

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH  
MINISTRY OF WATER RESOURCES

**BANGLADESH WATER DEVELOPMENT BOARD**



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

**MALIARA-BAKHKHINE-VANDERGAON FLOOD CONTROL  
DRAINAGE AND IRRIGATION PROJECT (2<sup>nd</sup> Phase)  
IN UPAZILA-PATIYA, DISTRICT-CHITTAGONG.**

চট্টগ্রাম জেলার পটিয়া উপজেলায়  
মালিয়ারা-বাকখাইন-ভাঙ্গুরগাঁও বন্যা নিয়ন্ত্রণ, নিষ্কাশন ও সেচ প্রকল্প (২য় পর্যায়)।

CHITTAGONG O&M DIVISION-1  
CHITTAGONG O&M CIRCLE  
SOUTH-EASTERN ZONE  
BWDB, CHITTAGONG.

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

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

**A. PROJECT DESCRIPTION :**

01. Name of the Project : Maliara-Bakkhain-vandergoan FloodControl, drainage & Irrigation project (2<sup>nd</sup> phase) in Upazilla: Patiya, District: Chittagong.
02. Administrative Ministry/Division : Ministry of Water Resources
03. Executing Agency : Bangladesh Water Development Board (BWDB)
04. Location of the Project : Union: Jiri, Vandergaon & Ashia; Upazilla : Patiya.  
Dist: Chittagong.
05. Objective of the Project : The principal objectives of the project are to stop intrusion of tidal water during monsoon, provide adequate drainage facilities to improve water logging retain water for irrigation during dry season and protect river bank permanently from the severe erosion of khal. The overall objective is to reduce environmental degradations due to intrusion of tidal water and on going severe river bank erosion in the project area.

06. Estimated Cost :

(In lakh Taka)

	Original	Latest Revised (Re-Appropriation)
(a) Total	2477.73	2477.73
(b) Taka	2477.73	2477.73
(c) Foreign Currency	-	-
(d) Project Aid	-	-
(e) RPA	-	-

07. Date of Approval :

PCP

PP

(a) Original :

25<sup>th</sup> November/2015.

(b) Latest Revised (Re-Appropriation) :

3<sup>rd</sup> January/2017.

08. Implementation Period :

	Date of Commencement	Date of Completion
(a) Original	October'2015	June'2017
(b) Latest Revised (Re-Appropriation)	October'2015	June'2017
(c) Actual	October'2015	June'2017



**09. Financing Arrangement (Source-wise):****9.1 Status of Loan/Grant:**

a) Foreign Financing : Not Applicable

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

b) GOB:

(In lakh Taka)

Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
2477.73	-	2477.73	-

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

(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

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

(In lakh Taka)

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

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

Implementation Period as per PP		Actual Implementation period	Time Over-run (% of original implementation period)	Remarks
Original	Latest Revised			
1	2	3	4	5
October'2015 to June'2017	October'2015 to June'2017	October'2015 to June'2017	-	

**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	2477.73	2477.73	2270.59	(-) 8.36	
TAKA	2477.73	2477.73	2270.59	(-) 8.36	
PA	-	-	-	-	



### 03. Project Personnel:

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

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

Field of Training /Study tour/workshop/Seminer etc.	Provision as per PP		Actual		Remarks
	Number of person	Man -months	Number of person	Man - months	
1	2	3	4	5	6
a. Foreign			N/A		
b. Local			N/A		

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

(In lakh Taka)

Items of work (as per PP)	Unit	Target (as per PP)		Actual Progress		Reasons for deviation (±)
		Financial	Physical (Quantity)	Financial	Physical (Quantity)	
1	2	3	4	5	6	7
<b>A. Revenue Component:</b>						
Petrol & Lubricant	1 Item	4.00	1 Item	3.57	1 Item	
Printing & Publication	1 Item	2.00	1 Item	0.95	1 Item	
Office Stationery, Seal & Stamps	1 Item	1.00	1 Item	0.50	1 Item	
Survey & investigation	1 Item	5.00	1 Item	2.74	1 Item	
Honorarium for different Committee	1Item	2.00	1Item	0.00	1Item	
Honorarium for Mid-term Evaluation Committee	1Item	4.00	1 Item	3.64	1 Item	
Honorarium for Progress Monitoring Committee	1Item	2.00	1 Item	0.00	1 Item	
Repair of existing Vehicles-Jeep 4 Nos., Motor Cycle-5 No.	1Item	5.00	1Item	3.71	1Item	
Repair of Computer, Photocopier UPS & other Office equipment.	1 Item	1.00	1 Item	0.75	1 Item	
<b>Sub Total (A) :</b>		<b>26.00</b>		<b>15.86</b>		
<b>B. Capital Component</b>						
<b>Acquisition of Assets :</b>						
Purchase of Levelling machine (Auto Focus) with stand & staff -1 No.	Nos.	1.00	1 Nos.	1.00	1 Nos.	
Purchase of Brand new Computer with Laser Printer & accessories (Laptop-1Nos, Desktop Computer-1Nos, Laser Printer-1Nos & U.P.S.-2 nos.)	Nos.	5.00	5 Nos	5.00	5 Nos	
Land Acquisition (including stamps, duty, registration fees etc), (20.610hac.)	hac.	1031.23	20.610	1030.99	20.610	
Renovation & repair of Rest House, Office building; Residences & other Engineer's Facilities.	L.S.	70.00	L.S.	69.66	L.S.	



	Items of work (as per PP)	Unit	Target (as per PP)		Actual Progress		Reasons for deviation (±)
			Financial	Physical (Quantity)	Financial	Physical (Quantity)	
	1	2	3	4	5	6	7
<b>Construction works :</b>							
	Construction of Drainage Outlet: 1-vent-1.5mX1.8m vent (1-No.)	Nos.	232.42	1 No	213.28	1 No	
	Construction of 1- 1.2m dia Pipe Outlets. (6-Nos.)	Nos.	349.04	6 Nos.	322.53	6 Nos.	
	Construction of 1- 0.90m dia Pipe Inlets. (7-Nos.)	Nos.	308.69	7 Nos.	295.05	7 Nos.	
	Construction of Embankment & Approach Embankment (5.380 KM, total earth work 1.89 lakh cum)	Meter	432.35	5380 Meter	317.22	3885 Meter	1495meters are flood free, hence not executed.
	<b>Sub Total (B) :</b>		<b>2429.73</b>		<b>2254.73</b>		
	<b>C. Physical Contingency</b>	<b>LS</b>	<b>8.00</b>	<b>LS</b>	<b>0.00</b>	<b>LS</b>	
	<b>D. Price Contingency</b>	<b>LS</b>	<b>14.00</b>	<b>LS</b>	<b>0.00</b>	<b>LS</b>	
	<b>Grand Total (A+B+C+D):</b>		<b>2477.73</b>	<b>100.00%</b>	<b>2270.59</b>	<b>100.00%</b>	

**06. Information regarding Project Director(s):**

Name & Designation with pay Scale.	Full time	Part time	Responsible for more than one project	Date of		Remarks
				Joining	Transfer	
1	2	3	4	5	6	7
Mr. Bidyut Kumar Saha, Executive Engineer Scale: 22250-31250 Tk	Full time	-----	Yes	23.07.2015	20.08.2015	
Mr. Md. Siddiquir Rahman, Superintending Engineer Scale: 50000-71200 Tk	Full time	-----	Yes	20.08.2015	Till Date	

**07. Procurement of Transport (in Nos.):**

Type of transport	Number as per P.P.	Procured with date	Transferred to Transport Pool with date	Transferred to O & M with date	Condemned/ damaged with date	Remarks
1	2	3	4	5	6	7
Not Applicable						

**08. Procurement of Goods, Works and Consultancy Services:**

**8.1 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 lac Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Construction of Embankment on the bank of Shikalbaha khal from KM 9.000 to km 11.570 =2.570 KM in connection with Maliara-Bakkhaine-Bhandergaon FCDI Project in Jiri, Kashiaish and Ashia Union of Upazila- Patiya, Dist. Chittagong during the year 2015-2016. (e-GP-46/Embkt /Maliara/2015-16)	241.09	221.98	23-02-2016	21-04-2016	19-06-17	19-06-17
Construction of Drainage Outlet (1 vent: 1.50m X 1.80m) at km. 0.285, North Deang, on the flood embankment in connection with Maliara-Bakkhaine-Bhandergaon FCDI Project in Upazila: Patiya, Dist: Chittagong during the year 2016-2017.	232.42	213.44	05.09.2016	08-11-2016	15-06-17	15-06-17

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

Name of the Field	Approved man month		Actual man month utilised	Remarks
	As per PP	As per contract		
1	2	3	4	5
a) Foreign	N/A			
b) Local	N/A			

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

Description of items	Quantity (as per PP)	Quantity procured with date	Transferred to O & M with date	Disposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7
Level Machine with staff & stand.	1 Set	12-03-2017	10-07-2017	-	-	-
Laptop and Desktop Computer with Laser printer & UPS	3Nos.	20-06-2017	10-07-2017			



### C. FINANCIAL AND PHYSICAL PROGRAMME:

#### 01. (a) Original and revised schedule as per PP :

(In lakh Taka)

Financial Year	Financial provision & physical target as per original PP				Financial provision & physical target as per latest revised PP			
	Total	Taka	P.A.	Physical %	Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9
2015-16	1586.02	1586.02	-	64.01%	223.73	223.73	-	9.03%
2016-17	857.21	857.21	-	35.99%	2254.00	2254.00	-	90.97%
Total:	2477.73	2477.73	-	100.00%	2477.73	2477.73	-	100.00%

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

(In lakh Taka)

Financial Year	Revised Allocation & target				Taka release	Expenditure & physical progress			
	Total	Taka	P.A.	Physical %		Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9	10
2015-16	225.00	225.00	-	9.08%	225.00	223.73	223.73	-	9.03%
2016-17	2252.73	2252.73	-	90.92%	2211.00	2046.86	2046.86	-	90.97%
Total	2477.73	2477.73	-	100.00%	2436.00	2270.59	2270.59	-	100.00%

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

Objectives as per PP	Actual achievement	Reasons for shortfall, if any
<p><b>The principal objectives of the project are:</b>            To stop intrusion of tidal water during monsoon season.            To provide adequate drainage facilities to improve water logging.            To retain water for irrigation during dry season.            To protect river bank permanently from the severe erosion of khal</p>	<p><b>Output:</b>  <b>Drainage Outlet : 07 Nos.</b>  <b>Irrigation Inlet : 07 Nos.</b>  <b>FC Embankment : 3.885 kms.</b></p> <p>As a result unwanted intrusion of tidal water is stopped, drainage structures facilitate improvement of water logging. Also the structures will provide irrigation facilities.</p>	No Shortfall.
<p>The overall objective is to reduce environmental degradations due to intrusion of tidal water and on going severe river bank erosion in the project area. Huge public and private immovable properties and agriculture productive and settlement lands of the project area with an approximate total worth of BDT 35,340.00 lac is supposed to be saved from river bank erosion and consequential increased regional flooding of Shikalbaha khal by the proper execution of the project.</p>	<p>Environmental degradations due to intrusion of tidal water is reduced remarkably in the project area. Huge public and private immovable properties and agriculture productive and settlement lands of the project area with an approximate total worth of BDT 35,340.00 lac is saved and consequential increased regional flooding of Shikalbaha khal by the proper execution of the project.</p>	





## E. BENEFIT ANALYSIS

### 01. Annual Out-put:

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-put during the 1st year of operation at full capacity (or during, real production for newly completed project).
Drainage facilitated area	ha.	4827	Yet to be evaluated.
Irrigation facilitated area	ha.	3765	
Protection to salinity intrusion	ha.	2172	
Incremental crop production in project area	M.Ton	8988.80	

### 02. Cost / Benefit:

Item	Estimated	Actual
(1) Benefit cost ratio of the project (i) Financial (ii) Economic	(i) 1.76 : 1.00 (ii) 2.26 : 1.00	Will be evaluated later by concerned Directorate of BWDB & IMED.
(2) Internal Rate of Return (i) Financial (ii) Economic	(i) 22.45% (ii) 28.95%	

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



## **F. MONITORING AND AUDITING**

### **0.1 Monitoring:**

<b>Name &amp; designation of the inspecting official</b>	<b>Date of Inspection</b>	<b>Identified Problems</b>	<b>Recommendations</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Ministry/Agency:</b>			
Alhaj Shamsul Haque Chowdhury, Honble' MP, Constituency-289, Chittagong-12.	02-12-2016		Suggested to increase the progress so far of the Project and complete within the stipulated time.
Mr. Mantu Kumar Biswas Joint Chief, MoWR.	24-03-2017	-	Suggested to increase the progress so far of the Project and complete within the stipulated time.
<b>IMED:</b>			
Mr. Md. Afzal Hossain Director, IMED.	26-04-2017	-	Suggested to increase the progress so far of the Project and complete within the stipulated time.

### **0.2. Auditing during and after Implementation:**

#### **2.1. Internal Audit: No audit conducted.**

<b>Period of Audit</b>	<b>Date of submission of Audit Report</b>	<b>Major findings/ objections</b>	<b>Whether objections Resolved or not.</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
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#### **2.2. External Audit:**

<b>Audit period</b>	<b>Date of submission of Audit Report</b>	<b>Major findings/ objections</b>	<b>Whether objections Resolved or not.</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
2015-16	-	-	Yet to undergo auditing.
2016-17	-	-	Yet to undergo auditing.



## **G. DESCRIPTIVE REPORT**

### **1. General Observations/Remarks of the Project on:**

#### **1.1 Background:**

Bangladesh is a riverine country. The implemented project “**Maliara-Bakhhain-Vandergaon Flood Control, Drainage and Irrigation Project (2<sup>nd</sup> Phase)**” is bounded by the Shikalbaha khal at the west and south, Chandkhali Khal at the south and east and Chittagong- Cox’s Bazar Road at the north sides respectively. It is about 10 KM long in the north-south direction while the width is about 12 KM in the east-west direction. The area of the project is about 4827 ha and about 1.85 lac people live in the project area.

Shikalbaha Khal is originated from the Karnafully river and falling into the Chandkhali Khal near a village, Murali again the Chandkhali Khal is falling into the Sangu River near Keshua of Chandanaish Upazilla. There was neither a flood control embankment on the left bank (east bank) of the Shikalbaha khal nor any water control structure had ever been constructed in the area before project implementation. As a result due to tidal effects of different cyclonic surge and flash flood from the upstream of the Karnafully river, water spilled over the existing bank causing huge damages in the project area. On the right bank (west bank) of the Shikalbaha khal a flood control embankment was constructed earlier.

There existed heavy tidal influence in the khals in the project area before the project was implemented. The major khals within the project area were Maliara-Fultali khal, Bakhhain-Konkarjora khal, Vandergaon khal and Syed khal etc. Besides these, about 14 small drainage channels were flowing through the project area. Due to tidal influence, water entered in the different khals and over topped the canal bank. During monsoon, rainwater as well as tidal intrusion caused severe water logging problem in the area. Due to this, vast area of agricultural land, homesteads, standing crops, roads etc. went under water and damaged valuable assets. In the dry season people in these areas used the tidal water from different khals for irrigation by LLP.

To save and develop 100 sq. km area in Patiya upazilla of Chittagong District on the left (east) bank of the Shikalbaha khal, a project namely “**Maliara-Bagkhine-Vandergaon FCDI Project in Upazila- Patiya, District- Chittagong**” incorporating (i) Flood Embankment-5.380 kms and (ii) Drainage Outlets- 6 nos. & Irrigation Inlets- 7 nos. was implemented.

#### **1.2 Justification/Adequacy:**

Bangladesh is a riverine country and flooding and intrusion of saline of different rivers has been a recurrent effect. Flooding and river bank erosion in alluvial lands of Bangladesh is a complex and dynamic thrust of nature due to strong onrush of water and major variation in between normal water flow and surges of inflow during monsoon & post-monsoon period in each year. The monsoon discharge of the major rivers is so large that there is recurrence of floods every year. Sometimes it become very severe and causes immense damages. This has significant social and economic impacts. The loss of land, crop and property has led to landlessness and impoverishment of thousands of dwellers. In this backdrop, there have been growing concerns now for reassessment of the economic and socio-political benefits of protecting important locations, infrastructures, valuable properties and towns, growth centres etc. The National Water Policy emphasized for protection of strategic geographic locations & important economic zones from devastating flooding and erosions of different mighty rivers. Also National Water Management Plan emphasized on the development and management of water resources with appropriate measures for river erosion mitigation for enabling environment.

In this context, there had been a growing concern and reassessment of the economic and socio-political benefits of protecting important towns, infrastructure, hats and bazaars as well as agricultural land. Thus there had been a growing need for development of water sector and prioritized strategic locations of river banks have been stressed for phased implementation for execution of river bank protection programme at the apex level.

The present Government has given utmost importance on increasing agricultural production for overall socio-economic development. Due importance has also been given for increasing fisheries and livestock production. The project objective included maximum growth, increasing sector efficiency, inter sector linkages, planned utilization and efficient management of water resources.

As an action plan under said strategies & national development goals, the FCD work was implemented.





### 1.3 Objectives:

The objectives were:

- To stop intrusion of tidal water and save the project including a huge Non-Govt. & Private offices, residential buildings, roads, schools, colleges, madrasahs, hospital, Upazila complex, cultivable land etc. by constructing sluices at the outfall of major khals and chance of breaching of flood control embankment;
- To provide substantial employment opportunities and cash income for landless, poor and vulnerable people, both women and men, during construction with a view to provide a stable environment for development in areas adjacent to protected river bank;
- To remove water logging of the project area;
- Accelerating agricultural production and other income generating activities;
- Reducing the intensity of food in order to reduce damage of crops, properties and lives;
- To improve socio-economic condition with the creation of employment in business sector so that micro-financing activities are facilitated; and
- To contribute to the achievement in poverty alleviation by ensuring future economic benefits to be achieved.

### 1.4 Project revision (Re-appropriation) with reasons:

This project consisted of 07 nos of work packages. For change of design due to site condition the tender of one package was floated later. The estimated cost of the package was increased than the approved DPP cost for this package. Out of the awarded 6 packages, 4 packages had been awarded less than the estimated cost. As 4 packages have been awarded less than the DPP cost, overall cost of the DPP had not been changed. To address this issue the project was subjected to a inter package reappropriation within the DPP cost.

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

Alluvial lands of Bangladesh is a complex and dynamic thrust of nature due to strong onrush of water and major variation in between normal water flow and surges of inflow during monsoon & post-monsoon period in each year. The monsoon discharge of the major rivers is so large that there is recurrence of floods every year. Sometimes it become 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. In this backdrop, there have been growing concerns now for reassessment of the economic and socio-political benefits of protecting important locations, infrastructures, valuable properties and towns, growth centres etc. The issue has been duly emphasized in the National Town Plan. The National Water Policy emphasized for protection of strategic geographic locations & important economic zones from devastating erosions of different mighty rivers. Also National Water Management Plan emphasized on the development and management of water resources with appropriate measures for river erosion mitigation for enabling environment.

In this context, there have been a growing concern and reassessment of the economic and socio-political benefits of protecting important towns, infrastructure, hats and bazaars as well as agricultural land. Thus there has been a growing need for development of water sector and prioritized strategic locations of river banks have been stressed for phased implementation for execution of river bank protection programme at the apex level.

The present Government has given utmost importance on increasing agricultural production for overall socio-economic development. Due importance has also been given for increasing fisheries and livestock production. The project objective includes maximum growth, increasing sector efficiency, inter sector linkages, planned utilization and efficient management of water resources.

As an action plan under said strategies & national development goals, proposed FCD work had been formulated.

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

#### **Project Identification:**

The western part of Patiya Upazilla, bounded by the Shikalbaha khal at the west and south, Chandkhali Khal at the south and east and Chittagong-Cox's Bazar highway at the north sides respectively, is a low lying area. Cultivation, livelihood everything was dependent on nature. Damage to crop had occurred almost every year. In these circumstances the local honble' MP Alhaj Shamsul Haque Chowdhury demanded to the honble' Minister, MoWR for construction of a flood control embankment and water control structures in the area on 15-03-2009 through a D.O. letter. Accordingly local BWDB officials visited the area and identified the project.

#### **Project Preparation:**

The area is located within the tidal influence of the Bay of Bengal. The major water management problems of the area are monsoon and tidal flooding, saline water intrusion, and land and property loss due to erosion in few locations. To improve water management through flood control, salinity protection, drainage improvement and irrigation facility of gross area of about 4827 ha covering Kasiais, Asia and Jiri union full and part of Baralia and Kusumpura unions in Patiya upazilla of Chittagong District on the left (east) bank of the Shikalbaha khal a Technical Committee formed by BWDB provided a study report on the project area in 2010 and a project namely "Maliara-Bagkhine-Vandergaon FCDI Project in Upazila- Patiya, District- Chittagong (2<sup>nd</sup> Phase)" incorporating (i) Flood Embankment-5.380 kms and (ii) Drainage Outlets- 6 nos. & Irrigation Inlets- 7 nos. was framed.

**Appraisal:** The project was appraised by the Planning Commission on 11<sup>th</sup> October/2015.

**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 Honourable Planning Minister on 25<sup>th</sup> November/2015 and Re-Appropriation was approved by MoWR on 3<sup>rd</sup> January/2017.

**Others (if any):** Nil.

### 4. Analysis of the Post-Implementation situation and result of the project:

**4.1 Whether the beneficiaries of the project have clear knowledge about the Target/ Objectives of the project.:** Yes

**4.2 Programme for use of created-facilities of the project:**

The stake holders are directly taking advantages of the created facilities of the project.

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

Post Project recurrent O&M works will be arranged from the regular O&M allocation.

**4.4 Impact of the project -**

**4.4.1 Direct:**

To achieve the objectives 07 nos. Drainage Outlet, 07 nos. Irrigation Inlet and 3.885kms. of Flood Control Embankment are constructed. As a result unwanted intrusion of tidal water is stopped, drainage structures facilitate improvement of water logging. Also the structures will provide irrigation facilities

**4.4.2 Indirect:**

Safety of human livelihood and properties.

Improvement of socio-economic condition.

**4.5 Transfer of Technology and Institutional Building through the project:**

Not Applicable

**4.6 Employment generation through the project.**

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



**4.7 Possibility of Self employment :**

There are possibilities of self employment as existing commercial and business centres are protected.

**4.8 Possibility of women-employment opportunity:**

Yes, there is possibility of women-employment through the project.

**4.9 Women's participation in development:** Yes.**4.10 Probable Impact on Socio-Economic activity :**

Socio-economic balance in the locality is enhanced.

**4.11 Impact on environment :**

Environmental enhancement is achieved through the implementation of the project.

**4.12 Sustainability of the project:**

The project is sustainable but requires periodic maintenance.

**4.13 Contribution to poverty alleviation/reduction :**

The rehabilitation of the existing banks cannot directly influence either the distribution of land or financial resources among the households, which determine the amount of available food grain for the different households in rural areas. However, the level of production of rice can influence per capita availability of rice by its impact on prices. Besides, more output per unit of land means greater amounts to be taken home by the sharecroppers who are at the lower side of the poverty scale.

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

Positive remarks regarding the project.

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

Not Applicable.

**5. Problems encountered during Implementation (with duration & steps taken to remove those)**

5.1	Project Management	5.12	Project aid disbursement and re-imbursment
5.2	Project Director	5.13	Mission of the development partners.
5.3	Land Acquisition	5.14	Time & Cost Over-run
5.4	Procurement	5.15	Project Supervision/Inspection
5.5	Consultancy	5.16	Delay in Decision
5.6	Contractor	5.17	Transport
5.7	Manpower	5.18	Training
5.8	law & Order	5.19	Approval
5.9	Natural calamity	5.20	Others.
5.10	Project financing, allocation and Release.		
5.11	Design formulation/approval		

No such problem was encountered during implementation period.





## 6. Remarks & Recommendations of the Project Director :

Maliara-Bakhhain-Vandergaon Flood Control, Drainage and Irrigation Project is bounded by the Shikalbaha khal at the west and south, Chandkhali Khal at the south and east and Chittagong- Cox's Bazar Road at the north sides respectively. Shikalbaha Khal is originated from the Karnafully river and falling into the Chandkhali Khal near a village, Murali again the Chandkhali Khal is falling into the Sangu River near Keshua of Chandanaish Upazilla. There is neither a flood control embankment on the left bank (east bank) of the Shikalbaha khal nor any bank protection work has ever been under taken in the project area. As a result due to tidal effects of different cyclonic surge and flash flood from the upstream of the Karnafully river, water spills over the existing bank causing huge damages in the project area. On the right bank (west bank) of the Shikalbaha khal a flood control embankment was constructed earlier. The major khals within the project area are Maliara-Fultali khal, Bakhhain-Konkarjora khal, Vandergaon khal and Syed khal etc. Besides these, about 14 small drainage channels are flowing in the project area. During monsoon, rainwater as well as tidal intrusion cause severe water logging problem in the area. Due to this, vast area of agricultural land, homesteads, standing crops, roads etc. go under water and damages valuable assets. In the dry season people in these areas use the tidal water from different khals for irrigation by LLP.

To save and develop this area in Patiya upazilla of Chittagong District on the left (east) bank of the Shikalbaha khal, the project namely "**Maliara-Bagkhine-Vandergaon FCDI Project in Upazila- Patiya, District- Chittagong**" was formulated to implement. The project was approved in ECNEC held on 25.11.2015.

After the successful implementation of this project, unwanted intrusion of tidal water is stopped, drainage structures facilitate improvement of water logging. Also the structures will provide irrigation facilities. The socio-economic condition of the people has been improved. Scopes of new jobs & works have been created. The safety of human livelihood and properties has also been improved. The project will also contribute to attain national self sufficiency in food grains. Proper monitoring and regular maintenance of the revetment works and others necessary components should be continued to ensure the sustainability of the project. Otherwise the benefit of the project might be hampered.

Date: .....

Signature and seal of the Project Director/Manager

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

### Remarks/Comments of Agency Head

This project has restricted the intrusion of tidal saline water to 2172 Ha of project area during monsoon season. 4827 Ha area have got drainage facilities among which 3765 Ha area have got irrigation facilities. Implementation of river bank protection works under this project has ensured safeguard to 353.40 crore taka valued establishments and properties. As this is a irrigation project, increased crop production after implementation of this project is expected to be 8988.80 MTon. So, objective-wise, it is a successful project.

Date: .....

Signature and Seal  
(Md. Mahfuzur Rahman)  
Director General  
BWDB, Dhaka.

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

Date:

\_\_\_\_\_  
Signature and Seal

