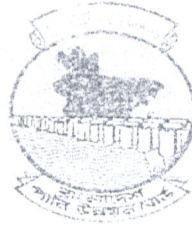


BANGLADESH WATER DEVELOPMENT BOARD**PROJECT COMPLETION REPORT: IMED 04/2003 (Revised)****FOR**

Bank Protective Work along the left and right bank at different locations of Karnafuli River, Boakhali & Raikhali Khal in Chittagong District.

(চট্টগ্রাম জেলার বোয়ালখালী ও রাউজান উপজেলার কর্ণফুলী নদী, বোয়ালখালী এবং রাইখালী খালের ডান ও বামতীরে বিভিন্ন স্থানে তীর প্রতিরক্ষা কাজ।)

**RANGAMATI O&M DIVISION
CHITTAGONG O&M CIRCLE
BWDB, CHITTAGONG**

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 : Protective work along the left and right bank at different locations of Karnafuli River, Boalkhali and Raikhali Khal in Chittagong District.
02. Administrative Ministry/Division : Ministry of Water Resources
03. Executing Agency : Bangladesh Water Development Board (BWDB)
04. Location of the Project : Upazila-Boalkhali & Rauzan, District-Chittagong.
05. Objective of the Project : To Save different places of Boalkhali & Rauzan Upazila & Chittagong District from the erosion of both bank of Karnafuli River, Boalkhali & Raikhali Khal.

06. Estimated Cost :

(In lakh Taka)

	Original	Latest Revised (Re-Appropriation)
(a) Total	7178.61	7178.61
(b) Taka	7178.61	7178.61
(c) Foreign Currency	0.00	0.00
(d) Project Aid	0.00	0.00
(e) RPA	0.00	0.00

07. Date of Approval :

(a) Original :

02 July, 2013

(b) Latest Revised (Re-Appropriation) :

01 March, 2017

08. Implementation Period :

	Date of Commencement	Date of Completion
(a) Original	July 2013	June 2016
(b) Latest Revised (Re-Appropriation)	July 2013	June 2017
(c) Actual	July 2013	June 2017



09. Financing Arrangement (Source-wise):

9.1 Status of Loan/Grant:

a) Foreign Financing : Not Applicable

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

b) GOB:

(In lakh Taka)			
Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
7178.61	-	7178.61	-

9.2 Utilization of Project Aid: (Source wise) Not Applicable

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

9.3 Re-imburseable Project Aid (RPA): Not Applicable

R P A Amount		Amount Spent	Amount Claimed	Amount Re-imbursed	Remarks
As per PP	As per Agreement				
1	2	3	4	5	6

B. IMPLEMENTATION POSITION

01. Implementation Period:

Implementation Period as per PP		Actual Implementation period	Time Over-run (% of original implementation period)	Remarks
Original	Latest Revised			
1	2	3	4	
July,2013 to June,2016	July,2013 to June,2017	July,2013 to June,2017	33.33%	

02. Cost of the Project:

Description	Estimated Cost		Actual expenditure	Cost over-run (% of original cost)	Remarks
	Original	Latest revised			
1	2	3	4	5	6
TOTAL	7178.61	7178.61	5664.69	(-) 21.09	
TAKA	7178.61	7178.61	5664.69	(-) 21.09	
PA	0.00	0.00	0.00	0.00	

13. Project Personnel:

Sanctioned strength as per PP	Manpower employed during execution	Status of the existing manpower			Manpower Employed	
		Manpower requirement for O&M as per pp	Existing manpower for O & M	Others		
1	2	3	4	5	Male	Female
Officer (s)	Existing manpower of the implementing agency were deployed during execution of the project.					
Staff(s)						
Total :						

04. Training of Project Personnel (Foreign/Local) : Not Applicable

Field of Training /Study tour/workshop/Seminer 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

b. Local

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

(In lakh Taka)						
Items of work (as per PP)	Unit	Target (as per PP)		Actual Progress		Reasons for deviation (±)
		Financial	Physical (Quantity)	Financial	Physical (Quantity)	
1	2	3	4	5	6	7
A. Revenue Component:						
Petrol & Lubricant	1 Item	2.00	1 Item	1.52	1 Item	
Printing & Publication	1 Item	0.50	1 Item	0.50	1 Item	
Office Stationery, Seal & Stamps	1 Item	0.50	1 Item	0.50	1 Item	
Environmental Impact Assessment (EIA)	1 Item	35.00	1 Item	34.50	1 Item	
Honorium for the members of the PSC/PIC	1Item	1.50	1Item	0.43	1Item	
Computer & Office Equipments (Photocopier Tonner, Printer Cartise & Computer parts)	1Item	1.00	1Item	0.75	1Item	
Repair & Maintenance of existing Vehicles (Jeep-3 nos, Motor Cycle-4 nos)	1 Item	2.00	1 Item	1.93	1 Item	
Sub Total (A) :		42.50		40.13		
B. Capital Component						
Jeep (2350 C.C) (5 Doors) (Manufactured by PRAGATI) (1 no)	1 No.	74.00	1 No.	71.25	1 No.	
Desktop Computer with Laser Printer	1 Set	1.00	2 Nos	1.00	2 Nos	
Bank Revetment Work						
L/B of Karnafuli River	Metre	3000.00	2760m	2448.47	2760m	
L/B of Boalkhali Khal	Metre	200.00	150m	289.54	150m	
R/B of Boalkhali Khal	Metre	850.00	575m	643.46	575m	
L/B of Raikhali Khal	Metre	397.53	350m	154.17	350m	
R/B of Karnafuli River	Metre	2501.14	1650m	2016.67	1650m	
O&M During Construction	LS	60.00	LS	0.00	LS	
Sub Total (B) :		7083.67		5624.56		
C. Physical Contingency	LS	30.00	LS	0.00	LS	
D. Price Contingency	LS	22.44	LS	0.00	LS	
Grand Total (A+B+C+D):		7178.61	100.00%	5664.69	100.00%	

06. Information regarding Project Director (s):

Name & Designation with pay Scale.	Full time	Part time	Responsible for more than one project	Date of		Remarks
				Joining	Transfer	
1	2	3	4	5	6	7
Mr. Md. Kamruzzaman, Superintending Engineer Scale: 25750-33750 Tk	--	Part time	Yes	02.07.2013	11.09.2014	
Mr. Amanullah, Executive Engineer Scale: 22250-31250 Tk	--	Part time	Yes	11.09.2014	15.09.2014	
Mr. Md. Habibur Rahman, Superintending Engineer Scale: 25750-33750 Tk	--	Part time	Yes	15.09.2014	28.05.2015	
Mr. Amanullah, Executive Engineer Scale: 22250-31250 Tk	--	Part time	Yes	28.05.2015	23.07.2015	
Mr. Bidyut Kumar saha, Executive Engineer Scale: 22250-31250 Tk	--	Part time	Yes	23.07.2015	20.08.2015	
Mr. Md. Siddiqur Rahman, Superintending Engineer Scale: 50000-71200 Tk	--	Part time	Yes	20.08.2015	Till Date	

07. Procurement of Transport (in Nos.):

Type of transport	Number as per P.P.	Procured with date	Transferred to Transport Pool with date	Transferred to O & M with date	Condemned/ damaged with date	Remarks
1	2	3	4	5	6	7
Jeep (2350cc)	1 Nos	30.06.2015	--	02.07.2017	--	



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/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Bank protective work at Taxgor area along the right bank of Boalkhali Khal from km. 0.000 to km. 0.200 = 200.00 m in Upazila-Boalkhali, Dist-Chittagong. (Package No. PR-03/Kaptai/2013-14)	312.00	274.67	01.10.2013	31.10.2014	29.06.14	28-06-15
Bank protective work at Chowdhury khal to Ibrahim khal at the left bank of Karnafuli River in Upazila-Boalkhali, Dist-Chittagong (from Km 0.000 to km. 0.600 = 600.00 m). (Package No. PR-04/ RANG/ 2014-15)	645.00	562.70	03.09.2014	30.11.2014	30.06.15	24-01-16
Bank protective work at Jaleapara to Fakirkhali area at the left bank of Karnafuli River in Upazila-Boalkhali, Dist-Chittagong (from chainage km 0.000 to km. 0.300 = 300.00 m). (Package No. PR-05/ RANG/ 2014-15)	386.74	386.74	03.09.2014	04.12.2014	30.06.15	09-09-16
Bank protective work at Chowdhuryhat to Rahim Ali Fakir Mosque at the left bank of Karnafuli River in Upazila-Boalkhali, Dist-Chittagong (from Km 0.000 to km. 0.350 = 350.00 m). (Package No. PR-07/ RANG/ 2014-15)	388.00	299.47	03.09.2014	04.12.2014	30.06.15	03-10-16
Bank protective work at Bashi Mohon Babur Bari area at the right bank of Karnafully River in Upazila-Rauzan, Dist-Chittagong (from chainage km 0.000 to km. 0.200 = 200.00 m). (Package No. PR-09/ RANG/ 2014-15)	298.60	234.26	03.09.2014	04.12.2014	30.06.15	30-06-16
Bank Protective Work at Military Pole area at the right bank of Boalkhali Khal in Upazila Boalkhali, District-Chittagong (From km. 0.000 to km. 0.225 = 225 m). (Package No. PR-21/ RANG/ 2014-15)	296.00	234.68	07.12.2014	05.02.2015	30.06.15	29-05-17

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Bank Protective Work at Naya Raster Matha to Chowdhuryhat at the left bank of Karnaphuli River in Upazila Boalkhali, District- Chittagong (From km. 0.00 to km. 0.300 = 300 m). (Package No. PR-22/ RANG/ 2014-15)	376.45	358.44	07.12.2014	09.02.2015	30.06.15	03-10-16
Bank Protective Work at Sawdagarpara area at the right bank of Karnafuli River in Upazila Raujan, District- Chittagong (From km. 0.000 to km. 0.200 = 200 m). (Package No. PR-23/ RANG/ 2014-15)	297.68	245.82	07.12.2014	09.02.2015	30.06.15	30-06-16
Bank protective work at Nazirkhali area at the left bank of Karnafuli River in Upazila - Boalkhali, Dist-Chittagong (from km 0.000 to km. 0.310=310.00m). (Package No. PR-31/ RANG/ 2014-15)	249.23	243.36	18.01.2015	29.03.2015	30.06.15	02-03-16
Bank protective work at Sheikhpara area at the right bank of Karnafuli River (from km 0.000 to km. 0.200=200.00m). (Package No. PR-01/ RANG/ 2015-16)	298.00	253.13	20.08.15	06.01.2016	30.06.16	28-06-17
Bank protective work at Kheyaghat Bazar area at the right bank of Karnafuli River (from km 0.000 to km. 0.300=300.00m). (Package No. PR-02/ RANG/ 2015-16)	419.00	375.89	20.08.15	10.01.2016	30.06.16	20-06-17
Bank Protective Work at Nazirkhali area to Rupmajhi khal area at the left bank of Karnafuli River from km 0.000 to km 0.140 = 140.00 m, km 0.150 to km 0.280 = 130.00 m, km 0.295 to km 0.325 = 30.00 m and km 1.075 to km 1.375 = 300.00 m total length 600.00m in Upazila- Boalkhali, Dist- Chittagong. (Package No. PR-04/ RANG/ 2015-16)	580.59	566.98	13.09.15	26.11.2015	30.06.16	30-06-16

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Bank Protective Work at Walong to Had Regulator at right bank of Karnafuli River (From km. 0.000 to km. 0.130 = 130.00m, from km. 0.156 to km. 0.220 = 64.00m and from km 0.259 to km. 0.565 = 306.00m, Total 500.00m) in Upazila Raozan, District- Chittagong. (Package No. PR 28/ RANG/ 2015-16)	788.00	692.54	02.12.15	18.01.2016	30.06.16	26-02-17

8.2 Use of Project Consultant (s) (Foreign/Local): Not Applicable

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:

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
Desktop Computer with Laser Printer	1 Set	2 Nos	02-07-2017	-	-	-

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
2013-14	191.89	191.89	-	2.67%	149.27	149.27	-	2.08%
2014-15	3503.97	3503.97	-	48.81%	2500.00	2500.00	-	34.83%
2015-16	3482.75	3482.75	-	48.52%	2496.26	2496.26	-	34.77%
2016-17	-	-	-	-	2033.08	2033.08	-	28.32%
Total:	7178.61	7178.61	-	100.00%	7178.61	7178.61	-	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
2013-14	150.00	150.00	-	2.08%	150.00	149.27	149.27	-	2.08%
2014-15	2500.00	2500.00	-	34.83%	2500.00	2499.91	2499.91	-	34.83%
2015-16	2500.00	2500.00	-	34.77%	2500.00	2496.27	2496.27	-	34.77%
2016-17	600.00	600.00	-	28.32%	600.00	519.24	519.24	-	28.32%
Total	5750.00	5750.00		100.00%	5750.00	5664.69	5664.69	-	100.00%

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objectives as per PP	Actual achievement	Reasons for shortfall if any
(a) The main objective of the project is to protect river erosion at different places of Boalkhali and Rauzan Upazila and its adjacent area along with its important business Centre and private/public properties and the very existence Flood Control Embankment of Boalkhali Irrigation Project from the devastating erosion of the Karnafuli river. The embankment of Boalkhali Irrigation Project is very important to safeguard the project area including its various infrastructures and communication network which grow over the years since its implementation.	5.485 km. revetment works have been completed along the vulnerable river bank at different locations of Boalkhali and Rauzan Upazila in the District of Chittagong. - 500 Acre (Approx.) land saved from river erosion. - Immovable properties worth BDT. 33275 Lakh saved from erosion. - 1,25,000 Nos (Approx.) of people got benefited. - 90 Acre (Approx.) agricultural land saved.	No Shortfall



(b) Another important objective of the project is Protection of Flood Control Embankment of Boalkhali Irrigation Project from the erosion of Karnafuli River not only reduces the threat of its extinction but also to save the agricultural products of the area.	The existing Embankment of Boalkhali Irrigation Project, agricultural land and other establishments adjacent to project area is now safe from devastating erosion of the Karnafuli River.	
(c) Huge immovable public & private properties with estimated total worth of BDT.40064.52 lakh dispersed in the vicinity of affected area will be saved from river erosion.	After the implementation of the protective work valuable public land, different establishments and other properties in the project area and its vicinity has been saved from river bank erosion.	

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).
River Bank Protection Work	Metre	5485.00 m	5485.00 m

02. Cost / Benefit:

Item	Estimated	Actual
(1) Benefit cost ratio of the project		Will be evaluated later by concern directorate of BWDB & IMED.
(i) Financial	(i) 1.56 : 1.00	
(ii) Economic	(ii) 1.83 : 1.00	
(2) Internal Rate of Return		
(i) Financial	(i) 21.34%	
(ii) Economic	(ii) 25.72%	

03. Please give reasons for shortfall, if any, between the estimated and actual benefit: Not Applicable



F. MONITORING AND AUDITING

0.1 Monitoring:

Name & designation of the inspecting official	Date of Inspection	Identified Problems	Recommendations
1	2	3	4
(i) Ministry/Agency:			
Mr. Md. Abdul Baten, Addl. Director General (ER), BWDB.	21.05.2015	-	Suggested to increase the progress so far of the Project.
Mr. Md. Ismail Hossain, Director General, BWDB.	07.08.2015	-	Suggested to increase the progress so far of the Project.
Mr. Md. Motaheer Hossain Deputy Secretary (Admn), Ministry of Water Resources	04.02.2016	-	Suggested to increase the progress so far of the Project.
Mr. Ramesh Chandra Sen, MP Chairman Parliamentary Standing Committee on Ministry of Water Resources	03.02.2017 To 06.02.2017	-	Suggested to declare complete so far implemented remaining work of the Project.
(ii) IMED:			
Mr. Parimol Chandra Bose, Deputy Director, IMED. Mrs. Lasmi Chakma Assistant Director, IMED	02.05.2015	-	Suggested to increase the progress so far of the Project.
Mrs. Lasmi Chakma Assistant Director, IMED	01.02.2016	-	Suggested to increase the progress so far of the Project.
Mr. Md. Afzal Hossain Director, IMED	26.04.2017	-	Suggested to declare complete so far implemented remaining work of the Project.
Mrs. Faima-Tuz-Zohora Thakur Assistant Director, IMED	19.05.2017	-	Suggested to declare complete so far implemented remaining work of the Project.

0.2. Auditing during and after Implementation.

2.1. Internal Audit: No audit conducted.

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

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	-	-	No audit objection arisen.
2014-15	-	-	No audit objection arisen.
2015-16	-	-	Yet to undergo auditing.
2016-17	-	-	Yet to undergo auditing.



G. DESCRIPTIVE REPORT

1. General Observations/Remarks of the Project on:

1.1 Background:

Major erosion of the river banks has been observed in different locations of the Karnafuli River, Boalkhali Khal and Raikhali Khal in recent years. Valuable infrastructures like roads, bridges, hydraulic structures, markets, homestead, Madrasna, school and agricultural land etc. are now under serious threat.

The Karnafuli River originates from the Lushai Hills and falls into the Bay of Bengal after flowing through 200 km. in the District of Chittagong Hill Tracts and Chittagong. It is a flashy river and meandering in nature. Erosion rate has been increased due to flash flood and rapid fluctuation of water level due to tidal influence.

Boalkhali Khal originates from Chittagong Hills Tracts over the hilly range in Kaptai, Boalkhali and Patiya Upazila in Chittagong District and meets with the Karnafuli River at 4.00 km. downstream of Kalur Ghat Railway Bridge. It is also flashy and meandering in nature. Erosion rate has been increased due to flash flood and rapid fluctuation of water level due to tidal influence.

Raikhali Khal originates in the hilly region of Chittagong Hill Tracts over the hilly range in Kaptai, Boalkhali and Patiya Upazila in Chittagong District and meets with the Karnafuli River at 2.00 km. downstream of Kalurghat Railway Bridge. It is also flashy and meandering in nature.

Boalkhali Irrigation Project were taken up with the multiple objectives/targets of mitigating flood hazards and drought by providing comprehensive FCDI facilities to augment food production and safety of local dwellers as well as enhancing economic and environmental condition. At pre-project condition, 11000 hectare irrigable paddy land would become flooded and water logged during monsoon. On the other hand, during dry season, cultivation was not possible due to lack of proper water management in the area. Hence, to provide Flood Control, Drainage and Irrigation (FCDI) facilities, Boalkhali Irrigation Project was implemented by constructing earthen embankment parallel to the left bank of Karnafuli.

The progressive bank line shifting at different places of the Karnafuli River, Boalkhali and Raikhali Khal had endangered the very existence of Boalkhali Irrigation Project. In this locality annual rate of bank erosion of the river was 5 m to 10 m. Without immediate erosion mitigation measures, further breach of embankment and intrusion of flood water in monsoon and frequent tidal flow in high tide could not be controlled. The currently implemented project has protected the embankment of Boalkhali Irrigation Project and has safeguard the agricultural products from flood and draught. It was anticipated that if the erosion had continued huge land including important Govt. and private establishment would have eroded over the for the coming years eventually resulting in a drop of agricultural products. In the context of much needed agricultural land, the protective work was required to be executed on priority basis to arrest the havoc in human lives and properties and uncertainty in agricultural production.

Therefore, it was the long standing demand of the people of Chittagong to safeguard Boalkhali Irrigation Project along with other vulnerable areas as well as their immovable properties and remedy of human hazards against alarming erosion of the Karnafuli River, Boalkhali and Raikhali Khal.



On the DPP of the project after execution of the project, the following positive impacts were expected to happen on Boalkhali Irrigation Project.

- a) Erosion of Boalkhali khal & Raikhali Khal will be controlled; Hence, Boalkhali Irrigation project will be saved from river erosion.
- b) Cultivable lands of Boalkhali Irrigation Project will be saved from river erosion.
- c) Besides, homesteads, different Government & Non-Government Installations, Commercial Institutions, School, Colleges, Mosques, Temples etc will be saved from river erosion & flood.
- d) Will increase more safety in producing crops in Boalkhali Irrigation Project area.
- e) Will increase socio-economic conditions of the people in the project area.

1.2 Justification/Adequacy:

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

1.3 Objectives:

The objectives of the project was to provide safety of the flood control embankment of Boalkhali Irrigation Project, human lives, properties and improve economic activities by construction of protective works at vulnerable location along the right bank of the Karnafuli River. Valuable establishments valued Tk. 33275.00 lakh are supposed to be saved by implementation of the protective works.

However, the specific objective and targets of the projects were as follows:

- to sustain the agricultural land and livelihoods by mitigating the risk of river bank erosion and Protection of flood control embankment from being eroded;
- to contribute to poverty alleviation by ensuring that future economic benefits are achieved;
- to improve social and economic conditions of the destitute families fallen a victim to river bank erosion;
- to provide substantial employment opportunities and cash income for landless, poor and vulnerable people, both women and men, during the construction period to provide a stable environment for development in the areas adjacent to the river bank.

1.4 Project revision with reasons:

This project consisted of 21 nos of work packages. During the tendering method, it was noticed that some packages got lesser contracted value than the DPP cost & while some got above. Also during implementing phase scope of variation works appeared for some packages. To address these issues the project was subjected to a inter package reappropriation within the DPP cost.

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

The progressive bank line shifting of the Karnafuli River, Boalkhali and Raikhali Khal at a length of 5.485 km. located at different places of Chittagong has endangered the very existence of Boalkhali Irrigation Project. In this locality annual rate of bank erosion of the river is 5 m to 10 m. Without immediate erosion mitigation measures further retirement of embankment and loss of important establishment and agricultural land cannot be stopped. The implemented project not only protects the embankment of Boalkhali Irrigation Project including its important establishment but also safeguard physical damage and human sufferings

Failure of the embankment as well as project facilities of the Boalkhali Irrigation Project due to river erosion have socio-economic and environmental impacts on lives and properties of 3.50 lakh inhabitants of the project area may be severely endangered. It is anticipated that if the erosion continues huge land including important Govt. and private establishment may be eroded over the next coming year. To save these important establishments and assets from near ruination due to river erosion, the required protective work executed on priority basis. Otherwise substantial losses of properties and infrastructures may be incurred.

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

◆ Project Identification:

A representation from the local UP Chairman on behalf of the affected people to the local Member of Parliament (MP) and a DO letter of **Mr. Mainuddin Khan Badal, MP (Chittagong-8) & Mr. A. B. M. Fazole Karim Chowdhury MP (Chittagong-6)** to the Honorable Minister, Ministry of Water Resources was given requesting him to solve the problem of river erosion along the both bank of Karnafuli River, both bank of Boalkhali Khal and Left bank of Raikhali Khal.

◆ Project Preparation:

Due to the severe erosion problem at different locations along the both bank of Karnafuli River, Boalkhali & Raikhali Khal at Boalkhali & Rauzan Upazila in Chittagong District, many cultivable lands, villages and infrastructures are engulfed in Karnafuli River, Boalkhali & Raikhali Khal. To mitigate the erosion problem a Technical Committee formed by BWDB provided a study report on the project area in July, 2009 and submitted report on September, 2012. According to the Technical Report Rangamati O&M Division, BWDB, Kaptai has prepared the DPP and processed for approval.

Appraisal: The project was appraised on Planning Commission on 27-12-2012.

◆ **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 02.07.2013 & and Re-Appropriation was approved on 01.03.2017.

◆ **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 stock 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 BRE flood control embankment 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.

Women's participation in development: Yes.

4.9 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.

4.10 Impact on environment :

Environmental enhancement is achieved through the implementation of the project.

4.11 Sustainability of the project:

The project is sustainable but requires periodic maintenance.

4.12 Contribution to poverty alleviation/reduction :

- Huge public and private properties dispersed around the said erosion prone area with approximate total worth of Tk. 33275.00 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.

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

Positive remarks regarding the project.

4.14 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-imbursement
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 such problem encountered during implementation.

6. Remarks & Recommendations of the Project Director :

The river Karnafuli, Boalkhali & Raikhali Khal is the most erosion prone river in Bangladesh. Boalkhali and Rauzan upazilla under Chittagong district were seriously affected by the both bank erosion of the river. Many people became helpless and dispersed. The landless people passes inhuman life. Many Government and Non-Government establishment, educational institutions, mosques, roads and agricultural land had been engulfed in the river. To protect the further erosion of different locations from the both bank erosion, "**Bank Protective Work along the left and right bank at different locations of Karnafuli River, Boalkhali & Raikhali Khal in Chittagong District**" project was approved in ECNEC held on 02.07.2013.



After the successful implementation of this project, the project area approximately 500 acre has been protected from severe both bank erosion of the river Karnafuli, Boalkhali & Raikhali Khal. Erosion prone area with approximate total worth of Tk. 33275.00 lakh is saved from river bank erosion. 1,25,000 Nos (Approx.) of people got direct benefited. The safety of flood control embankment along the left bank of Karnafuli River has been protected. The socio-economic condition of the people has been improved. Scopes of new jobs & works have been created. The safety of human livelihood and properties has 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 might be hampered.

Date: 15-10-2017

Signature and seal of the Project Director/Manager

(Md. Siddiqueur Rahman)
Superintending Engineer,
Chittagong O & M Circle
BWDB, Chittagong

7. Remarks/Comments of Agency Head

After implementation of this project, approximately 500 acre of land on different places of Boalkhali & Rauzan upazila in Chittagong district have been saved from the erosion on both banks of Karnafuli river. Boalkhali & Raikhali Khal, 90 acres of agricultural land have been saved. Immovable properties worth 332.75 crore taka have been saved. Approximately 125000 nos people have been benefited through this project. So this project is a success.

Date:

Signature and Seal

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

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

Date:

Signature and Seal

