### BANGLADESH WATER DEVELOPMENT BOARD



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

Name of the Project: Construction of Crossdam at Hargila for protection of left bank of Jamuna River in Islampur Upazila of Jamalpur district(1st Revised).

PROJECT PERIOD: JANUARY 2018 TO JUNE 2020.

DVISION : JMALPUR O&M DIVISION, BWDB, JAMALPUR.

CIRCLE: MYMENSINGHO&M CIRCLE, BWDB, MYMENSINGH.

ZONE : CENTRAL ZONE, BWDB, DHAKA.

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

#### PROJECT COMPLETION REPORT: IMED 04/2003 (REVISED)

#### **A. PROJECT DESCRIPTION:**

01. Name of Project

:Construction of Crossdam at Hargila for protection of left bank of Jamuna

River in Islampur Upazila of Jamalpur district (1st Revised).

02. Administrative Ministry/

Division

: Ministry of Water Resources

03. Executing Agency

: Bangladesh Water Development Board.

04. Location of the Project

: Upazila – Islampur, District: Jamalpur.

05. Object of the Project

- To arrest river bank erosion and flood protection coverage to an area of about 12000 ha near Hargila Bazar of Islampur Upazila of Jamalpur district by constructing a crossdam over a dead channel of Jamuna River for a length of 1200;
- To reclaim approximately 800 ha of land from Jamuna River;
- To reduce poverty and create opportunity for employment;

#### 06. Estimated Cost:

(In Lakh Taka)

	Original	Latest Revised(1st)
a) Total	3548.91	3070.07
b) Taka	3548.91	3070.07
c) Foreign Currency	-	-
d) Project Aid	-	-
e) RPA	-	-

07. Date of Approval:

PCP PP

a) Originalb) Revised (1<sup>st</sup>)

08/04/2018 30/06/2020

08. Implementation period:

	Date of Commencement	Date of Completion
a) Original	January, 2018	June, 2020
b) Latest Revised(1st)	January, 2018	June, 2020
b) Actual	January, 2018	June, 2020

#### 09. Financial Agreement (source wise):

#### 9.1 Status of Loan / Grant:

a) Foreign Financing:

į	Source(s)	Currency as	Amount in	Nature	Date of	Date of	Date of	Closing
		per	US\$	(Loan/Grant	Agreement	Effectiveness		
		Agreement	(Million)	Supplier's				
				credit)				
	1	2	3	4	5	6	7	8

#### b) GOB:

(In Lakh Taka)

Total Amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
3070.07	-	3070.07	

#### 9.2 Utilization of Project Aid: (Source wise)

(In Million)

	Total Amount		Total Amount Actual Expenditure		Unutilize	d Amount
	In US\$	In Local	IN US \$	In Local	In US \$	In Local
		Currency		Currency		Currency
1	2	3	4	5	6	7

#### 9.3 Reimbursable Project Aid (RPA)

(In Lakh Taka)

						(III DUINI I UNIU)
	RPA Amount		Amount Spent	Amount claimed	Amount	Remarks.
	As Per DPP	As per			Reimbursed	
		Agreement				
	1	2	3	4	5	6
ı				<u> </u>		L

#### **B. IMPLEMENTATION POSITION**

#### 01. Implementation Period:

Implementation I	Period as per DPP	Actual	Time Over Run	Remarks
Original	Latest Revised	Implementation Period	(% of Original Implementation Period)	,
1	2	3	4	5
January/2018	January/2018	January/2018	••	
to	to	to		
June/2020	June/2020	June/2020		

## 02. Cost of the Project:

				(In Lakh Taka)
Estimated Cost		Actual	Cost Over-run	Remarks
Original	Latest Revised	Expenditure	(% of original	Tromains
			cost)	
2	3	4	5	6
3548.91	3070.07	2406.30		Didn't Overrun
3548.91	3070.07	2406.30	-	Jan to Voltan
-	-	-	_	
	Original  2  3548.91	2 3 3548.91 3070.07	Original         Latest Revised         Expenditure           2         3         4           3548.91         3070.07         2406.30	Original         Latest Revised         Expenditure         (% of original cost)           2         3         4         5           3548.91         3070.07         2406.30         -

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

Sanctioned	Manpower	Status of the existing Manpower			Manpower Employed		
strength as per PP	employed during execution	Manpower requirement for O&M as per PP	existing Manpower for O&M	Others	Male	Female	
1	2	3	4	5	6	<del>                                     </del>	
Officer(s)			· · · · · · · · · · · · · · · · · · ·		U	+'	
Staff(s)							
Total						-	

Nil	
-----	--

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

Field of Training	Provision	as per PP	Ac	tual	Remarks
/Study tour/work shop/ Seminar etc.	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 Unit Target (as per PP) **Actual Progress** Reasons for (As per PP) Financial Physical Financial Physical deviation (±) (Quantity) (Quantity) 1 2 3 4 5 6 **Revenue Component:** Petrol & Lubricant l item 3.00 1 item 2.59 1 item **Printing & Publications** 1 item 1.50 1 item 1.49 1 item Stationary, seal & stamps 1.50 1 item 1 item 1.49 1 item Honourium for PSC, PIC, TEC. 4.80 Didn't require 1 item 1 item 2.35 1 item etc. members Survey (Bathymetry and 2.00 1 item 1 item 2.00 1 item Bankline Survey) Sub Total (A): 12.80 9.92 Capital Component: Dredging work for diverting the 6.20 km/ flow of Jamuna River near Ulia Km/ 6.20 Km. 1353.06 976009.00 948.24 Bazar (976009 cum, length- 6.20 Cum /710843.00 Cum Cum km, bed width- 120 m) Crossdam construction alongwith its protective work (Avg height-8m, width- 70m) Km 1684.21 1.20 Km 1448.14 1.20 Km (a) Rehabilitaion- 525m (b) New Construction- 675m Sub Total (B): 3037.27 2396.38 Physical Contingency 10.00 **Price Contingency** 10.00 Total (A+B): 100.00% 3070.07 2406.30 100.00%

#### 06. Information Regarding Project Director(s):

Name & Designation with	Full	Part	Responsible	Dat	e of	Remarks.
pay scale.	time	time	for more than one Project	Joining	Transfer	
1 4.	2	3.	4	5	6	7
Naba Kumar Chowdhury Executive Engineer 43000-69850	Full	-	Yes	08/04/2018	08/09/2019	
Mohammad Abu Sayed Executive Engineer 43000-69850	Full	-	Yes	15/09/2019	till date	

## 07. Procurement of Transport (in nos.): No provision of vehicle procurement in this project.

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
-	-	-	-	-	_	_

## 08. Procurement of Goods, Works and Consultancy Service.

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

Description of procurement (goods/work/consultancy) as per Bid document	Tender/Bid/Prop osal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works /services and supply of goods.	
	As per	Contra	Invitation	Contract	As per	Actual
	DPP	ct value	date	signing/LC opening date	contract	
1	2	3	4	5	6	7
Dredging work for diverting the flow of Jamuna River near Ulia Bazar (length- 6.20 km, bed width- 120 m)	Original- 18.319 1st Revised 13.53	Original- 16.459 Revised- 9.88	09//10/2018	18/01/2019	original: 18/12/2019 revised: 30/05/2020	30/05/2020
Crossdam construction alongwith its protective work  (a) Rehabilitaion- 525m  (b) New Construction- 675m	16.842	16.233 Revised- 15.17	29//08/2018	20/11/2018	original: 31/05/2019 revised: 30/06/2020	28/06/2020

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

Name of the field	Approved	man month	Actual man month	Remarks	
	As per PP As per contrac		utilized		
1	2	3	4	5	
) Foreign		Nil			
) Local		Nil		••••	

## 09. Construction / Erection / Installation Tools & Equipment:

Descr	iption	Quantity (As	Quantity	Transferred to	Deposed off	Balance	Remarks
of it	ems	perDPP)	procured with	O&M with	as per rule		
			date	date	with date		
1		2	3	4	5	6	7

#### **C. FINANCIAL AND PHYSICAL PROGRAMME:**

#### 11. (a) Original and revised schedule as per DPP.

(In Lakh Taka)

Financial	Financial 1	Financial Provision & Physical target as per				Provision &	Physical	target as per
year		original		latest revised DPP				
	Total	Taka	PA	Physical %	Total	Taka	PA.	Physical %
1	2	3	4	5	6	7	8	9
2017-18	1698.39	1698.39	_	47.85%	0.00	0.00	-	0.00
2018-19	1009.80	1009.80	**	28.45%	1197.36	1197.36	-	41.00 %
2019-20	840.72	840.72	-	23.70%	1872.71	1872.71	-	59.00 %
Total	3548.91	3548.91		100.00%	3070.07	3070.07	-	100.00%

#### 11. (b) Revised ADP allocation and progress:

(In Lakh Taka)

Financial	Revi	Revised Allocation & Target			Taka	Expend	diture & phy		rogress.
year	Total	Taka	P.A.	Physical %	release	Total	Taka	P.	Physical %
1	2	3	4	5	6	7	8	9	10
2017-18	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00%
2018-19	1207.00	1207.00	, nor	35.00 %	1207.00	1197.36	1197.36	-	41.00%
2019-20	1475.00	1475.00	-	65.00 %	1471.00	1208.94	1208,94	-	59.00%
Total	2682.00	2682,00	-	100.00%	2678,00	2406.30	2406.30	-	100.00%

#### **D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:**

Objective as per DPP	Actual achievement	Reasons for
		shortfall, if any.
(a) To arrest river bank erosion and flood protection coverage to an area of about 12000 ha near Hargila Bazar of Islampur Upazila of Jamalpur district by constructing a crossdam over a dead channel of Jamuna River for a length of 1200m (New: 675m and Rehabilitation: 525m);	River erosion has been arrested & the project area has been protected from flood.	No shortfall

1\_\_\_

(b) To reclaim approximately 800 ha of land from Jamuna River;	Approximately 800 ha of land has been reclaimed from Jamuna River.
To reduce poverty and create opportunity for employment;	Poverty level of the inhabitants of the project area has been reduced by protecting them from river erosion. By improving Socio-economic condition new opportunity has been created for new employment.

## **E. BENEEFIT ANALYSIS:**

### 01. Annual Out-put:

Items of out-put	Unit	Estimated quantity	Actual quantity of out-puts
		expected at full	during the 1st year of operation
		capacity	at full capacity (or during real
			production for newly
			completed project)
1	2	3	4
Safeguard to river bank erosion	ha	12000	12000
Cultivable Land of the Local People	ha	200	200
Crops of Cultivable Land of the Local	ha	200	200
People			
Residential Land of the Local People	ha	60	60
Kacha/ Pucca House	no	200	200
Kacha/Semi Pucca/ Pucca Shops	no	140	140
Metalled Road	Km	6.00	6,00
Market	no	1	1
Post Office	no	1	1
Schools/ Colleges/ Mosques/	no	4	4
Madrasha/ Upazila Complex/ NGO			
Office, Upazila Health Complex/ UP			
Office/ Saw Mill, Hat Bazar, etc.			

#### 02. Cost / Benefit:

Item	Estimated	Actual
(1) Benefit cost of the project		It will be evaluated later by concern
(i) Financial	1.9:1.00	directorate of BWDB & IMED.
(ii) Economic	2.19:1.00	
(2) Internal rate of return		
(i) Financial	26.90%	
(ii) Economic	31.53%	

(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	Date of	Identified Problems	Recommendations
official	inspection		
1	2	3	4
(a) Ministry / Agency :			
Akhil Kumar Biswas	Several	Not found	
Chief Engineer, Central Zone, BWDB.	times		
Md. Abdul Matin Sarkar	Several	Not found	
Chief Engineer, Central Zone, BWDB.	times		
Naba Kumar Chowdhury	Several	Not found	
PD&Executive Engineer,	times		
Jamalpur O&M Division, BWDB, Jamalpur.			
Mohammad Abu Sayed	Several	Not found	
PD&Executive Engineer,	times		
Jamalpur O&M Division, BWDB, Jamalpur			
A.K.M. Shafiqui Haque	Several	Not found	
Superintending Engineer,	times		
Mymensingh O&M Circle, BWDB,	}		
Mymensingh.			
Md. Shajahan Siraj	Several	Not found	
Superintending Engineer,	times		
Mymensingh O&M Circle, BWDB,	·		
Mymensingh.			
(b) IMED:			
Md. Afzol l Hossain	24/04/19	Geobag exposed to	Measure should be taken for
Director, IMED.		sunlight might not be	Geobags to protect from
		durable	sunlight
Upama Akter	18/10/19	Not found	
DD, IMED.		•	
(c) Others (Please specify ):			

#### 02. Auditing during and after Implementation:

#### 2.1. Internal Audit: Not Conducted.

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

#### 2.2. External Audit:

Audit Period	Date of submission of Audit Report.	Major findings/objections	Whether objection resolved or not.
1	2	3	4
2019-20	13/01/2020	Vat on insurance premium is to be paid	Vat on insurance premium has already been paid. Reply to audit objection is under process.

#### G. DESCRIPTIVE REPORT

. General Observations/Remarks of the Project on:

#### 1.1 Background

Bangladesh is a riverine country and bank line erosion of different rivers has been a recurrent effect. Riverbank erosion is a major problem associated with the large rivers in Bangladesh, such as the on average 12 km wide Brahmaputra/Jamuna, and has severe consequences to the livelihoods of those living on floodplains. While normal floods are considered beneficial for agriculture and fisheries, erosion and continuous river widening causes the loss of important infrastructure as well as highly productive agricultural lands and threatens settlements. Erosion will continue to impact on those living on the increasingly denser populated floodplains, and is likely to be exacerbated by climate change. Uncontrolled and increased riverbank erosion increases the risk of flood damage apart from the loss of vital infrastructure. Further investments are deferred and the full agricultural potential of the fertile floodplain land cannot be realized. As a consequence, crop production tends to remain below average in some of the most fertile parts of the country.

The characteristic channel shifting of the Brahmaputra is one of the main challenges for riverbank protection. The riverbed consists in general of fine, easily erodible sands with a high content of destabilizing mica, originating from the Himalayan mountains and deposited over thousands of years to form the Bengal delta. The annual sediment load is about 1 billion tonnes. Only part of the sediment consists of fertile clay, the rest is mostly infertile sand. This sediment

composition prevents the formation of a fixed or well defined riverbed, and also explains why the loss of fertile floodplain land does not translate into new fertile lands, as depositional areas initially mostly consist of sand and increased fertility takes years to develop. Every flood changes the river with new channels forming and old channels disappearing. This results in an overall "braided" system of many parallel channels with unpredictable and constantly shifting flow fields and erosion locations.

Similar sand bar started to develop in front of the segment from Ulia Bazar to downstream of Hargila Bazar. It was then expanded and a big char land was being formed. It's level was also growing. Farmers living around the area had started cultivation on the vast char land and some homesteads were also built there. The main channel of the Jamuna River shifted towards western side. But a narrow and shallow channel was existing near the left bank of Jamuna River. The local people constructed an earthen dam having insufficient section on the channel for several years, but the earthen dam was breached and demolished during flood periods. It may be mentioned that the dead/Spill channel contained a very small amount of water and that amount of water does not provide irrigation facilities to the char area's crops. The farmers used to produce crops which required small quantity of water in the area and that water was collected from the Jamuna's main channel through low-lift pumps.

The site was visited by the Honourabl Minister for Ministry of Water Resources, Honourabl State Minister for Water Resources, the Secretary of Ministry of Water Resources, the Addl. Director General of BWDB, Dhaka on 12-06-2014 and the inspecting team instructed the field officials to take necessary action for reducing the threat of damages of the left bank of the Jamuna River at the segment, Ulia Bazar to downstream of Hargila Bazar as well as protecting the char land of aproximately 800 ha on demand of the local people during Honourable Ministers' visit.

#### 1.2 Justification/Adequacy:

Bangladesh is a densely populated with poor natural resources base, lack of industrialization and vulnerability to natural disasters; like flooding, river bank erosion, saline inundation and cyclones etc. made Bangladesh as one of the undeveloped countries in the world. The major problem responsible for poverty includes high level of landlessness due to river bank erosion (i.e. population displacement and potential erosion damages and losses to productive agricultural and urban land and severs damage to property and infrastructure), recurrent floods, unemployment, illiteracy and malnutrition. The population of the Project area is very dense (about 1085 per square kilometer) and landless population is about 20-30% who are now living

as squatters in flood embankment and other Govt. areas. Socio-economic development of the people through agriculture and business generation development providing flood control support and protection of potential lands, infrastructures of urban and rural areas from erosion damages is the main objective to alleviate poverty of the area. The Project is placed in environmental screening category B since its bank protective measures by construction of crossdam along with temporary protective work; do not create irreversible and diverse adverse physical and social impacts. Identifiable adverse impacts would be confined to the implementation period, and shall occur primarily in one or two construction seasons each lasting several months. As such, the interventions by providing crossdam over a dead channel of Jamuna river and dredging of a part of a channel of Jamuna river have very little impacts or no negative impacts in and around the area. The project would prevent the erosion loss of about 260 ha of riparian land including about 60 ha of urban and semi-urban built-up area in the vicinity of Hargila Bazar of Islampur Upazilla of Jamalpur Distict and protect a population of about 50000 people from loss of land, livelihood, property, displacement and impoverishment. It would also prevent severe flood damage to crops, property and infrastructure as a result of embankment breached induced increased flooding from the Jamuna River.

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 Cross dam and dredging, safety of vast tract of agricultural lands and other immovable properties total worth of Tk.17095.00lakh will be ensured against river erosion.

#### 1.3. Objectives:

- To arrest river bank erosion and flood protection coverage to an area of about 12000 ha near Hargila Bazar of Islampur Upazila of Jamalpur district by constructing a crossdam over a dead channel of Jamuna River for a length of 1200 m;
- To reclaim approximately 800 ha of land from Jamuna River;
- To reduce poverty and create opportunity for employment:

#### 1.4. Project revision with reasons:

Main components of the project was 1) Construction of 1200 m long crossdam (Rehabilitation: 525m and new construction: 675m) on a spill channel of the Jamuna river and 2) river dredging in the Jamuna to create diversion channel with a length of 3.50km and a dredging volume of 12.05 lac cum. During process of DPP approval and tender invitation two rainy season were elapsed. During that period a remarkable morphological change took place. The Jamuna is a braided river. Huge volume of sediment is carried by the Jamuna every year. Cosequently morphological changes take place by creating new char and eroding away old chars. Along the dredging alignment on the immediate upstream and downstream new chars were seen during the implementation of dredging. So,

a new length and quantity become essential to fulfill the objective of the dredging as well as objective of the project.

On the above circumstances a Technical committee was formulated by Board vide memo no.: BWDB(Sec.)/Plann.-1/Etc.-3/2020(1st Part)/60, dated: 24-03-2020 headed by Superintending Engineer, Design Circle-1, BWDB to review the dredging length, quantity and alignment to make the work sustainable against the changed morphological condition of the Jamuna River near Ulia Bazar, Islampur, Jamalpur. According to the recommendation of the Technical Committee dredging length was revised as 6.20 km( km. -0.700 to km 5.500) instead of 3.50 km( km. 0.000 to km. 3.500). Dredging alignment has been extended by 0.700 km toward downstream and by 2.00 km toward upstream to fulfill the project objective. As per revised length of dredging dredging volume was reduced to 9.76 lac cum from 12.05 lac cum and dredging cost was reduced from Tk. 1831.90 lac to Tk. 1353.06 lac.

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

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

The objectives of Sixth Five Year Plan (SFYP) have been formulated to materialize the vision of 2021 alongwith other international, regional and national priorities. The priority strategies are; (i) People's participation in conformity with IWRM principals; (ii) Enhancing conveyance capacity of water courses through river dredging; (iii) Protection of river erosion; (iv) Land reclamation; and so on. The objective of the proposed project is to arrest river bank erosion and flood protection coverage to an area of about 12000 ha near Hargila Bazar of Islampur Upazila of Jamalpur district by construction a crossdam over a dead channel of Jamuna River for a length of 1200m and to reclaim approximately 800 ha of land from Jamuna river, which is quite relevant with the priority set forth in the 6th FYP and MDGs (Millennium Development Goals). As an action plan to protect said area from the increased river bank erosion of the Jamuna River, proposed project has been formulated following the Hon'ble Prime Minister's commitment and huge appeal of local Hon'ble MP & affected peoples for implementation on priority basis.

Accordingly, present project has been formulated to enstruct a 1200m crossdam over a spill chanel of the Jamuna and creating a diversion chanel to sppliment the crossdam in resisting the spill chanel to protect erosion in Hargila area of Islampur Upazila in jamalpur District. Implementing this project helps to protect Hargila and its adjacent area of Islampur, Jamalpur.



## 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 Jamuna River to protect Hargila area of Islampur Upazila in jamalpur District. from the erosion of the Jamuna and cosuquently reclaim 800 ha area.

#### Project Preparation:

To protect Hargila area of Islampur Upazila in jamalpur District from severe erosion of the Jamuna River. A Technical Committee was formed April/2017 by BWDB. On the basis of recommendation of the Technical Committee, DPP was furnished.

#### ♦ Appraisal:

The appraisal meeting was held on 11/01/2017 at Planning Commission. As per decision of appraisal meeting the DPP was corrected and sent to the Ministry of Planning for approval of the above project.

- ♦ Credit Negotiation: Not Applicable.
- Credit Agreement: Not Applicable.
- Credit Effectiveness: Not Applicable.
- ♦ Loan Disbursement: Not Applicable.
- ♦ Loan Conditionality: Not Applicable.

### ♦ Project Approval:

The Project was approved by honorable Minister, Ministry of Planning on 08/04/2018 and 1st Revised DPP was approved by MoWR on 30/06/2020.

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 directly taking advantages of the created facilities of the project.

### 4.3 O & M programme of the project.

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



#### 4.4 Impact of the project -

#### 4.4.1 Direct.

- Safeguard to arrest river bank erosion and flood protection coverage to an area of about 12000 ha near Hargila Bazar of Islampur Upazila of Jamalpur district have been ensured by construction of a crossdam over a dead/Spill channel of Jamuna River for a length of 1200m;
- Approximately 800 ha of land from Jamuna River has been reclaim.
- Ensure safeguard to BWDB's existing River Bank Protection Works at Ulia Bazar
- Huge immovable properties situated in and around the eroding bank of the river with approximate total worth of Tk. 17095.00 lakh which are supposed to be adversely affected were saved by the proper implementation of the project through construction of 1200m long crossdam alongwith temporary protective work by using 250kg size geo-bag under the project.

#### 4.4.2. Indirect

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

## 4.5 Transfer of Technology and Institutional Building through the project

Not Applicable.

### 4.6 Employment generation through the project.

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

#### 4.7 Possibility of Self employment

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

#### 4.8 Possibility of women-employment opportunity

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

#### 4.9 Women's participation in development

Yes.

#### 4.10 Probable Impact on Socio-Economic activity.

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

#### 4.11 Impact on environment

Environmental enhancement is achieved through the implementation of the project.

#### 4.12 Sustainability of the project

The project is sustained but requires periodic maintenance.

#### 4.13 Contribution to poverty alleviation/reduction

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

Page 14 of 18

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

Positive remarks regarding the project.

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

Not Applicable.

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

**Project Management** : N/A. **Project Director** : N/A. Land Acquisition : N/A. Procurement : N/A. Consultancy : N/A. Contractor N/A. Manpower N/A. Law & Order N/A. Natural calamity N/A Project financing, allocation and release N/A. Design formulation/approval : N/A. Project aid disbursement and re-imbursement : N/A. Mission of the development partners. N/A. Time & Cost Over-run N/A 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 characteristic channel shifting of the Brahmaputra is one of the main challenges for riverbank protection. The riverbed consists in general of fine, easily erodible sands with a high content of destabilizing mica, originating from the Himalayan mountains and deposited over thousands of years to form the Bengal delta. The annual sediment load is about 1 billion tonnes. Only part of the sediment consists of fertile clay, the rest is mostly infertile sand. This sediment composition prevents the formation of a fixed or well defined riverbed, and also explains why the loss of fertile floodplain land does not translate into new fertile lands, as depositional areas initially mostly consist of sand and increased fertility takes years to develop. Every flood

changes the river with new channels forming and old channels disappearing. This results in an overall "braided" system of many parallel channels with unpredictable and constantly shifting flow fields and erosion locations.

Similar sand bar started to develop in front of the segment from Ulia Bazar to downstream of Hargila Bazar. It was then expanded and a big char land was being formed. It's level was also growing. Farmers living around the area had started cultivation on the vast char land and some homesteads were also built there. The main channel of the Jamuna River shifted towards western side. But a narrow and shallow channel was existing near the left bank of Jamuna River. The local people constructed an earthen dam having insufficient section on the channel for several years, but the earthen dam was breached and demolished during flood periods. It may be mentioned that the dead/Spill channel contained a very small amount of water and that amount of water does not provide irrigation facilities to the char area's crops. The farmers used to produce crops which required small quantity of water in the area and that water was collected from the Jamuna's main channel through low-lift pumps.

The objectives of Sixth Five Year Plan (SFYP) have been formulated to materialize the vision of 2021 alongwith other international, regional and national priorities. The priority strategies are; (i) People's participation in conformity with IWRM principals; (ii) Enhancing conveyance capacity of water courses through river dredging; (iii) Protection of river erosion; (iv) Land reclamation; and so on. The objective of the proposed project is to arrest river bank erosion and flood protection coverage to an area of about 12000 ha near Hargila Bazar of Islampur Upazila of Jamalpur district by construction a crossdam over a dead channel of Jamuna River for a length of 1200m and to reclaim approximately 800 ha of land from Jamuna river, which is quite relevant with the priority set forth in the 6th FYP and MDGs (Millennium Development Goals). As an action plan to protect said area from the increased river bank erosion of the Jamuna River, proposed project has been formulated following the Hon'ble Prime Minister's commitment and huge appeal of local Hon'ble MP & affected peoples for implementation on priority basis.

Accordingly, present project has been formulated to enstruct a 1200m crossdam over a spill/daed chanel of the Jamuna and creating a diversion channel to supplement the crossdam in resisting the spill chanel to protect erosion in Hargila area of Islampur Upazila in jamalpur District. Implementing this project helps to protect Hargila and its adjacent area of Islampur, Jamalpur

Construction of Cross dam over a spill chanel with a low cost design using earthen core along with armoring with 250 Kg sand filled geobag is a new idea. After implementation of the cross dam it has already been proved sustainable and fruitful. Complying with the objective of the project the spill channel has already been silted up resulting in erosion mitigable and reclaimed

of huge land. Besides, the dredging has been found helpful for diversion of flow outward of the spill chanel.

Recommendation: Proper Monitoring and regular maintenance of the implemented Cross dam and dredging are required for more sustainability of the project.

(Mohammad Abu Sayed) Toro ID- 811201001 Project Director

Date Signature and Seal of the Project Director / Manager.

### 07. Remarks/ Comments of Agency Head.

After implementation of the project, river bank errosion has been mitigated and about 12000 ha area have been provided with flood protection. Land area of approximately 800 ha has been reclaimed as a tresult of construction of a crossodam over dead channel of the Jamuna River. This project has also provided safeguared to previously implemented bank protection works of BWDB. Thus, the project has yielded huge benefits.

Date.....

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

(A. M. Aminul Haque) Director General BWDB, Dhaka.

Signature and Seal.

Date.....

