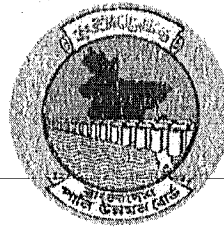


PROJECT COMPLETION REPORT (PCR)
IMED 04/2003 (Revised)

Name of the Project : Feasibility Study for Protection and Development of Kuakata Sea Beach

(কুয়াকাটা সৈকত রক্ষা এবং উন্নয়নের লক্ষ্যে সমীক্ষা কাজ)



Directorate of Planning-2

BANGLADESH WATER DEVELOPMENT BOARD

MINISTRY OF WATER RESOURCES

**GOVERNMENT OF THE PEOPLE'S REPUBLIC OF
BANGLADESH**

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** : Feasibility Study for Protection and Development of Kuakata Sea Beach.
কুয়াকাটা সৈকত রক্ষা এবং উন্নয়নের লক্ষ্যে সমীক্ষা কাজ
02. **Administrative Ministry/Division** : Ministry of Water Resources
03. **Executing Agency** : Bangladesh Water Development Board (BWDB)
04. **Location of the Project** :
- | Division | District |
|----------|-----------|
| Barisal | Patukhali |

05. Objective of the Project :

The objective of the study is to investigate the coastal erosion processes along the Kuakata sea beach, revisiting the existing erosion protection measures and to devise immediate and long-term erosion mitigation measures considering technical, environmental and social aspects to safeguard the coast line and develop the beach as a world class tourist spot.

The specific objectives of the project are:

Technical :

- Understanding of wave and sediment transport dynamics of the area of interest and identification of the reasons of coastline erosions;
- Review of existing design of erosion protection;
- Review of the best practices of costal erosion protection at home and abroad;
- Development of different potential options for protection works considering hydrodynamic and morphological condition at selected stretches of the coastline;
- Stakeholder consultations at Kuakata ;
- Assessment of effectiveness and impact of the different protective measures at different stretches of the Kuakata coastlines;
- Design of the protective works;
- Spatial & Temporal Sediment Circulation and Wave Pattern with Climate Change and Sea Level Rise(SLR);
- Protection against dynamic loading / impact load.



Environmental and Social:

- Establishment of Environmental and Social Baselines;
- Preparation of Environmental and Social Impact Assessment (ESIA).

06. Estimated Cost:**(In lakh Taka)**

	Original	Latest Revised
(a) Total	455.62	-
(b) Taka	455.62	-
(c) Foreign Currency	-	-
(d) Project Aid	-	-
(e) RPA	-	-

07. Date of Approval	:	PCP/PFS	TPP
(a) Original	:	10 July 2019	-
(b) Latest Revised	:	16 June 2020**	-

(** The PFS of the project was no revised but a not cost time extension has been ordered for the project)

08. Implementation Period :

	Date of Commencement	Date of Completion
(a) Original	July 2019	December 2019
(b) Latest Revised	July 2019 **	June 2020 **
(c) Actual	July 2019	June 2020

** The PFS of the project was no revised but a not cost time extension has been ordered for the project.

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

a) Foreign Financing : Not Applicable

Source (s)	Currency as per Agreement	Amount in USD (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
Not Applicable							



b) GOB

(In lakh Taka)

Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
455.62	-	455.62	-

9.2 Utilization of Project Aid: Not Applicable

Source (s)	Total Amount	Actual Expenditure	Unutilized Amount
1	2	3	4
Not Applicable for this project			

9.3 Re-imbursible Project Aid (RPA) : Not Applicable

(In lakh Taka)

RPA Amount		Amount Spent	Amount Claimed	Amount Re-imbursed	Remarks
As per PP	As per Agreement				
1	2	3	4	5	6
Not Applicable for this project.					

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
July 2019 to December 2019	July 2019 to June 2020 (No cost time extension)	July 2019 to June 2020	100%	The administrative order of the project was issued on 10/07/2019 and PD was appointed on 05/09/2019. As project activities can not be started before appointment of the PD, all project activities has been shifted accordingly.



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	455.62	-	338.56	(-25.69%)	
TAKA	455.62	-	338.56		
PA	-	-	-		

03. Project Personnel: The project have been implemented by existing manpower of Directorate of Palnning-2, BWDB, Dhaka.

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	Oth ers		
1	2	3	4	5	Male	Female
-	Officer- 08 Staff-02	-	-	-	Officer- 03 Staff-02	Officer- 05
-	-	-	-	-	-	-
Total	10	-		-	05	05

04. Training of Project Personnel (Foreign/Local):**a. Foreign: Not Applicable**

Field of Training / Study tour/ workshop/ Seminer etc.	Provision as per PP		Actual		Remarks
	Number of person	Duration	Number of person	Duration	
1	2	3	4	5	6
Not Applicable					



b. Local: Not Applicable

Field of Training / Study tour/ workshop/ Seminar etc.	Provision as per PP		Actual		Remarks
	Number of person	Duration	Number of person	Duration	
1	2	3	4	5	6
Not Applicable					

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

(In lakh Taka)

Items of Work (as per TPP)	Unit	Target (as per TPP)		Actual Progress		Reasons for deviation (±)
		Financial	Physical (Quantity)	Financial	Physical (Quantity)	
1	2	3	4	5	6	7
(a) Revenue Expenditure						
Honorarium	L.S	1.65	100.00%	1.145	69.39%	The project cannot achieve 100% target due to outbreak of COVID-19.
Entertainment expenses	L.S	1.00	100.00%	0.00	0.00%	
Transport hiring (Hiring of microbus)	Vehicle-months	5.40	100.00%	3.36	62.22%	
Domestic Travel Expenses (TA & DA)	L.S	0.75	100.00%	0.098	13.06%	
Petrol & Lubricant	L.S	0.25	100.00%	0.00	0.00%	
Printing & Binding	L.S	0.25	100.00%	0.00	0.00%	
Consultancy (including IT & VAT)	Man-month	445.92	100.00%	333.96	98%	
Repairs and Maintenance:						
Computers	L.S	0.20	100.00%	0.00	0.00%	
Machineries and Equipment	L.S	0.20	100.00%	0.00	0.00%	
Total		455.62	100%	338.56	98%	

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
AKM Tahmidul Islam Director/ Superintending Engineer Planning-II, BWDB, Dhaka & Project Director. Pay Scale: 50000-71200		Yes	Yes	05.09.2019	-	



07. Procurement of Transport (in Nos.): No transport was purchased under this project. A car was hired to provide transport facilities of the officers engaged in the project activities.

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 and works of the project costing above Tk. 200.00 lakh. And Consultancy above Tk. 100.00 lakh: Not Applicable.

Cost of details of procurement of Consultancy Services is given as follows:

Description of procurement (goods/works /consultancy) as per bid document	Tender/Bid/Prop osal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contract ed value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Consultancy Services of Feasibility Study for Protection and Development of Kuakata Sea Beach	445.92	444.85	15.10.2019	20.11.2019	30.06.2020	30.06.2020

8.2 Use of Project Consultant (s) (Foreign/Local):

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	1	1	-	
(b) Local	50	48	48	

09. Construction/Erection/Installation Tools & Equipment: Not applicable.

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
Not applicable						

C. FINANCIAL AND PHYSICAL PROGRAMME:

01. (a) Original and revised schedule as per PP : Not applicable.

(In lakh Taka)

Financial Year	Financial provision & physical target as per original PP				Financial provision & physical target as per latest revised TPP			
	Total	Taka	P.A.	Physical %	Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9
2019-20	455.62	455.62	-	100%	-	-	-	100%
Total	455.62	455.62	-	100%	-	-	-	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
2019-2020	455.00	455.00	-	100%	341.25	338.56	338.56	-	98%



D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objectives as per TPP	Actual achievement	Reasons for shortfall, if any
<ul style="list-style-type: none"> • Understanding of wave and sediment transport dynamics of the area of interest and identification of the reasons of coastline erosions. • Review of existing design of erosion protection. • Review of the best practices of coastal erosion protection at home and abroad. • Development of different potential options for protection works considering hydrodynamic and morphological condition at selected stretches of the coastline. • Stakeholder consultations at Kuakata. • Assessment of effectiveness and impact of the different protective measures at different stretches of the Kuakata coastlines. 	<ul style="list-style-type: none"> • Identification of potential option for sea beach protection; • Data analysis and model development; • Detailed design; • Stake holder Consultation; • Cost Estimate • ESIA; • 3D Animation of Beach Development Plan. 	<ul style="list-style-type: none"> • Due to outbreak of COVID-19, the stakeholder consultation could not be arranged.
<ul style="list-style-type: none"> • Design of the protective works. • Spatial & Temporal Sediment Circulation and Wave Pattern with Climate Change and Sea Level Rise (SLR). • Protection against dynamic loading / impact load. • Establishment of Environmental and Social Baselines and Preparation of Environmental and Social Impact Assessment (ESIA). 		



E. BENEFIT ANALYSIS

01. Annual Out-put: Not applicable for study project.

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)			
(b)			
(c)			
(d)			

02. Cost / Benefit: Not applicable for study project.

Item	Estimated	Actual
(1) Benefit cost ratio of the project (i) Financial		
(ii) Economic		
(2) Internal Rate of Return (i) Financial		
(ii) Economic		

03. Please give reasons for shortfall, if any, between the estimated and actual benefit:

Not Applicable.



F. MONITORING AND AUDITING

0.1 Monitoring: As this is a study project, hence there is no scope of field work inspection in this project.

Name & designation of the inspecting official	Date of Inspection	Identified Problems	Recommendations
1	2	3	4

(a) Ministry / Agency:

(b) IMED:

(c) Others:

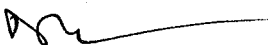
0.2. Auditing during and after Implementation:

2.1. Internal Audit: No internal audit conducted.

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

2.2. External Audit: Yet to be conducted.

Audit period	Date of submission of Audit Report	Major findings/ objections	Whether objections resolved or not.
1	2	3	4



G. DESCRIPTIVE REPORT

1. General Observations/Remarks of the Project on :

1.1 Background

The tourism zone of Kuakata has become vulnerable due to continual erosion of sea shore. During last few years, the sea shore erosion/wave action started to engulf the sea beach and infrastructure. The continual erosion is threatening the Kuakata affluent zone, which is being developed as modern tourism industrial park. In this context, it is important to protect the beach and prepare a comprehensive plan to improve it.

The strong current in the Bay of Bengal, caused by low and monsoon wind, is severely eroding Kuakata Sea sea-beache. The monsoon wind is also increasing water level to several feet in the Bay.

The beach from Forest khal (Ch km 26.720) to Khajura (Ch km 31.720) is facing severe erosion. The erosion is so drastic that all the attractive objects of the beach are becoming extinct one after another. In the last rainy season alone, more than 200 coconut trees and 1000 tamarisk trees have gone into the sea. In last three years, about 5000 tamarisk trees and about 1000 coconut trees have become extinct along with many other trees reared by the forest department.

The stated portion of the beach has become unsuitable for tourist gathering. As a result, the entrepreneur community related to the sea-beach has become frustrated. Local people said that the beach has been eroding after the cyclone 'Sird' hit in 2007. Many tamarisk trees have been uprooted, the point has lost its attraction. As a result, the tourist gathering has been decreased here. Over the years a vast area adjacent to the coastline were engulfed into the sea. The erosion is mainly due to wave action.

In view of the above, BWDB decided to conduct a detailed feasibility study for sea beach protection from 2.00 km upstream of Khajura to Forest Khal (around 7.00 km) with facilities for road cum embankment, parking, access to beach, some restaurant etc. considering environmental and social issues.



Accordingly a PFS titled “Protection and Development of Cox’s Bazar and Kuakata Sea Beach” was prepared by BWDB and sent to Ministry of Water Resources (MoWR) on 21 January 2019. A Scrutiny Committee meeting on the PFS was held on 17 April 2019 in MoWR. In the meeting, it was decided to prepare and submit two separate PFS for Cox’s Bazar and Kuakata Sea Beach. As per decision of the meeting, a separate PFS for protection and development of Kuakata Sea Beach has been prepared.

Justification/Adequacy

Kuakata sea beach is one of the most visited sites of Bangladesh. The natural beauty of beach area is very charming and the climate is very fine. A number of tourists come here to spend their leisure in the beach. The beach is crowded almost all over the year. The scenic beauty of the sea beach has developed a strong tourism business which is contributing the economic growth of the country. But the recent sea shore erosion has made the tourism zone vulnerable which eventually threatening expanding the tourism business of the area.

Section 3.7.2 main document of the National Water Management Plan (NWMP) clearly refers to erosion control, river bank maintenance, and recommends the approach to be followed, particularly with fess on formulating an updated strategy dealing with the problem for sustaining people’s livelihoods and halting erosion.

Goal 11 of Sustainable Development Goals (SDG) refers to make cities and human settlements inclusive, safe, resilient and sustainable and Goal 13 of SDG # 13 refers to take urgent action to combat climate change and its impacts and Goal. To meet SDG, sea shoreline should be protected which is a cause of climate change and making human settlement vulnerable in the coastal area.

1.2 Objectives

The objective of the study is to investigate the coastal erosion processes along the Kuakata sea beach, revisiting the existing erosion protection measures and to devise immediate and long-term erosion mitigation measures considering technical, environmental and social aspects to safeguard the coast line and develop the beach as a world class tourist spot.

The specific objectives of the project are:

Technical :

- Understanding of wave and sediment transport dynamics of the area of interest and identification of the reasons of coastline erosions;

- Review of existing design of erosion protection;
- Review of the best practices of costal erosion protection at home and abroad;
- Development of different potential options for protection works considering hydrodynamic and morphological condition at selected stretches of the coastline;
- Stakeholder consultations at Kuakata ;
- Assessment of effectiveness and impact of the different protective measures at different stretches of the Kuakata coastlines;
- Design of the protective works;
- Spatial & Temporal Sediment Circulation and Wave Pattern with Climate Change and Sea Level Rise(SLR);
- Protection against dynamic loading / impact load.

Environmental and Social:

- Establishment of Environmental and Social Baselines;
- Preparation of Environmental and Social Impact Assessment (ESIA).

1.4. Project revision with reasons:

The Administrative Order (A.O.) regarding project approval was issued on 10 July 2019 and Project Director (PD) was appointed on 05 September 2019 by the Ministry of Water Resources. As project works can not be started before appointment of the PD and the remaining time of the project period was not enough to complete the study. The outbreak of COVID-19 also hamperd the study. So the project period was extended for 6 months (Upto June 2020) by the Ministry of Water Resources.

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

Kuakata sea beach is one the most attractive tourist sites of Bangladesh. Due to continual erosion, the tourism business of the area has become vulnerable, also the beach is losing its beauty. This project has been taken up for sustainability of the beach and the tourism business of the area.

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

◆ Project Identification

The Kuakata sea beach is facing severe erosion from Forest khal (Ch km 26.720) to Khajura (Ch km 31.720). The erosion is so drastic that all the attractive objects of the beach are becoming extinct one after another. In last three years, about 5000 tamarisk trees and about 1000 coconut trees have become extinct along with many other trees reared by the forest department. The stated portion of the beach has become unsuitable for tourist gathering. As a result, the entrepreneur community related to the sea-beach has become frustrated. Local people said that the beach has been eroding after the cyclone 'Sird' hit in 2007. Many tamarisk trees have been uprooted, the point has lost its attraction. As a result, the tourist gathering has been decreased here. Over the years a vast area adjacent to the coastline were engulfed into the sea. The erosion is mainly due to wave action. In view of the above, BWDB decided to conduct a detailed feasibility study for sea beach protection.

◆ Project Preparation

In view of the above, BWDB prepared a PFS to execute the feasibility study project.

◆ Appraisal

DPEC meeting of the project was held in Ministry of Water Resources (MoWR) on 18 June 2019.

◆ Credit Negotiation

◆ Credit Agreement

◆ Credit Effectiveness

◆ Loan Disbursement

◆ Loan Conditionalities

◆ Project Approval

The PFS of the project was approved on 10 July 2019 by MoWR.

◆ Others (if any).

Not Applicable

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- It is a study project. Benefits can be extracted after implementation of main project.
- 4.2 Programme for use of created-facilities of the project-N/A

- 4.3 O & M programme of the project-N/A
- 4.4 Impact of the project – N/A
 - 4.4.1 Direct
 - 4.4.2 Indirect
- 4.5 Transfer of Technology and Institutional Building through the project-Yes
- 4.6 Employment generation through the project-N/A
- 4.7 Possibility of Self employment-N/A
- 4.8 Possibility of women-employment opportunity-N/A
- 4.9 Women's participation in development-N/A
- 4.10 Probable Impact on Socio-Economic activity-Positive impact have been assessed in the study.
- 4.11 Impact on environment-Positive impact have been assessed in the study.
- 4.12 Sustainability of the project-N/A
- 4.13 Contribution to poverty alleviation/reduction-N/A
- 4.14 Opinion of the public representatives, local elite, local administration, teachers, religious leaders, women's representatives etc-N/A
- 4.15 Contribution of Micro-credit programmes and Comments on overlapping with any NGO activities-N/A

**5. *Problems encountered during Implementation (with duration & steps taken to remove those):
Not applicable for study project.***

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



6. Remarks & Recommendations of the Project Director:

The project was completed in June 2020. Kuakata is known for its panoramic sea beach. But in recent time the tourism zone of kuakata has become vulnerable due to continual erosion of the sea shore. This study project has been carried out to investigate the coastal erosion process and to devise immediate and long term erosion protection measures and develop the beach as a world class tourist spot. Through this study, the Consultants have identified the most suitable option for beach protection and development. Design of multifunctional dyke, series of groynes and 3 D plan to develop the beach as a world class tourist spot has been prepared through the study. Due to outbreak of COVID-19, Stakeholder Consultation could not be arranged and Expatriate Consultant could not be engaged.. But all the major activities has been accomplished under the project. The design, cost estimate and ESIA have been prepared through this study based on which DPP of the subsequent investment project would be prepared.

Date : 02.09.2020




Signature and seal of the Project Director/Manager

A. K. M. Tahmidul Islam
Project Director
Feasibility Study for Protection and
Development of Kuakata Sea Beach
&
Director
Planning & BWDB, Dhaka.

7. Remarks/Comments of Agency Head

BWDB is planning to take an investment program to protect and develop Kuakata Sea Beach. The most suitable option for beach protection and development has been identified through this study. Design of multifunctional dyke, series of groynes and 3D plan of the beach has also been prepared. With the consent from MoWR, BWDB will soon furnish a DPP and process it for approval.

Date:



Signature and Seal

15.09.2020
(A. M. Aminul Haque)
Director General
BWDB, Dhaka.

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

Date:

Signature and Seal
