# BANGLADESH WATER DEVELOPMENT BOARD



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

Name of the Project:

Rehabilitation of BWDB infrastructures Damaged by Natural Disaster in the Coastal Area of Polder No. 64/1A, 64/1B & 64/1C at Banskhali Upazilla in Chattogram District (2nd Revised).

# PROJECT PERIOD: MAY 2015 TO JUNE 2022.

DIVISION : CHATTOGRAM O&M DIVISION-2, BWDB, CHATTOGRAM.

CIRCLE : CHATTOGRAM O&M CIRCLE, BWDB, CHATTOGRAM.

ZONE : SOUTH-EASTERN ZONE, BWDB, CHATTOGRAM.

# 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:

Rehabilitation of BWDB infrastructures Damaged by Natural Disaster in the Coastal Area of Polder No. 64/1A, 64/1B & 64/1C at Banskhali Upazilla in Chattogram District (2nd Revised).

02. Administrative Ministry/

Division

: Ministry of Water Resources (MoWR).

03. Executing Agency

: Bangladesh Water Development Board (BWDB).

04. Location of the Project

: Upazila – Banskhali, District: Chattogram.

05. Objectives of the Project

- ❖ To rehabilitate of damaged BWDB infrastructures under polder no- 64/1A, 64/1B & 64/1C in the South-Eastern zone of the country for protection of tidal flood and saline intrusion by various natural disasters.
- ❖ To repair the damaged structures (Re-sectioning of embankment 2.000 km, embankment with slope protection 9.900 km & River bank protective work 3.848 km) so that they become sustainable for ensuring the desired benefits of the polder area of gross 15901 and net 12721 hectares.
- To increase sustainable socio-economic development by enhancing natural safety against cyclonic tidal surge and wave.

## 06. Estimated Cost:

(In Lakh Taka)

	Original	1st Revised	Latest Revised (2 <sup>nd)</sup>
a) Total	20989.36	25129.86	29360.69
b) Taka	20989.36	25129.86	29360.69
c) Foreign Currency	-	-	-
d) Project Aid	-	-	-
e) RPA	Ne Ne	-	-

## 07. Date of Approval:

	PCP	PP
a) Original :	-	19/05/2015
b) 1st Revised	-	21/06/2016
c) Latest Revision (2 <sup>nd</sup> )	-	18/09/2018 30/06/2019
d) No cost Time extension (1 <sup>st</sup> ) e) No cost Time extension (2 <sup>nd</sup> )	<del>-</del>	02/07/2020
f) No cost Time extension (3 <sup>rd</sup> )	-	28/06/2021

# 08. Implementation period:

	Date of Commencement	Date of Completion
a) Original	May, 2015	June, 2017
b) 1st Revised	May, 2015	June, 2018
c) Latest Revised (2 <sup>nd</sup> )	May, 2015	June, 2019
d) No cost Time extension (1st)	May, 2015	June, 2020
e) No cost Time extension (2nd)	May, 2015	June, 2021
f) No cost Time extension (3rd)	May, 2015	June, 2022
g) Actual	May, 2015	June, 2022

## 9. Financial Agreement (source wise):

## 9.1 Status of Loan/Grant:

a) Foreign Financing:

Source(s)	Currency	Currency	Amount in	Nature	Date of	Date of	Date of	Closing
	as per agreement	as per Agreement	US\$ (Million)	(Loan/Grant Supplier's credit)	Agreement	Effectiveness	Original	Revised
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
29360.69		29360.69	-

# 9.2 Utilization of Project Aid: (Source wise)

(In Million)

Source (s)	Total Amount		Actual E	xpenditure	Unutilized Amount	
	In US \$ In Local		IN US \$ In Local		In US \$	In Local
	And the second s	Currency		Currency		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	Remarks.
As Per DPP	As per Agreement			Reimbursed	
1	2	3	4	5	6
		N/A			

## **B. IMPLEMENTATION POSITION**

## 01. Implementation Period:

	ation Period as r DPP	Actual Implementation	Time Over Run (% of Original	Remarks	
Original	Latest Revised	Period	Implementation Period)		
1	2	3	4	5	
May/2015 to June/2017	May/2015 to June/2022	May/2015 to June/2022	230.77%	i) Due to enhanced rates in Schedule of Rates for construction materials compared to originally approved DPP, the tender processing required longer time than expected. Moreover, the	

Implementation Period as per DPP		Actual Implementation	Time Over Run (% of Original	Remarks
Original	Latest Revised	Period	Implementation Period)	
1	2	3	4	5
				work site was situated in very remote and adjacent to sea. So, it was very difficult to carry construction material to works site. After 3 times of retendering, the lowest bid found to be more than DPP sanction. For the above reasons, 1st revision of DPP has been proposed and approved by competent authority. For this, the work was delayed.
				ii) During the project period cyclones Roanu, Mora, Ampan, Fani, Bulbul & Yaas hit the project area. Hence, 3.90 km re-sectioning of embankment with slope protection work were damaged at Kodomrosul, Premasia, Moulavipara area of Khankhanabad Union of Polder No 64/1A at outfall of the Sangu River. After approval of 2 <sup>nd</sup> revised DPP, these damaged components of embankment were repaired and strengthening of embankment was done by dumping additional cc blocks in the dumping zone. This additional scope of work required longer time.
				seriously delayed—the—progress—of—the—project during the entire year of 2020 and partly of 2021.

# 02. Cost of the Project:

(In Lakh Taka)

Description	Estimate	ed Cost	Actual	Cost Over-run	Remarks
	Original	Latest	Expenditure	(% of original	
		Revised		cost)	
1	2	3	4	5	6
Total	20989.36	29360.69	28313.35	34.89%	i) Due to enhanced rates in
Taka	20989.36	29360.69	28313.35	34.0970	Schedule of Rates of construction
PA	-	-	-	-	materials compared to originally approved DPP, after 3 times of retendering, the lowest bid found to be more than DPP sanction. For the above reasons, 1st revision of DPP has accommodated enhanced cost.  ii) During the project period cyclones Roanu, Mora, Ampan,
					Fani, Bulbul & Yaas hit the project area. Hence, 3.90 km re-sectioning of embankment with slope protection work were damaged at Polder No 64/1A at outfall of the

Description	Estimate	Estimated Cost		Cost Over-run	Remarks
	Original	Latest	Expenditure	(% of original	
		Revised		cost)	
1	2	3	4	. 5	6
					Sangu River. After approval of 2 <sup>nd</sup> revised DPP, these damaged components of embankment were repaired and strengthening of embankment was done by dumping additional cc blocks in the dumping zone. This additional scope of work resulted for more cost over-run.

# **03. Project Personnel:** Project work has been implemented by existing manpower of Chattogram O&M Division-2, BWDB, Chattogram.

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

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

Field of Training	Provision a	s per PP	Ac	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			N/A				
b) Local	N/A						

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

Items of work as per PP	Unit	Target (	as per PP)		Progress	Reasons for
		Financial	Physical (Quantity)	Financial	Physical (Quantity)	deviation (±)
1	2	3	4	5	6	7
Revenue Component: Supplies and Services		-				
Petrol & Lubricant	LS	2.00	100,00%	2.00	100.00%	
Printing & Publication	LS	1.00	100.00%	1.00	100.00%	
Stationary	LS	2.13	100.00%	2.13	100.00%	
a) Honorarium for Different Committee	LS	2.00	100.00%	2.00	100.00%	
b) Honorarium for Mid-Term Evaluation Committee	LS	7.00	100.00%	7.00	100.00%	
c) Honorarium for Progress Monitoring Committee	LS	3.00	100.00%	3.00	100.00%	
Survey & Investigation	Item	2.00	100.00%	2.00	100.00%	
Sub Total (a):		19.13	100.00%	19.13	100.00%	
Capital Component: b1. Acquisition of Assets						
Purchase of Motor cycle	Nos.	3.00	2	3.00	2	
Purchase of Computer with Laser Printer, Scanner etc.	Set	1.00	1 -	1.00	1	
Sub Total (b1):		4.00	100.00%	4.00	100.00%	
b2. Construction of works:						
Re-sectioning of Embankment = 2.000 km	Km	70.93	2.000	62.75	2.000	

Items of work as per PP	Unit	Target (as per PP)		Actual	Progress	Reasons for
•		Financial	Physical	Financial	Physical	deviation (±)
			(Quantity)		(Quantity)	
1	2	3	4	5	6	7
Breach closing of Embankment						
with sea-side slope protection						
Polder no-64/1 A= 5.436km	Km	12688.22	5.436	12252.98	5.436	
Polder no -64/1C= 0. 860km	Km	2077.06	0.860	1816.43	0. 860	
Re-sectioning of Embankment						
with sea-side slope protection						
Polder no -64/1 A= 1.264km	Km	2588.11	1.264	2515.6	1.264	
Polder no -64/1C= 2.340km	Km	5541.75	2.340	5392.86	2.340	
River Bank protective work					-	
Polder no $-64/1 \text{ A} = 0.400 \text{km}$	Km	571.97	0.400	561.87	0.400	
Polder no -64/1B= 3.448 km	Km	5799.52	3.448	5687.73	3.448	
Sub Total (b2):		29337.56		28290.22	98.00%	
(b1+b2) Sub Total (b)		29341.56		28294.22	98.00%	
Physical Contingency (c)	LS	0.00		0.00		
Price Contingency (d)	LS	0.00		0.00		
(a+ b+ c+ d) Total:		29360.69	100.00%	28313.35	98.00%	

# 06. Information Regarding Project Director(s):

Name & Designation with pay	Full	Part	Responsible	onsible Date of		
scale.	time	time	for more than one Project	Joining	Transfer	
1	2	3	4	5	6	7
Md. Mozaffar Hosain Chief Engineer 66000-76490 (2 <sup>nd</sup> Grade)	Full	· •	Yes	23-08-2015	29-12-2015	-
A.K.M Shamsul Karim Chief Engineer 66000-76490 (2 <sup>nd</sup> Grade)	Full	-	Yes	30-12-2015	21-04-2019	-
Mir Mosharrof Hossain Addl. Chief Engineer 56500-74400 (3 <sup>rd</sup> Grade)	Full	<u>-</u>	Yes	22-04-2019	27-10-2019	-
Shibendu Khastagir Superintending Engineer 50000-71200 (4 <sup>th</sup> Grade)	Full	-	Yes	28-10-2019	Till 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 Nos	20-05-2016	-	21-09-2016	-	Registration No. Chatta- Metro- Ha-15-2318. Chatta- Metro- Ha-15-2319.  Being used for O&M of Project area by concerned Section Officers.

<sup>08.</sup> Procurement of Goods, Works and Consultancy Service.

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

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/ Proposal Cost (in lakh Taka)		Tender/B	id/Proposal	Date of completion of works/services and supply of goods	
•	As per RDPP	Contracted Value	Invitation date	Contract signing/L. C opening date	As per Contract	Actual
1	2	3	4	5	6	7
Division-II, BWDB, Chattogram. (TID: 44091, Package No: CTG2/W-7)		-				
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 15.500 to km. 15.950= 450m at Chanua in the coastal area of Polder no. 64/1C at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44092, Package No: CTG2/W-8)	1060.94	972.19	13-01-2016	10-08-2016	28-06-2017	30-06-2022
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 15.950 to km. 16.400= 450m at Chanua in the coastal area of Polder no. 64/1C at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 51434, Package No: CTG2/W-9)	626.45	626.45	16-03-2016	31-07-2016	28-06-2017	30-06-2021 (Cancelled)
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 16.400 to km. 16.850 = 450m at Chanua in the coastal area of Polder no. 64/IC at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 51435, Package No: CTG2/ W-10)	439.40	439.40	-16-03-2016	31-07-2016	28-06-2017-	30-06-2021 (Cancelled)
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 16.850 to km. 17.300 = 450m at Chanua in the coastal area of Polder no. 64/1C at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 51436, Package No: CTG2/ W-11)	371.99	371.99	16-03-2016	31-07-2016	28-06-2017	30-06-2021 (Cancelled)
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 17.300 to km. 17.650= 350m at Chanua in the coastal area of Polder no. 64/1C at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 51437, Package No: CTG2/ W-12)	244.31	244.31	16-03-2016	31-07-2016	28-06-2017	30-06-2021 (Cancelled)
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from	329.37	329.37	16-03-2016	31-07-2016	28-06-2017	30-06-2021 (Cancelled)

As per RDPP   Contracted   Contract   Signing L. Octobract   Signi	Description of procurement (goods/works /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	
Lender   L					signing/L. C opening	As per	Actual
km. 17.650 to km. 18.050= 400 m at Chanua in the coastal area of Polder no. 64/1C at Banskhali Upazilla- Dist. Chatogram under Chatogram O&M Division-II, BWDB, Chatogram (III): 51438, Package No. CTG2/W-13)  Sea-Side Slope Protective work by C.C blocks including Breach Closing & Resectioning of embankment from km. 18.050 to km. 18.000 t	1	2	3	4		6	7
blocks including Breach Closing & Re-sectioning of embankment from km. 18.050 to km. 18.500= 450m at Chanua in the coastal area of Polder no. 64/1C at Banskhali Upazilla, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram (TID: 51439, Package No: CTG2/W-14)  Sea-side slope protective work by C.C blocks including breach closing & resectioning of embankment from km. 15.950 to km. 18.500= 2550.00 m. at Chanua in the Coastal Area of Polder no. 64/1C in Upazilla Banskhali, Dist. Chattogram in connection with "Rehabilitation of BWDB infrastructures Damage by Natural Disaster in the Coastal Area of Polder No-64/1A, 64/1B & 64/1C at Banskhali Upazilla in the Chattogram D&M Division-II, BWDB, Chattogram during the year 2021-2022 (Remaining part of Packages CTG2/W-9, W-10, W-11, W-12, W-13 & W-14/(TID: 600448) Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 85.900 to km. 86.300-400m at Khatkhali in the coastal area of Polder no. 64/1A at Banskhali Upazilla, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram (TID: 44726, Package No: CTG2/W-15)  Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 87.087 to km. 87.087 s. 500m at Pramsais in the coastal area of Polder no. 64/1A at Banskhali Upazilla, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram under Ch	Chanua in the coastal area of Polder no. 64/1C at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 51438, Package No: CTG2/ W-13)						
blocks including breach closing & resectioning of embankment from km. 15,950 to km. 18,500 = 2550,00 m. at Chanua in the Coastal Area of Polder no. 64/1C in Upazilla- Banskhali, Dist. Chattogram in connection with "Rehabilitation of BWDB infrastructures Damage by Natural Disaster in the Coastal Area of Polder No-64/1A, 64/1B & 64/1C at Banskhali-Upazilla in the Chattogram O&M Division-II, BWDB, Chattogram during the year 2021-2022. (Remaining part of Packages CTG2/W-9, W-10, W-11, W-12, W-13 & W-14) (TID: 600448)  Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 85,900 to km. 86,300= 400m at Khatkhali in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram (TID: 44726, Package No: CTG2/W-15)  Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 87,087 to km. 87,587= 500m at Pramasia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram C&M Division-II, BWDB, Chattogram under Chat	blocks including Breach Closing & Re-sectioning of embankment from km. 18.050 to km. 18.500= 450m at Chanua in the coastal area of Polder no. 64/1C at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 51439, Package	314.75	314.75	16-03-2016	31-07-2016	28-06-2017	30-06-2021 (Cancelled)
blocks including Breach Closing & Re-sectioning of embankment from km. 85.900 to km. 86.300= 400m at Khatkhali in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44726, Package No: CTG2/ W-15)  Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 87.087 to km. 87.587= 500m at Pramasia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44727, Package)  809.08  705.31  20-01-2016  31-07-2016  31-07-2016  31-07-2016  31-07-2016  31-07-2016  31-07-2016	Sea-side slope protective work by C.C blocks including breach closing & resectioning of embankment from km. 15.950 to km. 18.500= 2550.00 m. at Chanua in the Coastal Area of Polder no. 64/1C in Upazilla- Banskhali, Dist. Chattogram in connection with "Rehabilitation of BWDB infrastructures Damage by Natural Disaster in the Coastal Area of Polder No-64/1A, 64/1B & 64/1C at -Banskhali-Upazilla-in the Chattogram District" under Chattogram O&M Division-II, BWDB, Chattogram during the year 2021-2022. (Remaining part of Packages CTG2/W-9, W-10, W-11, W-12, W-13 & W-14) (TID: 600448)	3896.03	3788.50	31-08-2021	22-12-2021	30-06-2022	30-06-2022
blocks including Breach Closing & Re-sectioning of embankment from km. 87.087 to km. 87.587= 500m at Pramasia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44727, Package)  872.36  872.36  20-01-2016  31-07-2016  28-06-2017  30-04-2016	blocks including Breach Closing & Re-sectioning of embankment from km. 85.900 to km. 86.300= 400m at Khatkhali in the coastal area of Polder no. 64/1A at Banskhali Upazilla, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44726, Package	809.08	705.31	20-01-2016	31-07-2016	28-06-2017	02-06-2022
0 011 01 7 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0	blocks including Breach Closing & Re-sectioning of embankment from km. 87.087 to km. 87.587= 500m at Pramasia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44727, Package No: CTG2/W-16)				31-07-2016		30-04-2021

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/ Proposal Cost (in lakh Taka)		Tender/Bi	d/Proposal	Date of completion of works/services and supply of goods	
as per blu document	As per RDPP	Contracted Value	Invitation date	Contract signing/L.	As per Contract	Actual
			•	opening date		
1	2	3	4	5	6	7
blocks including Breach Closing & Re-sectioning of embankment from km. 87.587 to km. 88.087= 500m at Pramasia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44728, Package No: CTG2/W-17)				31-07-2016		
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 99.500 to km. 100.000= 500m at Baharchara in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44729, Package No: CTG2/ W-18)	991.46	941.95	20-01-2016	28-07-2016	28-06-2017	23-05-2021
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 101.500 to km. 101.900= 400m & km. 102.910 to km. 103.110 = 200m Total =600M at Khankhanabad in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram (TID: 43295, Packaga No. CTG2/W.10)	1200.75	1069.81	20-01-2016	28-07-2016	28-06-2017	29-06-2022
Package No: CTG2/W-19)  Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 104.600 to km. 105.000 = 400M at Kadamrasul in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 43296, Package No:CTG2/W-20)	785.99	803.46	05-01-2016	28-07-2016	28-06-2017	18-02-2020
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 105.000 to km. 105.400 = 400M at Kadamrasul in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 43297, Package No:CTG2/ W-21)	768.48	781.35	05-01-2016	28-07-2016	28-06-2017	18-02-2020
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 105.400 to km. 105.800 = 400M at Pramasia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under	786.71	806.45	05-01-2016	28-07-2016	28-06-2017	18-02-2020

Description of procurement (goods/works /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 RDPP	Contracted Value	Invitation date	Contract signing/L.	As per Contract	Actual
				C opening date		
1	2	3 ,	4	5	6	7
Chattogram O&M Division-II, BWDB, Chattogram. (TID: 43298, Package No:CTG2/W-22)						
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 105.800 to km. 106.200 = 400M at Pramasia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 43417, Package No:CTG2/W-23)	807.76	834,89	05-01-2016	28-07-2016	28-06-2017	18-02-2020
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 106.200 to km. 106.600 = 400M at Pramasia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 43418, Package No:CTG2/W-24)	831.22	859.98	05-01-2016	28-07-2016	28-06-2017	18-02-2020
Sea-Side Slope Protective work by C.C blocks including Breach Closing & Re-sectioning of embankment from km. 106.600 to km. 107.000 = 400M at Pramasia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 43419, Package No: CTG2/ W-25).	814.72	839.94	05-01-2016	28-07-2016	_28-06-2017_	_18 <b>-</b> 02-2020_
Bank Protective work by C.C Block on the left bank of Sangu River Yeshor Babur Hatt from K.M. 111.400 to Km.111.800 = 400m (Interiordyke) near Yeshor Babur Hat in the Coastal area of Polder no. 64/1A, Upazilla Banskhali, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44340, Package No: CTG2/W-26)	571.97	562.57	17-01-2016	28-07-2016	28-06-2017	26-02-2020
Bank Protective work by C.C Block on the left bank of Sangu River from K.M. 124.200 to Km.124.600 = 400m (Interiordyke) near Raterkul of Shadhanpur UP in the Coastal area of Polder no. 64/1B, Upazilla Banskhali, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44341, Package No: CTG2/ W-27)	724.61	705.74	17-01-2016	28-07-2016	28-06-2017	26-02-2020
Bank Protective work by C.C Block on the left bank of Sangu River from K.M. 124.600 to Km.125.000 = 400m	724.83	707.64	17-01-2016	28-07-2016	28-06-2017	26-02-2020

Description of procurement (goods/works /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 blu document	As per RDPP	Contracted Value	Invitation date	Contract signing/L. C opening date	As per Contract	Actual
1	2	3	4	5	6	7
(Interiordyke) near Raterkul of Shadhanpur UP in the Coastal area of Polder no. 64/1B, Upazilla Banskhali, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44342, Package No: CTG2/ W-28)			•			
Bank Protective work by C.C Block on the left bank of Sangu River from K.M. 125.000 to Km.125.386 = 386m, & 125.415 to Km.125.450= 35m Total = 421m(Interiordyke) near Boilgaon of Shadhanpur UP in the Coastal area of Polder no. 64/1B, Upazilla Banskhali, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44343, Package No: CTG2/ W-29)	729.44	709.18	17-01-2016	28-07-2016	28-06-2017	26-02-2020
Bank Protective work by C.C Block on the left bank of Sangu River from K.M. 125.450. to Km.125.929 = 479m (Interiordyke) near Raterkul of Shadhanpur UP in the Coastal area of Polder no. 64/1B, Upazilla Banskhali, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44344, Package No: CTG2/W-30).	830.95	824.64	17-01-2016	28-07-2016	28-06-2017	20-06-2021
Bank Protective work by C.C Block on the left bank of Sangu River from K.M. 125.929. to Km.126.408 = 479m (Interiordyke) near Raterkul of Shadhanpur UP in the Coastal area of Polder no. 64/1B, Upazilla Banskhali, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44345, Package No: CTG2/ W-31)	831.14	823.30	17-01-2016	28-07-2016	28-06-2017	26-06-2021
Bank Protective work by C.C Block on the left bank of Sangu River from K.M. 130.000 Km.130.400 = 400m (Interiordyke) near Burumchara of Pukuria UP in the Coastal area of Polder no. 64/1B, Upazilla Banskhali, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44346, Package No: CTG2/W-32)	643.08	631.05	17-01-2016	28-07-2016	28-06-2017.	26-02-2020
Bank Protective work by C.C Block on the left bank of Sangu River from K.M. 130.400 Km.130.800 = 400m (Interiordyke) near Burumchara of Pukuria UP in the Coastal area of Polder no. 64/1B, Upazilla Banskhali, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 44347, Package	639.56	631.57	17-01-2016	28-07-2016	28-06-2017	26-02-2020

Description of procurement (goods/works /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 RDPP	Contracted Value	Invitation date	Contract signing/L. C opening date	As per Contract	Actual
1	2	3	4	5	6	7
No: CTG2/ W-33)						
Bank Protective work by C.C Block on the left bank of Sangu River from K.M. 130.800 Km.131.269 = 469m near South Burumchara of Pukuria UP in the Coastal area of Polder no. 64/1B, Upazilla Banskhali, Dist. Chattogram.  (Tender ID No: 35345 & Pack. No: W17-COMD2/ 2015-16 (DPP Pack. No: CTG2/P-34)	675.91	660.72	10-11-2015	21-01-2016	20-01-2017	24-06-2019
Additional Work of Sea-Side Slope Protective work by C.C blocks including Breach Closing & Resectioning of embankment from km. 0.000 to km. 1.500 = 1500M & km. 104.600 to km. 107.000 = 2400M, Total Length 3.900 km at Moulabipara, Kadamrasul & Preemashia in the coastal area of Polder no. 64/1A at Banskhali Upazilla-, Dist. Chattogram under Chattogram O&M Division-II, BWDB, Chattogram. (TID: 231652, Package No:CTG2/ W-36)	2429.18	2709.16	02-10-2018	12-11-2018	30-04-2019	30-06-2022

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

Name of the field	Approved i	nan month	Actual man month	Remarks
**************************************	As per PP As per contract.		utilized	
1	2	3	4	5
a) Foreign	-	-	-	-
b) Local	-		-	•

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

Description of items	Quantity (As per RDPP)	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	1 Set	03/03/2016	Transferred to Chattogram O&M Division-2, BWDB, Chattogram on 03/07/2022	-	l set	Used by Banshkhali O&M Subdivision office for official works.



## C. FINANCIAL AND PHYSICAL PROGRAMME:

# 01. (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			rget as per	
	Total	GOB	Others	Physical %	Total	GOB	Others	Physical %
1	2	3	4	5	6	7	8	9
2014-15	6747.90	6747.90	-	32.15%	-	-	-	-
2015-16	10052.94	10052.94	-	47.90%	99.25	99.25	-	0.34%
2016-17	4188.52	4188.52	_	19.95%	8868.18	8868.18	-	30.20%
2017-18	-	-	-	-	6990.99	6990.99	-	23.81%
2018-19	-	-	-	-	13402.27	13402.27	-	45.65%
Total	20989.36	20989.36	-	100.00%	29360.69	29360.69	1	100.00%

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

(In Lakh Taka)

Financial		Allocation & Target			Taka	Expe	nditure & I	Physical P	rogress
Year	Total	GOB	Others	Physical %	Release	Total	GOB	Others	Physical %
1	2	3	4	5	6	7	8	9	10
2014-15	-	_	-		-	-	. <b>-</b>	-	-
2015-16	100.00	100.00	-	0.48%	100.00	99.25	99.25	-	0.47%
2016-17	9000.00	9000.00	-	34.12%	8987.50	8867.85	8867.85	-	38.03%
2017-18	7000.00	7000.00	-	27.86%	7000.00	6990.99	6990.99	-	28.50%
2018-19	5500.00	5500.00	-	18.73%	5500.00	5046.22	5046.22	-	15.35%
2019-20	2001.00	2001.00	-	6.81%	2000.00	2000.00	2000.00	-	5.65%
2020-21	800.00	800.00	-	1.25%	800.00	800.00	800.00	_	1.25%
2021-22	5100.00	5100.00	-	10.75%	4600.00	4509.04	4509.04	_	8.75%
Total	29501.00	29501.00	-	100.00%	28987.50	28313.35	28313.35	-	98.00%

## D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Sl. No.	Objectives as per DPP	Actual Achievement	Reason for shortfall, if any
1	2	. 3	4
01	To rehabilitate of damaged BWDB infrastructures under polder no-64/1A, 64/1B & 64/1C in the South-Eastern zone of the country for protection of tidal flood and saline intrusion by various natural disasters.	9.9 km permanent embankment with co block protection, 2.00 km embankment resectioning and 3.848 km river bank protection work have ensured protection against tidal flood, wave thrust, inundation and saline water intrusion.	No shortfall
02	To repair the damaged structures (Resectioning of embankment 2.000 km, embankment with slope protection 9.900 km & River bank protective work 3.848 km) in a sustainable way for ensuring the desired benefits of the polder area of gross 15901 and net 12721 hectares.	9.9 km permanent embankment with cc block protection, 2.00 km Embankment resectioning and 3.848 km river bank protection work have ensured desired benefits of the polder area covers about gross 15901 hectares.	No shortfall
03	To increase sustainable socio- economic development by enhancing natural safety against cyclonic tidal surge and wave.	9.9 km permanent embankment with cc block protection, 2.00 km Embankment resectioning and 3.848 km river bank protection work have ensured sustainable socio-economic development by enhancing natural safety against Cyclonic tidal surges and reducing drainage congestion.	No shortfall

## **E. BENEEFIT ANALYSIS:**

# 01. Annual Out-put:

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-puts during the 1st year of operation at full capacity (or during real production for newly completed project)
1	2	3	4
Ensured safeguard of the following	structur	es against tidal floo	d & subsequent embankment erosion:
Bridges	Nos.	44	44
Culvert	Nos.	57	57
Pucca shop	Nos.	306	306
Kacha Shop	Nos.	2363	2363
Semi Pucca Shop	Nos.	1317	1317
Pucca Mosque/Temple	Nos.	231	231
Pucca School building	Nos.	31	31
Kacha road	km	174	174
Brick soling road	km	142	142
Pucca road	km	237	237
Kacha home shed	Nos.	2852	2820
Semi Pucca home shed	Nos.	2400	2385
Pucca home shed	Nos.	1962	1962
Pucca school cum cyclone shelter	Nos.	45	45
Madrasha Building (Pucca)	Nos.	15	15
Agricultural land	Acre	5400	5380
Saw mills	Nos.	12	12
Union Parishad (U.P) Building	Nos.	24	24
Hospital/Health Centre	Nos.	18	18
Agricultural ware house	Nos.	9	9

# 02. Cost/Benefit:

Item	Estimated	Actual
(1) Benefit cost of the project	-	
(i) Financial	1.37:1.00	
(ii) Economic		It will be evaluated later by concern
(2) Internal rate of return	-	directorate of BWDB & IMED.
(i) Financial	17.07%	·
(ii) Economic		

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

W

# 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. Anisul Islam Mahmud, MP Honb'le Minister MoWR	17-03-2017	Not found	Instructed to expedite works & to complete within the stipulated time.
Mr. Zaheed Farooque, MP Honb'le Minister of State MoWR	31-01-2020	Slow progress	Instructed to expedite works & to complete within the stipulated time.
Mr. Md. Mahfuzur Rahman Director General BWDB.	17-03-2017	Not found	Instructed to expedite works & to complete within the stipulated time.
Mr. Md. Rokon Ud-Doula Addl. Secretary (Dev) MoWR	Several times	No major problems identified.	Project progress was satisfactory.
Mr. Mahmudul Hasan Addl. Secretary MoWR	31-01-2020	Slow progress	Instructed to expedite works & to complete within the stipulated time.
Mr. Montu Kumar Biswas Joint Secretary (Planning Wing) MoWR	Several times	No major problems identified.	Instructed to expedite works & to complete within the stipulated time.
Mr. AM Aminul Haque ADG (Planning) BWDB, Dhaka	31-01-2020	Slow progress	Instructed to expedite works & to complete within the stipulated time.
Mr. Md. Mahbur Rahman ADG (East) BWDB, Dhaka	18-03-2022	No major problems identified.	Instructed to expedite works & to complete within the stipulated time.
Mr. Motaher Hossain Chief Engineer, Design BWDB, Dhaka	05-07-2017	Lowering bed level of embankment in sea side and decreasing set back distance in excessive extent due to high storm surge, tidal wave and river morphological changes for excessive scouring in river bed.	Instructed to revise design taking up to date design data at Kadamrosul, Premasia and Moulavipara point of the Sangu River outfall at Polder No. 64/1A.
Mr. Md. Mozaffar Hosain Chief Engineer SEZ, BWDB, Chattogram	Several times	No major problems identified.	Instructed to expedite works & to complete within the stipulated time.
Mr. A.K.M Shamsul Karim Chief Engineer SEZ, BWDB, Chattogram	Several times	No major problems identified.	Instructed to expedite works & to complete within the stipulated time.
Mr. Mir Mosharrof Hossain Addl. Chief Engineer SEZ, BWDB, Chattogram	Several times	No major problems identified.	Instructed to expedite works & to complete within the stipulated time.
Mr. Akhil Kumar Biswas	Several	No major problems	Instructed to expedite

Name & Designation of the inspecting official	Date of inspection	Identified Problems	Recommendations
1	2	3	4
Chief Engineer SEZ, BWDB, Chattogram	times	identified.	works & to complete within the stipulated time.
Mr. Siddiqur Rahman Superintending Engineer Chattogram O&M Circle BWDB, Chattogram.	Several times	No major problems identified.	Instructed to expedite works & to complete within the stipulated time.
Mr. Shibendu Khastagir Superintending Engineer Chattogram O&M Circle BWDB, Chattogram.	Several times	No major problems identified.	Instructed to expedite works & to complete within the stipulated time.
Mr. Kazi Tofail Hossain, Chief Monitoring, BWDB, Dhaka.	11-08-2018	No major problems identified.	Instructed to follow approved designs for construction works & to complete within the stipulated time.
Mr. Dr. Jiban Kumar Sarker, P.Eng, SE, Design Circle-4, BWDB, Dhaka.	Several times	Lowering bed level of embankment in sea side and decreasing set back distance in excessive extent due to high storm surge, tidal wave and river morphological changes for excessive scouring in river bed.	Instructed to revise design taking up to date design data at Kadamrosul, Premasia and Moulavipara point of the Sangu River Outfall at Polder No. 64/1A.
(b) IMED			
Mr. Mr. MD. Afzol Hossain Director, IMED.	06-04-2018	(1) ADP allocation was not sufficient in favor of the project as per year wise work-plan. (2) Quality of project work is satisfactory but progress is not satisfactory. (3) Risk identification and management is not included in the DPP. (4) The implementation period of the project may need to be extended.	(1) Supervision should be strengthened including quality assurance as per the design and specification of the ongoing work of the project.  (2) As per the work order, all the contractors have to ensure the completion of CC block dumping along with geo bag dumping as soon as possible.  (3) Monitoring should be strengthened along with proper instructions to the concerned engineers in the project area about the ongoing work, so that the contractors complete their activities properly.  (4) Allocation should be provided as per DPP/RDPP.  (5) Block construction and placing should be completed urgently by taking advantage of the dry



Name & Designation of the inspecting official	Date of inspection	Identified Pr	oblems	Recommendations
1	2	3		4
				season.
(c) Others				
Mr. Mustafizur Rahaman	17-03-2017	No major	problems	Instructed to expedite
Chowdhury	&	identified.		works & to complete within
Member of Parliament	31-01-2020			the stipulated time.
Chattogram-16				

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

#### 2.1. Internal Audit:

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

#### 2.2. External Audit:

Period of	Date of	Major findings/ objections	Whether objections
Audit	submission		resolved or not
	of Audit		
	Report		
<u>l</u>	2	3	4
18/03/2019	21/03/2019	Additional payment of Tk. 1,08,95,027 to	Objection resolved
to		contractor as unnecessary lead in embankment	•
20/03/2019		construction work.	
18/03/2019	21/03/2019	Financial loss due to payment of Tk.	Objection resolved
to		1,58,55,617 to the contractor as unnecessary	
-20/03/2019-		additional labor charge in block dumping work.	
18/03/2019	21/03/2019	Financial loss of Tk 1,38,62,700 to BWDB for	Answer has been
to		not imposing delay penalty upon the contractor	submitted through
20/03/2019		who failed to perform the work within time.	Competent Authority and
			resolve of the objection is
			under process.
15/01/2020	22/01/2020	Financial loss of Tk 1,38,62,700 to BWDB for	Answer has been
to		not imposing liquidity damage upon the	submitted through
20/01/2020		contractor who failed to perform the work	Competent Authority and
		within time.	resolve of the objection is
			under process.

## **G. DESCRIPTIVE REPORT**

## 1.1 Background

The coastal area of Bangladesh has approximately been delineated as 42,000 square kilometers with a population of approximately 33 million. Over the last four decades a cluster of 123 polders, covering an area about 13,000 square km has been constructed, primarily to support agriculture and provide protection to life and properties of the inhabitants during cyclone. The polders, consisting of about 5,000 km embankment, 6000 km drainage channel, 2500 water control structures, in association with 1,845 multi-purpose cyclone shelters and cyclone warning system, provide protection against daily tidal inundation to farms of crops, fish and salt. During cyclone and tidal surges, the polder system, where in good shape, minimizes the damaging impact on the life and property over embankment.

tides and salinity in the island and to protect the agricultural crops. The combined water effect of the Sangu River outfall and Bay of Bengal is very active and ever changing in Premasia, Moulavipara and Kadamrosul area in Khankhanabad union of Polder no. 64/1A. The ancient embankment is constantly being damaged by direct sea waves and tidal water crossing the embankments during high tide in Chanua, Gondamara, Baharchara and Khankhanabad. Crop and salt production inside the polder is being severely disrupted. The nature of natural disasters has also changed drastically due to climate change. Part of the sea-dyke of the polder is breached and exposed to the water in various points of these areas. Although the various infrastructure of the polder was repaired to a limited extent, it was not extensively integrated. As a result, the effectiveness of Polders was gradually declining and people living inside Polder were being deprived of its benefits. Strong tidal surges caused by various cyclones over the years, eroded the weak points of the embankment and flooded the project area, causing extensive damage to human life, livestock and poultry, vital infrastructure and crops. Sustainable protective work was needed to be implemented to bring the damaged structures in motion and make them effective in order to ensure the desired benefits of the polder. This project was formulated to implement 9.90 Km permanent slope protection and 2.00 Km embankment re-sectioning work and 3.848 km river bank protection work implemented in hazardous parts of the embankment.

Bangladesh Delta Plan, BDP-2100 is a water centric, multi-sectorial, techno-economic long-term adaptive plan. BDP-2100 formulated as "Ensure long term water and food security, economic growth and environmental sustainability while effectively reducing vulnerability to natural disasters and building resilience to climate change and other delta challenges through robust, adaptive and integrated strategies, and equitable water governance." There are six Goals to achieve the Delta Vision where Goal 2 "Enhance water security and efficiency of water usages", Goal 3 "Ensure sustainable and integrated river systems and estuaries management" and Goal 6 "Achieve optimal and integrated use of land and water resources" are related to river basin management. So, in this context the completed project is significant.

The unambiguous objectives of this project are to protect important installations of the project area from tidal surges caused by cyclones, protect arable agricultural land by preventing saline water from entering the project area, improve livelihoods by dealing with marine disasters, increase other income generating activities including agricultural production, ensure sustainable environmental management through the creation of coastal green belts; thus saving thousands of lives and millions of dollar worth of properties, and introduction of marine drive which will bring revolution in communication system and tourism prospects. In the long run it will play a significant role in raising the standard of overall socio-economic condition of project area through poverty alleviation, development of health and education system.

## 1.3. Objectives:

The main objective of the project is-

- ❖ To rehabilitate of damaged BWDB infrastructures under polder no- 64/1A, 64/1B & 64/1C in the South-Eastern zone for protection of tidal flood and saline intrusion by various natural disasters.
- ❖ To bring the damaged structures (Re-sectioning of embankment 2.000 km, embankment with slope protection 9.900 km & River bank protective work 3.848 km) in a sustainable condition for ensuring the desired benefits of the polder area of gross 15901 and net 12721 hectares.
- To increase sustainable socio-economic development by enhancing natural security against cyclonic tidal surge and wave.
- \* To address the midterm Rehabilitation Programme.

#### 1.4. Project revision with reasons:

#### 1st Revision:

Tenders of the project were floated for the first time on 10-11-2015. Due to extremely remote locations of the sites and high price of construction materials, the quoted rate of all bidders in almost all packages were

above the DPP price. However, responsive bidders were found for 2 packages and contracts were signed. Then, others packages were re-tendered. This time also, the quoted prices were above the sanctioned DPP cost. Hence, DPP revision became necessary. After 1<sup>st</sup> revision of the DPP, rest of the 33 packages were awarded to the contractors.

#### 2<sup>nd</sup> Revision:

After approval of revised DPP (1st revised), the tendering process of all the packages were completed. Contracts were signed quickly for completion of the project within stipulated time. As all the package works were started, the rate of progress was satisfactory. Due to Cyclone Mora and continuous tidal fluctuation in 2017, the ongoing work was partly damaged. Setback distance of Sea-Dyke from shoreline reduced drastically from the setback distance considered during tendering process. Due to morphological change of the Sangu River, the design of Sea-Dyke Protection works in Polder No. 64/A from km 0.00 to km1.500 and km 104.500 to km 107.00 has been revised and dumping volume of cc block increased from 3.75 cum/m to up to 12.00 cum/m. Moreover, actual field condition and morphological change, a few new items of work were essential to include for implementation and sustainable functioning of the project. Thus, a technical committee was formed and the committee recommended to rehabilitate the damage & strengthening the work. That resulted in increase of the project cost. For the above reasons, 2<sup>nd</sup> revision of DPP had been proposed and approved by competent authority.

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

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 severe damage to property and infrastructure), recurrent floods, unemployment, illiteracy and malnutrition. The population of the Project area is very dense. Socio-economic development of the people through agriculture and business generation development providing flood control support and protection of potential lands, infrastructures of towns 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 slope protection work does not create irreversible and diverse adverse physical and social impacts. Identifiable adverse impacts were confined to the implementation period. As such, the intervention by providing slope protective work has very little impact or no negative impacts in and around the area. The project would serve 15901 Ha Gross Area adjacent to the Polder and protect population from loss of livelihood, property, displacement and impoverishment. It would also prevent severe high tide damage to crops & properties.

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

#### **♦** Project Identification:

To solve the problem of Banshkhali Upazila, local people had been demanding to take necessary steps. Honorable MP of Banshkhali constituency has requested the Hon'ble Minister of Water Resources to take necessary steps to solve the problem of river bank erosion, embankment rehabilitation in the project area through DO letter.

## **♦** Project Preparation:

In this situation, technical committee was formed to study the project prospect. In accordance with the recommendations of the Technical Report and previously performed feasibility study, the DPP has been prepared. Accordingly, instructions of Water Resources Ministry, Bangladesh Water Development Board taken up the mentioned project in cooperation by field level of Chattogram O&M Division-2, BWDB, Chattogram.

#### ♦ Appraisal:

V

The PEC meeting was held on 22-02-2015 at 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's original DPP was approved by ECNEC on 19-05-2015, 1<sup>st</sup> Revised DPP approved by Honorable Planning Minister on 21-06-2016 and 2<sup>nd</sup> Revised DPP approved by Honorable Planning Minister on 18-09-2018.

• 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

All the infrastructure that was assumed to be saved seem to be saved by implementation of the project. The stakeholders are directly taking advantage of the created facilities of the project.

#### 4.3 O & M Programme of the project

As the project has been completed, major repair/rehabilitation works will be accomplished from regular O&M budget of BWDB.

## 4.4 Impact of the project

#### 4.4.1 Direct

- Protection of damaged infrastructures of Polder 64/1A, 64/1B and 64/1C against tidal flood, wave thrust and saline water intrusion.
- Achieving desired benefits of the polder area covering about gross 18000 hectares due to the protective work of embankment and river bank.

#### 4.4.2. Indirect.

- Socio-economic condition has improved in the project area.
- Environmental impact has been mitigated and ecological balance has been established.
- 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

2

Many agricultural land and business center was saved. Hence there will be significant possibility of self-employment on agriculture sector and business sector.

#### 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 sea side, the threat on the living community being landless and homeless will be eradicated and therefore the economy of the local people will not be adversely affected. 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. Prevention of saline water entry will have a positive impact on the surrounding ecosystem.

## 4.12 Sustainability of the project

The project is sustained but requires periodic maintenance.

#### 4.13 Contribution to poverty alleviation/reduction

- 4.14 The project has direct contribution and impact on poverty alleviation/reduction.
- 4.15 Opinion of the public representatives, local elite, local administration, teachers, religious leaders, women's representatives etc.

Positive remarks regarding the project.

# 4.16 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)
- 5.1 Project Management
- 5.2 Project Director
- 5.3 Land Acquisition
- 5.4 Procurement
- : N/A.
- : N/A.
- : N/A.
- : Tenders of the project were floated for the first time on 10-11-2015. Due to extremely remote locations of the sites and high price of construction materials, the quoted rate of all bidders in almost all packages were above the DPP price. However, responsive bidders were found for 2 packages and contracts were signed. Then, others packages were re-tendered. This time also, the quoted prices were above the sanctioned DPP cost. Hence, DPP revision became necessary. After 1st revision of the DPP, rest of the 33 packages were awarded to the contractors.

Due to morphological changes at the outfall of the Sangu River, setback distance of sea-dyke from shoreline reduced drastically from its previous condition. As a result, the design of sea-dyke slope protection works in Polder No. 64/A from km 0.00 to km



1.500 and km 104.500 to km 107.00 were revised and dumping volume of cc blocks increased from 3.75 cum/m to up to 12.00 cum/m. Additional works of Polder No. 64/A from km 0.00 to km 1.500 and km 104.500 to km 107.00 were recommended to be executed in a separate package (CTG-2/W-36). The tender of the package was invited on 02-10-2018 after approval of 2<sup>nd</sup> revision of DPP.

According to the decision of PSC meeting held on 20-06-2021, 6 packages (CTG-2/W-9, W-10, W-11, W-12, W-13 & W-14) contracts were cancelled. And in practical condition on field remaining works of these cancelled packages were tendered together in a single package on 31-08-2021 (remaining part of CTG-2/W-9, W-10, W-11, W-12, W-13 & W-14) and awarded on 22-12-2021.

		OH <b>E</b> 12 2021.
5.5	Consultancy	: N/A.
5.6	Contractor	: N/A
5.7	Manpower	: Skilled & unskilled labor shortage at project area for construction work.
5.8	Law & Order	: N/A.
5.9	Natural calamity	: During the project period cyclones Roanu, Mora, Ampan, Fani, Bulbul & Yaas hit the project area. Hence, 3.90 km resectioning of embankment with slope protection work were damaged at Kodomrosul, Premasia, Moulavipara area of Khankhanabad Union of Polder No 64/1A at outfall of the Sangu River. After approval of 2 <sup>nd</sup> revised DPP, these damaged components of embankment were repaired and strengthening of embankment was done by dumping

additional cc blocks in the dumping zone.

As mentioned in B-01 & B-02.

5.10 Project financing, allocation and release

: N/A.

5.11 Design

N/A.

formulation/approval

: N/A.

5.12 Project aid disbursement and re-imbursement

: N/A.

5.13 Mission of the development partners.

5.14 Time & Cost Over-run

: N/A.

5.15 Project Supervision/Inspection

• 1771

5.16 Delay in Decision

: N/A.

5.17 Transport

IN/A.

err, rransport

As the project was located at a remote place, materials mobilization was hampered due to lack of smooth road

connectivity.

 5.18 Training
 : N/A.

 5.19 Approval
 : N/A.

 5.20 Others
 : N/A.

# 06. Remarks & Recommendations of the Project Director:

The project area was in close proximity to the Bay of Bengal and was highly susceptible to saline water intrusion during high tides, cyclones and subsequent tidal surges as there was no effective protection between sea and the land. Due to the geographic position of Bangladesh, cyclones hit shores of Bangladesh every year more than once. As a result, the project area used to suffer from high tide, tidal inundation & somewhere, saline water intrusion, and suffered losses of lives, properties and agricultural products worth of millions of BDT. So, this project was taken up by BWDB to provide safety to thousands of people living within the project area.

After successful implementation of this project, a large portion of Banshkhali upazila such as Khankhanabad, Baharchhara, Gondamara & Chhanua union has been protected from high tidal attacks and small to medium level cyclonic surges. The socio-economic condition of local people and security measures of the locality has improved. Employment opportunities have been created. It should be mentioned that project area is located at a dynamic coastal area. During implementation period, it faced cyclones like Roanu, Mora, Bulbul, Fani, Ampan and Yaas which resulted cost and time over-run.

During the implementation of this project, members of different committees & monitoring authorities visited project sites and provided their opinions/directions which have helped to implement the project. Project was implemented properly following approved 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. Regular PIC & PSC meetings on the projects were held, providing necessary guidance to conduct the project. Mid-term evaluation committee also visited the project on 1 February, 2019 to provide valuable guidance for project implementation.

The implementation of this project was particularly challenging as the work sites stretch over a vast length of coast line. Also, most of the work site is not easily accessible. Inaccessibility with difficulties in carrying construction materials and equipment have posed challenge to the progress of project. Storm surges, high tides have made it difficult to cast CC blocks and often inundated the casting yards. Due to rapid morphological changes at the outfall of the Sangu River, set back distance of sea-dyke reduced drastically from it's previous shore line. As a result, the project has been revised twice to cope with the actual situation. The dumping volume at the toe line of protective work from Sangu outfall to Kadamrachhul area in Khankhanabad union has to be increased to reinforce the implemented work at this reach.

**Recommendation:** Considering the dynamic coastal region and global warming, the height of the coastal dyke need to be raised from 7.20 m (PWD) to 9.00 m (PWD). Increased dumping is also highly required in toe line launching apron and to safeguard the shore line from erosion and maintain a sustainable shore line afforestation program beyond launching apron seems to be a remedial measure. Since the project area is not

easily accessible, logistic supports for the field level officers is very much desired for the sake of the work. Otherwise, shortfall of periodic strengthening and maintenance will threaten the desired life of the project. Date: ..... (Shibendu Khastagir) Superintending Engineer Chattogram O&M Circle BWDB, Chattogram. & **Project Director** 07. Remarks/ Comments of Agency Head. This project was formulated to rehabilitate the damaged infrastructures under polders 64/1A, 64/1B, and 64/1C to protect the polder area from tidal inundation, and saltwater intrusion. After the implementation of the project, a permanent embankment of 9.9 km and 3.8 km of river bank protection work has benefitted the polder area which covers about 15901 hectares. The implementation of the project was particularly challenging as the work site stretches over a vast length of coastline. During implementation, the project faced cyclones like Roanu, Mora, Bulbul, Foni, Ampan, and Yaas. It also faced covid-19 pandemic which resulted in increased costs. Overall, this project is serving its intended purpose. Finally, Proper maintenance work is needed for the sustainability of the project benefits. 24/20/2022 Date: ..... Signature and Seal (FAZLUR RASHID) Director General BWDB, Dhaka. 08. Remarks/ Comments of the officer in-charge of the Ministry / Division. The main objective of the project is to reconstruct the damaged infrastructures under polder 64/1A, 64/1B and 64/1C. After the implementation of the project, permanent embankment 9.9 km and 3.8 km river bank protection work has benefitted the polder area covers about 15901 hectares from tidal flood, wave thrust, inundation and saline water intrusion. Stakeholders are being benefited from the project and socio-economic condition of the people in the project area has improved. The project faced cyclones like Roanu, Mora, Bulbul, Foni, Ampan and Yaas during its implementation period. Due to natural disasters, covid-19, enhanced rate of construction material resulted in cost over-run. The project will continue to reduce poverty through flood control, protecting land and infrastructure from erosion damage. Proper maintenance and monitoring should be ensured so that the outcome of the project sustain effectively. Date: .....

Signature and Seal

