



BANGLADESH WATER DEVELOPMENT BOARD

PROJECT COMPLETION REPORT

IMED FORM NO. : 04/2003 (Revised)

NAME OF PROJECT: Re-Excavation of Titas River (Upper) under Brahmanbaria District (1st Revised)

PROJECT PERIOD: September, 2017 TO JUNE, 2023.

DIVISION : BRAHMANBARIA W.D. DIVISION, BWDB, BRAHMANBARIA
CIRCLE : CUMILLA O&M CIRCLE, BWDB, CUMILLA
ZONE : EASTERN ZONE, BWDB, CUMILLA.

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

PROJECT COMPLETION REPORT : IMED 04/2003(Revised)

A. PROJECT DESCRIPTION:

01. Name of the Project : Re-Excavation of Titas River (Upper) under Brahmanbaria District (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- Sarail, Nasirnagar, Brahmanbaria Sadar, Akhaura, Bijoy Nagar, Nabinagar, Kasba. District- Brahmanbaria.
05. Objective of the Project :

- Address adverse environmental impacts on the entire catchment area of the Titas and its tributary Pagla River, including navigation, irrigation and drainage. The command area (gross) of the main project is about 120480 ha (net 57984 ha) and the project will generate additional crops of 120699 mt and 61200 mt of other crops as irrigation facilities are assured.
- To increase crop production by providing Supplementary irrigation facilities to 57984 ha land.
- Providing navigational facilities.
- Providing drainage facilities and eliminating waterlogging.
- To increase fish production.
- Coping with adverse effects of the environment.
- Poverty alleviation in the project area.

06. Estimated Cost : (In Lakh Taka)

	Original	Latest Revised (1 st)
(a) Total	15588.16	13500.37
(b) Taka	15588.16	13500.37
(c) Foreign Currency	-	-
(d) Project Aid	-	-
(e) RPA	-	-

07. Date of Approval :

PCP	PP
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- (a) Original : --- 06/10/2015
- (b) 1st no cost time extension : --- 14/06/2020
- (c) 2nd no cost time extension: --- 20/06/2021
- (d) Latest Revised (1st) : --- 02/06/2022
- (e) 3rd no cost time extension: --- 03/04/2023

08. Implementation :

Date of Commencement	Date of Completion
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- | | | |
|--|-----------------|------------|
| (a) Original | September, 2015 | June, 2020 |
| (b) 1 st no cost time extension | September, 2015 | June, 2021 |
| (c) 2 nd no cost time extension | September, 2015 | June, 2022 |
| (d) Latest Revised(1 st) | September, 2015 | June, 2022 |
| (e) 3 rd no cost time extension | September, 2015 | June, 2023 |
| (f) Actual | September, 2015 | June, 2023 |

09. Financing Arrangement (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 Effective-ness	Date of Closing	
						Original	Revised
1	2	3	4	5	6	7	8
Not applicable							

b) GOB :

(In lakh Taka)

Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
13500.37	-	13500.37	-

9.2 Utilization of Project Aid : (source wise)

(In million)

Source (s)	Total amount		Actual expenditure		Unutilized Amount	
	In US\$	In Local currency	In US\$	In Local currency	In US\$	In Local currency
1	2	3	4	5	6	7
Not applicable						

9.3 Reimbursable Project Aid (RPA) :

(In lakh Taka)

R P A Amount		Amount Spent	Amount Claimed	Amount reimbursed	Remarks
As per PP	As per Agreement				
1	2	3	4	5	6
Not applicable					

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
September, 2015 June, 2020	September, 2015 June, 2022	September, 2015 June, 2023	62.04%	As there is no acquired land in the project area, there was a problem of construction of dyke to keep the dredged material. There are 22 bridges in the river at various places and various types of bamboo, wood, tree branches, bricks, stones and different types of garbage and fish enclosures under water at all places hinders the mobilization of dredgers. Due to the drying up of Titas River in various places, the dredging work has been hindered due to the creation of obstacles to bring the dredger to the right place. In addition, due to the global Covid-19 pandemic in 2020 and the pre monsoon floods in 2022 project implementation was delayed.

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	15588.16	13500.37	11136.78	(-)28.56%	Due to local problem, unavailability of dyke, targeted re-excavation works can not be achieved according to design. So, the quantity of excavated earth volume is reduced to some extent. As a result, the evaluated earth volume was less than estimated earth volume. Also, due to the savings on tendering procedure cost is reduced.
TAKA	15588.16	13500.37	11136.78		
PA	--	--	--		

03. Project Personnel:

Sanctioned strength as per DPP	Manpower employed during execution	Status of the existing manpower			Manpower Employed	
		Manpower requirement for O&M as per DPP	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 :						

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

Field of Training/ Study tour/workshop/ Seminar etc.	Provision as per DPP		Actual		Remarks
	Number of person	Man-months	Number of person	Man-months	
1	2	3	4	5	6
a. Foreign	Not applicable				
b. Local	Not applicable				

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

Items of work (as per PP)	Unit	Target (as per DPP)		Actual Progress		Reasons for deviation (±)
		Financial	Physical (Quantity)	Financial	Physical (Quantity)	
1	2	3	4	5	6	7
a) Revenue Component :						
Gas & Fuel	L.S	5.00	100%	4.71	94.20%	
Petrol & Lubricant	L.S	7.00	-	6.93	99.00%	
Printing and Publication	L.S	4.00	-	3.92	98.00%	
Stationery, seal & Stamps	L.S	3.00	-	3.00	100%	
Honorarium for Mid-term Evaluation	L.S	10.00	-	10.00	100%	
Honorarium for the Members of steering committee.	L.S	10.00	-	9.49	94.90%	
Survey (Bathymetry and Bank line Survey)	L.S	25.00	-	24.38	97.52%	
Sub-Total (Revenue component):		64.00		62.43	97.55%	
b) Capital Component :						
Motor Vehicle (Motor Cycle 125cc) (02 Nos)	Nos	3.98	2	3.98	2 (100%)	
Re-excavation of Titas river from Km.80.00 to Km.98.00 (Above +0.50m (PWD)by Mechanical Equipment Excavator = 18 Km. (Earth volume: 1.83 Lac Cum).	Km. & Lac Cum	233.95	18.00 (1.83 Lac Cum)	233.95	18 (100%) (1.83 Lac Cum)	
Re-excavation of Titas river from Km.0.00 to Km.110.86 = 90.57Km. (Earth volume: 69.36 Lac Cum);	Km. & Lac Cum	12814.15 (77.43 Lac Cum)	90.57	10452.13	82.704 (91.32%) (64.37 Lac Cum)	
Construction of Dyke (Earth volume: 8.07 Lac Cum).						
Re-excavation of Pagla river from Km.0.00 to Km.11.37= 9.15Km. (Earth volume: 2.38 Lac Cum).	Km. & Lac Cum	384.29 (2.38 Lac Cum)	9.15	384.29	9.15 (100%) (2.38 Lac Cum)	
Sub-Total (Capital component):		13436.37		11074.35		
Grand-Total (a+b)		13500.37	100%	11136.94	91.75%	

06. Information regarding Project Director(s):

Name & Designation with pay Scale	Full time	Part time	Responsible for more than one project	Date		Remarks
				Joining	Transfer	
1	2	3	4	5	6	7
Md.Nurul Amir Superintendent Engineer 4 th grade Scale: 50000-71200	Full time	-	Yes	September 2015	04/10/2017	
Md. Zohirul Islam Superintendent Engineer 4 th grade Scale: 50000-71200	Full time	-	Yes	05/12/2017	07/04/2021	
Md. Abdul Latif Superintendent Engineer 4 th grade Scale: 50000-71200	Full time	-	Yes	07/06/2021	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 Vehicle	2Nos	18.06.2018	N/A	02/07/2023	N/A	

08. Procurement of Goods, Works and Consultancy Services:

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

Description of procurement (goods/works/ consultancy as per bid document)	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/ services and supply of goods	
	As per DPP	Contracted value	Invitation date	Contract signing/L C opening date	As per contract	Actual
1	2	3	4	5	6	7
Re-Excavation of Titas River from Km.80.000 to Km. 90.000 (above + 0.50m PWD) = 10.000 Km. at Brahman-baria District under Brahmanbaria W.D. Division, BWDB Brahmanbaria during the year 2015-2016 (Contract No.Works-01)	DPP 471.57	Original 310.62	01-02-2016	10-03-2016	30-05-2017	30-04-2018
	RDPP 100.49	Revised 100.49				
Re-Excavation of Titas River from Km.90.000 to Km. 98.000 (above + 0.50m PWD) by Mechanical Equipment/ Excavator = 8.00 Km. at Brahmanbaria District under Brahmanbaria W.D.Division, BWDB, Brahmanbaria during the year 2015-2016 (Contract No. Works-02)	DPP 424.42	Original 256.19	01-02-2016	03-04-2016	30-05-2017	30-04-2018
	RDPP 133.46	Revised 133.46				
"Re-excavation of Titas River from Azabpur to Gokorna ghat in between km. 0.000 to km. 110.860 ~ 90.570km (Km.0.000 to Km. 50.930, Km. 55.300 to Km. 55.810, Km. 61.130 to Km. 61.530, Km. 64.200 to Km. 70.450, Km. 78.380 to Km. 110.860), Pagla River from Lalpur to Krishnanagar in between Km.0.000 to Km.11.370 ~ 9.150Km. (Km. 0.000 to Km.7.980, Km.9.190 to Km. 9.750, Km.9.940 to Km. 10.170, Km.10.380 to Km.10.590, Km. 11.200 to	DPP 11949.33	Original 11944.16	24-11-2016	28-02-2017	30-04-2020	30-06-2021
	RDPP 9530.60	Revised 9530.60				

Description of procurement (goods/works/ consultancy as per bid document)	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/ services and supply of goods	
	As per DPP	Contracted value	Invitation date	Contract signing/L C opening date	As per contract	Actual
1	2	3	4	5	6	7
Km.11.370) & Anderson Khal from Shimrail Kandi to Gokornaghat in between Km. 0.000 to Km.4.900 ~ 3.600Km (Km.0.350 to Km.0.500, Km.0.950 to Km.2.750, Km. 3.000 to Km. 3.750 & Km.4.000 to Km.4.900) in the Upazila Sarail, Nasirnagar, Bijoyanagar, Brahmanbaria Sadar, Akhaura, Kasba & Nabinagar, District Brahmanbaria under the Brahmanbaria W.D. Division, BWDB Brahmanbaria during the year 2016-2017, 2017-2018, 2018-2019 & 2019-2020. (Package No. Works-03)						
Re-Excavation of Titas River in between km 16.446 to km. 43.040 11.954 km. km. 16.446 to km. 20.200 km. 32.760 to km. 38.280 & km. 40.360 to km. 43.040 in the Upazila Sarail, Nasirnagar District Brahmanbaria under the project Re-excavation of Titas River (Upper) under Brahmanbaria W.D Division BWDB Brahmanbaria during the year 2020-2021.(Package No-W-04)Tender Id : 531924	--	Original 1705.61	30-12-2020	10-02-2021	30-06-2021	25-06-2023
	RDPP 1759.63	Revised 1705.61				
Re-Excavation of Titas River in between km 46.680 to km. 92.920 14.355 km. km. 46.680 to km. 50.930 km. 64.200 to km. 70.450 km 80.065 to km. 81.760 & km. 90.760 to km. 92.920 in the Upazila Bijoyanagar, Akhaura, Brahmanbaria Sadar District Brahmanbaria under the project Re-excavation of Titas River Upper under Brahmanbaria W.D Division BWDB Brahmanbaria during the year 2020-2021. (Package No- W-05)Tender Id : 516118	--	Original 1492.73	22-11-2020	03-01-2021	30-06-2021	25-06-2023
	RDPP 1523.94	Revised 1492.73				

8.2 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 DPP	As per Contract		
1	2	3	4	5
a) Foreign :	Not applicable			
b) Local :	Not applicable			

09. Construction/Erection/Installation Tools & Equipment:

Description of items	Quantity (as per DPP)	Quantity procured with date	Transferred to O&M with date	Disposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7
Not applicable						

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			
	Total	Taka	P.A	Physical%	Total	Taka	P.A	Physical%
1	2	3	4	5	6	7	8	9
2015-16	632.52	632.52	-	4.06%	40.94	40.94	-	0.30%
2016-17	3346.83	3346.83	-	21.47%	532.45	532.45	-	3.94%
2017-18	4166.70	4166.70	-	26.73%	1754.14	1754.14	-	13.00%
2018-19	3497.11	3497.11	-	22.43%	3189.48	3189.48	-	23.63%
2019-20	3945.00	3945.00	-	25.31%	1745.48	1745.48	-	12.93%
2020-21	-	-	-		1863.70	1863.70	-	13.80%
2021-22	-	-	-		4374.28	4374.28	-	32.40%
2022-23	-	-	-		-	-	-	
Total	1588.16	1588.16	--	100%	13500.37	13500.37	--	100%

01. (b) Revised ADP allocation and progress:

(In lakh Taka)

Financial Year	Revised Allocation & target				Taka release	Expenditure & physical progress			
	Total	Taka	P.A	Physical (%)		Total	Taka	P.A	Physical (%)
1	2	3	4	5	6	7	8	9	10
2015-16	42.00	42.00	--	0.64%	42.00	41.08	41.08	--	0.64%
2016-17	577.00	577.00	--	4.18%	577.00	532.45	532.45	--	4.18%
2017-18	1765.00	1765.00	--	9.68%	1765.00	1754.14	1754.14	--	9.68%
2018-19	3200.00	3200.00	--	14.03%	3196.25	3189.47	3189.47	--	14.03%
2019-20	2000.00	2000.00	--	18.06%	2000.00	1745.41	1745.41	--	18.06%
2020-21	2500.00	2500.00	--	11.96%	1870.00	1863.70	1863.70	--	11.96%
2021-22	2272.00	2272.00	--	23.71%	2271.50	1240.74	1240.74	--	23.71%
2022-23	-	-	--	17.74%	999.50	769.95	769.95	--	9.49%
Total	12356.0	12356.0	--	100%	12721.25	11136.94	11136.94	--	91.75%

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objective as per DPP	Actual achievement	Reasons for shortfall, if any
To increase crop production by providing Supplementary irrigation facilities to 57984 ha	River dredging has increased crop production due to alternative irrigation facilities.	No short fall
Providing navigational facilities.	River dredging has facilitated navigation during the rainy season with increased navigability during the dry season.	
Providing drainage facilities and eliminating waterlogging.	Drainage facilities has increased and waterlogging has eliminated.	
To increase fish production.	As a result of dredging, increasing the depth of the river has led to an increase in fish production along with an increase in biodiversity in the aquatic ecosystem.	
Coping with adverse effects of the environment.	River dredging has improved the environmental balance in the project area.	
Poverty alleviation in the project area.	Poverty has been alleviated in the project area due to increased fisheries and agricultural production and ease of navigation.	

E. BENEFIT ANALYSIS

01. Annual Output:

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-put during the 1st year of operation at full capacity (or during, real production for newly completed project)
(a) FCD facilities	Hector	57984.00	The project has just been implemented. Output values can be accessed after a year from completion.
(b) Incremental paddy production on project area	M ton/Year	120699.00	
(c) Production of Agricultural sector	Lakh T.K/ Year	20000.00	

02. Cost/Benefit:

Item	Estimated	Actual
(1) Benefit cost ratio of the project		
(i) Financial	1.82:1.00	Will be evaluated later by concerned directorate of BWDB and IMED.
(ii) Economic	2.68:1.00	
(2) Internal Rate of Return		
(i) Financial	28.65%	
(ii) Economic	40.35%	

03. Please give reasons for shortfall, if any, between the estimated and actual benefit:
There is no shortfall between the estimated and actual benefit.

F. MONITORING AND AUDITING

0.1 Monitoring:

Name & Designation of the Inspecting Official	Date of Inspection	Identified Problems	Recommendation /Comments
1	2	3	4
Ministry/Agency:			
Mst Shan-e-Alam Misty Senior Assistant Secretary, Ministry Of Water resources.	20/12/2021	No	The importance of work in the project area has been greatly realized during the site visit. It has been observed that the river was completely filled at Niamatpur part. As a result of dredging, the river has regained navigability in this section. In such a situation, careful attention should be given that the project work is completed within the stipulated time by dredging 10/15 lakh cubic meters of soil daily.
Mst Afsana Bilkis Deputy Secretary, Ministry Of Water resources.	25/12/2021	No	The implementation of the project should be completed during the current dry season and proper monitoring should be done by the concerned Department/Task Force of the implemented project.
Mr. SM Rejaul Mostafa Kamal Additional Secretary, Planning Wing, Ministry Of Water resources.	01/04/2022 to 02/04/2022	No	The total length of Titā river re-excavation work is 103.32 km, of which 85.35 km has been completed. All efforts should be made to complete the remaining excavation work expeditiously in order to complete the project on schedule. In order to carry out unfinished work, it is necessary to receive a timed work plan from the river contractor and conduct monitoring activities accordingly.

Mr. Abdullah Al Arif Deputy Secretary, Dev-1 Sec. Ministry Of Water resources.	10/06/2022	No	Project progress is 65% as on 10/06/2022, in remaining time progress of each ongoing package should be accelerated as much as possible to achieve maximum progress of the project.
	22/01/2023		Necessary funds should be released for completion of the project by June 2023.
Mr. SM Sarwar Kamal Deputy Secretary, Planning 6 Section Ministry Of Water resources.	10/06/2022	No	The Project work Progress should be increased.
Mst. Sayeda Salma Jafrin Additional Secretary, Admin Wing, Ministry Of Water resources.	15/01/2022	No	take immediate action to revise the DPP of the project.
Mr. Md. Shamsul Islam Deputy Chief Planning Commission, Irrigation wings Ministry Of Planning.	25/01/2023	No	Recommends extension of the project period by one year i.e. June, 2023
BWDB/ Others :			
Mr.R. A. M Obaidul Muktadir Chowdhury Honorable Member of Parliament Brahmanbaria-3	20/01/2018	No	Inaugurated the project.
Mr. D. Jibon Kumar Sarkar, Superintending Engineer Design Circle-4, BWDB, Dhaka	10/06/2022	No	The Project work Progress should be increased.
Mr. Polash Kumar Banyarji Executive Engineer Chief Monitoring Circle, BWDB, Dhaka	10/06/2022	No	The Project work Progress should be increased.
Mr. MD. Moniruzzaman, Chief Engineer, Eastern Zone, BWDB, Cumilla	Several times	No	Full length re-excavation work should be completed. Booster pump items cannot be bills as booster pumps are not used in ongoing packages. bills should be given contractor as per the final measurements of the task force.
Mr. Zahir Uddin Ahmad Chief Engineer, Eastern Zone, BWDB, Cumilla	Several times	No	Approved design must be followed.
Mr. Zohirul Islam Superintending Engineer Cumilla O&M Circle, BWDB, Cumilla.	Several times	No	The number of dredgers should be increased.
Mr. Md. Abdul Latif Superintending Engineer Cumilla O&M Circle BWDB, Cumilla.	Several times	No	A special request was made to increased the progress of dredging work. post work survey should be taken for the completed part of the work . Running bills cannot be paid without post-work measurement. Xen SDE was directed to increase surveillance.

IMED :			
Mst. Laxmi Chakma Deputy Director, IMED	06-12-2018	No	Regular project steering committee meeting and project implementation committee meeting should be organized according to DPP to solve the problems arising during project monitoring and work implementation. As per the work plan, measures should be taken to complete the project on time by following the Critical path method(CPM)Program Evaluation Review Technique(PERT),Precedence Diagram Method (PDM)
Mst. Upama Akter Deputy Director, IMED	22/11/2019	No	In order to properly implement all the unfinished tasks, a revised workplan should be formulated according to the Work/activity list (Work breakdown structure (WBS)
Khandakar Mohammad Ali Director, IMED	30/11/2020	No	Complete the project within stipulated time and approved design and specification must be followed.
Mr. Mohammad Saifur Rahman Director, IMED	05/11/2022	No	Recommends extension of the project period by one year i.e. June, 2023

0.2. Auditing during and after Implementation:

2.1 Internal Audit:

Period of Audit	Date of submission of Audit Report	Major findings/ objections	Whether objections resolved or not
1	2	3	4
2021-22	12-06-2022	Irregular Bills Payment of f 1st running Bill up to 30/06/2021 by executing a contract Violating Rules of PPR-2008 and without following procurement plan of approved DPP of re-excavation of Titas river Project.	Broad sheet reply submitted not resolved yet
		Executing work by over lapping which incurred loss of Tk 31,97,81,712.00 to the board and which is recoverable of re-excavation of Titas river project Chainage km 3.000 to km 110.860 = 90.570 km.	
		Irregular Expenditure of Tk 493826.00 incurred by executing works by approving estimates without concern of approving authority having jurisdiction.	

2.2. External Audit:

Audit Period	Date of submission of Audit Report	Major findings/ objections	Whether objections resolved or not
1	2	3	4
2017-18	25-03-2019	Government has incurred revenue loss of Tk. 985393.00 due to not insuring various risks of the contractor's work as per the terms of the contract and determining the insurable amount at the appropriate rate and not deducting VAT on the insurance premium at the prescribed rate.	Solved
	04-03-2019	Signing of contract of Tk.1,19,44,16,292.00 and payment of	

		bill TK. 33,69,20,545.00 without showing the cost of excavation work and dike construction separately in the estimate as per BOQ and the recommendation of the Project Evaluation Committee included in the DPP.	
2018-19	25-03-2020	Payment of bill claimed by the contractor without quality measurement inspection and verification report of earth work by task force committee. Amount involved is Tk 526919832.29	Broad sheet reply submitted not resolved yet
2019-21	28-09-2021	Government has incurred revenue loss of Tk. 263819.00 due to not insuring various risks of the contractor's work as per the terms of the contract and determining the insurable amount at the appropriate rate and not deducting VAT on the insurance premium at the prescribed rate.	Broad sheet reply submitted not resolved yet
	30-09-2021	Financial loss of Tk. 1,18,72,550/- (one crore eight lakh seventy two thousand five hundred fifty) to the board due to not auctioning dredged earth as per dredging and dredged material policy.	Solved

G. DESCRIPTIVE REPORT

1. General Observations/Remarks of the Project on:

1.1 Background

Titas River: The Titas River originated from Meghna river of Azabpur in Sarail Upazila and flowing through Upazila of Nasirnagar, Brahmanbaria Sadar, Akhaura, Kasba and finally again falls to Meghna river at Chitra in Upazila Nabinagar of Brahmanbaria District. The length of the river is 120.80 Km. The catchment's area of the river is 72480 ha. and net benefited area is approximately 57984 ha. Since long the river is not re-excavated for which the river bed rises up because of flood water carrying silt. The heavily silt bearing flood water coming from the river Meghna and Haor area causes the river rises up. Out of total length, from Km.26.00 to Km. 45.00, from Km.76.00 to Km. 84.00 & from Km. 99.00 to Km. 110.00 completely silted up. The Titas River lost her Drainage and Navigation capacity due to deposition of sediments carrying from upstream of the river over several decades, which has enhanced drainage congestion in the river basin. As a result the river bed became silted up, consequently the river loses its natural depth thus it creates navigation problem in the dry season. The project area is facing scarcity of water for irrigation and farming in the dry season. As a result, cultivation in net 57984 hectare area is extensively hampered along with deterioration of the socio-economic and environmental condition. Since the project area is situated in the low-lying area hence most of the people of the project area travel by boat. In the dry season, the project area people are facing a great problem for travel. Under the above circumstances and the demand of the inhabitants of the Titas river catchments area, during the visit of the Honorable Prime Minister of the Peoples Republic of Bangladesh in Brahmanbaria on 12th May, 2010, committed to "Re-excavation of Titas River in Brahmanbaria".

1.2(a) Justification/Adequacy

To get rid of the above problems the Technical Committee gave some recommendation:

- In consideration of economic viability and implementation period, it is justified to recommend for implementation of re-excavation of Titas River.
- In view of restoration of Navigation system and Irrigation in dry period for grow more food production; the re-excavation of Titas River is essentially needed.
- Overall consideration is respect of socio-economic & technical viability, the re-excavation of Titas River is recommended.

Pagla River: The Pagla river, the main branch of Titas river originated from Meghna river in where the left bank at Lalpur in Ashuganj Upazilla and the right bank at Baishmouza in Nabinagar Upazilla of Brahmanbaria District and falls in Titas river at Krishnanagar of Nabinagar Upazilla. (Index map, Annex-1). The length of the river is 10.750 Km. Out of total length, from Km.0.00 to Km. 3.00 completely silted up, from km.3.00 to Km.6.00, the bed of the river rises up remarkably and from Km. 6.00 to Km. 10.750 the depth is relatively better. From Km.0.00 to Km.3.00, the width of the river is 75.00 meter and bed level found in between +0.80 meter (PWD) & +3.10 to Km. 6.00, the width of the river exists in between

130.00 & 200.00 meter and the bed level meter (PWD). In this portion, the river becomes completely dry in the lean period. From Km.3.00 varies from (-) 0.80 meter (PWD) to (+) 2.60 meter (PWD). From Km.6.00 to Km. 10.75, the width of the river varies from 160.00 to 190.00 meter and the bed level varies from (-) 1.40 meter deposition of(PWD) to (-) 6.50 meter (PWD). area is The Pagla River lost her Drainage and Navigation capacity due to sediments carrying from upstream of the river over the several decades, which has enhance drainage congestion in the river basin. As a result the river bed became silted up, consequently the river loses its natural depth thus it creates navigation problem in the dry season. The project situated in a low-lying area. The project area is facing scarcity of water for irrigation and farming in the dry season. As a result, cultivation in net 5500 hectare area is extensively hampered along with deterioration of the socio-economic and environmental condition. Since the project area is situated in the low-lying area hence most of the people of the project area travel by boat. In the dry the project area people are facing a great problem for travel.

1.2(b) Justification/Adequacy

To get rid of the above problems the Technical Committee gave some

- In consideration of economic viability and implementation period, it is justified to recommend for implementation of re-excavation of Pagla River.
- In view of restoration of Navigation system and Irrigation in dry period for grow more food production; the re-excavation of Pagla River is essentially needed.
- Overall consideration is respect of socio-economic & technical viability, the re-excavation of Pagla River is recommended.

Titas River and its main branch Pagla River should be re-excavate simultaneously in respect both Technical committee report. For which the re-excavation Pagla River, main branch of Titas River have been included with re-excavation of Titas river.

1.3 Objectives

The objectives of the project are:

- Address adverse environmental impacts on the entire catchment area of the Titas and its tributary Pagla River, including navigation, irrigation and drainage. The command area (gross) of the main project is about 120480 ha (net 57984 ha) and the project will generate additional crops of 120699 mt and 61200 mt of other crops as irrigation facilities are assured.
- To increase crop production by providing Supplementary irrigation facilities to 57984 land ha.
- Providing navigational facilities.
- Providing drainage facilities and eliminating waterlogging.
- To increase fish production.
- Coping with adverse effects of the environment.
- Poverty alleviation in the project area.

1.4 Project revision with reasons

The project titled re-excavation of Titas River (Upper) under Brahmanbaria district was approved in ECNEC meeting held on 06/10/2015. The total cost of the project is Tk.15588.16 lakhs. The approved implementation period of the project is from September 01, 2015 to June 30, 2020. The project involves (a) Re-excavation of Titas river (from km 80.00 to km 98.00 by manual method) with a total excavable soil volume of 5.73 lakh cubic meters (b) Re-excavation of Titas river (by dredger 90.57 km in between km 0.00 to km 110.86) (c) Pagla river re-excavation (9.15 km in between km 0.00 to km 11.37 by dredger) (d) Anderson Canal re-excavation (by dredger 3 .60 km in between km 0.00 to km 4.90) Total excavated length = 103.32 km. Excavable soil volume is 73.86 lakh cubic meters. A total of 6 packages were included in the approved DPP. Package no.- Works-01 and package no.-Works-02 were completed by inviting tenders through open tendering method by mechanical method. Later, 4 packages (Works-03, Works-04, A Works-05, Works-06) related to the dredging work of 103.32 km of Titas river were integrated as Works-03 and subject to the permission of the appropriate authority given to "Dockyard and Engineering Works Ltd. Issued to Bangladesh Navy, Sonakanda, Bandar, Narayanganj under DPM method. Dockyard and Engineering Works Ltd., Bangladesh Navy, Sonakanda, Bandar, Narayanganj have excavated 55.05 lakh cubic meters of 76.181 km out of 73.86 lakh cubic meters of their contract period till June 2021. As per the decision of the Steering Committee dated 03/09/2020 for completion of remaining work within stipulated time remaining work of package : Works-03 (27.309 km length 32.45 Lgm soil) divided into 2 packages (Works-04 & Works-05). The new 2 packages are estimated as per the sanctioned schedule 2019-20.

With this, the estimated price of new package Works-04 and Works-05 became 1759.62 and 1523.94 lakhs respectively.

One the other hand "Anderson Canal re-excavation (by dredger 3 .60 km in between km 0.00 to km 4.90)" was excluded from the project based on the technical committee's recommendation. This requires amendment of DPP. Meanwhile, the duration of the project has been extended till June 2022 without increasing the cost. As per the decision of the 8th Steering Committee on 28-12-2020 with the revised packages, the DPP revision opinion was provided. Accordingly, the 1st Amended DPP was formulated.

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

Bangladesh is a riverine country and bank line erosion of different rivers has been a recurrent effect. River bank erosion in alluvial lands of Bangladesh is a complex and dynamic thrust of nature due to strong onrush of water and major variation in between normal water flow and surges of inflow during monsoon & post-monsoon period in each year. The monsoon discharge of the major rivers is too large that there is recurrence flood every year. Sometimes it becomes very severe and causes immense damages impacted by occurrence of devastating river erosion. This has significant social and economic impacts. The loss of land, crop and property has led to landlessness and impoverishment of thousands of dwellers living within bank lines. The large seasonal variation in river flow results in varying sediment transportation capacity and causes river-bank erosion, migration of river-banks and meandering river channels. Recent Satellite Images Studies of the Ganges-Brahmaputra-Middle Meghna River show that 106300 ha of land were lost to erosion, while only 19300 ha were accreted over the period of 1982-1992. The net area of 87000 ha lost to erosion is equivalent to an annual erosion rate of 8700 ha. In this context, there have been a growing concern and reassessment of the economic and sociopolitical benefits of protecting important towns, infrastructure, hats and bazaars as well as agriculture land. This issue has been given due importance in the national planned documents for water sector and prioritized strategic locations of river banks have been stressed for phased implementation of river bank protection program at the apex level. Socio-economic development and poverty reduction remain the over-riding development priority for an underdeveloped area like proposed project area. The project area has never been seen any major development in the past. The proposed project primarily aims at flood protection and drainage improvement for better agricultural production, road communication development and for various other income generation activities. The project objective is to have minimum interference with environment and to safeguard, especially open water fisheries and navigation.

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

◆ Project Identification:

The Titas river originated from Meghna river of Azabpur in Sarail Upazila and flowing through Upazila of Nasirnagar, Brahmanbaria Sadar, Akhaura, Kashba and finally again falls to Meghna river at Chitra in Upazila Nabinagar of Brahmanbaria District. Since long the river is not re-excavated for which the river bed rises up because of flood water carrying silt. The heavily silt bearing flood water coming from the river Meghna and Haor area causes the river rises up. The Titas River lost her Drainage and Navigation capacity due to deposition of sediments carrying from upstream of the river over several decades, which has enhanced drainage congestion in the river basin. As a result the river bed became silted up, consequently the river loses its natural depth thus it creates navigation problem in the dry season. The project area is facing scarcity of water for irrigation and farming in the dry season. As a result, cultivation in net 57984 hectare area is extensively hampered along with deterioration of the socio-economic and environmental condition. Based on the demand of the inhabitants of the Titas river catchments area, during the visit of the Honorable Prime Minister of the Peoples Republic of Bangladesh in Brahmanbaria on 12th May, 2010, committed to "Re-excavation of Titas River in Brahmanbaria". A technical committee which was formed by BWDB were recommended the preparation and implementation of the project.

◆ Project Preparation

Addressing the above problems, Brahmanbaria WD Division, BWDB, Brahmanbaria prepared the original DPP on the basis of the report of technical committee consisting Re-excavation of Titas River (Upper), project in the district Brahmanbaria.

◆ Appraisal

ECNEC meeting was held on 06-10-2015 in planning commission. As per decision of ECNEC meeting the DPP was corrected & sent to the planning commission for approval.

- ◆ **Credit Negotiation:** Not Applicable.
- ◆ **Credit Agreement:** Not Applicable.
- ◆ **Credit Effectiveness:** Not Applicable.
- ◆ **Loan Disbursement:** Not Applicable.
- ◆ **Loan Conditionalities:** Not Applicable.

♦ **Project Approval.**

The project was approved by ECNEC on 06.10.2015

♦ **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

After implementation of the project, 57,984 hectares of arable land will be protected from rain or flood water in advance and ensure crop production. Besides, fish production will increase and the balance of the environment will be preserved. Drainage facilities has increased and waterlogging has eliminated and river dredging has facilitated navigation during the rainy season with increased navigability during the dry season. The stakeholders are directly taking advantages 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, operation and maintenance programme will be accomplished from regular O&M budget of BWDB.

4.4 Impact of the project-

4.4.1 Direct

After implementation of the project, drainage improvement facilities has been provided to about 57948 ha. gross area. It has reduced intensity of floods, damages to crops, properties and human sufferings: It has also increased agricultural productivity, fish production and other economic activities in the project area The farmers can utilize dry season irrigation facilities at their own initiative for more crop production through retaining water in khal which is one of the significant project objectives.

4.4.2 Indirect

Increase in agricultural production, business facilities as well as self-employment opportunity. As a result, socio-economic development of the project area is achieved.

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

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

Most people of the project area are with limited source of employment. As such poverty is the part and parcel of their day-to-day life. By the implementation of this project, employment in business sector will be created due to socio-economic condition, micro-financing activities. Project will also create employment opportunities and these will ultimately contribute to poverty alleviation. Women can engage themselves to various household & handicraft and business employment opportunities after development of the project area by this project.

4.9 Women's participation in development

Women have participated with men during construction phase of the project.

4.10 Probable Impact on Socio-Economic activity.

At post project condition, due to the re-excavation of the rivers and khals, water logging has been eliminated in the project area and during the dry season, additional crops are being produced through cultivation through water of rivers and khals. By protecting the river bank

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

4.11 Impact on environment

The project has no adverse effect on environment. The project is to provide safety to human lives, properties and to enhance economic activities as well as natural and environmental balance against water logging. Thus, the overall environmental balance in region is restored.

4.12 Sustainability of the project

The project is sustained but requires periodic maintenance.

4.13 Contribution to poverty alleviation/reduction

Project activities created employment opportunities which would contribute to poverty alleviation.

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

Local representatives such as Member of Parliament, local elite, local administration, teachers, religious leaders, women's representative & local UP chairman have positive remarks about the project. They are very much happy with 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	N/A
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	N/A
5.10	Project financing, allocation and release.	N/A
5.11	Design formulation/approval	N/A
5.12	Project aid disbursement and re-imbursement	N/A
5.13	Mission of the development partners.	N/A

5.14 Time & Cost Over-run

Time over-run due to as there is no acquired land in the project area, there was a problem of construction of dyke to keep the dredged material. There are 22 bridges in the river at various places and various types of bamboo, wood, tree branches, bricks, stones and different types of garbage and fish enclosures under water at all places hinders the mobilization of dredgers. Due to the drying up of Titas River in various places, the dredging work has been hindered due to the creation of obstacles to bring the dredger to the right place. So during the implementation of the project this reasons hamperd the project progress. In addition, due to the global Covid-19 pandemic in 2020 and the pre monsoon floods in 2022 project implementation was delayed. No Cost over-run occurred in the Titas Project.

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.

Covid-19 situation and 2022 pre-monsoon flood hampered the progress of the project which forced to stop the running works in several time. As a result, project no cost time extension required from September/2015 to June/2023 and so that project time has been extended.

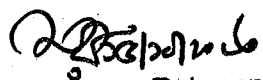
6. Remarks & Recommendations of the Project Director:

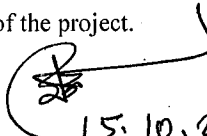
Re-excavation of Titas River (Irrigation and Drainage) Project in the district Brahmanbaria was formulated to improve the irrigation facility and drainage congestion in the project area. The project was approved in last 06/10/2015 ECNEC meeting for implementation from September, 2015 to June, 2020 at a cost of Tk.15588.16 lakhs (total GOB). Subsequently, administrative approval of the 1st amendment of the project was issued on 02.06.2022 AD for the period of September, 2015 to June, 2022 at a total cost of Tk. 13500.37 lakhs. Later this project is extended (No Cost Time Extension) upto June, 2023 because of pre-monsoon flood occurred in 2022. After the implementation period physical progress of the project 91.75%. During implementation of the project Covid-19 situation, Dyke problem, pre-monsoon flood, local problem, mechanical problem of dredger and and labour supply hampered which forced to stop the running works several times.

During the implementation of this project, members of different committees & monitoring authorities visited project site and provided their opinions which has helped to implement the project. Project was implemented properly following respective design, drawing and specification. The quantity and quality were ensured by Task force committee of BWDB and concerned officials of BWDB. In the whole, BWDB taskforce has monitored all the work to ensure transparency. They conducted pre-work and post-work survey.

During implementation, problems related to dredged material management was faced. Also, there were lots of obstacles needed to overcome during excavation work. Finally, all the works were completed maintaining desired quality. Now, the people of the project area are getting all the benefits of this project. In dry season, they can use the reserved water for irrigation purpose. Thus, crop production has increased. Re-excavation work facilitates good drainage facility. Thus, the project area is now free from waterlogging in the monsoon period.

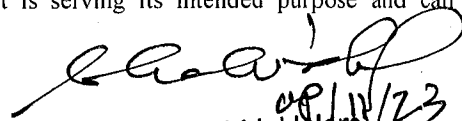
The Project has been completed successfully and beneficiaries are getting full benefit from the Project. Proper Monitoring and regular maintenance works are required for more sustainability of the project.


Md Manzur Rahman
Executive Engineer (C.C)
Brahmanbaria W.D Division
BWDB, Brahmanbaria.


15.10.2023
(Md. Abdul Latif)
Project Director
&
Superintendent Engineer,
Cumilla O&M Circle,
BWDB, Cumilla

7. Remarks/Comments of Agency Head

This project was taken to improve the irrigation facility and drainage congestion in the Brahmanbaria district by re-excavating the Titas River. A total of 82.704 km. Of Titas & 9.15 Km. of Pagla river was re-excavated in this project which results in efficient drainage facilities, diminishing waterlogging, and increased water storage during the dry season. All these benefits have resulted in increased crop production. Overall, this project is serving its intended purpose and can be considered a successful one.


(S.M. Shahidul Islam) 08/11/23
ID NO: 650307001
Director General
Signature WDB Dhaka.

Date:

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

The project has been completed successfully with the objective to eliminate water logging and ensure efficient drainage facilities by re-excavation of Titas and Pagla river.

Date:

Signature and Seal

