

BANGLADESH WATER DEVELOPMENT BOARD



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

Name of the Project: Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist- Mymensingh (1st Revised).

PROJECT PERIOD: JANUARY 2019 TO JUNE 2022

DIVISION : Mymensingh O&M Division, BWDB, Mymensingh
CIRCLE : Mymensingh O&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 embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist- Mymensingh (1st Revised).
- 02. Administrative Ministry/ Division** : Ministry of Water Resources (MoWR)
- 03. Executing Agency** : Bangladesh Water Development Board (BWDB).
- 04. Location of the Project** : Upazila: Gafforgaon, District: Mymensingh.

05. Objective of the Project :

The main objectives of the project:

- The main objectives of the project is to make project area flood-free by constructing of 22.902 km ring embankment around the Char Algi Union.
- The re-excavation of 28.00 km Nakkata, Nakkata (Mora Nodi) and Charkatihari canals within the project area will improve the drainage system and irrigation facilities in the dry season and will have a positive impact on crop production.
- By constructing 4 nos regulator at the opening of the Nakkata khal, Charkatihari khal, Mora Nadi (near Hatshira Bazar), Konapara khal and constructing 1 nos inlet and 9 nos outlet at the naturally low land for irrigation facilities which will be ensured by retaining water during the dry season, on the other hand, at rainy season River water can be prevented from entering the project area.
- Making a positive impact on the security of the project area and the national economy through the development of socio-economic conditions.

06. Estimated Cost:

(In Lakh Taka)

	Original	Latest Revised (1 st)
a) Total	4397.11	5005.91
b) Taka	4397.11	5005.91
c) Foreign Currency	-	-
d) Project Aid	-	-
e) RPA	-	-

07. Date of Approval:

PCP	PP
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- a) Original : - 09/04/2019
- b) No cost time extension: - 23/06/2021
- c) Latest Revised (1st) : - 19/12/2021



08. Implementation period :

	Date of Commencement	Date of Completion
a) Original	January, 2019	June, 2021
b) No cost time extension	January, 2019	June, 2022
c) Latest Revised (1 st)	January, 2019	June, 2022
d) Actual	January, 2019	June, 2022

09. Financial Agreement (source wise):**9.1 Status of Loan / Grant:****a) Foreign Financing:**

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

..... N. A.

b) GOB:

(In Lakh Taka)

Total Amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
5005.91	-	5005.91	-

9.2 Utilization of Project Aid: (Source wise)

(In Million)

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

..... N/A.

9.3 Reimbursable Project Aid (RPA)

(In Lakh Taka)

RPA Amount		Amount Spent	Amount claimed	Amount Reimbursed	Remarks.
As Per DPP	As per Agreement				
1	2	3	4	5	6

..... N/A.

B. IMPLEMENTATION POSITION**01. Implementation Period:**

Implementation Period as per DPP		Actual Implementation Period	Time Over Run (% of Original Implementation Period)	Remarks
Original	Latest Revised			
1	2	3	4	5
January, 2019 to June, 2021	January, 2019 to June, 2022	January, 2019 to June, 2022	40.00%	Due to increased scope of work in RDPP & Covid-19 situation.

02. Cost of the Project:

(In Lakh Taka)

Description	Estimated Cost		Actual Expenditure	Cost Over-run (% of original cost)	Remarks
	Original	Latest Revised			
1	2	3	4	5	6
Total	4397.11	5005.91	4482.71	1.95%	Due to increased scope of work in RDPP.
Taka	4397.11	5005.91	4482.71		
PA	-	-	-		

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

Sanctioned strength as per PP	Manpower employed during execution	Status of the existing Manpower			Manpower Employed	
		Manpower requirement for O&M as per PP	existing Manpower for O&M	Others	Male	Female
1	2	3	4	5	6	7
Officer (s)	Existing manpower of the implementing agency were deployed during execution of the project.					
Staff (s)						
Total						

..... Nil

04. Training of project Personnel (Foreign/Local): No provision of any sort of training in this project.

Field of Training /Study tour/work shop/ Seminar etc.	Provision as per PP		Actual		Remarks.
	Number of Person	Man- months	Number of Person	Man-months	
1	2	3	4	5	6

a) Foreign Nil

b) Local Nil

05. Component wise Progress (As per Latest approved DPP):

(In Lakh Taka)

Items of work (As per PP)	Unit	Target (as per PP)		Actual Progress		Reasons for deviation (±)
		Financial	Physical (Quantity)	Financial	Physical (Quantity)	
1	2	3	4	5	6	7
Revenue Component:						
Petrol and Lubricant	item	3.00	100%	2.99	99.67%	
Printing & Publication	item	2.00	100%	2.00	100.00%	
Office Stationeries, Seal & Stamps	item	2.50	100%	2.50	100.00%	
Honorarium different committee in /c TEC	item	7.00	100%	4.57	65.36%	
Honorarium for Mid Term Evaluation comm.	item	8.00	100%	8.00	100.00%	
Survey & Investigation	item	5.25	100%	3.99	76.00%	
Miscellaneous	item	36.17	100%	34.92	99.28%	
Repair & Maintenance Motor vehicle	item	3.00	100%	2.98	99.33%	
Sub-Total (A) :		66.92	100%	61.95	92.57%	
Capital Component:						
Acquisition of Assets						
Motor vehicle (Motor cycle [125cc])	Nos	4.00	2	4.00	2	

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
Computer & Accessories [1. Desktop computer= 3Nos 2. Printer = 2 Nos 3. Scanner = 1 Nos 4. UPS = 3Nos]	Sets	2.75	3	2.75	3	
Office Accessories (Photocopier)	Nos	1.00	1	1.00	1	
Office Furniture	item	2.00	L.S.	2.00	L.S.	
Construction of works:						
Construction of Embankment	Km.	2198.74	22.902	1840.51	21.402	700 m road constructed by RHD & LGED and 800 m developed land with densely populated areas e.g., houses and public properties on the embankment alignment serves the purpose as flood control embankment. Hence, on those 1.5 km length of embankment alignment, no embankment was constructed.
Construction of Regulator & Inlet/Outlet: (3-vent 2Nos; 2-vent 2Nos; Inlet-1No and Outlet 9Nos)	Nos	1499.31	14	1435.64	14	
Re-excavation of Khal (28.00km)	Km./ cum	1199.13	28.00 km/ 8.55 lakh cum	1102.99	28.00 km/ 7.64 lakh cum	
Repair of Regulator (1 Nos with re-excavation of khal)	Nos	32.06	1	31.87	1	
Sub-Total (B) :		4938.99		4420.76		
(C) Physical Contingency		0.00		0.00	-	
(D) Price Contingency		0.00		0.00	-	
Total (A+B+C+D):		5005.91	100%	4482.71	92.00%	

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
Md. Zahurul Haque Executive Engineer Mymensingh O&M Division 43,000-69,850 (Grade-5th)	Yes	-	No	24/06/2019	01/03/2020	-
Md. Musa Executive Engineer Mymensingh O&M Division 43,000-69,850 (Grade-5th)	Yes	-	No	02/03/2020	30/09/2021	-
Md. Akhlak Ul Jamil Executive Engineer (CC) Mymensingh O&M Division 35,500-67,010 (Grade-6th)	Yes	-	No	07/12/2021	till to date	-



07. Procurement of Transport (in nos.):

Type of Transport	Number as per DPP	Procured with date	Transferred to Transport Pool with date	Transferred to O&M with date	Condemned/damaged with date	Remarks.
1	2	3	4	5	6	7
Motor Cycle	2	02/01/2021	-	Mymensingh O&M Division, BWDB, Mymensingh. 02/01/2021	-	Are being Used by Sectional Officers for Monitoring & Supervision of the Project works. (Mymensingh -La-12-2160, Mymensingh -La-12-2202).

08. Procurement of Goods, Works and Consultancy Service.

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

Description of procurement (goods/work/consultancy) as per Bid document	Tender/Bid/Proposal Cost (in Lakh Taka)		Tender/Bid/Proposal		Date of completion of works /services and supply of goods.	
	As per DPP	Contract value	Invitation date	Contract signing/LC opening date	As per contract	Actual
1	2	3	4	5	6	7
Construction of Embankment from KM 0.00 to KM 7.00 = 7.00KM i/c Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist- Mymensingh during the year 2019-20 & 2020-21 (Package No. BWDB/ Mym/CAG/EMB-1).	Original : 715.97 Revised : 693.53	693.53	15-10-19	19-01-2020	31-05-2021	20-06-2022
Construction of Embankment from KM 7.00 to KM 14.00 = 7.00KM i/c Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist- Mymensingh during the year 2019-20 & 2020-21 (Package No. BWDB/Mym/CAG/EMB-2).	Original : 676.97 Revised : 691.37	691.37	15-10-19	19-01-2020	31-05-2021	20-06-2022
Construction of Embankment in between KM 14.000 to KM 22.000 = 7.150 KM i/c Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist- Mymensingh during the year 2019-20&2020-21 (Package No.: BWDB/Mym/CAG/EMB-3).	Original : 638.84 Revised : 706.01	706.01	15-10-19	19-01-2020	31-05-2021	20-06-2022
Re-excavation of Nakkata Khal (Mora Nadi) in between KM 0.00 to KM 10.00 = 9.950 KM in c/w Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist- Mymensingh during the Year 2019-20 & 2020-21. (Package No: BWDB/Mym/CAG/KHAL-2).	Original : 419.39	419.39	13-10-19	12-01-20	31-05-2021	31-12-2021

Description of procurement (goods/work/consultancy) as per Bid document	Tender/Bid/Proposal Cost (in Lakh Taka)		Tender/Bid/Proposal		Date of completion of works /services and supply of goods.	
	As per DPP	Contract value	Invitation date	Contract signing/LC opening date	As per contract	Actual
1	2	3	4	5	6	7
Re-excavation of Nakkata Khal in between KM 0.000 to KM 10.430 = 10.338 KM in c/w Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist-Mymensingh during the Year 2019-20 & 2020-21. (Package No.:BWDB/Mym/CAG/KHAL-3).	Original : 415.70 Revised : 410.54	410.54	15-10-19	19-01-20	31-05-2021	15-01-2022
Construction of Char Katihari Regulator 3-Vent (1.5m x 1.8m) in c/w Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist- Mymensingh during FY 2019-20 & 2020-21. (Package No.: BWDB/Mym/CAG/REG-1).	Original : 300.34 Revised : 334.72	334.72	31-12-19	12-02-2020	31-05-2021	28-02-2022
Construction of Nakkata Khal Regulator (3-Vent) in c/w Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist-Mymensingh during FY 2019-20 & 2020-21 (Package No: BWDB/Mym/CAG/REG-2).	Original : 334.94 Revised : 353.42	353.42	20-01-20	25-02-2020	31-05-2021	15-06-2022
Construction of Hatshira Regulator (2-Vent) in c/w Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist-Mymensingh during FY 2021-22. (Package No.:BWDB/Mym/CAG/REG-3)	Original : 200.95 Revised : 218.86	218.86	09-09-21	11-01-2022	31-05-2022	10-06-2022
Construction of Konapara khak Regulator (2-Vent) in c/w Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist-Mymensingh during FY 2021-22. (Package No.:BWDB/Mym/CAG/REG-4)	Original : 223.88 Revised : 247.97	247.97	09-09-21	11-01-2022	31-05-2022	10-06-2022

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 utilized	Remarks
	As per PP	As per contract.		
1	2	3	4	5

a) Local: Nil
b) Foreign: Nil



09. Construction / Erection / Installation Tools & Equipment:

Description of items	Quantity (As per DPP)	Quantity procured with date	Transferred to O&M with date	Deposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7
Desktop Computer	3	18/02/2020	18/02/2020	-	3	Being used for official purpose in Mymensingh O&M Division, BWDB, Mymensingh
Printer	2	18/02/2020	18/02/2020	-	2	
UPS	3	18/02/2020	18/02/2020	-	3	
Scanner	1	20/06/2021	20/06/2021	-	1	
Photocopier	1	20/12/2020	20/12/2020	-	1	

C. FINANCIAL AND PHYSICAL PROGRAMME:**11. (a) Original and revised schedule as per DPP:**

(In Lakh Taka)

Financial year	Financial Provision & Physical target as per original DPP				Financial Provision & Physical target as per latest revised DPP			
	Total	Taka	PA	Physical %	Total	Taka	PA	Physical %
1	2	3	4	5	6	7	8	9
2018-19	313.75	313.75	-	7.14%	-	-	-	-
2019-20	1911.75	1911.75	-	43.48%	121.50	121.50	-	2.43%
2020-21	2171.61	2171.61	-	49.38%	1942.54	1942.54	-	38.80%
2021-22	-	-	-	-	2941.87	2941.87	-	58.77%
Total	4397.11	4397.11	-	100.00%	5005.91	5005.91	-	100.00%

11. (b) Revised ADP allocation and progress:

(In Lakh Taka)

Financial year	Revised Allocation & Target				Taka release	Expenditure & physical progress.			
	Total	Taka	P.A.	Physical %		Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9	10
2018-19	-	-	-	-	-	-	-	-	-
2019-20	800.00	800.00	-	16.57%	125.00	121.50	121.50	-	23.00%
2020-21	2500.00	2500.00	-	37.01%	2000.00	1942.55	1942.55	-	30.58%
2021-22	2932.00	2932.00	-	46.42%	2932.00	2418.66	2418.66	-	38.42%
Total	6232.00	6232.00	-	100.00%	5057.00	4482.71	4482.11	-	92.00%

*During FY 2019-2020 & 2020-2021 funds weren't released as allocated.

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objective as per DPP	Actual achievement	Reasons for shortfall, if any.
(a) To make project area flood-free by constructing of 22.902 km ring embankment.	Construction of 21.402 km ring embankment at left side of the old Brahmaputra River ensures protection against flood at project area.	700 m road constructed by RHD & LGED and 800 m developed land with densely populated areas e.g., houses and public properties on the embankment alignment serves the purpose as flood control embankment So, no shortfall in attaining project objective.



Objective as per DPP	Actual achievement	Reasons for shortfall, if any.
(b) Re-excavation of 28.00 km canals to improve drainage system and retain water for irrigation facilities.	Re-excavation of 28.00 km canals serve the purpose of improved drainage system and retain water for irrigation facilities in dry season and will have positive impact on crop production.	No Shortfall.
(c) By constructing 4 nos regulator, 1 nos inlet and 9 nos outlet at the naturally low land for irrigation facilities which will be ensured by retaining water during the dry season. In rainy season, river water can be prevented from entering the project area	Construction of 2 nos 3-vent Regulators, 2 nos 2-vent Regulators, 1 nos 1-vent inlet and 9 nos 1-vent outlet has served the purpose of retaining water at dry season for irrigation facilities and prevent river water from entering at project area.	No Shortfall.
(d) Making a positive impact on the security of the project area and the national economy through the development of socio-economic conditions.	The project has ensured safeguard against flood in the project area. As the project area gets flood protected with improved drainage facility & retention of irrigation water, socio-economic condition of the project area is improved.	No Shortfall.

E. BENEFIT ANALYSIS:

01. Annual Out-put:

Crops of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-puts during the 1 st year of operation at full capacity (or during real production for newly completed project)
1	2	3	4
Incremental production than the pre-project condition:			
B. aus (L)	mt	525.00	As the project has just been completed, the actual output can be assessed after a year from completion.
T. Aman (L)	mt	855.00	
T. Aman (HYV)	mt	875.00	
Boro (HYV)	mt	1875.00	
Wheat (HYV)	mt	544.50	
Bhutta	mt	170.50	
Potato	mt	1200.00	
S Vegetables	mt	1750.00	
W Vegetables	mt	1625.00	
Mustard	mt	66.00	
Nut	mt	300.00	
Jute	mt	480.00	
Chilies	mt	55.00	
Fruits	mt	66.00	

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02. Cost / Benefit:

Item	Estimated	Actual
(1) Benefit cost of the project		It will be evaluated later by concern directorate of BWDB & IMED.
(i) Financial	-	
(ii) Economic	1.79:1.00	
(2) Internal rate of return		
(i) Financial	-	
(ii) Economic	23.47%	

(3) Please give reason for shortfall, if any, between the estimated and actual benefit: No Shortfall

F. MONITORING AND AUDITING.**01. Monitoring:**

Name & Designation of the inspecting official	Date of inspection	Identified Problems	Recommendations
1	2	3	4
(a) Ministry/Agency:			
Mr. S. M. Rezaul Mostofa Kamal Additional Secretary (Planning) Ministry of Water Resources	09/01/2021 20/10/2021	1. Country side slope should be maintained according to design. 2. Turfing and afforestation should be made on newly constructed embankment. 3. Afforestation should be done on the bank of canals. 4. Electric poles of REB should be relocated from embankment alignment as early as possible. 5. Stakeholder's opinion should be considered before construction of inlet and outlet.	Project Progress was satisfactory. Instructed to follow approved designs for embankment, khals & regulator.
Mid-Term Evaluation Committee	31/12/2021 01/01/2022	1) During the construction of embankment, 1:2 slope was not kept at some places of countryside. 2) The excavated soil is kept as rough dressing on both sides of the canal. Leveling/dressing not done properly. No afforestation was seen along the canal and embankment. 3) Palli Bidyut Samiti had electric poles along the	1) Slope should be kept 1:2 at country side. 2) Leveling and turfing must be done in all parts of the embankment. Initiatives should be taken to plant trees on embankment. 3) Measures should be taken to remove existing electricity poles on embankment. 4) Project must be completed within stipulated time.

Name & Designation of the inspecting official	Date of inspection	Identified Problems	Recommendations
1	2	3	4
		embankment alignment.	
1. Mr. A.M. Aminul Haque Director General, BWDB 2. Mr. Md. Abdul Matin Sarkar Chief Engineer, Central Zone, BWDB 3. Mr. Md. Motaher Hossain Chief Engineer, Design, BWDB	28/08/2020	No major problems identified.	Project Progress was satisfactory. Instructed to submit design data immediately for additional works.
Mr. Md. Abdul Matin Sarkar Chief Engineer, Central Zone BWDB, Dhaka.	Several times	No major problems identified.	Instructed to follow approved designs for construction works.
Mr. Md. Shahjahan Siraj Superintending Engineer Mymensingh O&M Circle BWDB, Mymensingh.	Several times	No major problems identified.	Instructed to follow approved designs for construction works.
Mr. Md. Mahfuzur Rahman Superintending Engineer Mymensingh O&M Circle BWDB, Mymensingh.	Several times	No major problems identified.	Instructed to follow approved designs for construction works.
Mr. Md. Abdul Basit Superintending Engineer Design Circle-1, BWDB, Dhaka.	Several times.	No major problems identified.	Instructed to follow approved designs for construction works.
Mr. Md. Abdullah Al Mamun Superintending Engineer Quality Control And Assurance Directorate (East) BWDB, Dhaka.	19/02/2022	No major problems identified.	Instructed to follow approved designs for construction works.
(b) IMED :			
Mr. Khalil Ahmed Director, IMED	18/01/2022	No major problems identified.	Project must be completed in time
(c) Others:			
Mr. Anwarul Abedin Khan (Tuhin) Member of Parliament, Mymensingh-09	26/02/2020	-	Inaugurated the Embankment work.

2.0 Auditing during and after Implementation:

2.1. Internal Audit:

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



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	-	-	Yet to be conducted
2020-21	-	-	
2021-22	-	-	

G. DESCRIPTIVE REPORT

General Observations/Remarks of the Project on:

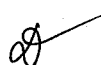
1.1 Background

Bangladesh is a Riverine country with an area of about 1, 47,570 square kilometers. A large part of the total area of the country is covered by rivers, canals, beels, lakes and haors, i.e., open water bodies. Almost half of Bangladesh's landscape in the lowest reaches of the three major river systems, the Ganga, the Brahmaputra and the Meghna. On the other hand, 80 percent of the country's total land is floodplain which is flooded during monsoons. In terms of climate, the climate of Bangladesh is characterized by humidity, temperate and opposite winds in winter and summer, which are distinct seasonal variations. Due to this strange behavior of nature, floods occur almost every year during the monsoon season and most of the land in the country is inundated as well as the banks of the rivers are prone to erosion. As a result, huge amount of wealth is threatened.

Char Algi is an important area under Gafforgaon upazila of Mymensingh district which is located on the left bank of old Brahmaputra River. The Brahmaputra River originates from the Chemayung-Dung glacier, located 145 km from the important trading center of Parkha, between Lake Manas and Mount Kailash in Tibet. The Brahmaputra flows through Assam, India and enters Bangladesh through the Kurigram district before falling into the vast Bengal plains. The name of the river originating from the eastern bank of Brahmaputra and flowing north of Bahadurabad is Old Brahmaputra. This river flows over Jamalpur and Mymensingh cities in a slightly south-easterly direction and joins the Meghna near Bhairab bazar.

River channel change is a special feature of the Bengal basin. As a result, parts of the river and the entire course of the river may change from time to time. Due to this change in the course of the river, most of the water of the old Brahmaputra River is flowing through the Jamuna. Along with the large volume of water flow, the Brahmaputra River also carries a large amount of silt. The Jamuna carries about 12 lakh tons of sediment daily during the monsoon season and the annual sediment carrying capacity of the Jamuna measured at Bahadurabad is about 735 million tons. Due to continuous decline in water flow in the old Brahmaputra River and heavy silt carrying, numerous chars and submerged chars are formed across the river bed. Even the 6 (six) km long char is falling at the source of the old Brahmaputra River and the water flow is almost weakening. But when the river regains its youth in the monsoons, the river makes an aggressive rampage on its two sides and various public and private infrastructures, including paved roads, educational and religious institutions, agricultural and non-agricultural land, crops, public houses, etc. are about to disappear into the river.

Needless to say, that most of the people of Char Algi area are poor and dependent on agricultural work and agriculture is their main livelihood. In the current situation, the agricultural production is severely hampered due to lack of irrigation. As there is no flood control dam in the vicinity of Char Algi Union, the pre-monsoon flood water of Brahmaputra River almost every year is causing great damage to crops, houses, livestock and property of the area. Moreover, there are several canals in different places of the project area. Due to the influx of flood water along with a lot of sand in the project area during the monsoons, the canals are now silted up and have lost their



water holding capacity. Therefore, during the monsoon season, the crops of vast areas get submerged in flood water and get destroyed. Again, due to lack of water regulator, agricultural work is disrupted due to lack of irrigation water in the area during the dry season. As a result, it is not possible to produce the desired crop. Therefore, there is a negative impact on the national economy along with the deterioration of the socio-economic conditions of the area.

It should be noted here that on March 31, 2011, the Honorable Prime Minister of the People's Republic of Bangladesh during her visit to Gafforgaon Upazila, in view of the demands of the people of Char Algi Union, committed to build a ring embankment on all sides to protect the residents of the Brahmaputra River from Erosion and flooding and instructed the concerned department to take necessary measures. Besides, the Honorable Member of Parliament of 155, Mymensingh-10 (Gafforgaon) issued a DO letter to the Honorable Minister of Water Resources for the purpose of implementing permanent embankment protective works to protect various places of Char Algi Union from the breach of Brahmaputra River and to make the project area flood protected. In this situation, in the light of the commitment of the Honorable Prime Minister and the direction of the Honorable Minister of Water Resources, the project titled **"Construction of embankment along the left bank of Old Brahmaputra River to protect Char Algi Union in Upazila-Gafforgaon, Dist- Mymensingh"** was taken to improve the standard of living of the people of Char Algi Union. The described project initially includes construction of 22.00 km flood control embankment, re-excavation of 28.00 km drainage canal, construction of 2 no 3-vent regulators and repair work of 01 no 3-vent old regulator.

1.2 Justification/Adequacy:

The people of Char Algi area are poor and dependent on agricultural work and agriculture is their main livelihood. In the current situation, the agricultural production is severely hampered due to lack of irrigation. As there is no flood control embankment in the vicinity of Char Algi Union, the pre-monsoon flood water of Brahmaputra River almost every year is causing great damage to crops, houses, livestock and property of the area. Moreover, there are several canals in different places of the project area. Due to the influx of flood water along with a lot of sand in the project area during the monsoons, the canals are now silted up and have lost their water holding capacity. Therefore, during the monsoon season, the crops of vast areas get submerged in flood water and get destroyed. Again, due to lack of water regulator, agricultural work is disrupted due to lack of irrigation water in the area during the dry season. As a result, it is not possible to produce the desired crop. Therefore, there is a negative impact on the national economy along with the deterioration of the socio-economic conditions of the area.

1.3. Objectives:

The main objectives of this project are-

- The main objectives of the project is to make project area flood-free by constructing of 22.902 km ring embankment around the Char Algi Union.
- The re-excavation of 28.00 km Nakkata, Nakkata (Mora Nodi) and Charkatihari canals within the project area will improve the drainage system and irrigation facilities in the dry season and will have a positive impact on crop production.
- By constructing 4 Nos regulator at the opening of the Nakkata khal, Charkatihari khal, Mora Nadi (near Hatshira Bazar), Konapara khal and constructing 01 no inlet and 9 nos outlet at the naturally low land for irrigation facilities can be ensured by retaining water during the dry season, on the other hand, at rainy season River water can be prevented from entering the project area.
- Making a positive impact on the security of the project area and the national economy through the development of socio-economic conditions.



1.4. Project revision with reasons:

The project was approved by Hon'ble Planning Minister on 09-04-2019. The project is spread over some parts of Char Algi Union of Gafargaon Upazila and Char Betagair Union of Nandail Upazila, Balipara Union of Trishal Upazila and Jinari Union of Hossainpur Upazila. The project includes construction of 22.00 km flood control embankment, re-excavation of 28.00 km drainage canal, construction of 2 nos 3-vent regulators and repair work of 1 nos 3-vent old regulator.

The people of the area blocked the dumping of soil for the proposed embankment in some low places including Mora Nodi (Hatshira), Konapara canal, Charmadakhali canal, Baluakanda canal, Tekirchar canal. Talking to the people of the area, it is known that if the mentioned small canals and low places are closed by dumping of soil, then there will be massive flooding in the project. Therefore, the local public representatives and people of the area strongly demanded to construct 2 regulators in Mora Nodi (Hatshira) and Konapara canals and other small canals and outlets/inlets at low places.

In the 1st meeting of the Project Steering Committee on 29/10/2020, some implementation problems & possibility of inclusion of some additional works in RDPP was discussed. In the Project Steering Committee Meeting, it was decided that a newly formed technical committee and Additional Director General (Eastern Region), BWDB will submit a report after inspecting the project area on site. The Director General, Chief Engineer and Superintending Engineer, BWDB visited the site to review the overall status of the project. Superintending Engineer, Mymensingh, Superintending Engineer, Design Circle-1 (Convener, Technical Committee) and Member Secretary of Technical Committee along with committee members visited the project area in several times.

The following opinions and recommendations were given by the Committee:

- Given the actual condition of the project, there is a need to construct 2 nos 2-vent regulators for proper drainage in Hatshira (Mora Nodi) and Konapara canals.
- It is recommended to construct 9 nos outlets and 1 nos inlet (total-10 no) in naturally low/sloping areas including Charmadakhali Canal, Baluakanda Canal, Tekirchar Canal;
- Under package No. 2 of the embankment, the center line of the embankment proposed to be shifted from C/S to R/S 2.00 to 3.00 m from Mirapara to Muktijodhar Mor (between Km 11.800 to Km 14.000) because the place is highly densely populated and the embankment slopes over public houses.
- In package No. 3, embankment under construction from km 14.700 to km 15.600 is densely populated on both sides of the embankment and though there was no provision for land acquisition for the construction of the embankment, it was not possible to collect the soil through excavator (Long Boom) and construct the embankment. So, the entire soil of the proposed portion through carried earth and package no.3 along with package no.1 and package no.2 of the embankment which were situated in very densely populated area and the soil had highly sand content and it was not possible to collect the soil required for the construction of embankment from R/S, it was necessary to collect the soil through Manual Labor/Carried Earth from far distance.
- In between embankment km 22.00 to Char Katihari 3-vent regulator, in the middle portion there was rural road. Compared to ring embankments design, the elevation of rural road won't make that fulfill the flood protection purpose. Hence to make the area fully flood protected, construction/reconstruction of 0.902 km embankment is required.
- 2.1 km of re-excavation was required to be implemented upstream of Nakkata (Mora Nodi) Canal which would be connected with Hatshira Regulator.



- Palli Bidyut Samiti had 42 no of electric poles along the Embankment alignment. Due to these electric poles, the construction of the embankment was disrupted. There was required a provision in RDPP for sufficient funds for installation of 14 no new poles and removal and re-installation of 42 no electric poles.
- Vertical lift gates of existing Hazipur 3-vent water drainage infrastructure was corroded due to rust and new vertical lift gates were needed to be reinstated.

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

The main DPP includes construction of 22.00 km flood control embankment, re-excavation of 28.00 km drainage canal, construction of 2 nos 3-vent regulators and repair work of 1 no 3-vent old regulator. There was no provision for land acquisition for the construction of embankment so, total 20.50 km ring embankment was constructed on donated public land and the project area is highly densely populated. That's why it was not possible to construct few parts of embankment as per actual design and specification. As a result measured volume of earth work found less than estimation. Henceforth, according to the demand of people and recommendation of Committees and specialists, RDPP was processed and approved. According to RDPP, additional 902-meter flood control embankment was constructed in between embankment km 22.00 to Char Katihari 3-vent regulator, 2 nos 2-vent regulators were constructed in Hatshira (Mora Nodi) and Konapara canals and 9 nos outlets and 1 nos inlet (total-10 no) were constructed in Charmadakhali Canal, Baluakanda Canal, Tekirchar Canal. Therefore, due to increased scope of work in RDPP & worldwide Covid-19 pandemic situation, it was required 1 year no cost time extension for the Project. The project was taken up based on Honorable Prime Ministers commitment made on 2011. Though being late, BWDB has taken the initiative to implement the committed works. The concept & design of the project is BWDB's conventional practice & BWDB has implemented the project in quick duration with sufficient expertise.

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

◆ Project Identification:

On March 31, 2011, the Honorable Prime Minister of the People's Republic of Bangladesh during her visit to Gafforgaon Upazila, in view of the demands of the people of Char Algi Union, committed to build a ring embankment on all sides to protect the residents of the Brahmaputra River from Erosion and flooding and instructed the concerned department to take necessary measures. Besides, the Honorable Member of Parliament of 155, Mymensingh-10 (Gafforgaon) issued a DO letter to the Honorable Minister of Water Resources for the purpose of implementing permanent embankment protective works to protect various places of Char Algi Union from the breach of Brahmaputra River and to make the project area flood free. In this situation, in the light of the commitment of the Honorable Prime Minister and the direction of the Honorable Minister of Water Resources, the project was taken up.

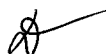
◆ Project Preparation:

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

◆ Appraisal:

The PEC meeting of the project was held on 27-11-2018 at the Planning Commission.

◆ 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 Planning Minister on 09-04-2019 and 1st Revised DPP was approved by Honorable State Minister of Ministry of Water Resources on 19-12-2021.

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

- 4.3 O & M Programme of the project.**

After 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.

- i. Protection of surrounding community from inundation during monsoon period.
- ii. Ensuring drainage of 4610 hectares (gross area) of the project area and irrigation facilities in about 3825 hectares of land of Char Algi Union, Gaforgaon Upazila.

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. People are increasing their business on fisheries. Improved Irrigation land increases crop cultivation. Thus, this project is bringing up positive impact in employment

- 4.7 Possibility of Self employment**

There are possibilities of self-employment.

- 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.**

There is a positive impact on the security of the project area and the national economy through the development of socio-economic conditions.



4.11 Impact on environment

Environmental enhancement is achieved through the implementation of the project.

4.12 Sustainability of the project

This project on left bank of Old Brahmaputra River is performing well and good and as per expectation and can be declared as sustainable. Like any other development projects especially as a hydrological project of more numbers of uncertainties, it will require periodic maintenance of the physical structures. Upon ensuring periodic maintenance as per requirement, the life of the project can be extended up to greater extent.

4.13 Contribution to poverty alleviation/reduction

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

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

Positive remarks regarding the project.

4.15 Contribution of Micro-credit 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 : N/A.

5.2 Project Director : N/A.

5.3 Land Acquisition : The whole project is implemented on public donated land. There was no provision of land acquisition in this project. So, some local problems were aroused during implementation of the project.

5.4 Procurement : N/A.

5.5 Consultancy : N/A.

5.6 Contractor : N/A.

5.7 Manpower : N/A.

5.8 Law & Order : N/A.

5.9 Natural calamity : Worldwide COVID-19 pandemic squeezed up eligible working time.

5.10 Project financing, allocation and release : N/A

5.11 Design formulation/approval : N/A.

5.12 Project aid disbursement and re-imburement : N/A.

5.13 Mission of the development partners. : N/A.

5.14 Time & Cost Over-run : Due to increased scope of work in RDPP & Covid-19 situation the project was completed with 1 year no cost time extension.

5.15 Project Supervision/Inspection : N/A.

5.16 Delay in Decision : N/A.



5.17 Transport	: N/A.
5.18 Training	: N/A.
5.19 Approval	: N/A.
5.20 Others	: N/A.

06. Remarks & Recommendations of the Project Director:

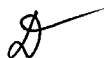
The main objective of the project is to improve drainage facilities 4610 hectares (gross area) of the project area, flood control and irrigation facilities in about 3825 hectares of land of Char Algi Union, Gafargaon Upazila in the District of Mymensingh by construction of 22.902 km ring embankment around the Char Algi Union, re-excavation of 28.00 km canals within the project area, construction of 4 nos regulator, 1 nos Inlet and 9 nos outlet. After implementation of the project, physical safety and sense of security among the stakeholders have been developed. Also, the implementation of the project ensured enhanced investment in housing and commercial buildings, enhanced investment in business and development work and have also caused positive impacts on agriculture and fish resources production. As a result, poverty alleviation and employment opportunity has improved.

Objective of this project have direct relevance with the natural objective of attaining self-reliance, generation of rural employment, Poverty alleviation especially for rural poor section, creation of social & environmental balance & building of economic infrastructures for the future generation to sustain due to flood control and drainage. The commencement and completion of the project is scheduled to be accomplished from January, 2019 to June, 2021 as per approved DPP and accordingly the project was completed by June, 2022 according to RDPP.

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

After successful implementation of this project, Char Algi Union of Gafargaon Upazila and Char Betagair Union of Nandail Upazila, Balipara Union of Trishal Upazila and Jinari Union of Hossainpur Upazila has been protected from severe flood of the Old Brahmaputra River. Improvement of drainage and irrigation systems has been ensured at project area. The socio-economic condition of the people of these areas has been improved. Scope of new jobs & works has been created. The safety of human livelihood and properties have also been improved.

It should be mentioned that Project area is located at Left Bank of Old Brahmaputra River. Whole Project is implemented on public donated land, as there was no provision for land acquisition in DPP. So, various local problems aroused during construction of embankment. Due to homesteads & public occupancies, khal re-excavation works also encountered some problems. All problems were mitigated by consultation with local public representatives & local administration. Moreover, worldwide COVID-19 pandemic squeezed up eligible working time.



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

Date 23.11.2022



(Md Akhlak Ul Jamil)
Project Director
&
Executive Engineer,
Mymensingh O&M Division,
BWDB, Mymensingh.

07. Remarks/ Comments of Agency Head:

The main objective of the project was to improve drainage facilities in about 4610 hectares; flood control and irrigation facilities in about 3825 hectares of land of Char Algi Union, Gaforgaon Upazila in the District of Mymensingh by the construction of 22.902 km ring embankment, re-excavation of 28.00 km canals, 4 regulators, 1 Inlet, and 9 outlets. After the implementation of the project, physical safety and a sense of security among the stakeholders have been developed. These resulted in enhanced investment in housing and commercial buildings, business, and development work. This project is an example of close monitoring and careful supervision as the project is completed without any time and cost overrun although the Covid-19 pandemic squeezed up eligible working time. Overall, the project is serving its intended purpose and it can be regarded as a successful one.



27.11.2022

(FAZLUR RASHID)

Signature and Seal Director General
BWDB, Dhaka.

Date:

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

The main objective of the project is to make project area flood-free by constructing 21.402 km ring embankment. Re-excavation of 28.00 km canals and construction of 4 regulators & inlet-outlet improves the drainage system and irrigation facilities of that area. This will have a positive impact on crop production of the project area. Periodic maintenance of the physical structures are required to sustain the output of the project.

Date:

Signature and Seal