Bangladesh Water Development Board



Project Completion Report of

Bhola District Town Protection Project (Phase-III)

Zone

Southern Zone, BWDB, Barisal.

Circle

: Bhola O&M Circle, BWDB, Bhola.

Division

Bhola O&M Division-I, BWDB, Bhola.

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

PROJECT COMPLETION REPORT: IMED 04/2003 (Revised)

A. PROJECT DESCRIPTION:

01. Name of the Project

: Bhola District Town Protection Project (Phase-III)

02. Administrative Ministry/Division

: Ministry of Water Resources/BWDB.

03. Executing Agency

: Bhola O&M Division-I, BWDB, Bhola.

04. Location of the Project

: Bhola Sadar Upazilla, District: Bhola.

05. Objective of the Project

To save Bhola District Town and adjacent Elisha-Kachia area including all existing immovable Govt, Public and private properties, approximate value of which Tk. 53520.00 lakh, by implementation of River bank protection work for a length of 3.500 km located at the upstream of phase-I project:

To save the adjacent flood control embankment by providing slope protection for a length of 3.500 km. This will ensure to act as guard to the existing flood control embankment against the intrusion of saline flood water and tidal surge in the project area causing severity of damages.

06. Estimated Cost

(In lakh Taka)

,				
Original	Latest Revised			
10328.83	10627.75			
10328.83	10627.75			
-				
-				
-				
	10328.83			

07. Date of Approval

PCP PP

(a) Original

01-01-2013

(b) Latest Revised

.

01-05-2016

08. Implementation Period

	Date of Commencement	Date of Completion
(a) Original	01-11-2012	30'June'2015
(b) Latest Revised	01-11-2012	30 June'2016
(c) Actual	01-11-2012	30 June'2016

09. Financing Arrangement (Source-wise):

9.1 Status of Loan/Grant

a) Foreign Financing :

Source (s)	as per Agreement	Amount in US \$ (Million)	Nature (Loan/Grant/ supplier's/	Date of Agreement	Date of Effective -ness	Date of	Closing
1	2	2	credit)			Original	Revised
		5	4	5	6	7	8

b) GOB:

Total	1		(In lakh Taka)
Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
10627.75	-	10627.75	4
		, , , , , , , , , , , , , , , , , , , ,	V

9.2 Utilization of Project Aid : (Source wise)

Total	Total Amount		Actual Expenditure		(In million Unutilized Amount		
In US\$	In Local Currency	In US \$	In Local Currency	In US\$	In Local Currency		
2	3	4	5	-			
		In US \$ In Local	In US \$ In Local In US \$	In US \$ In Local In US \$ In Local	In US \$ In Local In US \$ In Local In US \$		

9.3 Re-imbursible Project Aid (RPA) :

R P A Amo	Amount	A		(In lakh Taka)	
As per PP	As per Agreement	Amount Spent	Amount Claimed	Amount Re-imbursed	Remarks
	2	3	4	5	6
		Not Appli	cable		0

B. IMPLEMENTATION POSITION

01. Implementation Period:

t Revised	Implementation period	(% of original implementation period)	5
2	3	4	5
1 12012	THE RESERVE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.		
nber'2012 ne'2016	November'2012 to June'2016	12/32=37.50%	The morphological changes i,e, two or more channels accumulation. Changing of drawings i,e, dumping volume

02. Cost of the Project:

(In lakh Taka) Estimated Cost Actual Cost over-run Remarks Description expenditure (% of original cost) Original Latest revised 2 6 TOTAL 10328.83 10627.75 10590.70 TAKA 10328.83 10627.75 10590.70 2.53% PA

03. Project Personnel: Existing manpower of implementing agency were deployed during execution of this project.

Sanctioned	Manpower	Status of the	Ma	Manpower		
strength as per PP	employed during execution	Manpower requirement for O&M as per pp	Existing manpower for O & M	Others	1	ployed
1	2	3	4	5	Male	Female
Officer (s)	9	9	9	-		6
Staff(s)	16	16	16	-		
Total:	25	25	25	-		

04. Training of Project Personnel (Foreign/Local):

Field of	Provision as per PP		Actu	al	Remarks
Training /Study tour/workshop/S eminer etc.	Number of person	Man - months	Number of person	Man - months	
1	2	3	4	5	6

a. Foreign

Not Applicable

b. Local

Not Applicable

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

(In lakh Taka) Items of work Target (as per PP) Actual Progress Reasons for deviation (\pm) (as per PP) Unit Financial Physical Financial Physical (Quantity) (Quantity) 2 3 4 5 6 Patrol and Lubricant 1 item 10.00 100% 10.00 100% Printing 1 item 1.50 100% 1.50 100% Stationary 1 item 1.50 100% 1.50 100% Survey 1 item 2.00 100% 2.00 100% Motor Cycle No. 3.00 2 nos. 2.98 2 nos. Photocopiar No. 1.50 1 no. 1.50 1 no. Lavelling Machine No. 1.25 1 no 1.25 1 no Multimedia No. 1.25 1 no 1.25 1 no Computer No. 2.50 2 nos. 2.50 2 nos. Fax Machine No. 0.50 1 no. 2.50 l no. Bank Protection Km. 8451.88 3.500 km 8441.80 3.500 km work End-termination Meter 350.87 100.00 348.85 100.00 Slope protection km. 1800.00 3.500 km. 1775.06 3.500 km. 10627.75 100% 10590.70 100%

06. Information regarding Project Director (s):

Name &	Full time	Part time	Responsible	Da	te of	Remarks
Designation with pay Scale.			for more than one project	Joining	Transfer	
1	2	3	4	5	6	7
1. Md. Mosaref Hossain, S.E	-	Part	Yes	18-4-2011	05-11-2012	/
2. Md. Harun nur Rashid S.E	-	Part	Yes	22-6-2014	29-09-2015	
3. Zahir Uddin Ahmed S.E	-	Part	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/damaged	Remarks
1	2	3	4	5	with date	
Car			4	3	6	7
Јеер						
Microbus						
Minibus						
Bus						
Pick-up						
Truck						
Motor Cycle	2 Nos.	15-6-14		01-07-2016		*
By-cycle				01-07-2010		
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	(in cro	/Proposal Cost ore Taka)	Tender/I	Tender/Bid/Proposal		completion of services and y of goods
/consultancy) as per bid document	As per PP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Supply of Geo-bag (175kg) and filling & dumping of geo-bag and manufacture of CC block including dumping and placing from km. 7.514 to km. 8.014 = 0.500 km Package No. EK-RBP-07	1262.01	1281.96	27-01-2013	09-06-2013	30-05-14	30-06-2016
Supply of Geo-bag (175kg) and filling & dumping of geo-bag and manufacture of CC block including dumping and placing from km. 8.014 to km. 8.514 = 0.500 km Package No. EK-RBP-08	1369.55	1389.47	27-01-2013	05-06-2013	30-05-14	30-04-2016
Supply of Geo-bag (175kg) and filling & dumping of geo-bag and manufacture of CC block including dumping and placing from km. 8.514 to km. 9.014 = 0.500 km Package No. EK-RBP-09	1511.56	1531.09	27-01-2013	27-06-2013	30-05-14	30-04-2016

1	2	2				
Supply of Geo-bag	1498.1	1 1510 4	4	5	6	7
(175kg) and filling & dumping of geo-bag and manufacture of CC block including dumping and placing from km. 9.014 to km. 9.514 = 0.500 km Package No. EK-RBP-10	0	4 1510.43	27-01-20	27-06-20		
Supply of Geo-bag (175kg) and filling & dumping of geo-bag and manufacture of CC block including dumping and placing from km. 6.014 to km 6.514 = 0.500 km Package No. EK-RBP-11		941.99	04-08-20	07-04-201	4 06-04-1	5 06-04-20
Supply of Geo-bag (175kg) and filling & dumping of geo-bag and manufacture of CC block including dumping and placing from km. 6.514 to km 7.014 = 0.500 km Package No. EK-RBP-12	937.61	951.48	04-08-201	30-04-2014	06-04-15	30-04-201
Supply of Geo-bag (175kg) and filling & dumping of geo-bag and manufacture of CC block including dumping and placing from km. 7.014 to km 7.514 = 0.500 km Package No. EK-RBP-13	939.43	947.12	04-08-2013	30-04-2014	06-04-15	12-06-2016
End Termination work by C. C. Block at km 6.014 Package no. EK-RBP-14)	350.87	383.00	04-08-2013	28-04-2014	06-04-15	30-06-2015
Slope Protection of imbankment from km .014 to km 7.514 = 1.500 m at Bhola Sadar pazilla (Package No. EK-P-14-1)	770.00	775.57	26-08-2014	14-12-2014	30-06-15	15-06-2016
ope Protection of mbankment from km 514 to km 9.514 = 2.000 n at Bhola Sadar pazilla (Package No. EK- 2-15)	1030.00	1038.94	26-08-2014	14-12-2014	28-06-15	30-04-2016
	10602.75	10751.07				

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

Name of the Field	Approv	ed man month	Actual man month utilised	Remarks
	As per PP	As per contract		
1	2	3	4	5

a) Foreign

Not Applicable -

b) Local

Not Applicable -

$09.\ Construction/Erection/Installation\ Tools\ \&\ Equipment:$

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
DI .	2	3	4	5	6	7
Photocopire	1 No.	28-6-2013	01-07-2016	_		/
Levelling istruments with stand	l No.	28-6-2013	01-07-2016	No.	-	-
Multi-Media Projector	1 No.	28-6-2013	01-07-2016	-	-	-
Computer with aser Printer (Brand)	2 Nos.	28-6-2013	01-07-2016	-	-	-
Fax machine	1 No.	28-6-2013	01-07-2016	-		

C. FINANCIAL AND PHYSICAL PROGRAMME:

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

(In lakh Taka)

Financial	Financial	provision	& phys	ical target as	Financial p	provision & pl	nysical tars	get as per lates
Year		per orig					ed PP	, and parameter
	Total	Taka	P.A.	Physical %	Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9
2012-2013	200.00	200.00	-	1.95%	200.00	200.00	-	1.95%
2013-2014	5850.01	5850.01	-	56.63%	3504.85	3504.85	-	35.65%
2014-2015	4278.82	4278.82	-	41.42%	5000.16	5000.16	-	48.40%
2015-2016	-	-	-	-	1922.75	1922.75	-	14.00%
Total	10328.83	10328.83	-	100%	10627.75	10627.75	-	100%

01. (b) Revised ADP allocation and progress :

(In lakh Taka)

Financial	Rev	ised Allocat	tion &	target	Taka	Expendit	ure & physi	cal pro	ı lakh Taka gress
Year	Total	Taka	P.A	Physical	release	Total	Taka	P.A	Physical
				%					%
1	2	3	4	5	6	7	8	9	10
2012-2013	200.00	200.00	-	1.95%	200.00	200.00	200.00	-	1.95%
2013-2014	3505.00	3505.00	-	35.65%	3505.00	3504.85	3504.85	-	35.65%
2014-2015	5000.16	5000.16	-	48.40%	5000.16	5000.14	5000.14	-	48.40%
2015-2016	1922.75	1922.75	-	14.00%	1922.75	1885.72	1885.72	-	14.00%
Total =	10627.75	-	-	100%	10590.94	10590.70	10590.70	-	100%

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objectives as per PP	Actual achievement	Reasons for shortfall, if any
(a) To save Bhola District Town and adjacent Elisha-Kachia area including all existing immovable Govt. Public and private properties, approximate value of which Tk. 53520.00 lakh, by implementation of River bank protection work for a length of 3.500 km locatated at the upstream of phase-I project:	(a) Bhola District Town and adjacent Elisha-Kachia area including all existing immovable Govt, Public and private properties, approximate value of which Tk. 53520.00 lakh, has been saved by implementation of River bank protection work for a length of 3.500 km locatated at the upstream of phase-I project:	N/A
(b) To save the adjacent flood control embankment by providing slope protection for a length of 3.500 km. This will ensure to act. as guard to the existing flood control embankment against the intrusion of saline flood water and tidal surge in the project area causing severity of damages.	(b) The adjacent flood control embankment has been saved by providing slope protection for a length of 3.500 km. This will ensure to act. as guard to the existing flood control embankment against the intrusion of saline flood water and tidal surge in the project area causing severity of damages.	N/A

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) New Bank Protective Work 3.500 km. at Elisha & Kachia, upazilla Bhola Sadar, District Bhola. To Protect the Erosion of the Meghna River	km.	3.500 km	3.500 km
(b) New Slope Protection of Embankment 3.500 km in Elisha & Kachia upazilla Bhola Sadar, District Bhola. To Protect the Embankment from wave action of the Meghna River	km.	3.500 km	3.500 km

02. Cost / Benefit:

Item	Estimated	Actual
(1) Benefit cost ratio of the project (i) Financial	2.01:1.00	Will be evaluated later by BWDB's concerned office & IMED.
(ii) Economic	2.74:1.00	& IMED.
(2) Internal Rate of Return (i) Financial	27.75%	
(ii) Economic	42.98%	

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

There is not short fall betwen the estimated and actual benifit

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:	-	-	-
(b) <u>IMED</u>	27-01-2016	No problem was	IMED recommended
Md. afzal Hossain Director (DS)	02-03-2016	identified of the execution	implementing the project within the stipulated completion time.
(c) Others:(Please specify) Kazi Tofail Hossain Superintending Eingineer Design Circle-II, BWDB, Dhaka & Conveynor Task force	23-03-2015	No problem was identified of the execution	

0.2. Auditing during and after Implementation:

2.1. Internal Audit:

Period of Audit	Date of submission of Audit Report	Major findings/ objections	Whether objections resolved or not.
1	2	3	4
2012-2013			
2013-2014	17-2-2015	3 Nos.	Not yet resolved

2.2. External Audit:

Audit period	Date of submission	Major findings/	Whether objections
	of Audit Report	objections	resolved or not.
1	2	3	4
2012-2013	04-04-2015	01 No.	Not yet resolved
2013-2014 &	03-03-2016	01 No.	Not yet resolved
2014-2015			7101701700

G. DESCRIPTIVE REPORT

1. General Observations/Remarks of the Project on:

1.1 Background:

Bangladesh is a reverine country. River bank erosion is a common phenomena here. Bhola district is the biggest Island of Bangladesh surrounded by the Meghna river on the east and south, by the Ilisha river on the north and by the Tentulia river on the west. Bhola Island is about 125 km long in the north south direction while width is about 12 km in the east-west direction. Width of Bhola has been decreasing in the east-west direction as a result of bank erosion while the length along north-south direction has slightly increased as a result of accretion on the south. The area of the island is around 3403 km² and more than 17 lakh people live in the district.

Bhola (except the isolated upazila Monpura) is protected by the embankment of Polder No. 56/57 constructed under the Costal Embankment Project. Vast area of Bhola district is saved from flood, tidal surge and saline water after construction of coastal embankment surrounding this polder. But due to seasonal floods, recently erosion created by the Meghna river has become severs. After the floods in the year 2004, the erosion problem became more acute vast area of valuable land has been lost due to continuous erosion has become more devastating in the Tulatuli area adjacent to Bhola District Town. If this trend continues, then the Meghna river may gradually shift its course towards Bhola town. Thus, the Bhola township will be subjected to much more threaten of devastation. It is to be mentioned here that Bhola district town falls vulnerable to the erosion of the Shahabazpur channel of the Meghna river since long. The Problem was initially care of by implementing bank protection to protect Bhola district town from the erosion of the Meghna river under "Bhola District Town Protection Project (Phase-I). Under the 1st Phase, bank protective work by C.C block from km. 9.514 to km. 11.184 and rom km. 15.184 to km. 15.514 = 2.000 km. was implemented with an amount of Tk.3151.00 lakh. The project is completed in 2003-2004. This Phase-1 of the project is now effectively preventing the river erosion and the people in the project area are now in safe from river erosion. But after completion of Phase-1, serious erosion look place in the river bank from km. 6.014 to km. 9.514 = 3.500 km. and from km. 11.184 to km. 15.184 = 4.000 km. which is also near to the Bhola district town.

In this context, one Technical study has been conducted by BWDB in collaboration with Institute of Water Modelling (IWM) and CEGIS on erosion problem mentioned above. In the final report of the study published on February, 2006 the study learn recommended bank protective work along the most vulnerable reach of Shahbazpur channel i.c from km. 11.180 to km. 15.180 (4.00 km) and slope protection work of embankment at vulnerable areas.

The technical report is enclosed in Appendix-BI. As per recommendation, Bank protective work by Geo-bag & C.C block from km. 12.200 to km. 13.500 = 1.300 km has been implemented together with slope protection work under "Bhola District Town Protection Project (Phase-II), and the project cost was Tk. 2453.05 lakh. This Phase-II of the project is also a successful project. River erosion in the project area is prevented and the people are now safe from river erosion. On the basis of the technical study and prevailing threatening situation, it was proposed to take up river bank protection wok for a length of 3.00 km (km.11.184 to 12.200 & 13.500 to 15.184) together with embankment slope protection work in this 3rd phase. But as per decision made in the PEC meeting on Phase-III of this Project, held on 11-9-2012 in the Planning Commission, this part of river is has been excluded from the Phase-III proposal.

Due to severe river erosion at Illisha-Kachia area which is just at the upstream of the Phase-I area, another Technical Study has been conducted by the Technical Committee constituted by the BWDB in the year-2009. In their Study Report, the Technical Study Committee recommended to implement ban protective work along Meghna River at Elisha-Kchia area from km. 6.014 to km. 9.514 (3.500 km) along with slope Protection of Embankment (Appendix-B2) As per recommendation of the technical study river bank protection work by Geo-bag & C.C block for a length of 3.500 km (km. 6.014 to km. 9.514) at Ilisha-Kachia area has been considered in the proposed Project (Phase-III). It is now threatening not only Bhola district town but also the existing bank protective work which was implemented under Phase-I, Detail of the completed works under Phase-I &II enclosed in Appendix-I.

1.2 Justification/Adequacy:

A project concept paper (DPP) contained bank protection work at 3.500 km. and slope protection work at 3.500 km. was formulated and proposed subsequently planning commission instructed for reremission of project proposed following conducting appropriate study. Accordingly, BWDB constituted a study committee including experts from IWM & CEGIS. The committee members after field observations & consultation with local people submitted study report (15 May 2009) Committee suggested to erect protective work at most vulnerable reach of Meghna river at Ilisha and Kachia (from km. 6.014 to km. 9.514) and slope protection work of Embankment (from km. 6.014 to km. 9.514) as recommended for immolated Measures in order to avoid protecting the Bhola Island for a longer time from with small seals recurrent measures which needs to be technically possible environmental friendly and socially acceptable.

In order to develop long term solution a detailed survey and investigation supported by mathematical modeling environmental and social studies recommended. Since accomplishment of recommended long term measures are time consuming and huge cost involving factor, Proposed project has been formulated for instruction of bank protective works at the most vulnerable reach of Meghna river (from km. 6.014 to km. 9.514 km) to safe guard infrastructures as per recommended immediate Measures of technical study report. Report immediately with farther delay in conducting detailed feasibility study. There is every possibility of Ilisha and Kachia field to be engulfed info riverbed soon due to continuation of severe river bank erosion. The original project components included the provision of close monitoring of protection works during execution period as suggested in technical study report to observe the enact placement of under water geo-beg identification of any uncovered area, movement of thawed line of the Meghna river bank. Since this sort of intensive monitoring work is not possible to carry out within executing agency's in-hours strength, it was proposed to carry out such monitoring work by any national level institute/center of excellence on sole source crisis. However, this monitoring component with total estimated cost of Tk. 10627.75 has been excluded now from recast DPP as per decision of PEC Meeting held on 16.05.2016 in planning commission. The project has been closed on 30-06-2016.

1.3 Objectives:

To save Bhola District Town and adjacent Ilisha-Kachia area including all immovable public and private properties situated here, approximate value of which Tk.53520.00 lakh by implementation of emergency River bank protection work for a length of 3.500 km. located at the upstream of the completed Phase-I, project work:

To save the adjacent flood control embankment by providing slope protection for a length of 3.500 km. This will ensure to act as guard to the existing flood control embankment against the intrusion of saline flood water and tidal surge in to the project area causing severalty of damages.

To achieve the above objective 2.00 km bank protection works have already been completed under Phase-I and 1.30 km bank protection works is also completed under Phase-II which are functioning effectively. The proposed Phase-III of the project is prepared to achieve the overall maximum target as recommended in feasibility study report enclosed.

1.4 Project revision with reasons:

Reasons for Revision:

The Provable reasons for revision are as follows:

- The morphological changes i,e, two or more channels accumulation.
- (ii) Changing of drawings i,e, dumping volume increased.

Implementation of the Project started from 31-05-2013, during the flood of 2013, it was observed that bank line of the Meghna River was eroded and to stop this erosion from km. 7.514 to km. 9.514 Geobags were dumped by the Existing 4(four) Nos. Contractor with the Prior approval of higher authority of BWDB through Note Sheet. After recession of flood water, cross-section of the area along bank line was taken by Field Office and depending upon these cross-sections it was required to revise the previous design. Now the protective work from km. 7.514 to km. 9.514 has been implementing following the approved revised Drawing No. RBBW-MR-B-4401-001-005 dated: 31-01-2014. Estimate for execution of the slope Protection work from km. 7.514 to km. 9.514 was prepared on May'2014. After this a rainy season has been passed and due to this slope and Top of the Embankment earthwork eroded by the flood wave of the Meghna River and rain water. As such volume of earthwork has been increased.

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

Failure of embankment due to River erosion will have social, economic and environmental impacts. 9.50 km of River bank in Bhola Sadar (km 9.51 to km 15.51 & km. 6.014 to km 9.514) is under active erosion. Protection measures have already been taken from km. 6.51 to km. 11.18 from km. 15.18 to km. 15.51 and from km. 12.20 to km. 13.50. But lack of immediate action for the remaining part, It is anticipated that if the erosion continues huge part of this upazilla will be eroded over the next coming years. In such situation substantial losses of properties and infrastructures will be incurred. In addition, breaches of embankment will result significant damages to crop. properties and infrastructures. Thus there is a rational to implement erosion mitigation measures at Sadar upazilla immediately.

The very nature and objectives of this Project have direct relevance with the national objectives of attaining self-reliance in food grain production, generation of rural employment, poverty alleviation specially for rural poorer action, creation of social & environmental balance and building economic infrastructures for the failure generation to sustain.

- 3. Brief description on planning and financing of the project and its applicability.
 - Project Identification: The project is located along the left bank of the Meghna river
 - Project Preparation: River erosion is the main threat of Bhola District. The flood embankment has so far been retired 3(Three) times due severe erosion of the river Meghna at Ilisha and Kachia. The river has engulfed 7000 hectors area. Continuation of the river erosion practices 3.500 km. flood embankment of Ilisha and Kachia at Bhola Sadar Upazilla seriously threatened from the river. This was launched.

To saving the Bhola District Town and adjacent Ilisha-Kachia area including all immovable public private prospectus approximate value of tk. 53520.20 lakh and also protect flood embankment by implementation river bank protection & slope protection from erosion of the Meghna river.

Appraisal : IWM conducted bathymetric survey and Mathematical model

study on May'2003.

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 on -01-11-2012 subsequent revision

was approved on 01-05-20016

♦ Others (if any). : No.

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

- 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 stake holder are directly taking advantages of the created facilities of the project.
- 4.3 O & M programme of the project: Will be carried out by BWDB's regular O&M budget.
- 4.4 Impact of the project -
- 4.4.1 Direct: ◆ Saving Bhola Sadar Upazilla at Ilisha and Kachia protection of river bank from erosion of the Meghna river.

- Ensuring safety of public and government owned assets and natural resources of CIP.
- 4.4.2 Indirect: Environmental enhancement from river erosion hazards.
 - ♦ Sustainable socio-economic enhancement.
- 4.5 Transfer of Technology and Institutional Building through the project: Not Applicable
- 4.6 Employment generation through the project: During implementation of the project employment opportunity was generated. Through deployment of skilled and un-skilled lobour.
- **4.7** Possibility of Self employment: There are possibilities of self employment as enlisting and business canters are protected from river bank erosion.
- $\textbf{4.8} \qquad \text{Possibility of women-employment opportunity: Yes. There is possibility of woman employment through the project. } \\$
- 4.9 Women's participation in development: As skilled and un-skilled lobour.
- **4.10** Probable Impact on Socio-Economic activity: Protecting the river bank erosion various infrastructures are saved from the erosion. The impact of socio-economic balance in the locality.
- **4.11** Impact on environment: Environment enhancement is achieved through the implementation of the project bank erosion hazards of environment is eradicated.
- **4.12** Sustainability of the project: The project is sustainable but requires periodic maintenance.
- 4.13 Contribution to poverty alleviation/reduction: The project fulfilled the following benefits in compatible strategic goal i.c. (a) reduction of vulnerability to water related disaster (b) Manage erosion of Major rivers and protect large and small town of poverty alleviation as per PRS: (1) The project ensure immovable properties of total worth of Tk.53520.00 lac. (2) It generated employment for skilled/unskilled during construction period and also in annual O&M of phase in project performance also better employment access in business tertiary sectors is enhanced. (3) Natural security against river bank erosion is resorted.
- 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: Does not arise
- 5.2 Project Director: Does not arise
- 5.3 Land Acquisition: Does not arise
- 5.4 Procurement: Does not arise
- 5.5 Consultancy: Does not arise
- 5.6 Contractor: Does not arise
- 5.7 Manpower: Does not arise
- 5.8 law & Order: Does not arise
- 5.9 Natural calamity: Created problem to main time schedule which was removed through adjustment.
- 5.10 Project financing, allocation and
 - Release: Does not arise
- 5.11 Design formulation/approval: Does not arise
- 5.12 Project aid disbursement and re-imbursement: Does not arise.
- 5.13 Mission of the development partners. : Does not arise.
- 5.14 Time & Cost Over-run: Does not arise.

	Delay in Decision: Does not arise	
5.17	Transport: Does not arise	
5.18	Training: Does not arise	
5.19	Approval: Does not arise	
5.20	Others: Does not arise	
6. Ren	narks & Recommendations of the Project Director:	
	The objectives of the project have been achieved fully.	
Date		(Zahir Uddin Ahmed) Superintending Engineer Bhola O&M Circle BWDB, Bhola & Project Director
6. R This p noted	Remarks/Comments of Agency Head Noticet is situated at the upstream of principle of Phone- ion Phone-I project. Implementation of Phone- wom devontating exosion of Lower Meghna river of final central embankment have ans	Justy implemented Bhola Town provider screety to Bhola district on Slope protection works on weed safety to the embankment
ntrus	dal surge. Thus it has minimized the possible on to the locality & agricultural Lands.	pilities et saline flood water
	g flood control embankment have ensided surge. Thus it has minimized the possible to the locality & agricultural Lands.	oilities et saline flood water
	dal surge. Thus it has minimized the possible on to the locality & agricultural Lands.	Signature and Seal (Md. Jahangir Kabir) Director General
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Project Supervision/Inspection: Does not arise