 473 villages. Polder No. 56/57, which is the main protection embankment of Bhola, includes 6 of the 7 Upazilas namely Bhola Sadar, Daulatkhan, Borhanuddin, Charfasson, Lalmohan and Tazumuddin. This zone in southern Bangladesh adjoining the Bay of Bengal is characterized by a delicately balanced natural morphology of an evolving flat delta subject to very high tides and frequent cyclones coming in from the Bay of Bengal encountering very large sediment inflows from upstream. This part of coastal zone, in its natural

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state, used to be subject to inundation by high tides, salinity intrusion, cyclonic storms and associated tidal surges. However, Bhola is blessed with vast natural resources like fisheries and abundant agricultural crops and natural gas.

During 1963, the island was protected with 250 km sea-dyke along with 23 regulators under Coastal Embankment Project to convert this area into permanent agricultural lands. The polder in this area is enclosed on all sides by dykes or embankments, separating the land from the main river system and offering protection against tidal floods, salinity intrusion and sedimentation. The polders were designed to keep the land safe from daily tide to allow agriculture activities. Without embankments the coastal communities would be exposed to diurnal tidal fluctuations. As a result of polderization and developed irrigation facilities in the area by excavation of irrigation canal the crop production was increased and the yielding of paddy increased from 1.26 MT/Ha to 5.00 MT/Ha. Development of polderization has benefitted the 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 become very happy producing more crops and the area has been saved from flood/tidal surge and saline water intrusion.

Bhola is surrounded by major branches of the Lower Meghna, which carries the combined flow of the Ganges, Brahmaputra and Meghna Rivers. The combined flow of these three rivers passes beside Bhola district and falls into Bay of Bengal. During the tectonic uplift of Madhupur plate at 1764, course of Bhrammaputra River was changed and the river started to flow through new course named Jamuna. Jamuna fell into the River Padma adjacent to Aricha of Manikganj district. In course of time Jamuna became wider and whole discharge of Brahmaputra River started to flow through this newly born channel. As a result, River Padma got huge discharge of the river Jamuna and also changed its course. Middle part of River Padma then connected to river Meghna adjacent to Chandpur district through a connecting channel and started to flow through it. Therefore, discharge of Padma through Arialkhan to Tentulia reduced in course of time and lower Meghna got the combined flow of river Jamuna, Ganga/Padma and Meghna itself. As a result, west Shahbazpur channel of Meghna River become wider day by day and east bank of Bhola district started to erode severely. The physical setting of the Bhola Island has been changed remarkably over last 200 years. Yearly average erosion rate along the unprotected east bank of Bhola district is about 80-200 meters. The eastern coast of Bhola Island has been suffering from devastating erosion

During monsoon joint actions like the upland pressure, tidal current, cyclone, wave action, etc. cause 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. The impact of land erosion in the Bhola Island is severe and devastating from economic, environmental, social and cultural perspectives. The Island is directly exposed to Bay of Bengal and prone to cyclonic storm surge. Over the years, the area has been suffering from number of severe cyclones. Tropical Cyclone during 1970, which is ranked as Category-4 cyclone hit the Bhola Island. Recent cyclones brought substantial damage to the embankments and threatened the integrity of the coastal polders. Embankment breaching due to cyclones have caused the coastal polders to suffer from salinity intrusion which have led to large scale environmental, social and economic degradation.

Due to continuous river erosion, retired embankments are often built under Non-Development Revenue budget. Most of the retired embankments are collapsed again during the monsoon season due to wave action, which needs to be repaired on urgent basis every year. As a result, government has to spend huge money every year. On the other hand, the families affected by the erosion do not permanently build houses as they are on the brink of breakdown. As a result, the temporary construction of raw buildings on the banks of the river does not give them proper civic benefits. Living in unhealthy, messy environment including their children, all suffer from various malnutrition disorders. Due to the breakdown, they often have financial problems due to relocation of the premises. That is why they borrowed from various NGOs and gradually became debt-ridden. In this way the vicious cycle of poverty revolves around the lives of the people in the project area. As a result,

thousands of people become homeless and refugees, losing their homes, land and livelihoods and face high vulnerabilities in terms of access to food, employment, income, water and health service.

Within the time span of 2010 to 2016 severe erosion has been observed at Lord Hardinge & Dholigouranagar union of Lalmohan Upazila. Submerged Char adjacent to bank line expedited the erosion process to larger extent. In this backdrop, BWDB has taken up the project titled "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of the Meghna River in Bhola District" comprising required bank protection work, embankment slope protection work & dredging of the Meghna River on priority basis.

1.2 Justification/Adequacy:

Since the beginning of the emergence of Bhola district, natural disasters like floods, cyclones, tides, river erosion have been coming to the fore. Every year on the eastern side of the island, about 5-8 sq km of fertile land has been engulfed into the river due to erosion of Lower-Meghna River. 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. As a result, thousands of people become homeless and refugees, losing their homes, land and livelihoods and face high vulnerabilities in terms of access to food, employment, income, water and health service. It is anticipated from various research that, due to global warming sea level will rise from minimum 0.60 m to maximum 3.00 m by 2100. Two-thirds of Bangladesh is less than five meters above sea level where Bhola is only 2.40 meter above. By 2050, with a projected 50 cm rise in sea level, Bangladesh may lose approximately 11% of its land, affecting an estimated 15 million people living in its low-lying coastal region. The process of salinization has been exacerbated by rising sea levels. It is obvious based on the available data that, Bhola will be on front-line in the hot list.

The said project area of Lalmohan upazila had been facing severe river erosion along with presence of vulnerable embankment prone to complete collapse. It is obvious that, without prompt measures, a major portion of the project area would have been completely engulfed into Meghna. 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 permanent embankment & dredging of submerged char, safety of vast tract of agricultural lands and other immovable properties total worth of Tk 219611.75 lakh has been ensured against river erosion. Hence rationality of the project can be granted as justified.

1.3. Objectives:

The main objective of the project is to protect the citizens of Lalmohan Upazila of Bhola against flooding, salinity and loss of land due to sea level rising, increased river flows and erosion.

The main objectives of this project-

- ❖ Flood Protection & Reduction of Riverbank Erosion by Bank Revetment Work & Protection of Embankment Slope;
- ❖ To Increase Conveyance Capacity of the River, Ensuring Optimum Navigation Capacity, Development of Hilsha Sanctuary by River Dredging;
- ❖ To save Lalmohan Upazila including all immovable public and private properties approximate value of which Tk. 219611.75 Lakh by implementation of riverbank protection work.

1.4. Project revision with reasons:

The project titled "Protection of Lord Hardinge and Dholigournagar Bazar of Lalmohan Upazilla from the erosion of the Meghna River in Bhola District" has been approved by ECNEC meeting held on 20-03-2018. The estimated cost of the original approved DPP was Tk. 43255.42 lakh.

Institute of Water Modeling (IWM) was appointed by BWDB as consultant team as per DPP's Provision to determine the alignment and extent of dredging works through mathematical model study and subsequently to

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change/enlarge the extent of dredging works in coordination with the hydro-morphological changes of the Meghna River. Tendering process of dredging work has been finalized in 2(two) packages as per decision made on Project's Steering Committee Meeting and work orders were issued in January'2021. Consultant team IWM was engaged in overall monitoring of the field level implementation process and prescribed necessary alterations of the dredging alignment compatible with the dynamic behavior of Meghna. Revised contract of the dredging packages upon successful implementation of the work as per IWM's recommended alterations summed up to a figure of 13474.08 Lakh BDT which were approved by the competent authority MoWR. As per approved DPP, dredging sub-head was allotted 20881.00 Lakh BDT. So, there was savings in dredging sub-head and updated cost of the project was 39360.00 Lakh BDT. As the Project cost decreases in comparison to approved DPP, therefore, a Revised Development Project Proforma (RDPP) was submitted as per decision made on Project's Steering Committee meeting and was approved by the competent authority.

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

Bank revetment work's design includes material dumping trench (50% Geotextile Bag+ 50% CC Block) of width of 37.50 meter. The theme of the design allows gradual launching of the trench over time adjusting with the river nature & gradually there will be a defined protected riverbank slope. It should be noted that 90% of revetment work has been completed within June'2020. It has been observed that, average 8 to 12 meters out of 37.50-meter trench has been launched till date and river has started showing stable nature as expected. No abrupt collapse of the trench has been found which is the major unexpected drawback of training dynamic river like Meghna. As initial shock of the river created due to imposed changes is being nicely counterbalanced by the revetment work, it can be said that the design concept is very much responsive to the hydro-morphological condition of the project area. Embankment slope protection was done by pitching CC Blocks on the river side slope which is performing well like previously implemented projects. On the other hand, dredging has been performed as per recommendation and monitoring of consultant team IWM.

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 local member of parliament, local administrative etc. Those Stakeholders earnestly requested the Honorable Member of Parliament to address the problem generating from the erosion of Meghna River. Accordingly Honorable Member of Parliament sent DO letter to Honorable Minister, Ministry of Water Resources to take up the project.

◆ Project Preparation:

According to the instruction of honorable minister, Ministry of Water Resources & the Secretary, Ministry of Water Resources & the Director General, BWDB, the project was prepared. A technical committee was formed by BWDB to submit a technical report in respect of social, economic & environmental impact, safety of properties & infrastructure and also sustainability in the project area. The project was prepared based on technical report submitted by the concerned committee.

◆ Appraisal:

PEC meeting was held on 03-12-2017 in planning commission. As per decision of PEC meeting the DPP was corrected & sent to the ECNEC for approval of the above project and finally the project was approved by the ECNEC on 20-03-2018.

◆ 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 20/03/2018 and 1st Revised DPP was approved by MoWR on 06/06/2022.

♦ Others (if any): Nill.

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 taking advantages of the created facilities of the project in passive way. It ensured protection of their homesteads, agricultural lands, business centers. Price of land inside the embankment is hiking in geometric rate which was close to null before implementation of the project.

4.3 O & M programme of the project.

After completion 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.

- Ensuring the safeguard from riverbank erosion to existing Flood Control Embankment of Polder no.-56/57, vast arable lands and other public and private properties valued approximate Tk. 219611.75 Lakh under Lalmohan Upazila in the District of Bhola from the erosion of right bank of Meghna River by execution of 2.800 km revetment works along the vulnerable riverbank.
- Ensuring flood safeguard to Lalmohan Upazila in the District of Bhola from the devastation flood of Meghna River by execution of 2.700 km Retired/Re-Sectioning of Embankment along the vulnerable riverbank.
- Protection of surrounding community from inundation during monsoon period.
- Around 150 hectares of land has been reclaimed from Meghna riverbed through well planned dredged earth management.

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. Once the area to be engulfed in the mighty Meghna is converting into business center. People are setting up ice factories, fish bazar and many more. Thus, this project is bringing up positive impact in employment.

4.7 Possibility of Self employment

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

4.8 Possibility of women-employment opportunity

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

4.9 Women's participation in development

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Yes.

4.10 Probable Impact on Socio-Economic activity.

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

4.11 Impact on environment

Environmental enhancement is achieved through the implementation of the project.

4.12 Sustainability of the project

This project is performing well and good and as per expectation and can be declared as sustainable. Like any other development projects especially as a hydrological project of more numbers of uncertainties, it will require periodic maintenance of the physical structures which is also prescribed in the DPP. Upon ensuring periodic maintenance as per requirement, the life of the project can be extended upto greater extent.

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 programs 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	: Project area is located at turbulent coastal area. During implementation period it faced cyclones like Foni, Ampan and yaas. Due to increased sea level resulting from worldwide global warming issue, high tide occurred with greater frequency more than ever. Moreover, worldwide COVID-19 pandemic squeezed up eligible working time. Still with close monitoring and careful supervision, the project was completed without time over-run.
Project financing, allocation, and release	: During FY 2019-20 & 2020-21 funds weren't released as allocated.
Design formulation/approval	: N/A.
Project aid disbursement and re-imbursement	: N/A.
Mission of the development partners.	: N/A.
Time & Cost Over-run	: Was completed within due time with cost saving upon well completion of the project.

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 Flood Control Embankment of Polder no.-56/57, vast arable lands and other public and private properties valued approximate Tk. 219611.75 lakh of Lalmohan Upazila in the District of Bhola from the erosion of right bank of Meghna River by execution of 2.800 km revetment works along the vulnerable riverbank. Due to implementation of the project, physical safety and sense of security among the stakeholders 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 which will cause enhanced opportunity of employment and poverty alleviation.

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 & improvement of economic activities for the future generation to sustain due to river erosion mitigation. The commencement and completion of the project is scheduled to be accomplished from July'2018 to June'2022 as per approved DPP and accordingly the project was completed.

The Project is specifically linked with SDGs (Goal-1: End Poverty in all its form End hunger, Goal-2: Achieve food security and improved nutrition and promote sustainable agriculture, Goal-11: Make cities and human settlements inclusive, safe, resilient and sustainable, Goal-13: Take urgent action to combat climate change and its impact). 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.

During the implementation of this project, members of different committees & monitoring authorities visited project site and provided their opinions which has helped in implementation of the project within project period. Project was implemented properly following respective design, drawing and specification. The quantity and quality of the physical works were ensured by Task force committee of BWDB and concerned officials of BWDB.

After successful implementation of this project, Lalmohan upazila and adjacent area has been protected from severe erosion of the Meghna River. The socio-economic condition of the people has been improved. Scope of new jobs & works has been created. The safety of human livelihood and properties have also been improved.

It should be mentioned that Project area is located at turbulent coastal area. During implementation period it faced cyclones like Foni, Ampan and yaas. Due to increased sea level resulting from worldwide global warming issue, high tide occurred with greater frequency more than ever. Moreover, worldwide COVID-19

pandemic squeezed up eligible working time. Still with close monitoring and careful supervision, the project was completed without time over-run as well as cost saving upon well completion of the project with 150 hectares of reclaimed land through well planned dredged earth management policy. It's a remarkable achievement which will be helpful in solving acute land scarcity problem of the Bangladesh. Ministry of Water Resources has been awarded the prestigious **Bangabandhu Public Administration Award'2022** for playing significant role in land reclamation sector.

Recommendation: This project is performing well and good and as per expectation and can be declared as sustainable. Like any other development projects especially as a hydrological project of more numbers of uncertainties, it will require periodic maintenance of the physical structures which is also prescribed in the DPP. Upon ensuring periodic maintenance as per requirement, the life of the project can be extended upto greater extent.

Date: 22-09-2022


22/09/2022

(Md. Babul Akhter)

Project Director

&

Superintending Engineer

Bhola O&M Circle

BWDB, Bhola.

07. Remarks/ Comments of Agency Head.

This project has ensured safeguarding from river erosion to existing flood control embankment. Vast lands and immovable public and private establishments worth 21,961 million taka in the Lalmohan upazilla of Bhola are protected from the erosion of the mighty Meghna River. Around 150 hectares of land were reclaimed through well-planned management of dredged materials. The project was completed without time over-run as well as cost saving. Thus, this project can be regarded as a successful project as it achieved all the objectives.

Date:.....


28/09/2022

Signature and Seal
(FAZLUR RASHID)
Director General
BWDB, Dhaka.

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

The main objective of the project is to protect the existing Flood Control Embankment of Polder Number 56/57 by executing 2.800 km revetment works along the vulnerable riverbank of Lalmohan Upazila of Bhola District. It has saved public and private properties worth of Tk. 219611.75 lakh of Lalmohan Upazila of Bhola District. The project reclaimed 150 hectares of land through well planned dredged earth management policy. The project faced several natural calamity such as Foni, Ampaan and Yaas and also it was affected by Covid-19 pandemic, but with close monitoring and careful supervision, the project is completed without time over-run. The project is performing well and good as per expectation and can be declared as sustainable. Proper maintenance and monitoring should be ensured so that the outcome of the project sustains effectively.

Date:.....

Signature and Seal

