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

BANGLADESH WATER DEVELOPMENT BOARD

COASTAL EMBANKMENT IMPROVEMENT PROJECT, PHASE-I (CEIP-I)

MID-TERM IMPACT ASSESSMENT AND REVIEW REPORT DECEMBER 2022

Project Management Unit, CEIP-1

December 2022

Sheladia Associates, Inc. (USA)
(CONTRACT PACKAGE NO. CEIP-1/ C2/S3)

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EXECUTIVE SUMMARY

Introduction

This Mid Term Review Report (MTR) presents the review of all the progress of the project activities such as Physical, Financial, Procurement, Land Acquisition, Institutional, Afforestation, Long Term Monitoring Consultancy, CEIP-2 Feasibility Study, Progress on Project Indicator, etc.

The MTR is intended to provide the Project Director, Project Steering Committee (PSC), and World Bank with information on emerging issues as well as a record of the project as it evolved the year since 2016. It is intended to also show the plans for the project overall, and specifically the end of the project progress against the respective targets. Should a delay occur the report aims to alert as to the potential impact which such a delay may have on the project schedule overall. The report consolidates the individual reports of several implementing partners under the project. These partners will present their data. In general, such data would be incorporated as it was reported, and the PMU and the M&E team may also verify data independently.

The mid-term review is geared towards promoting project performance improvement, accountability, learning and evidence-based decision-making and management. In particular, the review is assessed results achieved to date in comparison with the performance indicators outlined in the project Monitoring, Evaluation and Learning framework. It is also drawing lessons and make recommendations for enhancing project implementation and performance. The project became effective in 2014 and one restructuring since then. In this report is explore the delays in project implementation, their causes, and draw lessons from the delays and provides suggestions for improved implementation to avoid further delays going forward and to ensure achievement of the project objectives.

This exercise is an activity in the project cycle that determines, as systematically and objectively as possible, the relevance, efficiency, effectiveness, impact, and sustainability of the expected project outcomes. The review is assessing the achievements so far of the project against its stated outcomes, including a re-examination of the validity of the project design. It is also identified significant factors that are facilitating or impeding the delivery of outcomes. Whilst the review of the past is, in itself, very important, the review is expected to lead to recommendations and lessons learned for the project's future. It is also addressing the underlying causes and issues contributing to targets that are not being adequately achieved.

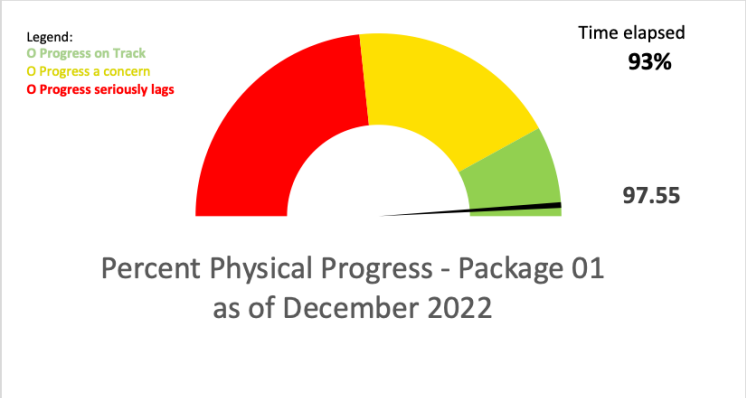
The Executive Summary contains the following sections:

- Summary of Achievements all the component of CEIP-1 during Jan 2015 - Jun2022.
- Outcome of the Project
- Revie of Environment of CEIP-1.
- Impact of CEIP-1
- All the issues and recommendation

Summary of Achievements all the component of CEIP-1 during Jan 2015 - Jun 2022.

Work Contract 01

Physical progress was slow in the first 12 months but improved substantially thereafter starting with the 2017/18 construction season and especially during 2018/19. A revised Work Program was approved in August 2018 which showed completion in June 2020 – an extension of 17 months. With the advent of the COVID-19 pandemic and multiple lockdowns, the pace of work progress had been reduced starting in March 2020. The Employer approved an Extension of Time for execution of the works of this Contract first up to 30 June 2021 and subsequently up to 31 March 2022, then 30 June 2022 and finally 30 June 2023. These EOTs were granted on the condition that no claim will be acceptable due to this Extension of Time.



With the new 4th extension, the contract period now has a total duration of 89 months. At the 83-month mark (December 2022), 97.52 % of the works have been done against the work plan target. All the remaining works of Polder-32 & 35/1 could not be completed by 30 June 2022 due to obstacles in construction works and delays for providing instructions and drawings for construction of embankment slope development works in paved road areas and late access to the site for excavation/re-excavation of the drainage channels.

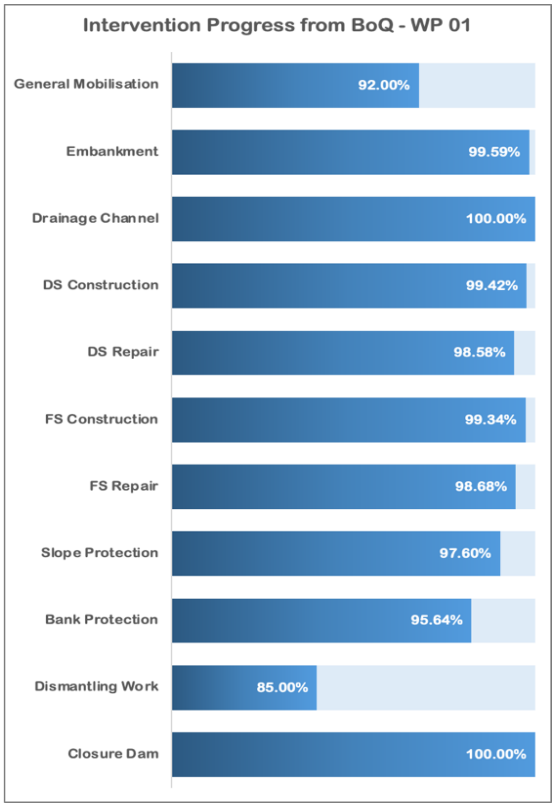
Taking-Over Certificates for Polder 33 and 35/3 have been issued as per GCC Sub-Clause 10.1 (a) and 11.1. However, there remain some construction work and quality issues to be addressed.

Taking-Over Certificates for Polders 32 and 35/1 had been issued on 25th September 2022.

The Defect Liability Period of Polder 33 expired on 27th February 2022, but the Contractor has failed to rectify all the identified defects and works of Polder 33 within the defect liability period. Hence, Contractor applied for extension of Defect Liability Period for Polder 33 and it was granted up to the contract completion date by the Employer based on recommendation of the Engineer.

The Contractor started to develop the embankment slopes of the paved road areas of Polder-33, 35/1 and 35/3. As provision of the design drawings was delayed and due to obstacles in the working areas, the said works of Polder 33 could not be completed within the extended time.

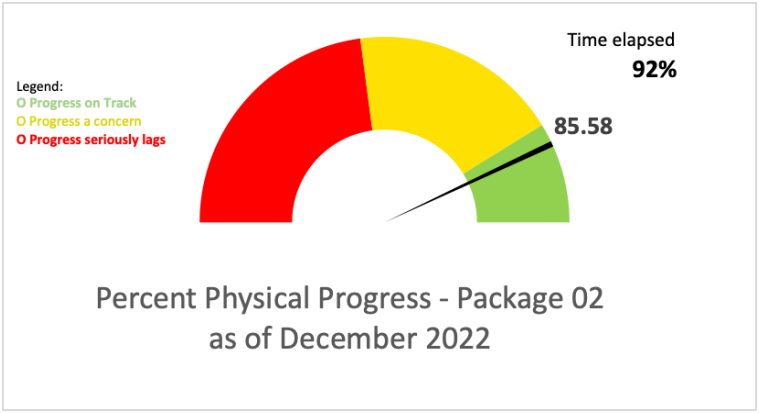
A Technical Committee has been constituted with specific terms of reference by the Competent Authority of Bangladesh Water Development Board (BWDB) on 6 December 2021 to prepare a Technical Report with recommendation in order to protect Polder No. 32 in Khulna district, by constructing sustainable embankment and implementing riverbank Protection Works by Geo/Geo Tube. The Committee has visited the Polder from 24th December to 25th December 2021 and prepared a Technical Report that indicated 7.100 km length of vulnerable locations categorized as most vulnerable (900 m), moderately vulnerable (4,800 m) and vulnerable (1,400 km). The DDCS&PMS Consultants prepared designs which were approved by BWDB and then prepared the cost estimate which was also approved. Ultimately, negotiations with the Package 01 Contractor failed and the Employer considered issuing a tender for national competitive bidding, but this would be too time-consuming. Instead, negotiations are being conducted with the Package W 02 Contractor.



The Package 01 Contractor's Project Manager has left Bangladesh with no indication of when he will return. This Contractor has several works remaining, including proper decommissioning and properly attending to repairs during the defect's liability period.

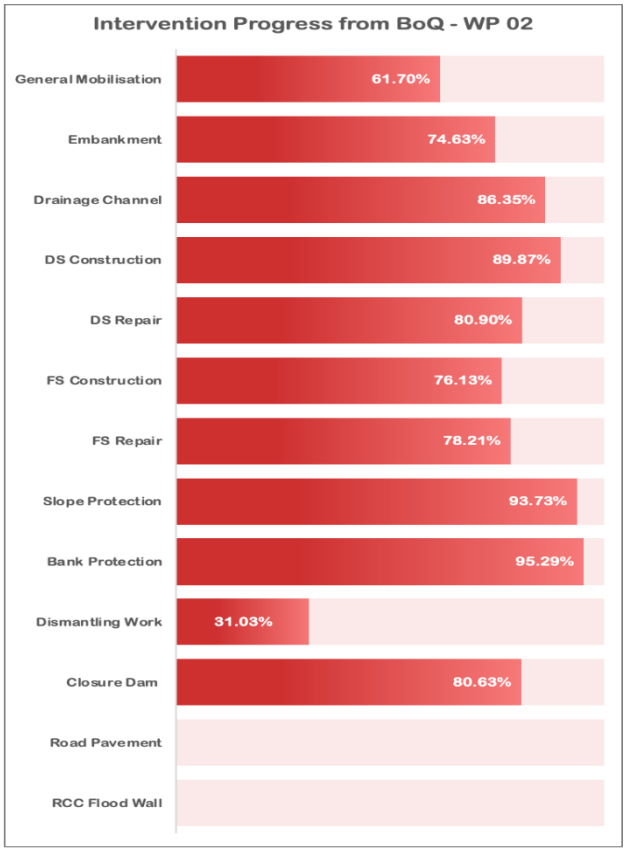
Work Contract W 02

Mobilization and physical progress were exceptionally slow during the first 2-3 years of the contract. As of December 2022, 65.5-months of the contract period have elapsed, or 91.6% of the time. Works progress overall (using financial achievement) stands at 85.58% compared to the newly revised work plan target of 92.58% leaving a gap of 7%. The progress is up in the last 12 months by only 5% from the 80.5% progress level of December 2021. While progress lags were due at least in part to COVID-19 and visa problems for Chinese skilled-labor, there had been inadequate attention to embankment work in the past (now resolved) possibly due to the low unit rates quoted by the Contractor for this work.



Out of 58 drainage sluices to be newly constructed, the contractor has fully completed 38 nos. and 11 nos. are in progress. This compares to 35 and 13 respectively at the end of the prior quarter.

Out of 51 flushing sluices to be newly constructed, the contractor has fully completed 24 no. and 15 nos. are in progress. This compares to 20 and 16 respectively at the end of the prior quarter.



Cumulative production is 7,411,563 CC blocks as of 31 December 2022 which represents 94.2% of the 7.8 million blocks required (up from 93.5% in the prior quarter). About 153,000 blocks were produced during the quarter.

Embankment slope protection works of 5.492 kms were completed as of September 2022, changed from 4.421 km from June 2022.

No emergency works were undertaken during the quarter, though to date there have been such works in 27 locations in all six polders.

Disbursements and Expenditures

Cumulative figures of disbursements from the World Bank (and PPCR) to the BWDB appear below, converted from BDT to USD at the original rate of 79 BDT per USD. It should be noted that due to the weakening of the USD-SDR exchange rate, the actual funding level for CEIP-1 is estimated at about $375 m rather than $400 m. The percentage calculations below and throughout this report continue to be based on the $400 m figure.

Disbursements to the Project stand at 70.12% of the total project budget amount[1] as of 31December 2022, which is same in the prior quarter. The total disbursed to date stands at $280.478 million comprised of IDA Credit US$255.478 m plus Trust Fund PPCR Grant of US$ 25.0 m.

Table ES 1: World Bank Disbursements to CEIP-1

[1]It should be noted that the total project cost is taken as $400 million as per original budget for purposes of tracking changes over time with a fixed denominator, but the changes in the USD-SDR exchange rate mean that the actual funds available will be closer to $375 million equivalent.

Quarter end-Date	Cumulative as of Given Date			
	IDA Credit	PPCR Grant	Total	As % of Total Project Cost
31-Dec-22	**255.478**	**25**	**280.478**	**70.12%**
30-Sep-22	**255.478**	**25**	**280.478**	**70.12%**
30-Jun-22	255.478	25	280.478	70.12%
30-Jun-21	236.837	25	261.837	65.46%
30-Jun-20	210.813	25	235.813	58.95%
30-Jun-19	163.342	24.474	187.816	46.95%
30-Jun-18	83.24	19.98	103.22	25.80%
30-Jun-17	38.52	17.01	55.53	13.88%
30-Jun-16	17.48	8.72	26.2	6.55%
30-Jun-15	17.48	0	17.48	4.37%
30-Jun-14	4.63	0	4.63	1.16%

Source: PMU of CEIP-1

As of December 2022, the Loan had been effective for 112 months (9 years, 4 months). According to the IMED reports prepared by PMU (and using the original exchange rates for USD-SDR and BDT 79 per USD), total disbursement (expenditures) by the project follows:

- Dec 2022 - US$ 268.509 million, or 68.32% of total project cost
- Sept 2022 - US$ 266.893 million, or 67.91% of total project cost
- June 2022 - US$ 265.084 million, or 67.45% of total project cost
- June 2021 - US$ 236.44 million, or 59.1% of total project cost
- June 2020 - US$ 215.6 million, or 53.9% of total project cost
- June 2019 - US$ 173.6 million, or 43.4% of total project cost
- June 2018 - US$ 97.0 million, or 24.2% of total project cost
- June 2017 - US$ 50.4 million, or 12.6% of total project cost
- June 2016 - US$ 22.0 million, or 5.3% of total project cost
- June 2015 - US$ 3.0 million, or 0.7% of total project cost

Procurement

There are 44 procurement packages under services – 11 packages for firms and 33 for individual consultants. One package for firms and five packages for individual consultants have been dropped. For the 10 packages to be contracted out to firms, all have been contracted – namely,

- DDCS&PMS Consultants,
- Third-Party M&E Consultants,
- Long-Term Monitoring, Research and Analysis of Bangladesh Coastal Zone; and
- Five (05) packages for the Consultancy for Social Afforestation, SAP and WMOs (now with Social Afforestation re-assigned to the Department of Forestry). Two of these five packages were signed during the quarter on 8 April 2019.
- Consultancy Services for conducting Internal Audit of CEIP-1 – Draft contract has been signed on August 06, 2020.
- Consultancy for Feasibility Studies and Preparation of CEIP-2, Contract has been signed on 19 July 2021.

As of 31December 2022, all the individual consultants have been engaged except Senior Environmental Specialist and Social Safeguard Specialist (Khulna) position are vacant.

Land Acquisition

Package W-01

The DDCS&PMS Consultant commenced their service in the field from January 2015, however, there was no progress in land acquisition in the first two years, perhaps progress of the works was impressively good in the third year and reached 88%, but in polder 32, 0.58 ha of land has to be acquired at the end of seven years.

All the land got possession as of September 2022.

Package W-02

The DDCS&PMS Consultant was in the field from January 2015, in Package W-2, there was no progress in land acquisition in the first two years, and in the third year only 8% progress, after that , progress of land acquisition began.

There are questionable remarks on the land acquisition progress of polder 43/2C. It is appreciable work done on land acquisition in Polder 39/2C, this polder is new, and 76.87% of the land has already been acquired as of March 2023. The problem of timely completion of land acquisition is one of the causes of delay in construction works.

Institutional

All the WMG committee have been formed and registered, except 2 in Polder 33 due to local pollical issues, and out of 10 WMA, all have been completed, registered.

Afforestation

1522.5 thousand seedlings have been planted on the embankment and at mangrove sites to December 2022.

Long Term Monitoring

90% of their work has been done as of December 2022

CEIP-2 Feasibility Study

The Consultants appointed for the preparation of CEIP-2 are a Joint Venture of Royal HaskoningDHV (The Netherlands), North West Hydraulic Consultants (Canada) and Inros Lackner (Germany) with Royal HaskoningDHV as lead Consultant. National firms on the team are Development Design Consultants (geo-technical investigations and detailed designs); Strategic Planning and Management Consultants (surveys, hydrometric measurements and detailed designs); CEGIS (mathematical modelling, GIS and morphology); and Knowledge Management Consultants (Environment, LAP and RAP).

Area and Population Protected

The estimate of area and population protected is calculated as the proportion of total length of embankment of each polder for which the earthwork is completed.

Gross area protected & Direct project beneficiaries as of December 2022.

Polder No. and Package No.	Total Polder Area (ha)	Total Polder Population (BBS 2011 with assumed 1.4% annual growth rate)	Embankment Fully Done (kms)	Embankment Target (kms)	Estimated Share of Area Protected	Area Protected to Date (ha)	Population Protected to Date
32	8,097	59,258	49.666	49.67	99.99%	8,096	59,253
33	8,600	86,503	47.469	49.15	96.58%	8,306	83,544
35/1	13,058	1,42,714	61.972	61.97	100.00%	13,058	1,42,719
35/3	6,790	41,828	39.825	39.83	99.99%	6,789	41,823
Pkg 01	36,545	3,30,303	198.932	200.62	99.16%	36,250	3,27,339
39/2C	10,748	1,36,404	36.742	59.25	62.01%	6665	84,587
40/2	4,453	84,931	21.057	34.2	61.57%	2742	52,292
41/1	4,048	80,330	22.561	33.81	66.73%	2701	53,603
42/3C	2,753	27,501	17.878	25.505	70.10%	1930	19,277
47/2	2,065	7,277	17.567	17.5	100.38%	2073	7,305
48	5,400	57,457	24.687	38	64.97%	3508	37,327
Pkg 02	29,467	3,93,899	140.492	208.265	67.46%	19,619	2,54,391
TOTAL, Protected	66,012	7,24,202	339.424	409.33	82.92%	55,869	5,81,730

Cropping Intensity of CEIP-1, Considering 9 Polders (39/2C is under construction)

The Cropping Intensity calculation is given in the table below. We have found the CI in Package W-01 is 167 and Package W-02 is 205. This is based on the practical decision, agreed with the World Bank, FAO and PMU, to assume that the total cultivable area (denominator) is equal to the area planted in Kharif II.

Polder	Area of Polder	Kharif – II 2021	Rabi 2022	Kharif - I 2022	Total Cropping Area of 2021-22	Cropping Intensity
(a)	(b)	(c)	(d)	(e)	(f) = c+d+e	(g) = f/c
32	5815.65	3273.07	1553.46	32.73	4859.26	148
33	10103.59	7423.34	6973.20	0.00	14396.54	194
35/1	14330.45	8102.76	2835.97	972.33	11911.05	147
35/3	6619.16	2363.28	1744.45	118.16	4225.89	179
Package W-01	**Total Area**	**21162.44**	**13107.07**	**1123.23**	**35392.74**	**167**
40/2	4565.38	2397.01	2300.02	483.00	5180.03	216
41/1	4206.88	2392.69	2392.69	526.39	5311.77	222
43/2C	2977.45	1791.60	1786.40	1057.04	4635.04	259
47/2	965.21	643.59	418.33	141.59	1203.50	187
48	5079.93	2542.89	889.58	305.15	3737.62	147
Package W-02	**Total Area**	**9767.77**	**7787.02**	**2513.17**	**20067.96**	**205**

Note: Polder 39/2C hasn't been considered until the polder is completed because this polder is entirely new.

Resettlement and Livelihoods

Package W-01

All the non-titled EPs of work package 01 have been compensated to date and 98.66% of these EPs have relocated so far.

Package W- 02

A total of 75.57% of non-titled EPs (squatters) have been compensated and 92.17% of these EPs have relocated. This means 69.68% of total non-titled EPs (whether compensated or not) have relocated. There had been no progress for ten months of implementation of the RAP due to the COVID-19 outbreak, but this activity has resumed since October 2021. Moreover, no payment for tenants and wage laborers have been done yet.

Gender and Social Inclusion

Package W-01

33 % of Executive Committee members of both WMA and WMG are women in all the polders of package W-01.

Package W-02

Between 32% and 35% of Executive committee members of both WMA and WMG are women in the polders of package W-02.

Impact Assessment

Collected midline data for Package W-01 and Package W-02; the physical progress of the work of Package W-01 is 97%, and Package W-02 is 84%. To allow some point of comparison that would capture the influence of non-project factors (weather, agricultural policy, general economic condition, etc.). Focus Group Discussions (FGD) were conducted to collect data for the impact assessment of the CEIP-1 project.

A “Checklist” was developed to conduct the FGDs based on project monitoring parameters and indicators. A checklist is essential to keep the enumerators on the right track and help them with any missing required information to collect. We finalized the date by consulting with WMA, WMG members, farmers, and upazila representatives of each of the Polders of Package w-01 & 02. Polder maps and other necessary materials were used during the conduct of the FGDs.10 to 15 participants were present for each FGD; the participants had good knowledge of physical works, hydrology, environment, agriculture, and overall CEIP-1 activities of the entire Polder.

The M&E Consultant introduced and explained the objectives of the consultation at the start of the FGD. During a discussion of the FGD with the participants, the M&E Consultant asked them about past cyclone disaster conditions such as SIDR, AILA, etc., after implementation of CEIP-1, such as the conditions of cyclone-affected disasters, changes in their livelihood, causes of change in their farming and livelihood, etc. Participants were requested to sketch or mark on the map the effect of damage, such as erosion, overtopping of the embankment, flooding, etc., to understand the severity of the damage caused by cyclones and high tidal surges. The M&E

consultants guided the discussion with the participants based on the prepared checklist and took notes. The consultant kept a record after validating or confirming the participants if there was any disagreement on any information.

Reduced Flooding Area of the Polders

The flooding area of the polders has improved with the implementation of the projects as FGD's findings; there was no flood during Cyclone Yaas (May 2021), Ampahan (May 2020), and Bulbul (November 2019). On the other hand, before the project implementation, Cyclone SIDR, 25%-70% area of Package W-01 and 60% - 90% area of Package W-02 had been inundated, again during Aila, 20% - 85% area of Package W-01 and 35% - 90% area of Package W-02 had been flooded. The percentage of the flooding area of all polders of the CEIP-1 is presented in the tables below. We have the flooding area during the last 20 years of cyclones.

Percentage of flooding area by cyclone, Package-1

Type	Polder 35/3	Polder 35/1	Polder 32	Polder 33
SIDR (year)	40-50	35-45	60-70	25 - 35
Aila (year)	30-40	45-55	80-85	20 - 30
Yaas: May 24-27, 2021	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0

Percentage of flooding area by cyclone, Package-2

Disaster	Polder-41/1	Polder-40/2	Polder-47/2	Polder-43/2C	Polder-48
SIDR	60 - 70	60 - 70	60 - 70	80 - 90	10
Aila	90 - 95	35 - 40	40 - 50	50 - 60	0
Yaas: May 24-27, 2021	0	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0	0

Reduced Overtopping of the Embankment of the Polders

The overtopping of the embankment of the polders has improved by the implementation of the project as FGD's findings; there was no overtop of the wall during Cyclone Yaas (May 2021), Ampahan (May 2020), and Bulbul (November 2019). On the other hand, before the project implementation, Cyclone SIDR, 10%-40% area of Package 01 and 17% - 35% area of Package W-02 had been overtopped, again during Aila, 10% - 40% area of Package W-01 and no place of Package W-02 had been overtopped. The percentage of the overtopped embankment of all polders of the CEIP-1 is presented in the tables below. We have considered the flooding area during the last 20 years of cyclones.

Percentage of over top of the embankment of the polders by cyclone, Package-1

Type of disaster	Polder 35/3	Polder 35/1	Polder 32	Polder 33
SIDR	15-25	10-20	30-40	10-15
Aila	10-15	10-20	30-40	10-15
Yaas: May 24-27, 2021	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	00	0

Percentage overtopping of the embankment of the polders by cyclone, Package-2

Type of disaster	Polder- 41/1	Polder- 40/2	Polder- 47/2	Polder- 43/2C
SIDR	30 – 35	20	17	20
Aila	0	0	10	0
Yaas: May 24-27, 2021	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	00	0

Reduced Waterlogging (no. of the days) of the Polder

The waterlogged area of the polders has improved by the implementation of the project as FGD's findings; there was no waterlogged area of the polders of the embankment during Cyclone Yaas (May 2021), Ampahan (May 2020), and Bulbul (November 2019). On the other hand, before the project implementation, Cyclone SIDR, 10 – 200 days of Package 01 and 4 – 20 days of Package 02 had been waterlogged, again during Aila, ten days – 2 years of Package 01 and 2 – 8 days of Package 02 had been waterlogged. No of the days of waterlogged of all polders of the CEIP-1 are presented in the table belows. We have considered finding the flooding area during the last 20 years of cyclones.

Nos of days of waterlogged area of the polder during cyclones, package 1

Type of disaster	Polder 35/3	Polder 35/1	Polder 32	Polder 33
SIDR	10 - 12	10 - 12	90 -100	180 - 200
Aila	15 - 20	4 - 5	700 -750	30 - 40
Amphan	4 - 5	0	storm only	0
Yaas: May 24-27, 2021	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0

Nos of days of waterlogged area of the polder during cyclones, package 2

Disaster	Polder-41/1	Polder-40/2	Polder-47/2	Polder-43/2C	Polder-48
SIDR	7 – 8	2 – 3	15 - 20	6 - 7	4 - 5
Aila	7 – 8	5 – 7	2- 3	5 - 7	0
Amphan	0	0	0	0	0
Yaas: May 24-27, 2021	0	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0	0

Improved Drainage Condition of the Polder

The drainage conditions of the polders area have improved by the implementation of the project as for FGD's findings. There was a satisfactory level of drainage conditions of the polders area during Cyclone Yaas (May 2021), Ampahan (May 2020), and Bulbul (November 2019). On the other hand, before the project implementation, Cyclone SIDR, there were deplorable drainage conditions in Package 01, and there were deplorable drainage conditions in Package 02 as well, again during Aila, there were deplorable conditions of drainage conditions in Package 01 and Package 02. Drainage conditions in all polders of the CEIP-1 are presented in the table belows. We have considered the flooding area during the last 20 years of cyclones.

Improving Drainage Condition of the Polders, Package-1 and 2

Disaster	Polder 35/3	Polder 35/1	Polder 32	Polder 33
SIDR	Very poor	Very poor	Very poor	Very poor
Aila	Very poor	Poor	Very poor	Poor
Amphan	Satisfactory	Poor	Poor	Satisfactory
Yaas: May 24-27, 2021	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Bulbul:matmo: 28 Oct to Nov 11, 2019	Satisfactory	Satisfactory	Satisfactory	Satisfactory

Disaster	Polder- 41/1	Polder- 40/2	Polder- 47/2	Polder- 43/2C	Polder- 48
SIDR	Very poor	Satisfactory	Poor	Very poor	Very poor
Aila	Very Poor	Poor	Poor	Poor	Very poor
Amphan	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Yaas: May 24-27, 2021	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Bulbul:matmo: 28 Oct to Nov 11, 2019	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory

Improvement of Salinity Intrusion within a couple of years

The soil salinity intrusion has been improving in the polder areas after the implementation of the project. It was impossible to cultivate any crop during the rabi season before the works of CEIP-1 were implemented.

Reduction of Salinity Intrusion within a couple of years

Polder# 32	Soil salinity is reduced daily and by approximately 60 - 70% until the last dry season.
Polder# 33	Soil salinity is reduced daily and approximately 50- 60% until the last dry season.
Polder#35/3	No Rabi crop before the project started due to salinity. It is decreasing day by day. Soil salinity was reduced by 60% till the last dry season.

Polder# 35/1	Minimal Rabi crop before project start due to salinity. It is reducing daily, and soil salinity has been reduced by approximately 50 - 60% till the last dry season.
Polder# 40/2	Soil salinity is reducing day by day. Earlier, some 10 – 20% areas of the polder noticed saline effect during the dry season (late Rabi); now, 3 – 5% of sites have salinity problems in the Polder.
Polder# 41/1	Soil salinity is reducing day by day. Earlier, some 10 – 20% areas of the polder noticed a saline effect during the dry season (late Rabi), and now, there are no salinity problems in the Polder areas. The participants' perception is that salinity reduction is not due to project impact but natural.
Polder# 43/2C	Soil salinity is reducing day by day. Earlier, some 25% of areas of the polder noticed saline effect during the dry season (late Rabi), and now, 3 – 5% of sites have salinity problems in the Polder.
Polder# 47/2	Soil salinity is reducing day by day. Earlier, some 30% areas of the polder noticed saline effect during the dry season (late Rabi); now, 10 – 15% of sites have salinity problems in the Polder.
Polder# 48	Soil salinity is reducing day by day. Some 20% of the polder areas noticed a saline effect during the dry season (late Rabi); now, 8 - 10% of sites have salinity problems in the Polder.

Infrastructure Development of the Polders within a couple of years

Educational Institutes

There are educational institutes that have been established after the implementation of the CEIP-1. While these cannot be correlated to CEIP-1 interventions, they are potentially evidence of confidence in the stability of the embankments and the protection they offer.

Growth Center, Weekly, and Daily Bazar

There are growth centers that have been established after the implementation of the CEIP-1; due to improvement of the polders' facilities.

Road Network

Due to polders being functional, road communication has been improved after implementing the CEIP-1.

Types of Vehicles

Since CEIP-1 intervention, motorized vehicles have increased inside the polders. While this cannot be provably attributed to CEIP-1, the improved security and improved ride-ability offered by the reconstructed embankments would clearly be a factor promoting economic activity and increased traffic.

Improvement Environment in the Last Couple of Years

The improvement of the Environment within 3 years in terms of the quality of surface water, safe drinking water, quality of groundwater, and fisheries diversity.

1 ChapterOne:Introduction

1.1 Project Background

After the implementation of CERP-II, Cyclone Sidr struck in 2007 and then Cyclone Aila in 2009, causing extensive damage and losses including loss of life. The Government of Bangladesh obtained a Credit of US$ 375 million from the International Development Association (IDA) and a Grant of US$ 25 million the Climate Investment Fund (CIF) to finance the cost of the Coastal Embankment Improvement Project-Phase I (CEIP-I).

The objective of the investment is to support the Government of Bangladesh's efforts to protect the population and their productive assets in the polders and strengthen the embankments' long-term durability through embankment heightening, improved drainage, and foreshore afforestation. The project aims at restoration of the agriculture sector within the polder areas and rehabilitation of infrastructure with designs of a climate resilient standard that can guard against both tidal flooding and frequent storm surges.

The project will pilot the mobilization of Water Management Organizations (WMOs) to provide coordination among the competing needs of various users and to ensure sustainability by assigning maintenance responsibility to the WMO.

The project will also provide long term monitoring of the coastal zone, technical assistance, and strategic studies and training to strengthen the role of the polder infrastructure in protection of human lives, physical assets, the environment and agricultural productivity.

Most importantly it will support the initial implementation of the first slice of a fifteen- to twenty-year program for polder scheme rehabilitation and upgrading. Given Bangladesh's high level of vulnerability to natural disasters and climate change, and the large population residing in the coastal zone, this project is vital to its development. A map showing the Polders included under the Project is presented in Annex 1. A description of the basic characteristics of the polders included under the Project is presented in Annex 2 and the key outcomes of the project are as follows:

Table 1:Key outcomes of the project

	Key PDO Indicator	Original Target	Current Target (after restructuring)
1	Gross Area Protected	100,800 hectares	66,012 hectares
2	Direct Project Beneficiaries	760,000 people	724,202 people
3	Cropping Intensity	180%	180%

This MTR covers the entire Project, with all components as presented below

Component A - Rehabilitation and Improvement of Polders (US$291 million).

Component A1: Rehabilitation and Improvement of Polders (US$ 286 million). (US$ 266 million from IDA Credit; 20 million Grant from PPCR). The reconstruction and rehabilitation works will be designed with improved standards so that protection is for both tidal flooding and frequent storm surges. Investments will include improving O&M systems improvements.

Component A2: Afforestation (US$5 million). Afforestation is important as it provides protection from tidal flooding and storm surge. This will include:

- Planting selected mangrove and other salt tolerant species are planned on BWDB's on the riverside of the embankment.
- Planting a range of commercial wood, fruit and other shallow rooting social forestry tree species is proposed on the foreshore lower slopes of embankments.

Plantings would commence after resolving land ownership and competing land-use (fish and shrimp ponds, rice paddies, livestock grazing, settlement, etc.) issues and the completion of needed earthworks on the embankments.

Component B-Implementation of Social and Environmental Management Frameworks and Plans (US$56 million).

Component B1: Implementation of Social Action Plans (US$3 million). It is envisaged that this component, along with the social afforestation (Component A2) will be implemented through a well- established Non-Government Organization (NGO). Social mobilization is expected to last around two years. This will be piloted in 4-6 polders and follow an eight-step process, as identified in the Guidelines for Integrated Planning for Sustainable Water Resources Management, published by BWDB in 2008. The objective is to enable participatory WMOs to become responsible for the operation and minor maintenance works of the polders under a memorandum of understanding with BWDB and enhance efficiency of local water management with their involvement. Should the participatory approach prove to be successful, it would be scaled up under the next phase of investments.

Component B2: Implementation of Social Management and Resettlement Policy Framework (SMRPF) and Resettlement Action Plans (RAPs) (US$49 million). This component will finance:

(i) the implementation of the RAP, including land acquisition and the resettlement and rehabilitation of PAPs,
(ii) the development of a system to computerize land acquisition and resettlement data with Global Positioning System (GPS) reference, and
(iii) an independent institute to undertake surveys and verify field data in order to guard against improper targeting of beneficiaries and/or false delivery of benefits in case of RAP.

Component B3. Implementation of EMF and EMPs (US$4 million). This component will finance:

(i) the preparation of EIAs for all remaining polders;
(ii) the implementation of the Environment Management Plan (EMP) and environmental mitigation and enhancement measures; and
(iii) the establishment of an environmental monitoring system in BWDB.

Some of the items under EMP will be integrated with the civil works and included in the budget of Component A1.

Component C- Construction Supervision, Monitoring and Evaluation of Project and Coastal Zone Monitoring (US$32 million)

Component C1: Detailed Design and Construction Supervision (US$16 million). This component will cover consulting services for
(i) surveys, designs of remaining polders to be included in the project (other than the 5 for which detailed designs have already been completed), and
(ii) Construction supervision of rehabilitation and improvement of coastal embankments.
The component will also finance surveys required prior to construction work.

Component C2: Third Party Monitoring and Evaluation of Project (US$4 million). This component will cover consulting services for continuously monitoring project activities and providing feedback to the government and the implementing agency on the project's performance. This includes supervising the implementation of the Governance and Accountability Action Plan (GAAP), EMP and RAP. This will be provided through third party assessment and monitoring of key aspects of project implementation.

Component C3: Long Term Monitoring, Research and Analysis of Bangladesh Coastal Zone (US$12 million at appraisal, but $8.5 million in DPP). (US$7 million from IDA credit; US$5 million Grant from PPCR).
The project will support a comprehensive monitoring and morphological assessment of the Bangladesh Delta by financing procurement of goods, services, and incremental operation costs including for advanced technology and equipment, high resolution remote sensing images etc. This work will be carried out by key institutions in Bangladesh in cooperation and twining arrangements with international institutions and experts concerning specific topics.

Component D - Project Management, Technical Assistance, Training and Strategic Studies (US$21 million).

Sub-Component D1: Project Management Unit (PMU) will be established and maintained and all necessary audit reports financed;

Sub-Component D2: Technical assistance and training will support the coordination and management of the PPCR at program level and provide institutional capacity building, technical assistance and training for BWDB. -

Sub-Component D3: Strategic studies and future project preparation: whereby resources will be provided for needed strategic studies (including the continuous updating of the strategic polder assessment as well as all necessary preparatory studies for following phases of the CEIP.

Component E - Contingent Emergency Response: This component is included to enable a speedy response in the event of a serious calamity. It will enable quick re/allocation of funds for such event, but has no fund allocation at appraisal.

1.2 Purpose for the Review

This Mid Term Review Report (MTR) presents the review of all the progress of the project activities such as Physical, Financial, Procurement, Land Acquisition, Institutional, Afforestation, Long Term Monitoring Consultancy, CEIP-2 Feasibility Study, Progress on Project Indicator, etc.

The MTR is intended to provide the Project Director, Project Steering Committee (PSC), and World Bank with information on emerging issues as well as a record of the project as it evolvedthe year since 2016. It is intended to also show the plans for the project overall, and specifically the end of the project progress against the respective targets. Should a delay occur the report aims to alert as to the potential impact which such a delay may have on the project schedule overall. The report consolidates the individual reports of several implementing partners under the project. These partners will present their data. In general, such data would be incorporated as it was reported, and the PMU and the M&E team may also verify data independently.

The mid-term review is geared towards promoting project performance improvement, accountability, learning and evidence-based decision making and management. In particular, the review isassessed results achieved to date in comparison with the performance indicators outlined in the project Monitoring, Evaluation and Learning framework. It is also draws lessons and make recommendations for enhancing project implementation and performance. The project became effective in 2014 and one restructuring since then. In this report is explore the delays in project implementation, their causes, and draw lessons from the delays and provides suggestions for improved implementation to avoid further delays going forward and to ensure achievement of the project objectives.

This exercise is an activity in the project cycle which determines, as systematically and objectively as possible, the relevance, efficiency, effectiveness, impact, and sustainability of the expected project outcomes. The review isassessing the achievements so far of the project against its stated outcomes, including a re-examination of the validity of the project design. It is also identify significant factors that are facilitating or impeding the delivery of outcomes. Whilst the review of the past is, in itself, very important, the review is expected to lead to recommendations and lessons learned for the project’s future. It is also addressing the underlying causes and issues contributing to targets that are not being adequately achieved.

The Mid Term Review is intended to identify strengths and weaknesses as well as opportunities and risks of the project and develop recommendations for any necessary changes in the overall design and orientation of the project by evaluating the adequacy and effectiveness of its implementation and delivery of project outputs and outcomes to date. Consequently, the review is also expected to assess the effectiveness of implementation and partnership arrangements and make detailed recommendations for the remaining project period. It will also provide an opportunity to assess early signs of project’s success or failure and propose the necessary adjustments need to refocus the project.

2 ChapterTwo:Project Progress

2.1 Overall

2.2 Physical

2.2.1 Construction Work – Package 01

Contractor	:	CHWE (China)
Contract Signature Date	:	01 November 2015
Notice to Commence	:	26 January 2016
Original Contract Duration	:	36 months to 25 January 2019
1st Revised Duration	:	53 months to 25 June 2020
2nd Revised Duration	:	65 months to 30 June 2021
3rd Revised Duration	:	77 months to 30 June 2022
4th Revised Duriation	:	89 months to 30 June 2023

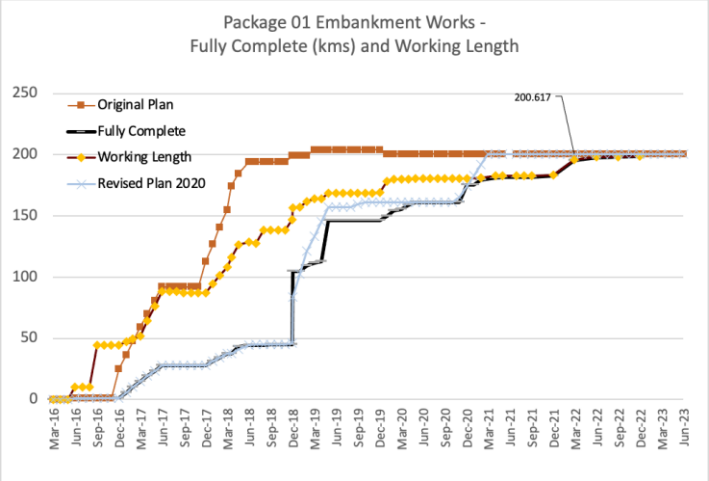
- Physical progress was slow in the first 12 months but improved substantially thereafter starting with the 2017/18 construction season and especially during 2018/19. A revised Work Program was approved in August 2018 which showed completion in June 2020 – an extension of 17 months. With the advent of the COVID-19 pandemic and multiple lockdowns, the pace of work progress has been reduced starting in March 2020. The Employer has approved an Extension of Time for execution of the works of this Contract first up to 30 June 2021 and subsequently up to 31 March 2022 and then 30 June 2022. These EOTs were granted on the condition that no claim will be acceptable due to this Extension of Time.
- With the new 4th extension, the contract period now has a total duration of 77 months. At the 80-month mark (September 2022), 96.54 % of the works have been done against the work plan target while all the time has elapsed. (It should be noted that another extension is in progress.) All the remaining works of Polder-32 & 35/1 could not be completed by 30 June 2022 due to obstacles in construction works and delays for providing instructions and drawings for construction of embankment slope development works in paved road areas and late access to the site for excavation/re-excavation of the drainage channels.
- Taking-Over Certificates for Polder 33 and 35/3 have been issued as per GCC Sub-Clause 10.1 (a) and 11.1. However, there remain some construction work and quality issues to be addressed.
- A Technical Committee has been constituted with specific terms of reference by the Competent Authority of Bangladesh Water Development Board (BWDB) on 6 December 2021 to prepare a Technical Report with recommendation in order to protect Polder No. 32 in Khulna district, by constructing sustainable embankment and implementing river bank Protection Works by Geo/Geo Tube. The Committee has already visited the said Polder from 24th December to 25th December 2021.
- Due to heavy rainfall at the end of July 2021, serious waterlogging occurred in Polder 35/1. As a temporary measure, Engineer instructed Contractor to install temporary pipes in the Embankments at 9 critical locations. Engineer is now reviewing possible

additional long-term solutions when needed. An Intermediate Report on the waterlogging of Polder 35/1 has been submitted by the Engineer to the Project Director and the World Bank; comments have been addressed. A Technical Committee will now take this further and provide recommendations for next steps.

Physical progress as of December 2022 is shown in the following figures, comparing it to the status of previous years.

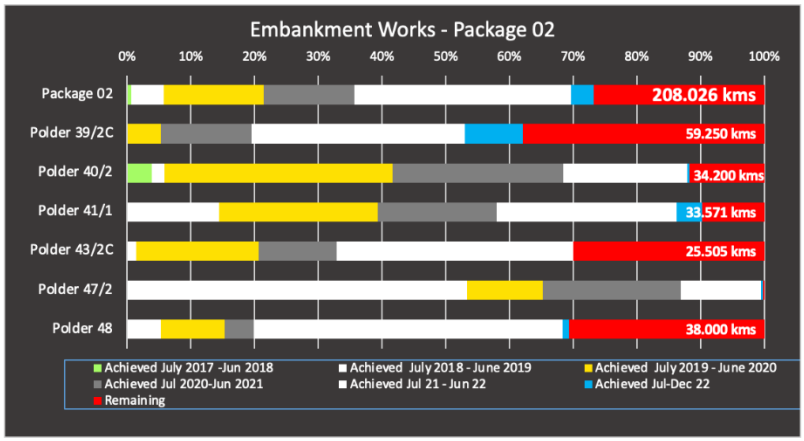
2.2.2 Embankment Works

The completed length of the embankmenthas stood at 198.932 km as of December 2023. In the first 2.5 years, only 22.1% of work has been done, and in the last four years it has reached to 98.6%. Land acquisition is one of the main causes of the delayed start of work. Please see the table below for details of embankment works since June 2016.



Polder	Revised Target Length (m)	Construction Status													
		Jun-16		Jun-17		Jun-18		Jun-19		Jun-20		Jun-21		Dec-22	
		Length(km)	%	Length (km)	%	Length (km)	%	Length(km)	%	Length (km)	%	Length(km)	%	Length (km)	%
32	49.66	0.36	0.7	5.67	11.4	12.22	24.6	30.04	60.5	35.59	71.7	49.327	99.3	49.66	100%
33	49.15	0.3	0.6	10.51	21.4	13.27	27.0	41.54	84.5	43.46	88.4	43.6	88.7	47.29	96.2%
35/1	61.97	0	0.0	2.03	3.3	4.89	7.9	38.80	62.6	46.22	74.6	50.922	82.2	61.97	100%
35/3	39.82	0.15	0.4	9.65	24.2	13.86	34.8	35.73	89.7	35.73	89.7	37.815	95.0	39.82	100.%
Total	200.6	0.81	0.4	27.86	13.9	44.24	22.1	146.11	72.8	161.0	80.3	181.664	90.6	198.2	98.8%

The embankment earthwork has been done 100% as of March 2022. See the table below for details of the year-wise progress of earhworks.

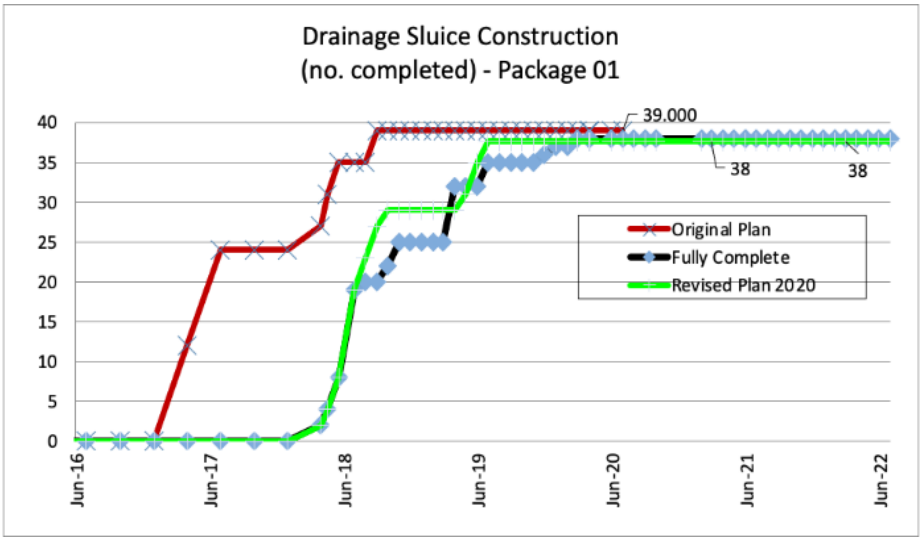


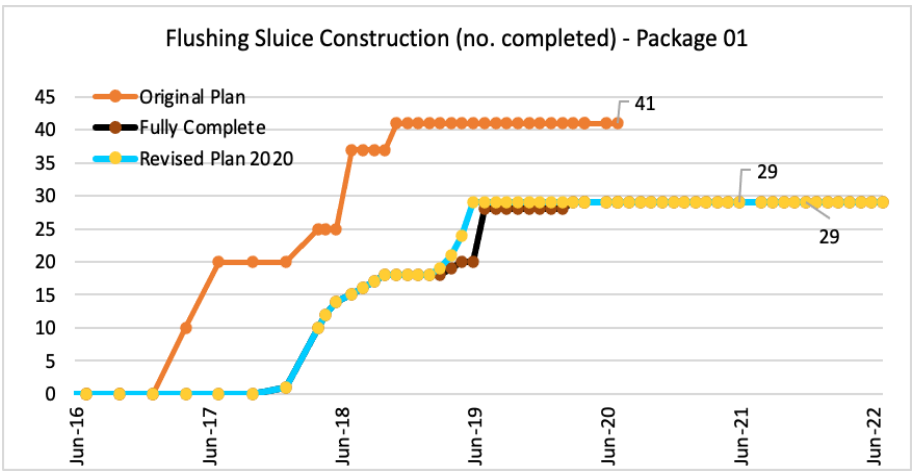
Polder	Target Length (m-cum)	Completed Status													
		Jun-16		Jun-17		Jun-18		Jun-19		Jun-20		Jun-21		Jun-22	
		m-cum	%	m-cum	%	m-cum	%	m-cum	%	m-cum	%	m-cum	%	m-cum	%
32	1.617	0.020	1.24	0.299	18.47	0.675	41.73	1.030	63.70	1.427	88.25	1.611	99.629	1624	100%

33	1.003	0.010	1.00	0.292	29.16	0.488	48.69	0.830	82.71	0.898	89.53	0.899	89.64	999	100%
35/1	2.317	0.031	1.34	0.487	21.00	0.867	37.43	1.471	63.49	1.857	80.15	1.896	81.83	2381	100%
35/3	1.396	0.010	0.72	0.533	38.18	0.950	68.05	1.304	93.41	1.321	94.63	1.394	99.86	1406	100%
Total	6.333	0.000	0.00	1.611	25.43	2.980	47.06	4.635	73.18	5.503	86.89	5.800	91.59	6410	100%

2.2.3 Drainage and Flushing Sluices

All the drainage and flushing sluices have been completed in June 2019. In the first year, the contractor did not complete fully any DS & FS, perhaps partially progress of structure has done, then 2nd year result has come, and within 4 years all the structure has been completed. See the table below for the construction status of the drainage and flushing sluices. There were some problems with the leakage and mechanical aspects.



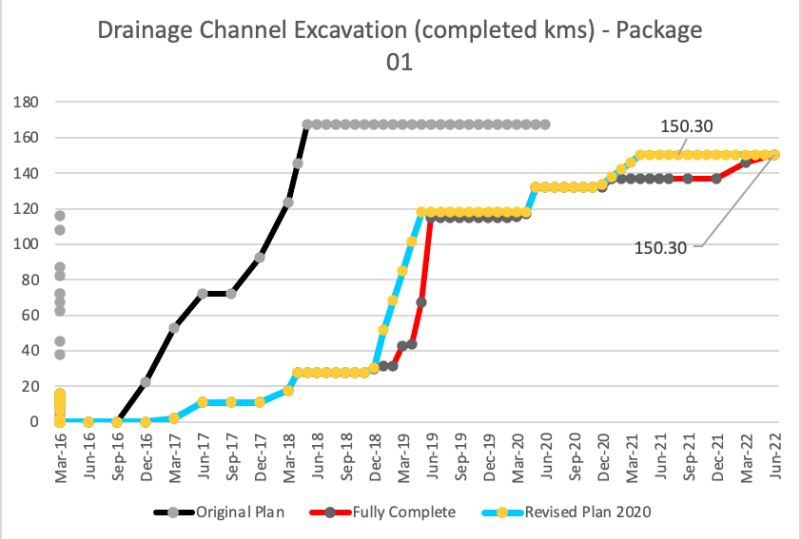


Polder	Structure Type	Target Nos	Construction Status							
			Jun-16		Jun-17		Jun-18		Jun-19	
			Nos	%	Nos	%	Nos	%	Nos	%
32	DS	8	0	0%	3	37.50%	7	87.50%	8	100.00%
	FS	1	0	0%	0	0.00%	0	0.00%	1	100.00%

33	DS	12	0	0%	4	33.33%	11	91.67%	12	100.00%
	FS	6	0	0%	0	0.00%	4	66.67%	6	100.00%
35/1	DS	14	0	0%	4	28.57%	11	78.57%	14	100.00%
	FS	12	0	0%	1	8.33%	9	75.00%	13	108.33%
35/3	DS	4	0	0%	1	25.00%	4	100.00%	4	100.00%
	FS	10	0	0%	2	20.00%	8	80.00%	10	100.00%
Total	DS	38	0	0%	12	31.58%	33	86.84%	38	100.00%
	FS	29	0	0%	3	10.34%	21	72.41%	29	100.00%
	Both DS+FS	67	0	0%	15	22.39%	54	80.60%	67	100.00%

2.2.4 Drainage Channel Excavation

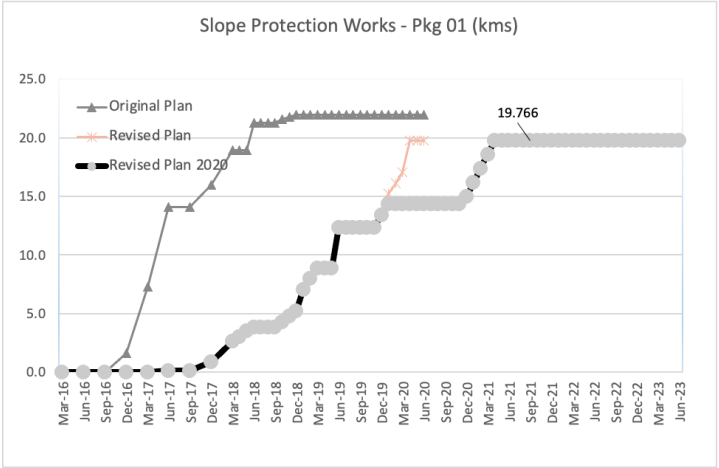
100% of the drainage channel excavation work has been done as of June 2022, however, the actual work has been started in June 2019, and the first 3 years of progress of the work was extremely slow. See the table below for details on progress over the 7 years.



Polder	Contract Length (m)	Construction Status													
		Jun-16		Jun-17		Jun-18		Jun-19		Jun-20		Jun-21		Jun-22	
		Length (m)	%	Length (m)	%	Length (m)	%	Length (m)	%	Length (m)	%	Length (m)	%	Length (m)	%
32	17	0	0.00	5.2	30.59	7.45	43.82	13.45	79.12	17	100	17	100	17	100
33	62.83	0	0.00	4	6.37	7.3	11.62	53.82	85.66	62.83	100	62.83	100	62.83	100
35/1	70.47	0	0.00	1.75	2.48	14.1	20.01	47.5	67.40	51.99	73.78	56.97	80.8	70.47	100
Total	150.3	0	0.00	10.95	7.29	28.85	19.19	114.77	76.36	131.82	87.7	136.8	91	150.299	100

2.2.5 Slope Protection Works

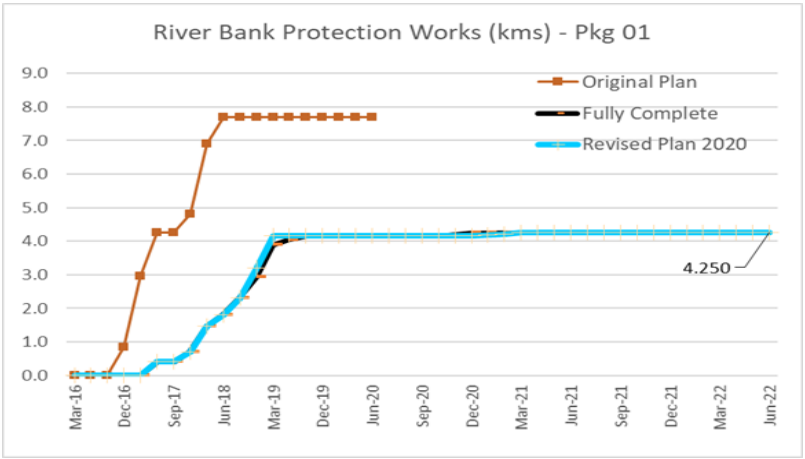
Out of 19.766 km, 19.5299 km of Slope protection works have been completed as of December 2022, however first 3 years' progress of works were extremely slow after that progress accelerated smoothly. Progress of last 7 years of slope protection works is presented in the tablebelow.



Polder	Target Length (Km)	Construction Status													
		Jun-16		Jun-17		Jun-18		Jun-19		Jun-20		Jun-21		Dec-22	
		Km	%	Km	%	Km	%	Km	%	Km	%	Km	%	Km	%
32	3.3	0.000	0	0.000	0	1.524	46.18	2.300	69.70	3.100	93.94	3.3	100	3.3	100
33	4.016	0.000	0	0.095	2.36	1.848	46.01	3.716	92.53	4.016	100.00	4.016	100	4.016	100
35/1	11.75	0.000	0	0.022	0.19	0.444	3.78	2.470	21.02	6.350	54.04	8.787	74.78	11.513	97.98%
35/3	0.7	0.000	0	0.000	0	0.000	0.00	0.700	100.00	0.700	100.00	0.7	100	0.7	100
Total	19.766	0.000	0	0.117	0.591	3.730	18.87	9.186	46.47	14.166	71.67	16.803	85.01	19.529	98.80%

2.2.6 Riverbank Protection Works

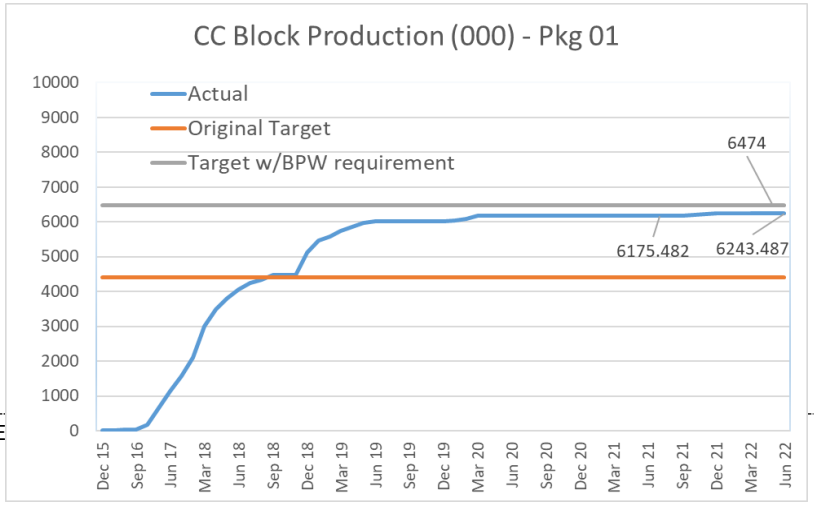
All the Riverbank protection works have been done as of June 2020. However, the 1st two years of progress of the work were relatively slow, and from the 3rd year, the achievement of results started in earnest. See the table below showing the progress of the year over five years.



Polder	Target Length (Km)	Construction Status									
		Jun-16		Jun-17		Jun-18		Jun-19		Jun-20	
		Km	%	Km	%	Km	%	Km	%	Km	%
32	2	0	0	0	0	0.21	10.5	2	100	2	100
33	1.3	0	0	0.4	30.77	1.1	84.62	1.3	100	1.3	100
35/1	0.8	0	0	0	0	0.5	62.5	0.7	87.5	0.8	100
35/3	0.15	0	0	0	0	0	0	0.15	100	0.15	100
Total	4.25	0	0	0.4	9.41	1.81	42.59	4.15	97.65	4.25	100

2.2.7 C. C Block Production

The C.C block production has almost done in the last three years; perhaps the first two years' progress was relatively slow. However, there has been no production of blocks in the previous 21 months. The output



of CC blocks is shown in the table below over the six years.

Polder	Target Quantity	Construction Status											
		Jun-16		Jun-17		Jun-18		Jun-19		Jun-20		Jun-21	
		Achieved	%	Achieved	%	Achieved	%	Achieved	%	Achieved	%	Achieved	%
32	19,43,383	464	0.02	2,60,800	13.4	12,90,551	66.4	18,86,840	97.1	18,86,840	97.1	18,86,840	97.1
33	13,38,036	22,853	1.71	3,23,161	24.2	10,60,847	79.3	11,55,600	86.4	12,85,083	96.0	12,85,083	96.0
35/1	29,56,616	0	0.00	2,97,919	10.1	12,28,474	41.6	27,60,128	93.4	29,19,991	98.8	29,19,991	98.8
35/3	2,35,968	12,258	5.19	2,79,170	118.3	4,68,174	198.4	2,12,954	90.2	2,20,567	93.5	2,20,567	93.5
Total	64,74,003	35,575	0.55	11,61,050	17.9	40,48,046	62.5	60,15,522	92.9	63,12,481	97.5	63,12,481	97.5

2.3 Construction Work – Package 02

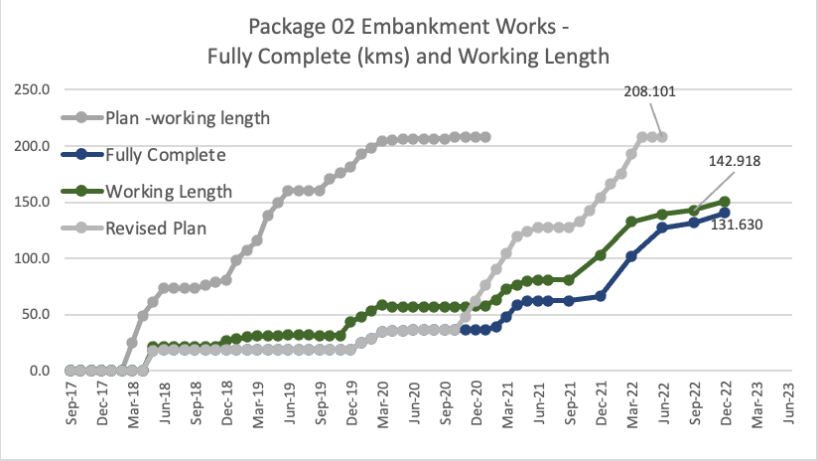
Works – Contract 02

Contractor	:	CICO (China)
Contract Signature Date	:	08 March 2017
Notice to Commence	:	12 July 2017
Original Contract Duration	:	42 months to 12 January 2021
1st Revised Duration	:	59.5 months to 30 June 2022
2nd Revised Duration	:	71.5 months to 30 June 2023

Mobilization and physical progress were exceptionally slow during the first 2-3 years of the contract. As of September 2022, 62.5-months of the contract period have elapsed, or more than 100% of the time (an extension is in progress). Works progress overall (using financial achievement) stands at 84.79% compared to the work plan target of 95.66%. The progress is up from the 80.5% progress level of December 2021 and 67.62% progress level of September 2021. While progress lags were due at least in part to COVID-19 and visa problems for Chinese skilled-labor, there had been inadequate attention to embankment work in the past (now resolved) possibly due to the low unit rates quoted by the Contractor for this work.

2.3.1 Embankment Works

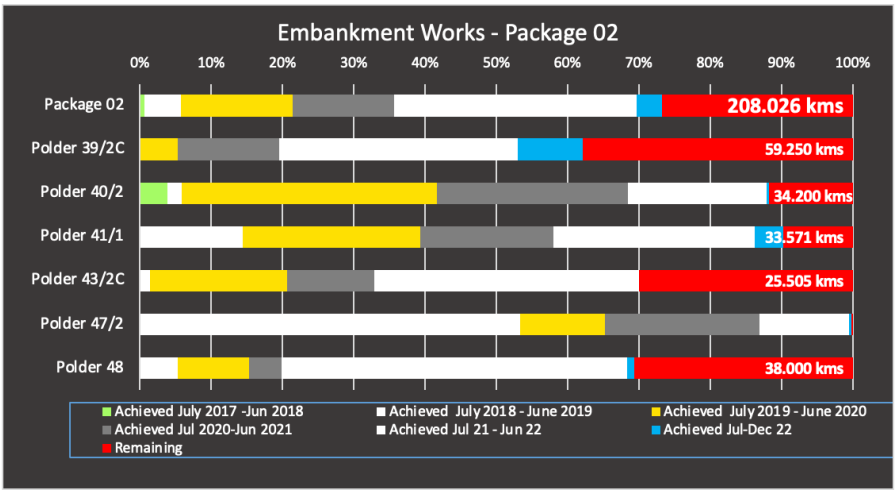
The completed length of the embankment has stood at 131.61 km as of December 2022. In the first three years, only 17.21% of work has been done, and in the last four years, it has reached 61.09%. Land acquisition is one of the



misleading's of the delayed start of work. Please see the table below for details of embankment works since June 2018.

Polder	Target Length (Kms)	Construction Status									
		Jun-18		Jun-19		Jun-20		Jun-21		Dec-22	
		Kms	%	Kms	%	Kms	%	Kms	%	Kms	%
39/2C	59.25	0.00	0.00%	0.000	0.00%	2.000	3.38%	6.44	10.87%	30.052	50.72%
40/2	68.4	2.400	3.51%	2.400	3.51%	6.900	10.09%	12.15	17.76%	20.725	60.60%
41/1	33.571	0.00	0.00%	0.000	0.00%	2.150	6.40%	12.89	38.40%	22.561	66.73%
43/2C	25.505	0.00	0.00%	0.000	0.00%	6.860	26.90%	8.21	32.19%	17.778	69.70%
47/2	17.5	16.20	92.57%	16.200	92.57%	16.200	92.57%	17.13	97.89%	17.567	100.38%
48	38.025	0.00	0.00%	0.000	0.00%	2.000	5.26%	5.56	14.62%	22.947	60.39%
Total	208.026	18.60	8.94%	18.60	8.94%	36.11	17.36%	62.38	29.99%	131.63	63.28%

The embankment earthwork has been done 73.65% as of Dec 2022. See the table below for details of the year-wise progress of earthworks.



Polder	Target Quantity (cum)	Construction Status									
		Jun-18		Jun-19		Jun-20		Jun-21		Dec-22	
		Cum	%	Cum	%	Cum	%	Cum	%	Cum	%
39/2C	1.969	1.969	100.00%	0.000	0.00%	0.122	6.20%	0.448	22.75%	1267.103	61.95%
40/2	1.272	0.050	3.91%	0.075	5.89%	0.536	42.13%	0.88	69.17%	1141.367	88.23%
41/1	0.562	0.562	100.00%	0.110	19.56%	0.299	53.16%	0.441	78.41%	639.469	90.97%
43/2C	0.342	0.342	100.00%	0.012	3.51%	0.178	51.95%	0.282	82.51%	596.303	69.77%
47/2	0.199	0.199	100.00%	0.120	60.45%	0.147	73.88%	0.196	98.50%	212.816	99.71%
48	1.946	1.946	100.00%	0.112	5.75%	0.325	16.71%	0.421	21.63%	1464.81	69.24%
Total	6.291	0.050	0.79%	0.429	6.82%	1.607	25.54%	2.668	42.41%	5321.86	73.65%

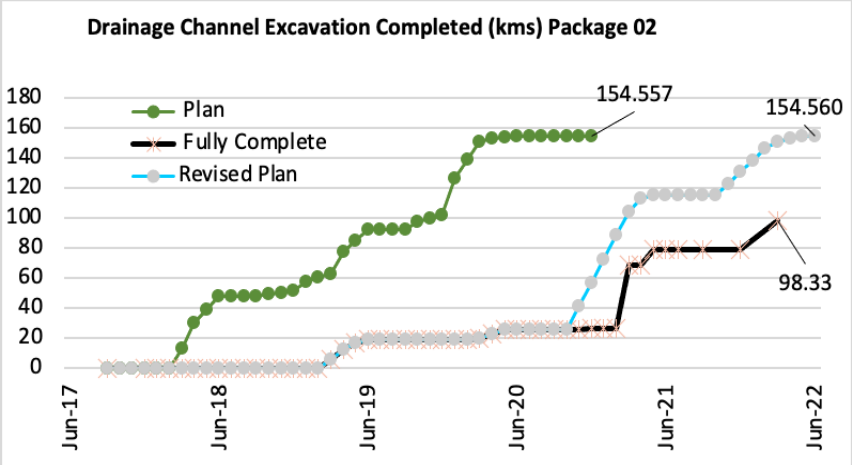
2.3.2 Drainage and Flushing Sluices

2.3.2.1 Drainage Sluices and Flushing Inlets

- Out of 52**drainage sluices to be newly constructed**, the 38 nos. are fully completed, and 11 nos. are in progress.
- Out of 51 **flushing sluices to be newly constructed**, 24 nos. are fully completed, and 15 nos. are in progress.

2.3.3 Drainage Channel Excavation

69.60% of the drainage channel excavation work has been done as of June 2022. However, the work started in earnest in 2021, and the progress was extremely slow in the first 2.5 years. See the table below for details on progress over the five years.



older	Target Length (km)	Construction Status									
		Jun-18		Jun-19		Jun-20		Jun-21		Jun-22	
		Km	%	Km	%	Km	%	Km	%	Km	%
39/2C	57.23	0	0.00%	0	0.00%	0	0.00%	23.45	40.98%	34.08	59.55%
40/2	4.23	0	0.00%	1.829	43.24%	1.83	43.26%	1.83	43.26%	1.83	43.26%
41/1	23.13	0	0.00%	2.823	12.20%	2.82	12.19%	4.16	17.99%	8.55	36.96%
43/2C	28.26	0	0.00%	2.44	8.63%	2.94	10.40%	14.14	50.04%	21.29	75.34%
47/2	9.17	0	0.00%	9.156	99.85%	9.166	99.96%	9.17	100.00%	9.17	100.00%
48	32.91	0	0.00%	2.822	8.57%	9.225	28.03%	25.91	78.73%	32.91	100.00%
Total	154.93	0	0.00%	19.07	12.31%	25.981	16.77%	78.66	50.77%	107.83	69.60%

2.3.4 Slope Protection Works

Slope protection works depend on completion of the construction of embankment sections so work in this respect was expected to just get started after a substantial lag. Out of 9.48 kms of Slope Protection Works, 5.497 kms have been done up to this quarter. These works stand at 58.0% complete.

2.3.4.1

2.3.5 Riverbank Protection Works

Out of 5.691 kms of Riverbank Protection Works 5.274 kms have been fully completed. Completion thus stands at 93.71%.

2.3.6 C. C Block Production

Current CC block production has reached 93.54% of the more than 7.805 million that must be produced. The achievement in this quarter was 1.45% of the total required production compared to 0.74% in the prior quarter. The show has now been scaled up. Please see the table below.

Table 2: CC Block production of Package 2

Polder Number	Revised Estimated Quantity as of Jun 2021	31-Dec-22		30-Sep-22	
		Cumulative Total	%	Cumulative Total	%

39/2C	53,28,276	50,16,626	94.15%	49,48,341	92.90%
40/2	4,29,969	4,01,914	93.48%	3,88,817	90.40%
41/1	5,90,650	5,72,306	96.89%	5,64,995	95.70%
43/2C	4,35,342	4,28,189	98.36%	4,28,189	98.40%
47/2	4,82,227	4,36,327	90.48%	4,36,327	90.50%
48	5,39,493	5,56,201	103.10%	5,35,019	99.20%
Total	78,05,957	74,11,563	94.95%	73,01,688	93.50%

2.4 Financial

Disbursement to the Project

Cumulative figures of disbursements from the World Bank (and PPCR) to the BWDB appear below, converted from BDT to USD at the original rate of 79 BDT per USD. It should be noted that due to the weakening of the USD-SDR exchange rate, the actual funding level for CEIP-1 is estimated at about $375 m rather than $400 m. The percentage calculations below and throughout this report continue to be based on the $400 m figure.

Disbursements to the Project stand at 70.12% of the total project budget amount[2] as of 31December 2022, which is same in the prior quarter. The total disbursed to date stands at $280.478 million comprised of IDA Credit US$255.478 m plus Trust Fund PPCR Grant of US$ 25.0 m.

Table ES 2: World Bank Disbursements to CEIP-1

Quarter end-Date	Cumulative as of Given Date			
	IDA Credit	PPCR Grant	Total	As % of Total Project Cost
31-Dec-22	**255.478**	**25**	**280.478**	**70.12%**
30-Sep-22	**255.478**	**25**	**280.478**	**70.12%**
30-Jun-22	**255.478**	**25**	**280.478**	**70.12%**
31-Mar-22	**249.817**	**25**	**274.817**	**68.70%**
31-Dec-21	**241.820**	**25**	**266.820**	**66.71%**
30-Sep-21	**236.837**	**25**	**261.837**	**65.46%**
30-Jun-21	236.837	25	261.837	65.46%
30-Jun-20	210.813	25	235.813	58.95%
30-Jun-19	163.342	24.474	187.816	46.95%
30-Jun-18	83.24	19.98	103.22	25.80%
30-Jun-17	38.52	17.01	55.53	13.88%
30-Jun-16	17.48	8.72	26.2	6.55%
30-Jun-15	17.48	0	17.48	4.37%
30-Jun-14	4.63	0	4.63	1.16%

Source: PMU of CEIP-1

As of December 2022, the Loan had been effective for 109 months (9 years, 1 months). According to the IMED reports prepared by PMU (and using the original exchange rates for USD-SDR and BDT 79 per USD), total disbursement (expenditures) by the project follows:

- Dec 2022 - US$ 268.509 million, or 68.32% of total project cost
- Sept 2022 - US$ 266.893 million, or 67.91% of total project cost
- June 2022 - US$ 265.084 million, or 67.45% of total project cost
- Mar 2022 - US$ 252.34 million, or 63.1% of total project cost
- Dec 2021 - US$ 241.59 million, or 60.4% of total project cost
- Sept 2021 - US$ 236.44 million, or 59.1% of total project cost
- June 2021 - US$ 236.44 million, or 59.1% of total project cost
- June 2020 - US$ 215.6 million, or 53.9% of total project cost
- June 2019 - US$ 173.6 million, or 43.4% of total project cost
- June 2018 - US$ 97.0 million, or 24.2% of total project cost
- June 2017 - US$ 50.4 million, or 12.6% of total project cost
- June 2016 - US$ 22.0 million, or 5.3% of total project cost

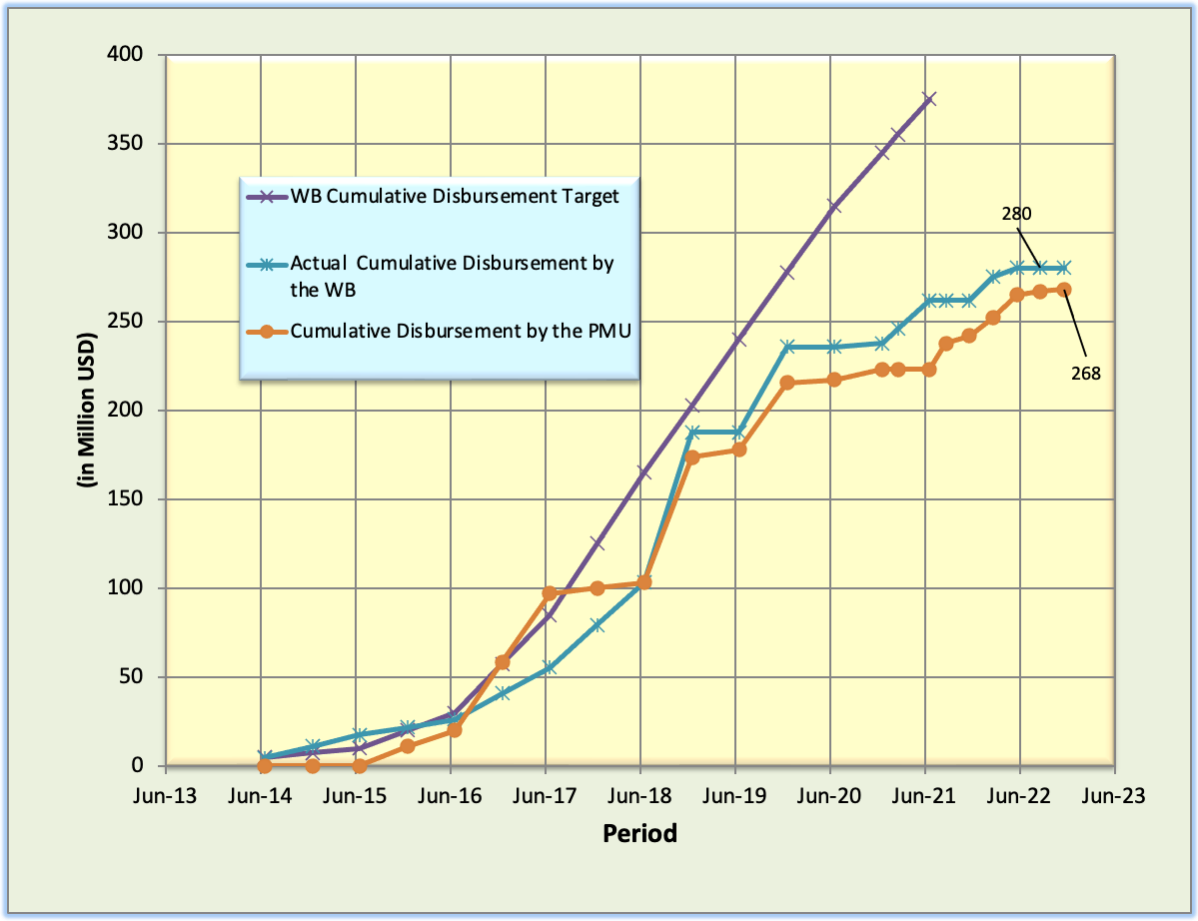
[2]It should be noted that the total project cost is taken as $400 million as per original budget for purposes of tracking changes over time with a fixed denominator, but the changes in the USD-SDR exchange rate mean that the actual funds available will be closer to $375 million equivalent.

- June 2015 - US$ 3.0 million, or 0.7% of total project cost

Figure ES-1 compares the actual disbursement to the project by the World Bank and actual project expenditures with the planned disbursement levels as per the Project Appraisal Document. There was no disbursement by the World Bank during the quarter and roughly $6 million in disbursement by the project during the April - June 2022 quarter.

Looking back, the highest level of annual disbursement by the project occurred during FY18/19 at about $76 million (19% of project cost) as works and land acquisition expenditures accelerated that year and as works for both contract packages were actively progressing. Expenditures by CEIP-1 in FY21/22 were $40 million (about 10% of project cost) much improved from the FY20/21 total of only $20.85 million (approximately 5% of total project cost) when delays occasioned by COVID-19 and slow performance of the Pkg 02 Contractor took a toll.

Figure ES 1: Actual Disbursements and Expenditures Compared to Plan



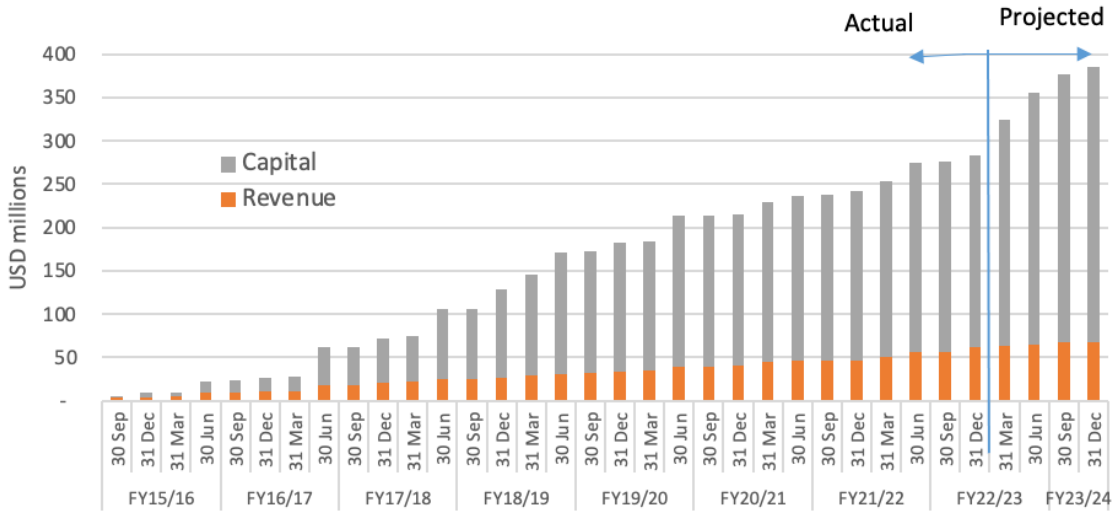


Figure ES- 2: Expenditure through 31 December 2022 and Expenditure Level Required to Complete on Time

Figure ES-2 presents the expenditures through 31December 2022 and projected expenditures classified by capital and revenue categories. Capital expenditures include physical works and land acquisition costs while revenue expenditures include consultancies, resettlement compensation and project administration. The expenditures as of the original closing date of 31 December 2020 reached only $217 million so the agreed extension through 30 June 2022 was clearly required. In fact, the projection shown in Figure ES-2 is based on a new completion date of June 2023 for works and December 2023 for project closing.

Annex 4 provides further details on the status on Finance and Disbursements by the Project.

2.5 Procurement

There are 23 procurement packages under services – 9 packages for firms and 14 for individual consultants. For the 9 packages to be contracted out to firms, eight have been contracted – namely:

- DDCS&PMS Consultants,
- Third-Party M&E Consultants,
- Long-Term Monitoring, Research and Analysis of Bangladesh Coastal Zone; and
- Five packages for the Consultancy for Social Afforestation, SAP and WMOs (now with Social Afforestation re-assigned to the Department of Forestry). Two of these five packages were signed during the quarter on 8 April 2019.
- The package for Feasibility Studies and Preparation of next phase of CEIP-1, the contract was signed on 19 July 2021.
- Finally, the Consultancy for Institutional Capacity Building, TA & training to BWDB personnel will be converted into training at renowned national institutes in Bangladesh and therefore is dropped from the procurement plan.

Details status of procurement of other Packages (Consulting Services - Firm)

No.	Package No.	Description of Services	Contract Signing Date	Receipt of REoI	Time Elapsed in Months
1	CEIP-1/A2 & B1/S1-A	Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan	24 February 2019	27 November 2017	15

No.	Package No.	Description of Services	Contract Signing Date	Receipt of REoI	Time Elapsed in Months
2	CEIP-1/A2 & B1/S1-B	Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan	24 February 2019	27 December 2017	14
3	CEIP-1/A2 & B1/S1-C	Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan	24 February 2019	27 December 2017	14
4	CEIP-1/A2 & B1/S1-D	Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan	02 May 2019	22 October 2017	18
5	CEIP-1/A2 & B1/S1-E	Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan	02 May 2019	22 October 2017	18
6	CEIP-1/ B2,B3 & C1/S02	Consultancy Services for a) Construction Supervision & Detailed Engineering Design for remaining Polders, b) Preparation of EIA of remaining Polders and c) RAP	30 December 2014	22 August 2013	16
7	CEIP-I/ C2/S03	Third Party Monitoring & Evaluation (M&E) of overall project implementation, RAP, EIA and EMP	01 October 2015	22 August 2013	25
8	CEIP-1/ C3/S04	Consultancy Services for Long Term a Monitoring, Research and Analysis of Bangladesh Coastal Zone.	04 October 2018	22 June 2015	39
9	CEIP-1/ D2/S22	Consultancy Services for Institutional Capacity building, technical assistance and training to BWDB personnel	The BWDB has concluded that this service would not be required.		
10	CEIP-1/ D3/S23	Consultancy Services for Feasibility studies and preparation of design for the following Phases of CEIP	19 July 2021	30 September 2020	9
11	CEIP-1/S26	Consultancy Services for conducting Internal Audit of CEIP-1	06 August 2020	26 August 2019	11

Procurement Process Tracking Report Consulting Services (Individual Consultants)

No.	Package No.	Description of Services	Contract Signing Date	Receipt of REoI	Time Elapsed in Months
1	CEIP-1/ D1/S05	International Procurement Expert (Panel)	25 November 2013	25 August 2013	3
2	CEIP-1/ D1/S06	International Technical Expert (Panel)	05 March 2104 13 April 2015	29 August 2013	6
3	CEIP-1/ D1/S07	Procurement Expert (National) for Panel	26 November 2013		
4	CEIP-1/ D1/S7-A	Procurement Expert (National) for Panel	14 June 2016		
5	CEIP-1/ D1/S8	Individual Consultant as Procurement Specialist PMU (Nat'l)	23 November 2013 14 March 2014 03 May 2018 14 January 2019	20 August 2013	3
6	CEIP-1/ D1/S09	Individual Consultant as Financial Management Specialist (National)	02 March 2015 24 April 2017 23 September 2021	01 December 2014	3
7	CEIP-1/ D1/S10	Individual Consultant as Sr. Environment Specialist (PIU/Dhaka)- 1 No	13 April 2015 08 October 2018 12 March 2019 21 December 2021	15 November 2014	5
8	CEIP-1/ D1/S11	Individual Consultant as Sr. Social Specialist (PMU/Dhaka)	02 October 2014 02 August 2017 15 September	15 May 2014	4

			2019 21 January 2021		
9	CEIP-1/D1/S12	Individual Consultant as Sr. Forestry Specialist (PMU/Dhaka)	02 August 2017 25 August 2019 06 December 2020	12 April 2017	4
10	CEIP-1/ D1/S13	Individual Consultant as Communication officer (PMU/Dhaka)	01 July 2018 21 January 2021	15 May 2014	44
11	CEIP-1/ D1/S14	Individual Consultant as Senior Revenue Officer (PMU/Dhaka)	12 August 2014 10 December 2017 25 July 2018 21 December 2020	06 February 2014	6
12	CEIP-1 /D1/S15	Individual Consultant as Social Specialist	20 July 2017 25 August 2019 21 December 2020	12 April 2017	3
13	CEIP-1/ D1/S16	Individual Consultant as Environment Specialist (PIU/Field)-1 No	30 October 2017 29 October 2019 31 December 2020	14 March 2017	7
14	CEIP-1/ D1/S20	IPoE for Social Expert	17 July 2017	14 September 2017	
15	CEIP-1/ D1/S21	IPoE for Environment, Water Management and Polder Expert	23 March 2018 30 May 2021		

Procurement Status and Plans – Works

No.	Package No.	Description of Services	Contract Signing Date	End of Contract
1	CEIP-1/W-1	Rehabilitation / Reconstruction & Upgrading of Polder 32, 33, 35/1 and 35/3 under CEIP-	31 March 2022	14 September 2017
	CEIP-1/W-2	Rehabilitation / Reconstruction & Upgrading of Polder 39/2C, 40/2, 41/1, 43/2C, 47/2 and 48	30 June 2022	14 September 2017

For details of all procurement see Annex–5: **Project Input Procurement Status and Plans.**

2.6 Land Acquisition

2.6.1 Package 01

The DDCS&PMS Consultant commenced their service in the field from January 2015, however, there was no progress in land acquisition in the first two years, perhaps progress of the works was impressively good in the third year and reached 88%, but in polder 32, 0.58 ha of land has to be acquired at the end of seven years.

The problem of timely completion of land acquisition is one of the causes of delay in construction works.

Polder No.	**Target (ha)**	Status of Land Acquisition													
		Jun-16		**Jun-17**		**Jun-18**		**Jun-19**		**Jun-20**		**Jun-21**		**Jun-22**	
		ha	**%**	**ha**	**%**	**ha**	**%**	**ha**	**%**	**ja**	**%**	**ha**	**%**	**ha**	**%**
32	50.6	0	0%	0	0%	50.02	99%	50.02	99%	50.02	99%	50.02	99%	50.02	99%
33	14.28	0	0%	0	0%	10.94	77%	10.94	77%	14.28	100%	14.28	100%	14.28	100%
35/1	41.47	0	0%	0	0%	30.17	73%	30.17	73%	30.17	73%	41.34	100%	41.47	100%
35/3	25.01	0	0%	0	0%	24.81	99%	24.81	99%	24.81	99%	25.01	100%	25.01	100%
Total	**131.36**	**0**	0%	**0**	0%	**115.94**	88%	**115.94**	88%	**119.28**	91%	**130.65**	99%	**130.78**	99.60%

2.6.2 Package 02

The DDCS&PMS Consultant was in the field from January 2015, in Package 2, there was no progress in land acquisition in the first two years, and in the third year only 8% progress, after that , progress of land acquisition began.

There are questionable remarks on the land acquisition progress of polder 43/2C. It is appreciable work done on land acquisition in Polder 39/2C, this polder is new, and 89% of the land has already been acquired as of March 2023. The problem of timely completion of land acquisition is one of the causes of delay in construction works.

Polder No.	Target in ha	Status of Land Acquisition											
		June-17		June-18		June-19		June-20		June-21		June-22	
		ha	%	ha	%	ha	%	ha	%	ha	%	ha	%
39/2C	124.92	0	0%	0	0%	0	0%	49.53	40%	111.25	89%	111.25	89%
40/2	12.17	0	0%	0	0%	0.15	1%	11.68	96%	11.68	96%	11.68	96%
41/1	8.41	0	0%	0	0%	8.16	97%	8.29	99%	8.29	99%	8.29	99%
43/2C	26.50	0	0%	0	0%	0	0%	0	0%	0	0%	0.06	0%
47/2	2.57	0	0%	0	0%	0	0%	0	0%	2.31	90%	2.57	100%
48	1.07	0	0%	0	0%	0	0%	0.90	84%	1.07	100%	1.07	100%
Total	**175.64**	**0**	0%	**0**	0%	**8.31**	5%	**70.40**	40%	**134.60**	77%	**134.92**	77%

2.7 Institutional

All the WMG committee have been formed and registered, except 2 in Polder 33 due to local pollical issues, and out of 10 WMA, all have been completed, with only 3 remaining for registration. See the table belowfor details.

Polder	WMG			WMA		
	Target	Formed	Register	Target	Formed	Register
32	15	15	15	1	1	1
33	18	16	16	1	1	1
35/1	28	28	28	1	1	1
35/3	12	12	12	1	1	1
39/2C	17	17	17	1	1	1
40/2	14	14	14	1	1	1
41/1	14	14	14	1	1	1
43/2C	8	8	8	1	1	0
47/2	9	9	9	1	1	0
48	8	8	8	1	1	0
Total	**143**	**141**	**141**	**10**	**10**	**7**

The table belowpresents information on WMAs and WMGsthat have been trained.

Work Package (WP) No.	Polder No.	No. of Batches		No. of Participants		Total	No. of Present participants		Total
		Target	Achieved	Male	Female		Male	Female	
WP-01	32	48	48	773	358	1131	773	358	1131
	33	50	49	902	415	1317	886	407	1293
	35/1	114	114	2019	1229	3248	2019	1229	3248
	35/3	40	40	813	493	1306	813	493	1306
Sub-Total		**252**	**251**	**4507**	**2495**	**7002**	**4491**	**2487**	**6978**

WP-02	39/2C	115	115	1374	601	1975	1374	601	1975
	40/2	56	56	1026	639	1665	1026	639	1665
	41/1	61	61	1133	594	1727	1133	594	1727
	43/2C,47/2&48	170	170	2503	807	3310	2503	807	3310
Sub-Total		**402**	**402**	**6036**	**2641**	**8677**	**6036**	**2641**	**15655**
Grand-Total		**654**	**653**	**10543**	**5136**	**15679**	**10527**	**5128**	**22633**

2.8 Afforestation

1184.5 thousand seedlings have been planted on the embankment and at mangrove sites to date. See the table below for details.

Work Package (WP) no.	Polder no.	Planted in Year 2018-2019		Planted in Year 2019-2020		Planted in Year 2020-2021		Planted in Year 2021-2022 As of August 2022		Total during 2018-2022	
		No. of seedlings planted (In thousand)	Area in (Ha)	No. of seedlings planted (In thousand)	Area in (Ha)	No. of seedlings planted (In thousand)	Area in (Ha)	No. of seedlings planted (In thousand)	Area in (Ha)	No. of seedlings planted (In thousand)	Area in (Ha)
WP-01	32	112.5	45	28	11.2	45	18	30	12	215.5	86.2
	33	90	36	60	24	20	8	10	4	180	72
	35/1	112.5	45	16	6.4	70	28	40	16	238.5	95.4
	35/3	90	36	36	14.4	40	16	7	2.8	173	69.2
Sub-Total		*405*	*162*	*140*	*56*	*175*	*70*	*87*	*34.8*	*807*	*322.8*
WP-02	39/2C	0	0	0	0	15	6	80	32	95	38
	40/2	10	4	40	16	0	0	80	32	130	52
	41/1	12.5	5	28.5	11.4	10	4	80	32	131	52.4
	43/2C	0	0	28	11.2	0	0	50	20	78	31.2
	47/2	92.5	37	65	26	0	0	9	3.6	166.5	66.6
	48	0	0	9	3.6	11	4.4	95	38	115	46
Sub-Total		*115*	*46*	*170.5*	*68.2*	*36*	*14.4*	*394*	*157.6*	*715.5*	*286.2*
Grand-Total		*520*	*208*	*310.5*	*124.2*	*211*	*84.4*	*481*	*192.4*	*1522.5*	*609*

2.9 Long Term Monitoring, Research, and Analysis of Bangladesh Coastal Zone

Summary of Long-Term Monitoring, Research, and Analysis of Bangladesh Coastal Zone (Source: LTM Report)

The project commenced work on 15 October 2018 with a scheduled duration of 30 months. The project team comprised 33 International Consultants from organizations in Denmark, the Netherlands, and the United States working with 35 National Consultants provided by IWM in Bangladesh.

The expected duration of the project was extended on two occasions to allow for the disruption of travel by the International Consultants to the COVID pandemic, and now the project is scheduled to end on 30 December 2022.

This research study is exceptionally multi-disciplinary in the diverse range of scientific disciplines that were brought to bear on the problem of the long-term sustainable development of the coastal zone of Bangladesh.

The paragraphs below summarize the progress made in the nine major components of the study enumerated in terms of Reference.

1. The Inception Report and work plan were accepted, although some work items had to be rescheduled subsequently because of the COVID pandemic.

2. Data Collection and Monitoring and Creation of a Database
    - Field Work
    - Subsidence Mapping
    - Climate Change Assessments
    - Creation of the Database

All items above have been completed except for the final installation of the Interactive Geo-Database for the Coastal Zone (IGDCZ) in the BWDB offices in Pani Bhaban.

Macro-Scale Models of Basin and Major River System under Climate Change a. Basin Modelling Completed, b. Sediment Balance Studies These studies, which included many models using three different types of modeling software to predict the development of the entire basin and the primary river system in the Delta, have been completed, and the reports submitted.

3. Macro Scale models
    - Long Term Morphology
    - Estuary Sedimentation Studies
    - Bank Erosion Modelling

These studies have been completed and reported on. The overall coherence of these studies, when comparing them with each other and across modeling scales, has been investigated and the results have been brought to bear on the overall Polder Development Plan. The complex problem of predicting and managing river-bank erosion was also studied.

4. Micro Scale Modelling
    - Polder Drainage Modelling
    - Tidal River Management Studies

Micro-scale modeling refers to modeling the delta processes at the most detailed level (i.e., polder level). These models study the causes and mechanisms of polder drainage and problems such as water-logging that arise at more local levels in the rivers surrounding polders. Some problems inherent in the impact of large-scale polder construction on the tidal dynamic were studied. Tidal River Management studied here was a means of mitigating the effects of pondering on the tidal dynamics in some areas.

5. Special Purpose Models & Studies
    - Surface Water Salinity Intrusion Studies
    - Groundwater Salinity Studies
    - Storm Surge Modelling
    - Wave Impact Modelling

Surface and groundwater salinity are problems that are exacerbated by the reductions in upstream freshwater flows and sea level rise, which enables the saline front to travel further upstream in a river system. These studies, already completed, also deal with interventions that could use upstream measures to increase the dry season freshwater flow into critical parts of the region.

6. Design Parameters and Guidelines
    - Design of 5 Pilot Polders
    - Design Parameters

Detailed studies were made on five polders selected as having characteristics representative of the varied environmental conditions that prevail in the different areas of the coastal zone. The detailed design considerations applied to these five pilot polders served as a guide to how we approach the polder development plan. The design parameters required by the plan were extracted from the extensive modeling work done on the present and future condition

7. Polder Development Plan
    - Polder Development Plan
    - Investment Plan

The outline of the Polder Development Plan and Investment Plan, which were discussed with groups of field-level stakeholders, will be presented at the International Workshop. The actual Plans are still under development and will be ready to be presented at a National Workshop on 19 June, where the results of the consultations will assist us in finalizing the plans.

8. Capacity Building

I. On-the-Job Training

All the project activities have been carried out with the participation of non-specialist engineers who learned new modeling skills they would eventually use independently. Insufficient exposure was made available to allow BWDB staff to take advantage of this opportunity.

II. In-Country Training Courses

Several In-country training courses were conducted by visiting international specialists as well as national experts working on the project.

III. Online Training Courses

Some courses were conducted online to avoid losing valuable training time because of

COVID travel restrictions

IV. Overseas Training (Higher Education)

Three BWDB engineers were selected for further post-graduate studies at Inc Delft — after the interview and Prof Roelvink before selection. These three engineers have completed their MSc studies and have returned to duty in Bangladesh.

V. Overseas Training (Short Courses)

Overseas Short courses have been disrupted by COVID, and there is one session of training at IHE Delft in September 2022

VI. Study Tours (US; Denmark, Netherlands)

These study tours are planned and budgeted but held in abeyance pending policy decisions of the Government of Bangladesh

2.10 CEIP-2 Feasibility Study

The Consultants appointed for the preparation of CEIP-2 are a Joint Venture of Royal HaskoningDHV (The Netherlands), North West Hydraulic Consultants (Canada) and Inros Lackner (Germany) with Royal HaskoningDHV as lead Consultant. National firms on the team are Development Design Consultants (geo-technical investigations and detailed designs); Strategic Planning and Management Consultants (surveys, hydrometric measurements and detailed designs); CEGIS (mathematical modelling, GIS and morphology); and Knowledge Management Consultants (Environment, LAP and RAP).

The contractual deliverable of the Feasibility Study of CEIP-2 as follows.

- Feasibility Bathymetric, Hydrometric and Topographical Surveys Reports for maximum 13 Polders;
- Feasibility Geotechnical Surveys Reports for maximum 13 Polders;
- Modelling Reports (Storm Surge Modelling and Polder, Morphological Analysis and Polder Drainage Modelling) for maximum 13 Polders;
- Feasibility Design Report for Flood Embankments, Drainage Canals, Protection Works and Drainage Infrastructure and Structures for maximum 13 Polders;
- Economic and Financial Analysis Report for maximum 20 Polders;
- Social and Environmental Reports being Social Assessment, Social Management and Resettlement Policy Framework (SMRPF), Environmental and Social Management Framework (ESMF) for maximum 13 Polders;
- Monitoring and Evaluation Report for maximum 20 Polders.

The delivery of FS-2 as of August 2022

1. Inception Report – September 11, 2021
2. Prioritization Report – December 2021
3. Feasibility Report – August 25, 2022

Polder Selection

The Feasibility Study team has selected 13 polders for the next batch for CEIP-2 out of 23 polders (pre-selected) for the next phase of CEIP, from an assessment of the remaining 124 polders.

List of 23 pre-selected polders from Polder Screening Report

No.	Polders	Name of Thana	District
1	4	Assasuni	Satkhira
2	5	Kaliganj, Shyamnagar	Satkhira
3	7/1	Assasuni, Shyamnagar	Satkhira
4	7/2	Assasuni	Satkhira
5	10-12	Koyra, Paikgacha	Khulna
6	13-14/2	Koyra	Khulna
7	28/1	Dumuria	Khulna
8	28/2	Batiaghata	Khulna
9	29	Batiaghata, Dumuria	Khulna
10	31	Dacope	Khulna
11	31 part	Batiaghata	Khulna
12	39/1B	Motbaria	Pirojpur
13	39/1C	Motbaria	Pirojpur
14	41/5	Barguna Sadar	Barguna
15	41/7	Mirjaganj	Patuakhali
16	43/2A	Patuakhali	Patuakhali
17	43/2E	Patuakhali	Patuakhali
18	45	Taitoli	Barguna
19	47/1	Kalapara	Patuakhali
20	50-51	Rangabali	Patuakhali
21	54	Kalapara, Galachipa, Amtoli	Patuakhali, Barguna
22	55/2E	Patuakhali, Dashmina, Bouphol	Patuakhali
23	55/20	Dashmina	Patuakhali

The 13 selected polders, including the seven polders of Package- 3 CEIP-1, which will be included in the next phase of CEIP, are illustrated the below table.

In view of the total estimated cost required for improving the 20 polders and following discussions and consultations thereafter with Officials of the Government of Bangladesh and the World Bank, the three-step investment approach recommended in the Prioritisation Report was refined into a two-step approach.

Polders included in Step 1

Sl. No.	**Polder**	**Name of Thana**	**District**
1	4	Assasuni	Satkhira
2	7/1	Assasuni, Shyamnagar	Satkhira
3	7/2	Assasuni	Satkhira
4	10-12	Koyra, Paikgacha	Khulna
5	13-14/2	Koyra	Khulna
6	39/1B	Motbaria	Pirojpur
7	39/1C	Motbaria	Pirojpur
8	41/5	Barguna Sadar	Barguna
9	45	Taitoli	Barguna
10	47/1	Kalapara	Patuakhali

Polders included in Step 2

Sl. No.	**Polder**	Name of Thana	**District**
1	5	Kaliganj, Shyamnagar	Satkhira
2	14/1	Koyra	Khulna
3	15	Shyamnagar	Satkhira
4	16	Paikgacha	Khulna
5	17/1	Dumuria	Khulna
6	17/2	Dumuria	Khulna
7	23	Paikgacha	Khulna
8	34/3	Bagerhat	Bagerhat
9	50-51	Rangabali	Patuakhali
10	55/2D	Dashmina	Patuakhali

Main new features and highlights

The Feasibility Studies for CEIP-1 were conducted in 2013 and since then CEIP-1 is being implemented. It stands to reason those experiences from the latter, technology developments worldwide in coping with climate change in vulnerable deltas and innovations elsewhere, are given great importance within the current preparations of the next phase of CEIP. From past and ongoing experiences, it becomes clear that amongst others, land acquisition must be considered prudently. In addition, new features and highlights like technology innovations,

nature-based solutions as well as risk-based designs are put in the spotlight of the next phase of CEIP. Last but not least, the main functional requirements of the embankments and structures are important to be clarified up front.

Functional requirements embankments and structures

The same main functional requirements and associated design criteria as used for the Coastal Embankment Improvement Project, Phase 1 (CEIP-1) will apply for the next phase of CEIP and are summarised.

Main functional requirements

- Return period embankments: 25 years
- Mazimum overtopping: 5 l/m/s
- Drainage of polders: A 5-day storm of 1 in 10 years shall not cause submergence of more than 5% of the incremental area in addition to the area that cannot be drained by gravity to a greater depth than 0.30 m for a period of 3 days.
- Life time of all works: 50 years

The objective of the water sector in the 8th Five (5) Year Plan is to scale up existing good practices of water conservation and management and apply more widely integrated water management, including flood control and prevention schemes, flood early warning systems, irrigation improvement, and demand-side management as advocated in BDP2100. Main subjects in connection to the development of the coastal zone which require attention or should be taken forward by innovative approaches are:

- Continuing and strengthen river dredging to enhance navigability and to facilitate water transportation;
- Protecting riverbank from erosion through integrated long-terms measures;
- Preventing of saline intrusion through augmenting the freshwater flow in the southwest region including the Sundarbans;
- Create land for socio-economic development by reclaiming new land in the coastal zone;
- Developing modern early warning systems to minimize economic losses from flood and other disasters;
- Adapting of climate change mitigation strategies;
- Rainwater harvesting;
- Implementing integrated coastal zone management strategies;
- Strengthening capacities of the institution in the water resource management;
- Mainstreaming Valuing Water into Public Investment Decision Making in collaboration with the Planning Commission to allow for future investment decisions which further support sustainable water resources management and thus sustainable economic development;
- Identifying and demonstrating options to incorporate Valuing Water into private sector decision making to lead to more sustainable investment and operational choices.

A number of possible innovations were presented and elaborated upon which could be implemented in whole or partly in the next phase of CEIP; Table xx summarises to which extend they are now proposed for the next phase of CEIP.

Polders where innovations have been proposed

No	Description innovation	In which polder applied	Remarks
1	Geo-tubes for core of embankment	Where embankment fill material is limited or not available at all Applicable where dredged material is available near site Core of embankment can be partially built up with geo-tube filled with dredged material	
2	Geo-tubes for erosion control	General	
3	Nature based solutions	Proposed in polders 50-51 and 7/2.	
4	New building concepts – investment, operation and management	General	
5	Development of sheltering harbour	To be defined	
6	Land reclamation	To be defined	To be defined in detailed designs
7	Application of dredging activities	To be defined	To be defined in detailed designs

2.11 Progress on Project Indicators

The key performance indicators (KPI) as defined by the PAD/DPP are listed below along with their cumulative values.

S. No.	PDO Indicators per PAD/DPP	Indicator Type	Total Project Target	Cumulative Value as of 30 June 2022
1	Gross area protected	outcome	66,012 ha	All Pkg – 55,914 (79.4%) Pkg 01 – 38,0556 98.6%) Pkg 02 – 19,859 (60.9%)
2	Direct beneficiaries from increased resilience to climate change (number) and % women (PPCR core indic. A1.3)	outcome - core	724,202 (50% women)	All Pkg – 582,636 Pkg 01- 325,328 Pkg 02 – 257,308
3	Cropping intensity	outcome	180	
4	Contingent Emergency Appropriation	input	No target	
5	Length of Upgraded Embankment	Output	409.33 kms *Pkg 01:*	All Pkg – 324.959 kms done Pkg 01: 197.882 kms done Pkg 02: 127.073 kms done

S. No.	PDO Indicators per PAD/DPP	Indicator Type	Total Project Target	Cumulative Value as of 30 June 2022
			200.617 *Pkg 02: 208.71*	
6	Drainage structures replaced	output	88 nos. *Pkg 01: 38 nos* *Pkg 02: 50 nos*	All Pkg – 70 fully done; and 16 are in progress Pkg 01: 38 fully done Pkg 02: 32 fully completed and 16 are in progress
7	Drainage sluices repaired	output	8 nos. *Pkg 01: 2 no* *Pkg 02: 6 no*	All Pkg – 2 done Pkg 01: 2 done Pkg 02: 0 done (and 2 in progress)
8	Flushing inlets constructed and upgraded	output	77 nos *Pkg 01: 29 no Pkg 02: 48 no*	All Pkg – 49 fully done; 16 are in progress Pkg 01: 29 fully done Pkg 02: 20 is fully completed and 16 are in progress
8a	Flushing inlets repaired	output	46 nos *Pkg 01: 14 no* *Pkg 02: 32 no*	All Pkg – 15 substantially done Pkg 01: 14 done. Pkg 02: 1 done; 16 in progress
9	Length of drainage channels upgraded	output	305 km *Pkg 01: 150* *Pkg 02: 155*	258.13 kms done Pkg 01: 150.299 kms done (100% of Pkg 1) Pkg 02: 107.831 kms done. (69.77% of Pkg 2)
9A	NEW PROPOSED INDICATOR – Riverbank Protection works	output	9.370 kms (excl Pkg 03) *Pkg 01: 4.250 kms* *Pkg 02: 5.120 kms*	All Pkg – 9.524 kms Pkg 01: 4.25 kms Pkg 02: 5.274 kms
9B	NEW PROPOSED INDICATOR – Slope Protection works	output	29.444 kms (excl Pkg 03) *Pkg 01: 19.966 kms* *Pkg 02: 9.480 kms*	All Pkg – 24.027 kms Pkg 01: 19.606 kms Pkg 02: 4.421 kms
10	Area Afforested (PPCR core indic. B3)	output - core	300 ha	All Pkg – 473.8 ha Pkg 01: 298.8 ha Pkg 02: 175.04 ha

S. No.	PDO Indicators per PAD/DPP	Indicator Type	Total Project Target	Cumulative Value as of 30 June 2022
11	Water Management Organizations functioning (meeting regularly, operations, no. of disputes)	outcome	10 nos	WMA: 10 formed. 7 registered
12	Water Management Organization (WMO) formed	output	4 nos	WMG: 139 formed. Remaining In Polder 33 = 2 Polder 43/2C = 2 WMA: 8 formed. 6 registered
13	Improved coastal monitoring - studies undertaken (as related to PPCR core indicator on the use of climate information in decision-making)	output	2 nos	1. Same status. 2. Same status.
14	BWDB days of training provided (total person-days) (women person-days)	output - core	1200 p-day	536 p-day
15	Grievance Redress Committees (GRC) established	output	10 no of polders	10 polders (Pkg-01: 15 GRC, functioning; Pkg-02: 21 GRC formed)
16	Detailed design of future 7 polders (including EIA, RAP/LAP)	output		All Design completed by consultant. ▪ Embankment: Approved (all, 209.98 kms) ▪ Drainage Channel (all 167.37 kms) ▪ DS: Design done (53), approval (52) ▪ FS: Design done (19), approval (19) ▪ RBP: Design done (1.8 km), approval (1.8) ▪ SPW: Design done (4.78), approval (4.78) Draft final EIAs for 7 polders have been submitted to PMU.

3 ChapterThree:Agriculture

3.1 Area and Population Protected

The estimate of area and population protected is calculated as the proportion of total length of embankment of each polder for which the earthwork is completed.

Gross area protected & Direct project beneficiaries as of June 2022.

Polder No. and Package No.	Total Polder Area (ha)	Total Polder Population (BBS 2011 with assumed 1.4% annual growth rate)	Embankment Fully Done (kms)	Embankment Target (kms)	Estimated Share of Area Protected	Area Protected to Date (ha)	Population Protected to Date
32	8,097	59,258	49.666	49.67	100.0%	8,096	59,253
33	8,600	86,503	46.719	49.15	95.1%	8,175	82,224
35/1	13,058	142,714	61.672	61.97	99.5%	12,995	142,028
35/3	6,790	41,828	39.825	39.83	100.0%	6,789	41,823
Pkg 01	36,545	330,303	197.882	200.62	98.6%	36,055	325,328
39/2C	10,748	136,404	28.152	39.83	70.7%	7597	96,411
40/2	4,453	84,931	20.725	34.4	60.2%	2683	51,168
41/1	4,048	80,330	21.564	33.81	63.8%	2582	51,234
42/3C	2,753	27,501	17.778	25.7	69.2%	1904	19,024
47/2	2,065	7,277	17.567	17.55	100.0%	2067	7,284
48	5,400	57,457	21.287	38	56.0%	3025	32,187
Pkg 02	29,467	393,899	127.073	208.71	60.0%	19,858	257,308
TOTAL, Protected	66,012	724,202	324.955	409.33	79.4%	55,913	582,636

3.2 Agriculture

3.2.1 Cropped Area and Cropping Intensity for 2021-22 Agricultural Year

3.2.2 Finding Cropping Area of Agriculture Land of Season 2021-22

Kharif – I cultivable crop season 2022 in Polder 47/2

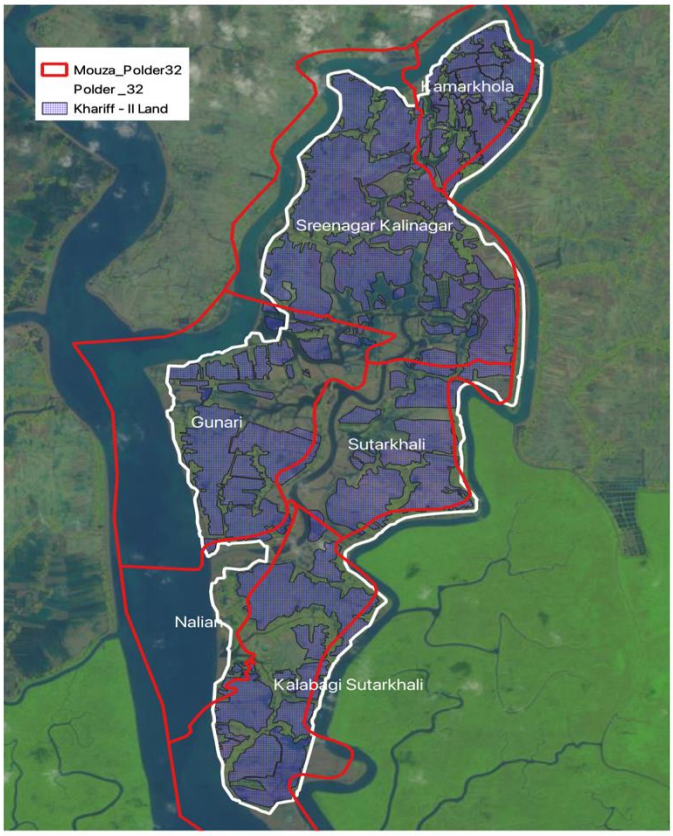
The cropping area in different seasons, such as Rabi, Kharif – I, and Kharif - II, have been found by Remote Sensing data and GIS technology in all the polders of Package 01 and 02. The following steps are considered to find out the cropping area of land.

Step1: Download satellite image Sentinel -2

- Sentinel- 2 images have been downloaded from https://earthexplorer.usgs.gov/ Landsat 8.
- We have downloaded the LandSat8 satellite images from https://glovis.usgs.gov/.
- Landsat 8 image is combined with 8 bands; however, the 6,5 and 2 bands must be composite for finding agricultural land.
- Note: Generally, the Sentinel – 2 image is a natural color image, so, no need to composite the Sentinel – 2 image.

Step 2: Overlay between Satellite image and Polder boundary & Mouza Boundary

Using GIS software, the satellite image overlay with Polder and Mouza boundary; see the sample of maps for ground-truthing below to find out the cropping area of the polders.



Step 3: Cropping Area of Seasons 2021-22 of 9 Polders of CEIP-1 (Polder 39/2C was not considered as it is under construction)

Kharif – II.

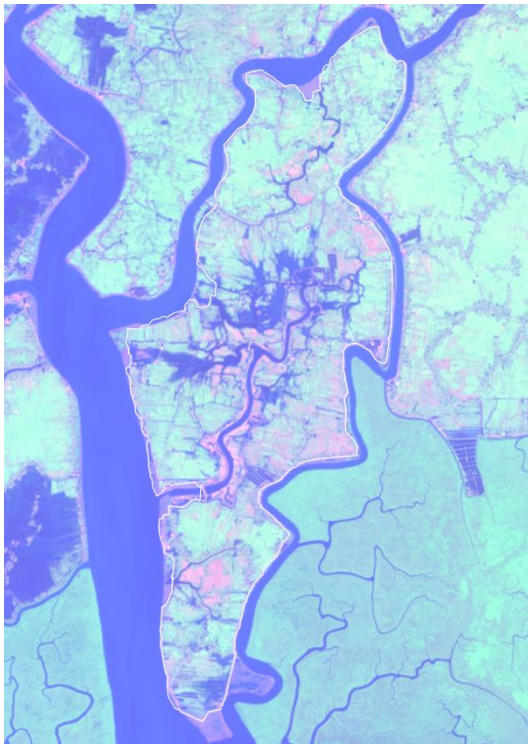
Kharif II: To find out the area of Kharif - II of season 2021, Geospatial Technology (On-screen digitization) has been used, the source of the based map is LandSat8. Please see the table below for cultivable area of 2021 Kharif - II season.

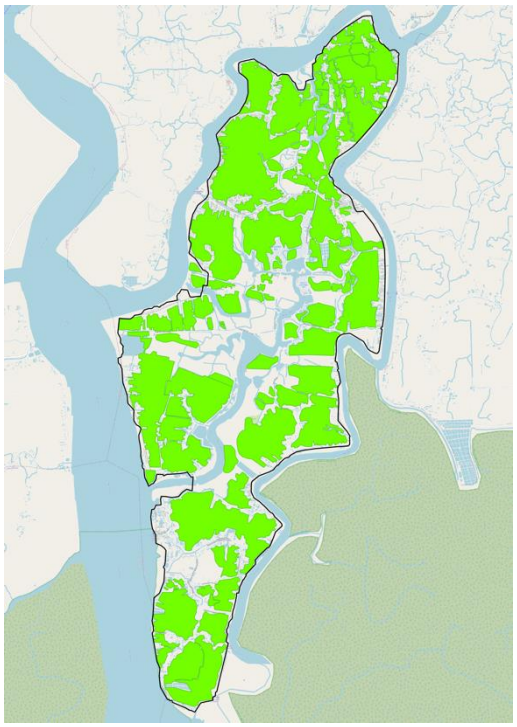
Polder	32	33	35/1	35/3
Kharif - II Area in ha	3273.068	7423.339	8102.756	2363.276

Polder	39/2C	40/2	41/1	43/2C	47/2	48
Kharif - II Area in ha	5200.736	2397.006	2392.687	1791.597	643.585	2542.893

3.3 LandSat8 satellite image and area cultivated land in Kharif - II season, calculated by Geospatial Technique.

Polder 32:

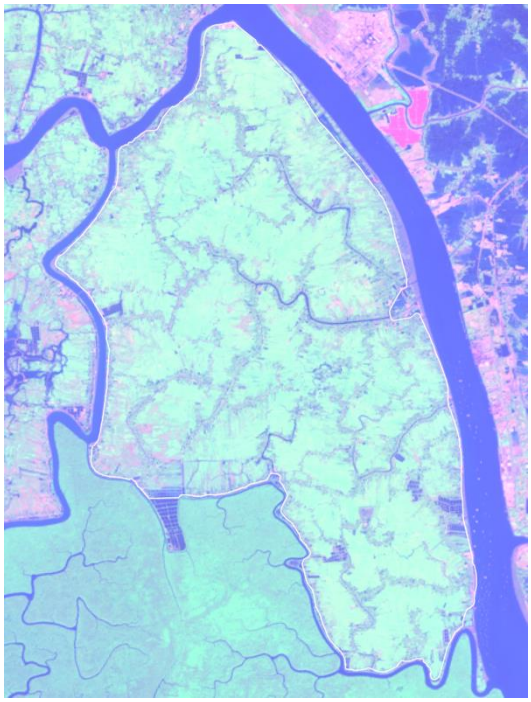




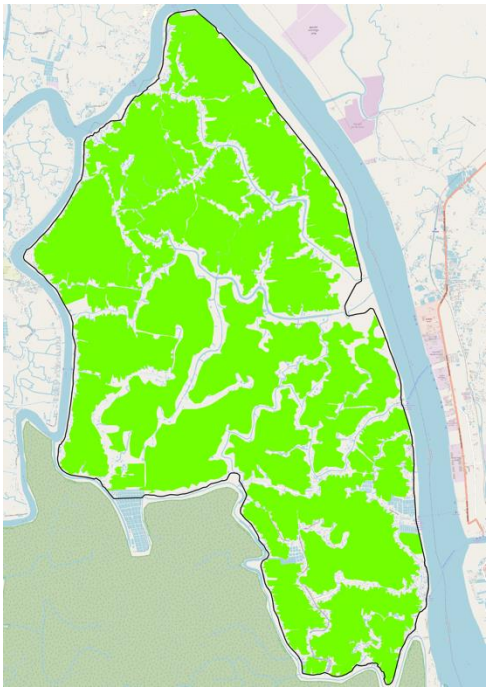
LandSat8: Acquisition date: 24 Nov & 08 Dec’ 21

Kharif - II Crop – Season 2021

Polder 33



LandSat8: Acquisition date: 24 Nov & 08 Dec'21



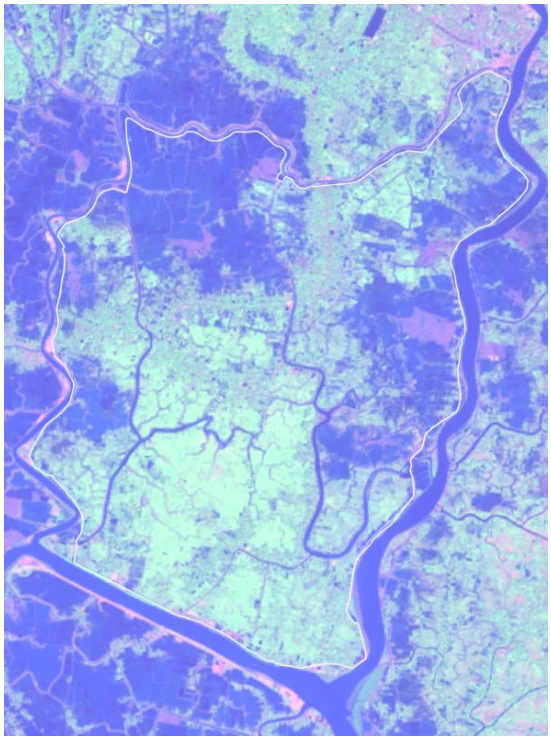
Kharif - II Crop – Season 2021

Polder 35/1

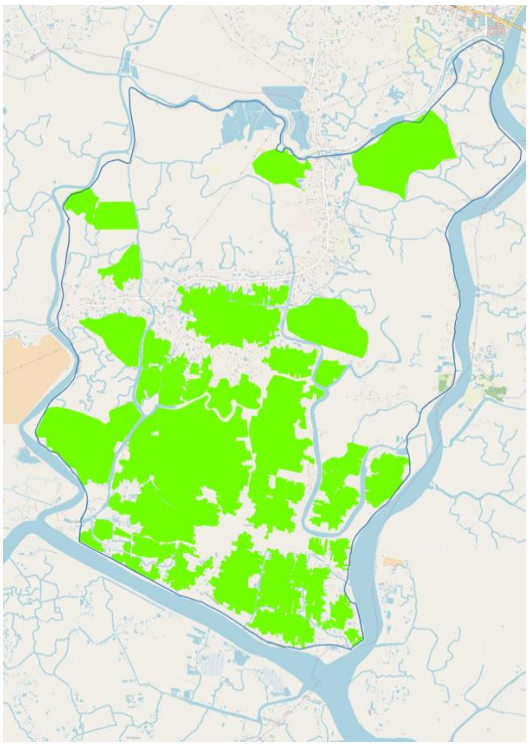
LandSat8: Acquisition date: 24 Nov & 08 Dec'21

Kharif - II Crop – Season 2021

Polder 35/3

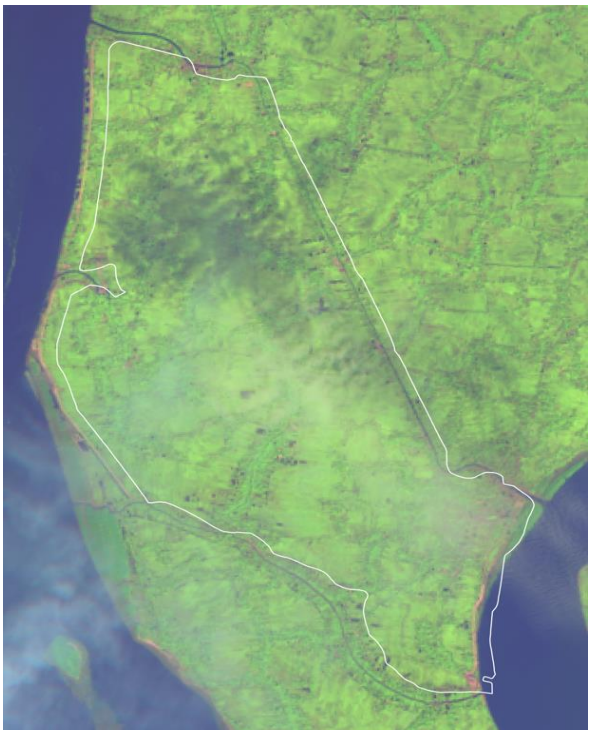


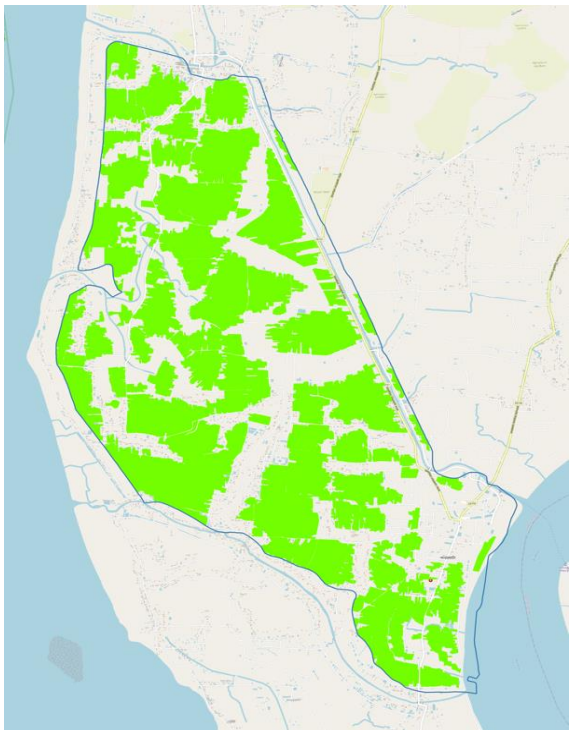
LandSat8: Acquisition date: 24 Nov & 08 Dec'21



Kharif - II Crop – Season 2021

Polder 40/2

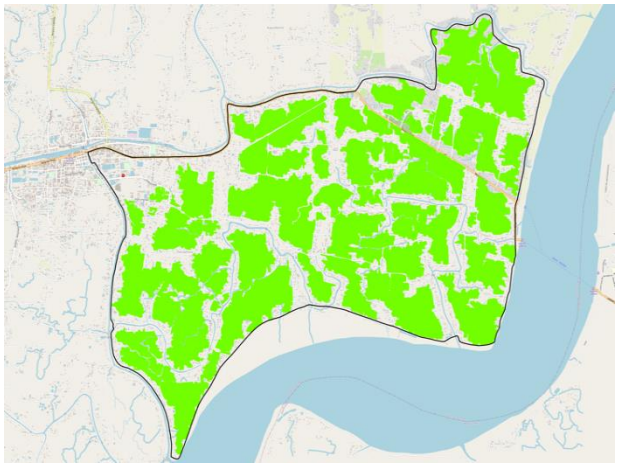




LandSat8: Acquisition date: 24 Nov & 08 Dec'21

Kharif - II Crop – Season 2021

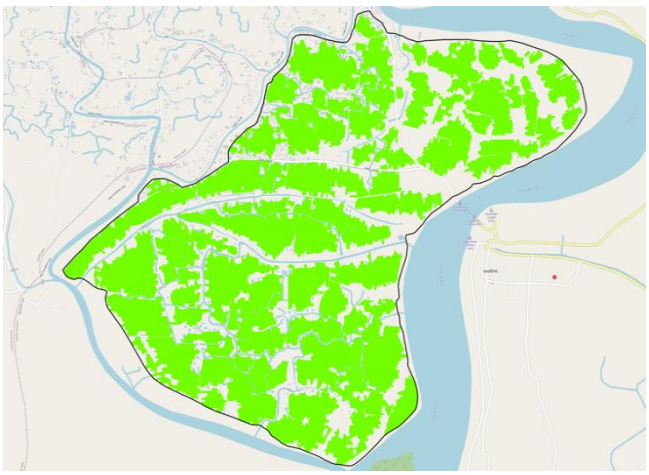
Polder 41/1



LandSat8: Acquisition date: 24 Nov & 08 Dec'21

Kharif - II Crop – Season 2021

Polder 43/2C

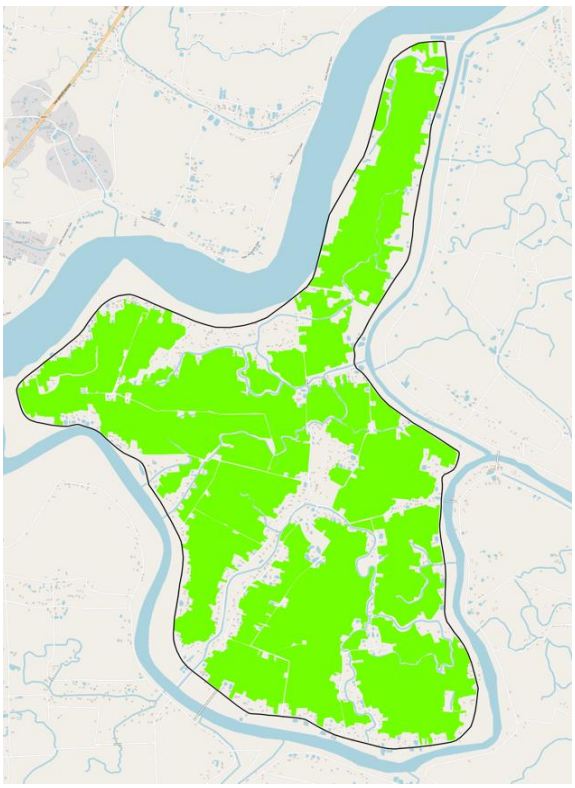


LandSat8: Acquisition date: 24 Nov & 08 Dec'21

Kharif - II Crop – Season 2021

Polder 47/2

LandSat8: Acquisition date: 24 Nov & 08 Dec'21



Kharif - II Crop – Season 2021

Polder 48

Sentinel – 2, Acquisition date: 21 April 2021

Rabi Crop – Season 2022

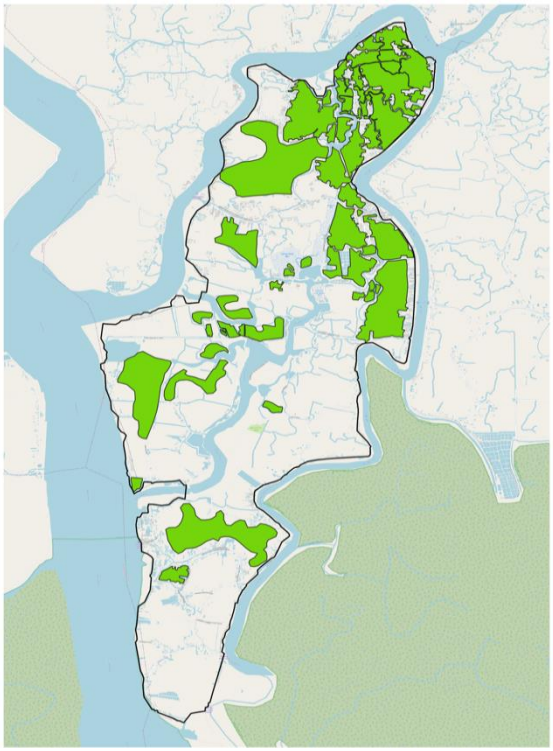
Rabi

Rabi: Geospatial Technology (On-screen digitization) has been used to find the area of Rabi for season 2022, and the source of the based map is Sentinel -2. Please see the table below for the cultivable area for the 2022 Rabi season.

Polder	32	33	35/1	35/3
Rabi Area in ha	1553.461	6973.197	2835.965	1744.449

Polder	40/2	41/1	43/2C	47/2	48
Rabi Area in ha	2300.017	2392.687	1786.397	418.3303	889.5845

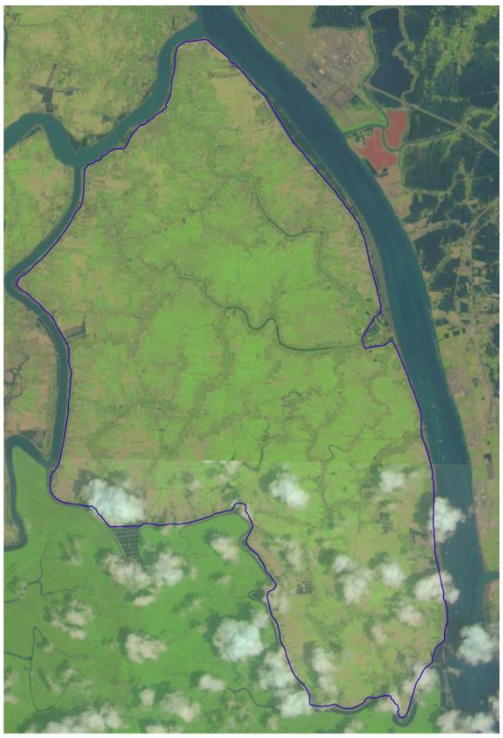
1.3.2.1 Sentinel -2 satellite image and area cultivated in Rabi season, calculated by Geospatial Technique**Polder 32**:

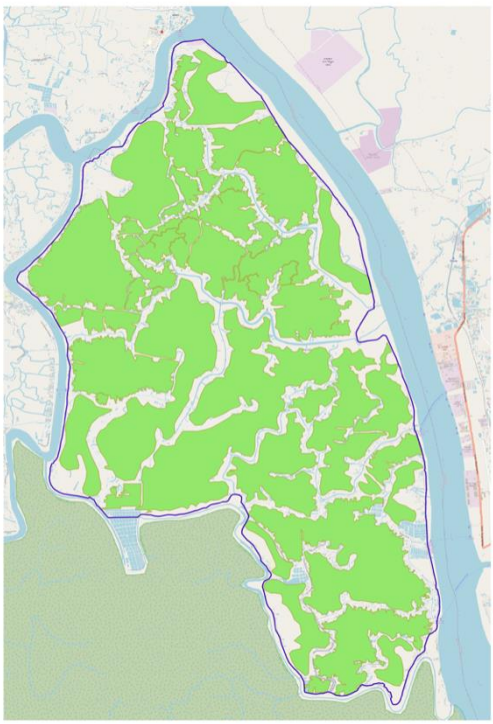


Sentinel – 2, Acquisition date: 21 April 2022

Rabi Crop – Season 2022

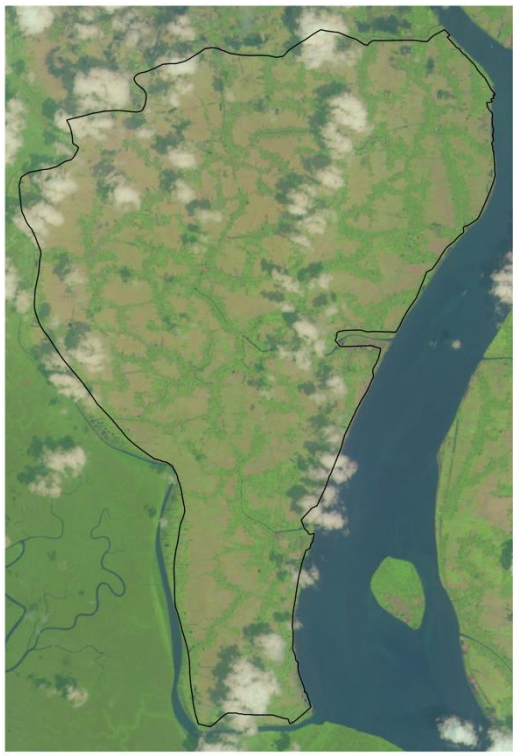
Polder 33

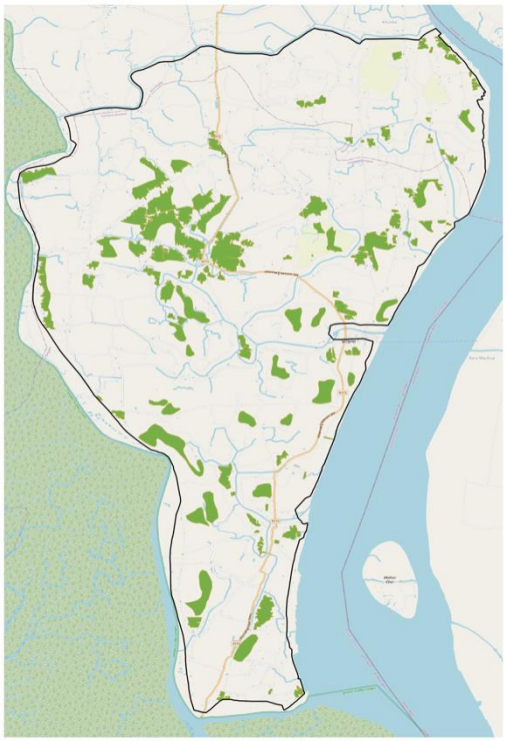




Sentinel – 2, Acquisition date: 21 April 2022 Rabi Crop – Season 2022

Polder 35/1

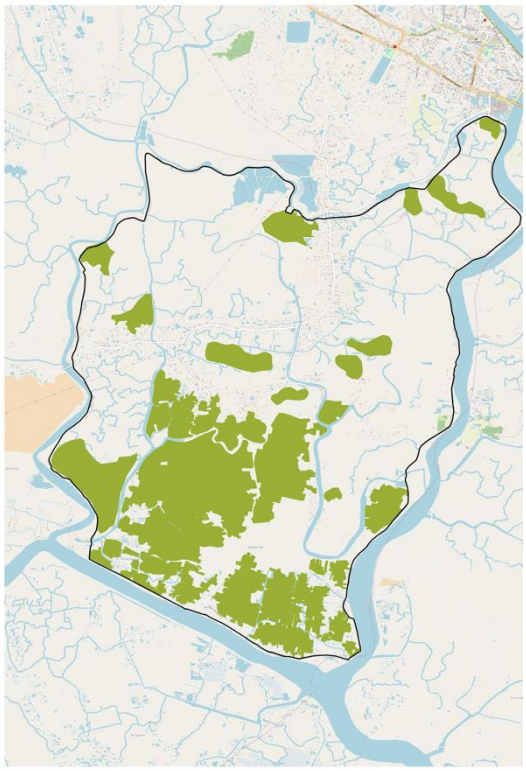




Sentinel – 2, Acquisition date: 04 April 2022 Rabi Crop – Season 2022

Polder 35/3

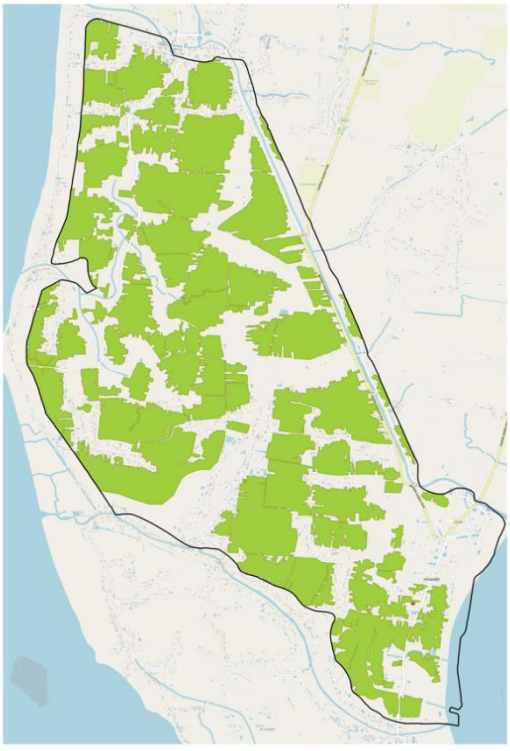
Sentinel – 2, Acquisition date: 21 April 2022



Rabi Crop – Season 2022

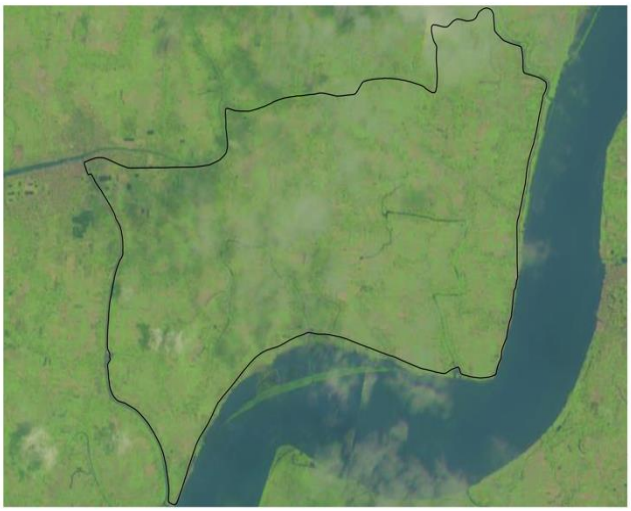
Polder 40/2

Sentinel – 2, Acquisition date: 06 April 2022

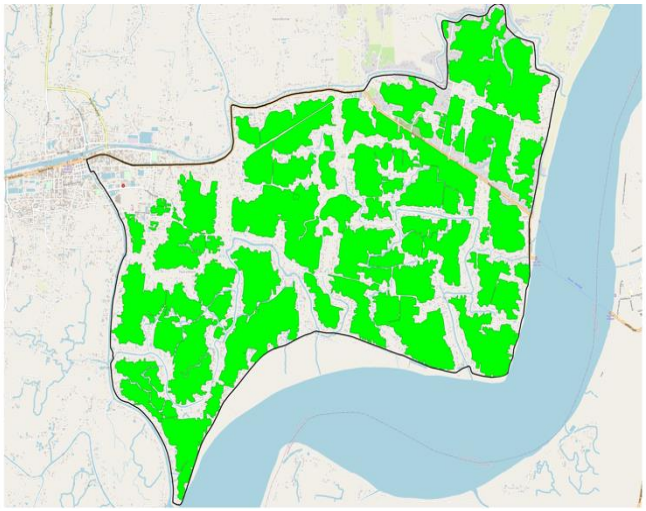


Rabi Crop – Season 2022

Polder 41/1



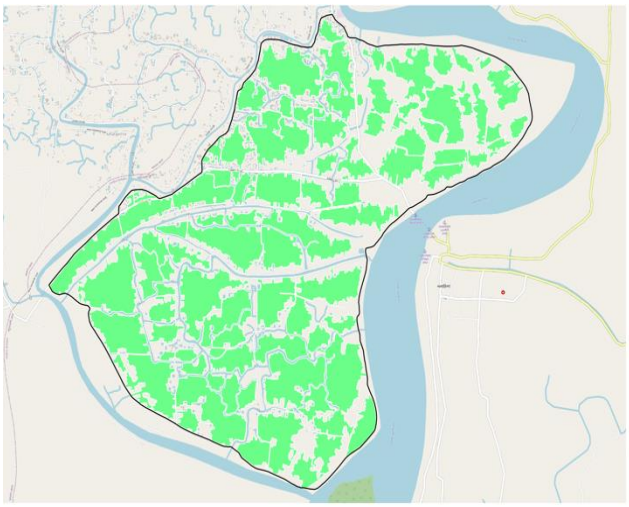
Sentinel – 2, Acquisition date: 26 April 2022



Rabi Crop – Season 2022

Polder 43/2C

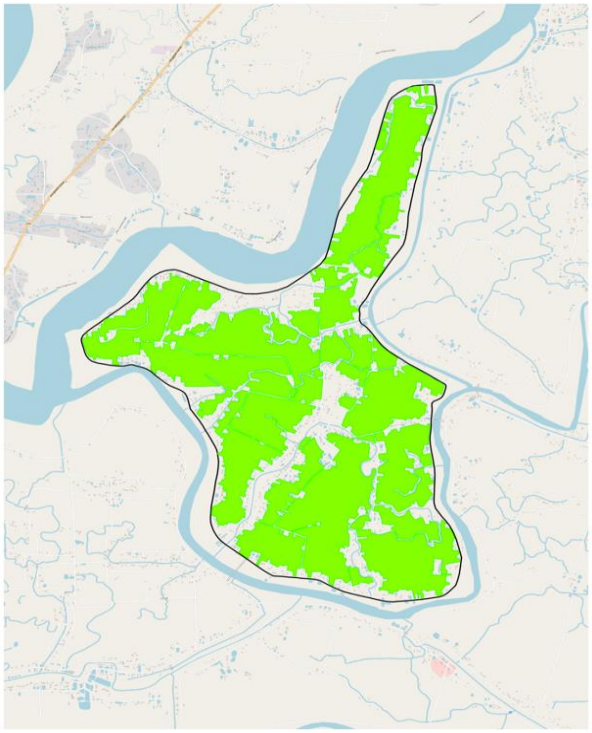
Sentinel – 2, Acquisition date: 26 April 2022



Rabi Crop – Season 2022

Polder 47/2

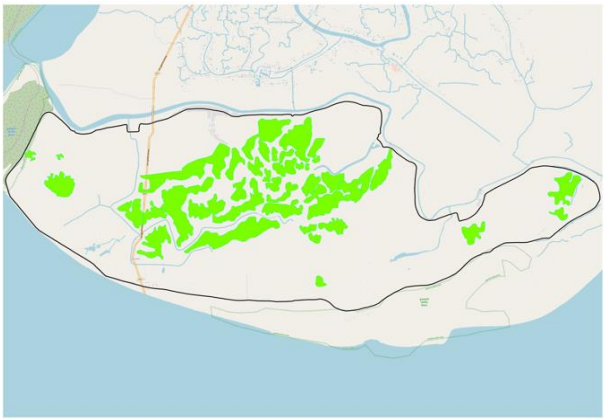
Sentinel – 2, Acquisition date: 06 April 2022



Rabi Crop – Season 2022

Polder 48

Sentinel – 2, Acquisition date: 21 April 2022



Rabi Crop – Season 2022

Kharif - I

Kharif I: 2022 season Kharif – I cultivable area has been found by FGD of 9 polders of CEIP-1. Please see the table below for cultivable area of 2022 Kharif – I season.

Polder	32	33	35/1	35/3
Kharif -I area in ha	33	0	978	118

Polder	40/2	41/1	43/2C	47/2	48
Kharif -I	483	526	1057	141	305

Data Source by FGD

Polder 32

M&E Consultant has arranged an FGD on June 7, 2022, at 10:00 am at Sutarkhali Model Bazar. Eight (08) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Mr. Lutfar Rahman Sana, President, Shibsha, Water Management Association (WMA), and Local farmers Ashiqur Rahman, Latif Gain, Mintu Mia, Musa Sana, Mozibar Gazi, and Belal Hossain.

M&E Consultant has taken Kharif – I Crop's Photo during the field visit on June 7, 2022

Again, M&E Consultant has arranged an FGD on June 7, 2022, at 03:00 pm at Joy-Nagar Bazar. Ten (10) participants were present on the FGD. WMA members and the local community people were present during the discussion. Participants were Mr. SM Makshud, Secretary, Shibsha WaterManagement Association (WMA), and local farmers Aminur Gazi, Jogesh Roy, Ariful Islam, Bidhan Chandra, and Animesh.

Polder 33

M&E Consultant has arranged an FGD on June 8, 2022, at 10:30 am at Banishanta Bazar. Twelve (12) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Mr. Bishwajit Kumar, Secretary, Shadhinatar Protoy Water Management Association (WMA), and Local farmers Rathikanto Roy, Varoth Chandro Sardar, Sitangsho and Kumaresh.

M&E Consultant has taken Kharif – I Crop's Photo during the field visit on June8, 2022

Again, M&E Consultant has arranged an FGD on June 8, 2022, at 03:00 pm at Bajua Bazar. Ten (10) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Mr. Subodh Kumar Mandol, Cashier, Shadhinatar Protoy Water Management Association (WMA), and local farmers Narayan Chandra, Krishnendu Roy, Swapon Bir and Md. Jalil Sekh.

Polder 35/1

M&E Consultant has arranged an FGD on June 9, 2022, at 10:30 am at Khontakata Union Parishad. Eight (08) participants were present on the FGD. WMA members and the local community people have presented during the discussion. participants were Mr. Harun-Ur-Rashid Kumar, Vice President, Moitri Water Management Association (WMA), and Local farmers Abu Hanif, Harmuj Ali Gazi, Yousuf Bepari and Bulu Mia.

Again, M&E Consultant has arranged an FGD on June 9, 2022, at 03:00 pm at Sonnasshi Bazar.
Ten (10) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Mr. Abul Kashem, President, Moitri Water Management Association (WMA), and local farmers Shamim Akon, Alim Talukder, Kamrul Islam, Pushpen Mitra and Dulal Chandra Ray.

Moreover, M&E Consultant has arranged an FGD on June 10, 2022, at 10:30 am at Dhansagar.
Nine (09) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Mr. Abul Kalam Azad, General Secretary, Moitri Water Management Association (WMA), and Local farmers Abul Bashar, Harun Khan, Bellal Munshi and Sohrab Hawlader.

Again, M&E Consultant has arranged an FGD on June 10, 2022, at 03:00 pm at WMA Office room. Ten (10) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Mr. Abul Kalam Azad, Secretary, Moitri Water Management Association (WMA), and local farmers Ali Faraji, Dulal Chandra Ray, Fajlu Hawlader and Liton Khan.

M&E Consultant has taken Kharif – I Crop's Photo during the field visit on June 9&10,

Based on the two FGD, the percentage of cultivable land of the Kharif- I season describes in the table below.

Polder 35/3

M&E Consultant has arranged an FGD on June 11, 2022, at 10:30 am at Dema Union Parishad. Nine (09) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Mr. Howlader Abdul Salam, President and Mr. Linkon Sarkar, Treasurer of Voirob Water Management Association (WMA), and Local farmers Md. Ohidul, Sajol Kumar, Masudh Sekh and Shaidul Islam.

M&E Consultant has taken Kharif – I Crop's Photo during the field visit on June 11, 2022

Again, M&E Consultant has arranged an FGD on June 11, 2022, at 03:00 pm at Kashimpur Bazar. Ten (10) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Md. Al Imran, General Secretary and Mr. Linkon Sarkar, Treasurer of Voirob Water Management Association (WMA), and local farmers Saroj Kumar Paul, Afzal Hossain, Masudh Sekh and Badsha Mollah.

Polder 40/2

M&E Consultant has arranged an FGD on June 20, 2022, at 11:00 pm at Chardoani Bazar.Ten (10) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Md. Jakir Hossain, President, 40/2 Polder Water Management Association (WMA), and local farmers Shihir Kumar, Rahatul, Shyamol Chandra and Shahidul Islam.

M&E Consultant has taken Kharif – I Crop's Photo during the field visit on June 20, 2022

Again, M&E Consultant has arranged an FGD on June 20, 2022, at 03:30 am at Pathargatha Bazar. Ten (10) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Md. Jakir Hossain, President, 40/2 Polder Water Management Association (WMA), and local farmers Faizul Islam, Sohel, Abdul Kuddus Khan, Sahjahan and Rafiqul Islam.

Polder 41/1

M&E Consultant has arranged an FGD on June 21, 2022, at 09:30 am at Maitha Govt. Primary School. Ten (10) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Md. Humayan Kabir, President, Burirchar Water Management Association (WMA), and local farmers Mizan, Salim Mridha, Abbas, Joinab, Ibrahim and Sujon Gazi.

M&E Consultant has taken Kharif – I Crop's Photo during the field visit on June 21, 2022

Polder 43/2C

M&E Consultant has arranged an FGD on June 22, 2022, at 11:00 pm at Haridebpur Bazar. Twelve (12) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Md. Barkatullah, President, Polder 43/2C Water Management Association (WMA), and local farmers Halim Khan, Kuddus Pada, Ruhul Amin, Shabuddin and Alomgir.

M&E Consultant has taken Kharif – I Crop's Photo during the field visit on June 22, 2022

M&E Consultant has arranged an FGD on June 22, 2022, at 03:30 am at Suhari Bazar. Ten (10) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Md. Barkatullah, President, Polder 43/2C Water Management Association (WMA), and local farmers Mamun, Rafiq, Alamin, Jahangir and Jakir.

Polder 47/2

M&E Consultant has taken Kharif – I Crop's Photo during the field visit on June 23, 2022

M&E Consultant has arranged an FGD on June 23, 2022, at 11:00 pm at Dalbuganj Bazar. Twelve (12) participants were present on the FGD. WMG members and the local community people have presented during the discussion. Participants were Md. Liton Gazi, Secretary, Dalbuganj Water Management Group (WMG), and local farmers Noya Mia, Jasim Uddin, Saber Hawlader and Norottom.

Polder 48

M&E Consultant has arranged an FGD on June 24, 2022, at 11:00 pm at Ali Pur Union Parishad.Twelve (12) participants were present on the FGD. WMA members and the local community people have presented during the discussion. Participants were Abdul Goni Hawlader, Vice-President, Sagorkonna Water Management Association (WMA), and local farmers Abul Hossen, Zakir, Sogir, and Wares Sikder.

M&E Consultant has taken Kharif – I Crop's Photo during the field visit on June 24, 2022

M&E Consultant has arranged an FGD on June 24, 2022, at 03:30 am at Dhulasar. Ten (10) participants were present during the FGD. WMA members and the local community people have presented their views during the discussion. Participants were Md. Sogir Ahmed, President, Sagorkonna Water Management Association (WMA), and local farmers Mostofa, Jalal Fakir, Abul Kalam, and Delowar.

3.4 Cropping Intensity of CEIP-1, Considering 9 Polders (39/2C is under construction)

The Cropping Intensity calculation is given in the table below. We have found the CI in Package 01 is 167 and Package 02 is 205. This is based on the practical decision, agreed with the World Bank, FAO and PMU, to assume that the total cultivable area (denominator) is equal to the area planted in Kharif II.

Polder	Area of Polder	Kharif – II 2021	Rabi 2022	Kharif - I 2022	Total Cropping Area of 2021-22	Cropping Intensity
(a)	(b)	(c)	(d)	(e)	(f) = c+d+e	(g) = f/c
32	5815.65	3273.07	1553.46	32.73	4859.26	148
33	10103.59	7423.34	6973.20	0.00	14396.54	194
35/1	14330.45	8102.76	2835.97	972.33	11911.05	147
35/3	6619.16	2363.28	1744.45	118.16	4225.89	179
Package 01	**Total Area**	**21162.44**	**13107.07**	**1123.23**	**35392.74**	**167**
40/2	4565.38	2397.01	2300.02	483.00	5180.03	216
41/1	4206.88	2392.69	2392.69	526.39	5311.77	222
43/2C	2977.45	1791.60	1786.40	1057.04	4635.04	259
47/2	965.21	643.59	418.33	141.59	1203.50	187
48	5079.93	2542.89	889.58	305.15	3737.62	147
Package 02	**Total Area**	**9767.77**	**7787.02**	**2513.17**	**20067.96**	**205**

Note: Polder 39/2C hasn't been considered until the polder is completed because this polder is entirely new.

4 ChapterFour: Environment

4.1 Background

The CEIP-1 needs to be compliant with the environmental safeguard requirements of the World Bank and the Department of Environment (DoE) of the Government of Bangladesh (GoB). To do so, it has an institutional arrangement, developed required environmental safeguards documents that have been implemented, and monitoring has also been carried out for their implementation. This section has been prepared for the Environment safeguard requirements of CEIP-1.

Institutional arrangements of CEIP-1 for safeguarding the environment include:

- The Project Management Unit, with its Social and Environmental Coordination Unit (SECU), is responsible for oversight and guidance on environmental matters and coordination with GOB agencies. The Environmental issues of the Project are being tended to by a Senior Environmental Specialist and an Environmental Specialist (Field) under PMU's SECU. PMU also reports to BWDB, the Project Steering Committee (PSC) and the World Bank.

- DDCS&PMS Consultants are responsible for developing the EIAs and EMPs consistent with World Bank and GOB guidelines and ensuring the EMPs are implemented satisfactorily. These Consultants review and approve the Contractor's C-ESMPs and EAPs and monitor their implementation on an ongoing basis. The DDCS&PMS Consultants develop the bidding documents and make sure that the Contract and its specifications include the necessary clauses and elements governing environmental safeguards.

- The Consultants for long-term monitoring, research, and analysis of the Bangladesh coastal zone also need to consider the environmental safeguards and sustainability issues in their polder development plan, updated design and specifications, and action plan for capacity-building activities.

- NGOs have been contracted by CEIP-1 and they are responsible for the social mobilization works for the sustainable operation of the polders, social afforestation, and IPM interventions.

- Civil Works Contractors who must develop and implement polder- and site-specific Environmental Action Plans (EAPs) in the case of Package 01 and Contractor Environmental and Social Management Plans (C-ESMP) in the case of Package 02.

- World Bank reviews and provides comments and no objection to the various safeguard documents.

- Community participation, consultation, and feedback through the EIA process and Grievance Redress Mechanism.

- Third-Party M&E Consultants perform environmental audits and monitor and evaluate the project overall. Specifically, concerning environmental safeguards, the M&E Consultants review and comment on environmental documents prepared under CEIP, spot-check compliance, report their findings, and prepare recommendations. The Project Director administers the M&E Consultants' and their contract. The Third-Party M&E Consultants facilitate the preparation of a time-bound action plan based on audit recommendations. It monitors activity on the advice of the audit by PMU, DDCS&PMSC, and concerned contractors.

Each polder has its own EIA, which includes an EMP meant to ensure that the environmental and social management practices are integrated into the polder's design, construction, operation, and maintenance.

Among others, the specific objectives of the EIA are to:

- Comply with national regulatory and WB policy framework (further discussed later in the document),
- Determine and describe the existing environmental and social setting of the Project Area (the project area defined as is defined as the entire area inside the polder, project influence area outside the polder, i.e., the embankment, borrow pits, and spoil disposal are if located outside the polder and access route to the polder),
- Identify and assess the potential environmental and social impacts of the project, including health and safety issues,
- Identify mitigation measures to minimize the negative impacts and enhancement measures to ameliorate the positive effects, and
- Detail an Environmental Management Plan which also defines mitigation measures.

As is the case for the EIAs and EMPs, each polder is also to have an Environmental Action Plan (EAP) for Package 1 and the Contractor’s Environmental and Social Management Plan (C-ESMP) for Package 2, which the Contractors prepare. The EAP of Package 1 and C-ESMP of Package 2 is to operationalize the EMP for which the Contractor is responsible. These Plans detail the mitigation and environmental compliance requirements in a site-specific manner and provide a monitoring plan outlining the protocols, frequency of monitoring, the person(s) responsible, etc.

4.2 Status of the environmental base documents of CEIP-1

Existing environmental base documents or reports CEIP-1 are EIAs and EMPs, Contractor EAPs/ESMPs, Quality Assurance Plan, Contract/Bidding documents, etc. Their status is depicted below.

4.3 EIA, EMP, and ECC

According to Environmental Conservation Rules (ECR) 1997 of DoE, the project is categorized as “Red,” requiring that EIA and RAP must be submitted for obtaining Environmental Clearance Certificate (ECC). The ECC was accepted, and thus the Project has complied with the regulatory requirement. According to WB safeguard policy, the Project is classified as Category “A” involving potentially significant environmental adverse impact. To satisfy compliance of GOB and WB, CEIP-1 has already prepared EIAs for each of the four polders of Package 01 and six polders of Package 02, which contain polder-specific EMPs. WB and CEIP-1 have approved these EIAs and have spelled out the required actions to comply with Government regulations and WB safeguards. The preparation of the EIAs for the other 7 Polders (14/1, 15, 16, 17/1, 17/2, 23, and 34/3) has been finalized and already cleared by WB. However, a national disclosure workshop is due to be conducted by the EIA consultants. It is recommended to run the national disclosure workshops for these 7 EIAs as soon as possible if the COVID-19 situation allows.

The Environmental Clearance Certificate (ECC) for both Package 01 and Package 02 needs to be renewed yearly by DoE, which has been done regularly. The project has already obtained the renewal for 2022.

4.4 Environmental Action Plans (EAP) of Contractor for Package 01

The EAPs are the polder-specific living documents of the contractor, which translate into concrete, site-specific and time-bound actions as to how the environmental and EHS issues of the EMPs will be addressed. As living documents, the four polders’ specific EAPs have been updated four times, and Version 4 has been submitted to DDSC & PMS Consultants. After review from the Consultants’ side, these were presented to PMU for sharing with The World Bank. The World Bank re-reviewed as and when required and cleared them. The EAPs have also been translated into Bangla and Chinese and are available in the existing CC plant sides and important construction sites to be followed correctly. As these are Contactor’s documents to implement, they have been adequately implementing them with the supervision and monitoring of DDCS&PMS Consultants, PMU, and Third Party M&E Consultants have been monitoring their implementation of these documents.

4.5 Contractor Environmental and Social Management Plan (C-ESMP) of Package 02

In Package 02, the term C-ESMP is used; it is analogous to the EAP of Package 01. The C-ESMPs are also polder-specific living documents of the contractor, which translate how the environmental, EHS, and social issues of the EMPs are to be addressed in the way of actionable plans.

As living documents, the six polders’ specific C-ESMPs have been updated four times, and Version 4 has been submitted to DDSC & PMS Consultants. After review from the Consultants’ side, these were presented to PMU for sharing with The World Bank. The World Bank re-reviewed as and when required and cleared them. The C-ESMPs have also been translated into Bangla and Chinese and are available in the existing CC plant sides and important construction sites to be followed correctly. These are the Contactor’s plans to implement, and

adequately implementing them with the supervision and monitoring of DDCS&PMS Consultants, PMU, and also with the monitoring of the Third Party M&E Consultants have been monitoring their implementation of these documents.

4.6 EHS Risk Assessment of Package 01 and Package 02 Contractors

The WB cleared both the polder-specific EHS Risk Assessment reports of Package 01 and Package 02. The risk assessments were mainly focused on the activities of CC block manufacturing plants, sluices, and barges. It was found that the risk assessment covered many issues, but there was still room to address others. The EHS Risk Assessment discussed various national relevant laws/ policies,but does not fully reflect the Environmental Conservation Rules (ECR), 1997, which is the basis of the environmental requirement of the various projects in Bangladesh, and which also provides a stepwise guideline to fulfill the environmental conditions as per law. The risk assessed for air quality addressed only dust creation; other aspects could be accounted for (e.g., emissions from plants and vehicles). The assessment did not cover any risk that could cause health problems for workers and environmental pollution because of poor drinking water and sanitation facilities.

4.7 Contract document of Package 01 and Package 02 and EMP requirements

The contracts of Package 01 and Package 02 covered the EMP's clauses. Penalty clauses suggested in the EMPs have not been incorporated into the contracts of Package 01 and Package 02. The Contractors' contractual obligations in general and specifically (around 20 items) cover mostly matters of Environmental Health and Safety (EHS). Notably, the Package 02 contract document is comprised of more elaborated environmental-measures budget lines than the contract of Package 01. Considering the smaller number of budget items for EMP implementation in Package 01, monitoring the implementation of mitigation measures for each impact area has been carried out to ensure they are adequately addressed. The bid documents and contracts for similar future projects should emphasize and take care to provide all the necessary clauses incorporated to fully address the relevant elements of the EMPs, including the penalty clauses for non-compliance with the EMPs.

4.8 Quality Assurance Plan

DDCS&PMS consultants have their Quality Assurance Plan (QAP) that covers two sub-sections related to environmental issues – (1) the significant tasks to be done by Environmental Specialist of CEIP-1 and (2) Health and Safety (primarily focused on how Health and Safety Personnel will ensure compliance on health and safety issues of the project). It further strengthens its statement of how EMP compliance will be monitored and achieved amid COVID-19 protocols.

4.9 Environmental monitoring tools and guidelines

Both the Contractors have been following the monitoring checklist, which is annexed to the Contractors' EAPs and C-ESMPs as monitoring tools. There are no separate guidelines to ensure compliance with the EMP. DDCS&PMSC and PMU environmental personnel have also been monitoring the implementation of EMP through the indicators of the monitoring checklist

that has become part of the EAPs and C-ESMPs. The monitoring has been carried out using these tools, known as the “Bi-Monthly Environmental Inspection Checklist.” Along with the PMU and DDSC&PMSC, the M&E Consultants monitor the environmental compliances with the means of EAPs, C-ESMPs, and EMPs.

4.10 Compliance Performance

Compliance registers have been maintained by the contractors of Package 01 and Package 02 on the worksites. In the register, the good environmental practices for a specific site and the items that need to be improved are recorded by the visiting environmental staff along with a deadline. DDSC&PMSC continues email correspondence directing contractors to correct non-compliance on certain ecological matters. The issues related to any non-compliance are mitigated. Once the problems are resolved, the items are noted as complied in the "Non-Compliance Register" by the Contractors, DDCS&PMSC and PMU. The remaining issues are mitigated as soon as possible and reported to DDCS&PMSC routinely. The record is tracked to understand how many of the compliances were raised, resolved, and pending.

4.10.1 Compliance Performance of Contractor of Package 01 As Per their Self-monitoring

The contractor carries out their EHS monitoring as per the developed checklists on a twice-monthly (so-called bi-monthly Environmental Inspection report) basis and reports them to the DDCS&PMS Consultants. Based on their monitoring for various items as per the checklists, the EHS performance scenario for the last five years is shown in the following figure (data sources: annual environmental audits). Other non-compliance issues were part of the Corrective Action Plan Contractor, who ensured the compliances.

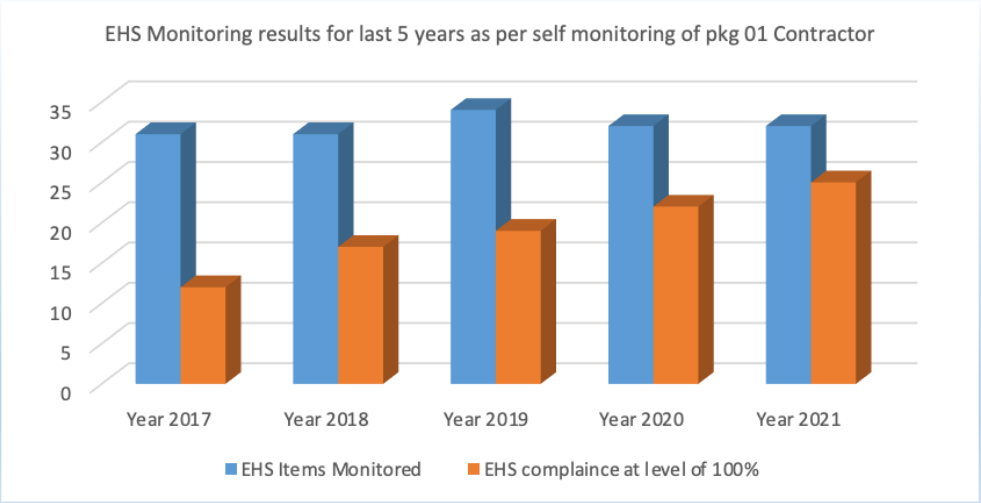


Figure 3: Scenario of EHS performance of Contractor of Package -01

4.10.2 Compliance Performance of Contractor of Package 02 As Per their Self-monitoring

The contractor of Package-02 also carries out their EHS monitoring as per the developed checklists on a twice-monthly (so-called bi-monthly Environmental Inspection report) basis and reports them to the DDCS&PMS Consultants. Based on their monitoring for various items as per the checklists, the EHS performance scenario for the last three years is shown in the following figure-2 (data sources: annual environmental audits). Other non-compliance issues were part of the Corrective Action Plan Contractor, who ensured the compliances.

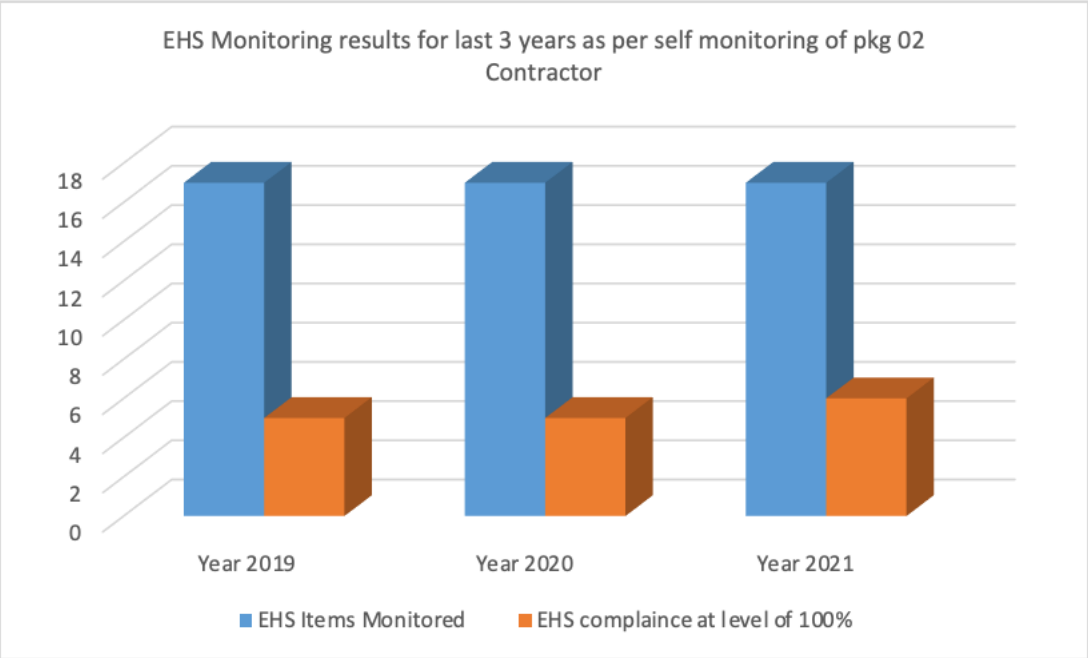


Figure 4: Scenario of EHS Performance of Contractor of Package-02

4.11 Grievance Redress Mechanism

Following is some of the environmental issues that we should give the nature of actual grievances registered by category and frequency could be the subject of grievances from the affected people, concerned public, construction workers, and civil society members:

- Construction-related activities include soil, water, dust, noise, and air pollution.
- Traffic movement and congestion.
- Lack of adequate safety in the construction areas and approach roads.
- Lack of water and sanitation facilities at the construction sites/camps.
- Waste disposal.
- Conflicts among construction workers and with the local community.
- Disturbances to flora and fauna, including crop damage.
- Failure to comply with standards or contractual obligations.

Membership of GRC

1. Executive Engineer (BWDB Division Office) : Convener
2. Representative of the RAP Implementing NGO : Member -Secretary
3. Local UP Member / Ward Council Member : Member
4. The teacher from the Local Educational Institution (nominated by Upazila Administration) : Member
5. A representative from Local Women's Group : Member
6. A representative from the PAP Group : Member

4.11.1 Grievance Redress Mechanism (GRM) for Package-01

There are 15 Grievance Redress Committees (GRC) at the local level for Package 01 out of the 15 GRCs required. These GRCs have been formed earlier at each Union of all Polders under Package 01 with the representatives of BWDB, Union Parishad, educational institute, PAPs, and DDCS&PMS Consultants. The Project's stated target is to resolve all cases within four weeks from the GRC receiving the complaint and resolve the issues locally.

The following figure (data source: MPRs of DDCS&PMS Consultant) reveals the year-wise status of the grievances. In the years 2017, 2018, 2019, 2020, and 2021 there were 134, 147, 151, 177, and 178 numbers of grievances, respectively, whereas pending grievances for them were 20, 0, 0, 0, and 1, respectively.

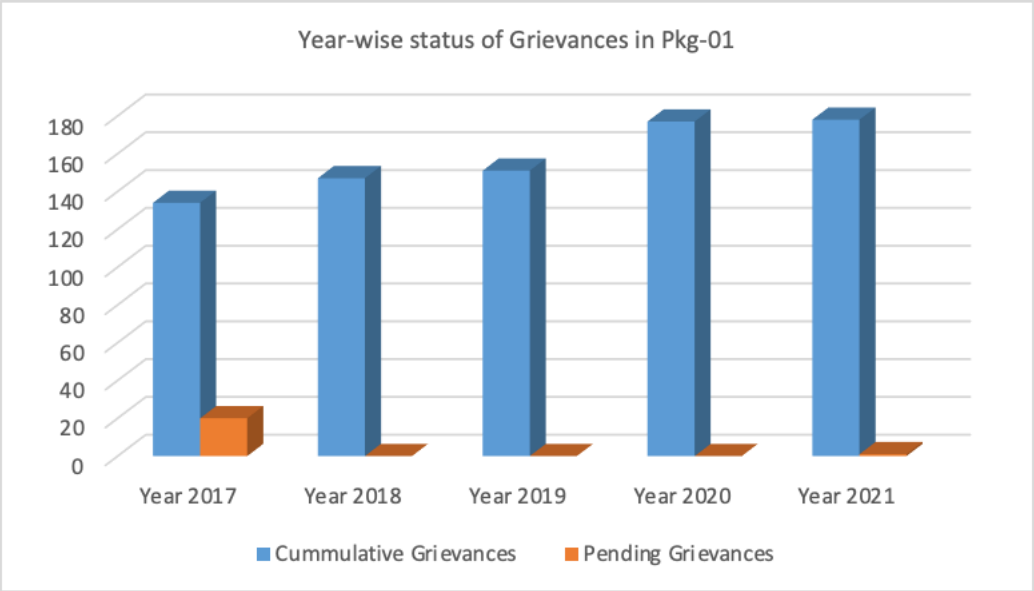


Figure 5: Year-wise status of grievances in Package-01 area

Though awareness raising of the GRM covers social and environmental concerns, no grievance has been explicitly registered to environmental issues till now. The environmental hazards caused during construction are minimized and localized, which local people tolerate as they consider the project to benefit them. The consultant has instructed the Contractor to avoid and mitigate even minor and localized pollution.

4.11.2 Grievance Redress Mechanism (GRM) for Package-02

Union-wise, GRCs were established between August and October 2017 in the Package 02 Polders (39/2C, 40/2, 41/1, 43/2C, 47/2, and 48). There are 21 Grievance Redress Committees (GRC) at the local level for Package-02 since this Package covers 21 unions. Grievance Redress Committees (GRC) have been formed earlier at each Union of all Polders under Package-2 with the representatives of BWDB, Union Parishad, educational institute, PAPs, and DDCSPMS Consultants. Efforts have been made to resolve all cases within four weeks of receiving the complaint and resolve it locally.

The following figure (data source: MPRs of DDCS&PMS Consultant) reveals the year-wise status of the grievances. In the years 2019, 2020, and 2021 there were 45, 51, and 51 numbers of grievances, respectively, whereas pending grievances for them were 20, 8, and 0, respectively.

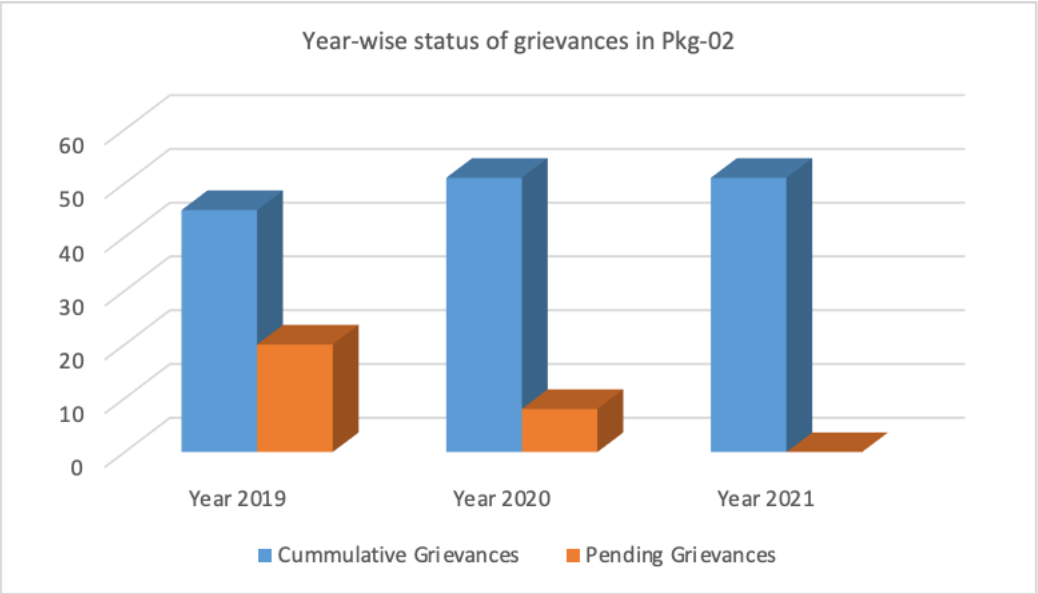


Figure 6: Year-wise status of grievances in Package-01 area

In Package 02 areas, no formal grievance has been explicitly registered regarding environmental issues till now. The environmental hazards caused during construction are minimized and localized, which local people tolerate as they consider the project to benefit them. The consultant has instructed the Contractor to avoid and mitigate even minor and localized pollution.

4.12 Monitoring Testing results

Testing of various parameters like water quality (surface and drinking), soil quality, and air quality is measured 2 times in a year. The Contractors of Package-01 and Package-02. Both Contractors of Package-1 and Package-2 have carried out the sample collection and testing and submitted the testing results by January 2022, covering the period of 2021. Samples were collected under the supervision of Consultancy Research & Testing Services (CRTS) of Khulna University of Engineering and Technology (KUET), and the tests were performed in their laboratory. The analysis of the test results is depicted below.

The testing results of different environmental parameters of Package-01 are summarized as follows:

Sl. No.	Type and nos. of Test	Parameters tested	Status on testing results	Comments
1.	Testing of Drinking water quality Total of 26 samples	Content of Arsenic, Iron, Chloride, Total Coliform and Fecal Coliform were tested	According to the test results all the 26 samples have been found acceptable to reference on Bangladesh Standard for Drinking Water (ECR 97) having the contents of all the parameters within permissible limit and all have zero contents of Arsenic.	The Contractor supplies bottled water (usually 20 liters per week) to the workers mainly
2.	Surface water and ground water quality Out of total 26 samples, 21 nos. collected from Khal's, 3 from ponds and 2 from rivers as per specification	Tests for pH, Turbidity, Total Dissolved Solid (TDS), Chloride, Electrical Conductivity (EC), Dissolved Oxygen (DO), Biological Oxygen Demand (BOD)	According to the test results, out of total 26 samples, 17 samples have all parameters within normal range of Bangladesh Standard for inland Surface Water (ECR 97). 9 samples contain slightly less Dissolved Oxygen.	
3	Soil quality analysis Total 24 samples	Test for soil pH, Chloride, Organic Matter, Nitrogen, Phosphorous, Potassium, Zinc and Sulphur	According to the test results, all have high contents of organic matter, and 5 nos. have very low contents of Nitrogen, 19 nos. have very low contents of Phosphorous and 3 nos. have very low contents of Zinc based on requirement for growing wetland rice crops. Contents of other soil nutrients have higher status for growing wetland rice crops of Bangladesh (FRG 2005)	For availability of Phosphorous. Nitrogen and Zinc farmers must be dependent on application of chemical fertilizers. However, application of organic sources of Phosphorous and Nitrogen would be preferable practice by the farmers, according to recommendations of DAE. For Zinc deficiency, Zinc fertilizers need to be applied after plot wise soil testing verification.
4.	Test of Air quality Total 18 samples	Test of air quality include contents of PM_{10}, $PM_{2.5}$, SO_2, NO_x, and CO	Out of total 18, 10 nos. of samples have Air quality Index (AQI) ratings good to moderate, having no health concern. 4 samples have higher contents of $PM_{2.5}$, 2 have higher contents of PM_{10} and NO_x and 2 have higher contents of $PM_{2.5}$, PM_{10} and NO_x, which have pollution concern to different degrees	The higher values of $PM_{2.5}$, PM_{10} and NO_x in the air contribute to air pollution and increased values of Air quality index affecting human health. But there is no evidence that these are caused by activities of CEIP-1. In Bangladeshi perspective air pollution due to higher value of $PM_{2.5}$ is a common occurrence. However, care is being taken, so that air pollution can be avoided/ minimized through the activities CEIP-1

Sl. No.	Type and nos. of Test	Parameters tested	Status on testing results	Comments
5.	Test of NoiseTotal 18 samples	Noise measures in dBA with noise meter CEM DT-8820	In Polder 32 noise level of all the 4 noise measurement levels are within permissible limit (60 dBA) of mixed area. In Polder 33 noise measurement levels of 3 locations out of total 4 are within permissible limit (60 dBA) and 1 has noise level of 61 dBA In Polder 35/1 noise level of 5 locations out of total 6 are within permissible limit (60 dBA) and 1 has noise level of 66 dBA In Polder 35/3 all the 4 noise measurement levels are within permissible limit (60 dBA) of mixed area.	The Contractor has arranged various safety measures for the workers in locations having higher noise values. In addition, workers have been made aware to be careful of working in high noise level areas.

The testing results of various Environmental parameters of Package-02 are summarized as follows:

Sl. No.	Type and nos. of Test	Parameters tested	Status on testing results	Comments
1.	Testing of Drinking water quality 25 nos. of test	Content of Arsenic, Iron, Chloride, Total Coliform, and Fecal Coliform were tested	According to the test results, all 25 samples have been found acceptable based on Bangladesh Standard for Drinking Water ECR 97) having the contents of all the parameters within permissible limit and have zero contents of Arsenic.	
2.	Surface water and ground water quality 38 nos. of tests (35 of surface water and 3 Hand tube wells)	Tests for pH, Turbidity, Total Dissolved Solid (TDS), Chloride, Electrical Conductivity (EC), Dissolved Oxygen (DO), Biological Oxygen Demand (BOD)	According to the test results all the 38 samples are within normal range of Bangladesh Standard for inland Surface Water (ECR 97)	Of the total 38 samples, 28 are Khal water, 7 are river water and 3 belong to HTWs (ground water) sources
3.	Soil quality analysis. 24 soil samples were collected for testing	Test for soil pH, Chloride, Organic Matter, Nitrogen, Phosphorous, Potassium, Zinc and Sulphur	According to the test results 23 samples of soils have very low contents of available Phosphorous and 3 samples have very low contents of available Nitrogen based on their requirement for growing of wetland rice crops. Contents of other soil nutrients indicate better availability for growing wetland rice crops of Bangladesh (FRG 2005)	For the availability of Phosphorous and Nitrogen, farmers must be dependent on the application of chemical fertilizers. However, the application of organic sources of Phosphorous and Nitrogen should be practiced by the farmers, according to the recommendations of DAE.
4.	Test of Air quality 23 air samples were collected for testing	Test of air quality include contents of PM_{10}, $PM_{2.5}$, SO_2, NO_x, and CO	According to the test results out of 23 locations, Air quality Index (AQI) 12 locations have ratings from good to moderate, having no health concern. 10 locations have higher $PM_{2.5}$ contents and 1 location had a higher value of NO_x according to Bangladesh ambient air quality standard (DOE 2005), that causes health hazard to some people	The higher values of $PM_{2.5}$ and NO_x in the air contribute to air pollution and rise of Air quality index affecting human health. But there is no evidence that these are caused by activities of CEIP-1. In Bangladeshi perspective air pollution due to higher value of $PM_{2.5}$ is a common

Sl. No.	Type and nos. of Test	Parameters tested	Status on testing results	Comments
				occurrence. However, care should be taken, so that air pollution can be avoided/ minimized through activities of CEIP-1
5.	Test for Noise in dB Total 60 samples for noise measurement	Noise levels of different working locations of 6 Polders have been measured against approved noise value for mixed which is 60 dB, the results have been shown in graphical presentation	For Polder 39/2C, Generator areas, stacking area, Workshop area have higher values of noise, whereas living area has noise value within permissible limit For Polder 40/1, Mixture machine has higher noise value, whereas living area, curing area, stacking areas have less noise values within permissible limit. For Polder 41/1, Mixture machine area has higher noise value, whereas living area, Workshop area, most of Curing areas have noise values within permissible limit For Polder 43/2C, stacking area, curing area and Mixture machine area have higher noise value, whereas living area and most of workshop areas have noise within permissible limit For Polder 47/2, Only Mixture machine has higher value, whereas stacking area, living area, curing area and Workshop areas have noise values within permissible limit. For Polder 48, Mixture machine and stacking area have higher values of noise, whereas living area, Workshop area and most of curing areas have noise values within permissible limit	The Contractor has arranged various safety measures for the workers in locations having higher noise values. In addition, workers have been made aware to be careful of working in high noise level areas.

4.13 Contractor's Emergency Response Plan

4.13.1 Package 01

The contractor of Package-01 developed an emergency response plan that is also a living document; it has been used by the Contractor of Package 01 continuously. The emergency response plan covers natural and artificial disasters, accidents, and injuries. As injuries/accidents have been experienced by the Contractor continuously (mostly minor accidents), the emergency response plan has been constantly utilized. Examples of this are the actions being taken for accident/injury victims, including the reporting or awareness raising by the Contractor among its staff members/workers regarding the preparedness measures for any anticipated disaster such as the Amphan cyclone in Bangladesh.

In addition, the contractor has prepared an Emergency Preparedness Plan (EPP), considering the COVID19 management based on the GOB/WHO/WB guidelines, submitted to WB, and cleared by the WB. The plan has been translated into Bengali and Chinese languages by the contractor. The audit revealed that the COVID-19 management plan is being implemented in day-to-day activities.

4.13.2 Package 02

Contractor 02 has also prepared its emergency plan, a comprehensive and good document that would allow the contractor to face various emergencies. The emergency response plan has also been used by the Contractor of Package 02 continuously. The emergency response plan of Contractor of Package 02 covers both natural and artificial disasters and accidents and injuries. As injuries/accidents have been experienced by the Contractor continuously (mostly minor accidents), the emergency response plan has been constantly utilized, similarly to what has been described above concerning Package 01.

In addition, an Emergency Preparedness Plan (EPP), considering the COVID19 management, has also been prepared by the contractor of Package 02 based on the GOB/WHO/WB guidelines submitted to WB. Hence, it was cleared by WB on 03 February 2021. The EPP has also been translated into Bangla and Chinese languages by the Contractor of Package 02, and they are implementing the COVID-19 plan in its day-to-day activities.

4.14 Decommissioning carried out by Contractor of Package 01

As activities of the Package 01 Contractor are at the ending stage, they have prepared a decommissioning plan which has been reviewed by the PMU and DDCS&PMS Consultants for finalization, and currently, this is being implemented. The implementation of the decommissioning plan is being monitored by PMU, DDCS&PMS Consultants, and Third-Party M&E Consultants.

4.15 Environmental staff resources

For implementation, supervision, and monitoring of EMP compliance, CEIP-1 has many International and Local EHS staff at the end of both Contractors, DDCS & PMS Consultants, PMU, and Third-Party M&E Consultants. The following figure(data source: Annual Environmental Audits of Third Party M&E Consultants) shows the year-wise numbers of EHS staff of CEIP-1. It is revealed that EHS staff were ramping up during 2016 and reached their peak in 2019 as works of both packages were in full operation. As the base environmental documents and monitoring systems and procedures were put in place by 2019, the number of EHS staff required dropped by a third starting in 2020.

4.16 Staff awareness and training

Since the mobilization of the Contractors of CEIP-1, they have conducted a robust EHS training program. The central topic covered by these training is Environmental Management in the CEIP-1; Environmental Health and Safety; COVID19 management; Environmental Monitoring; and reporting etc. Besides, the Environmental Specialists of PMU, DDCS&PMSC, and Third-Party M&E team also provided different training, including on-the-job training for the contractors during their combined/joint visits to work sites.

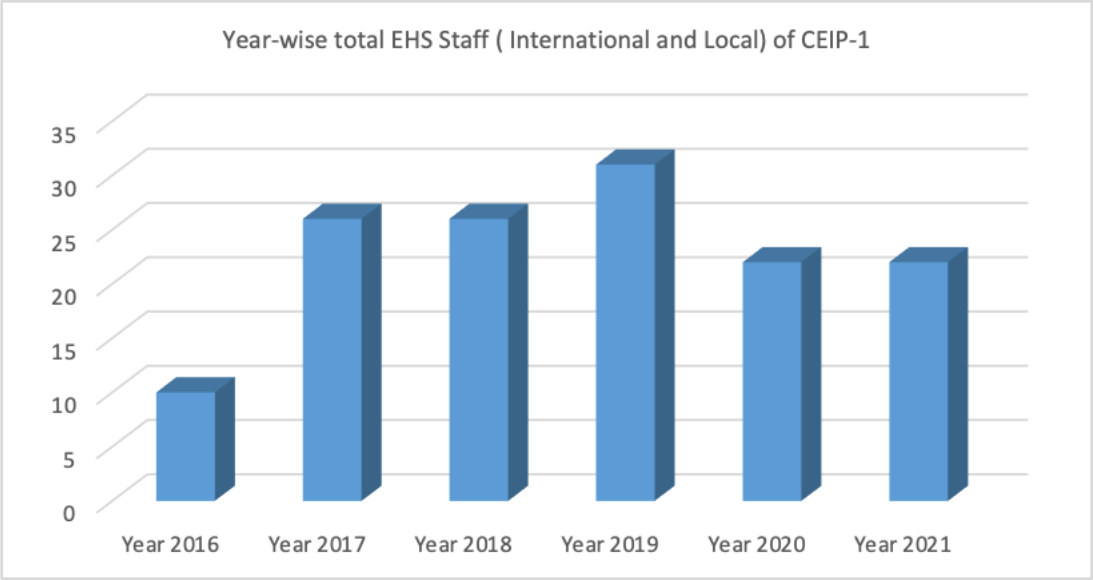
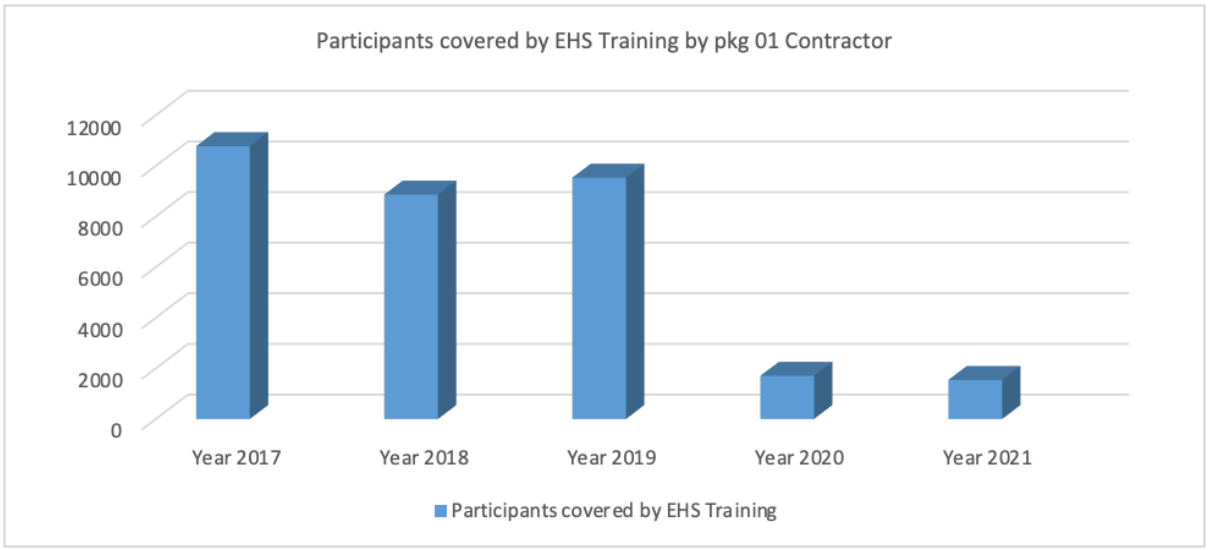
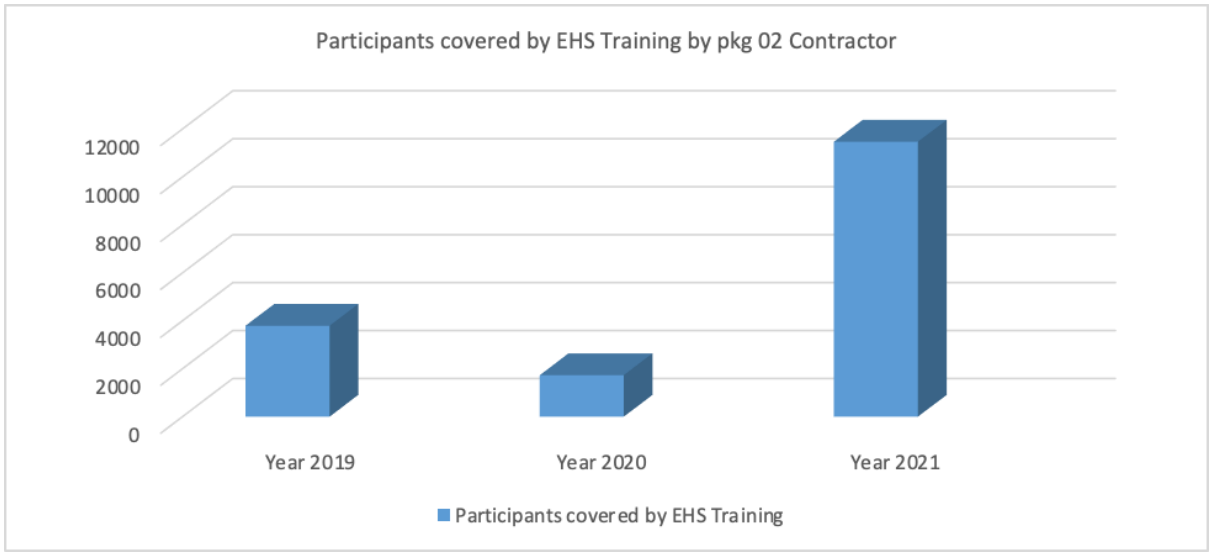


Figure 7: Year-wise nos. of EHS staff of CEIP-1

The following figure (Data source: Annual Environmental Audits of Third-Party M&E Consultants) represents the numbers of participants covered by Contractor of Package-01, allowing for multiple-counting wherein one person may have been trained more than once as would be the case for refresher training or training in additional topics. Figure-06 revealed, as would be expected, the number of participants trained in the early years of the works was substantial at over 8000 in each 2017, 2018 and 2019. There has been minimal training thereafter mainly covering any new staff.





The figure directly above (Data source: Annual Environmental Audits of Third-Party M&E Consultants) shows the numbers of participants covered by Contractor of Package-02, allowing for multiple-counting wherein one person may have been trained more than once as would be the case for refresher training or training in additional topics. EHS training has been much more intense in Package 02 than Package 01 and has reached a peak in 2021 of more than 10,000 participants.

4.17 Fish Conservation Initiative by Contractors

As per the contractual obligation of the Contractors of Package 01 and Package 02, they need to take measures for the conservation and stocking of threatened fish species in polder areas. Considering the work progress and completion period of activities of Package 01, the Contractor of Package 01 has made significant progress on fish conservation measures, and they have a robust plan to achieve before completing all other activities of their Package. The contractor of Package 02 has also planned to carry out such works, but this needs to be on the ground as soon as possible.

4.17.1 Fish Conservation Initiative by Contractor of Package 01

Contractor Package-1 has released a total of 20,000 fish fingerlings in suitable water bodies (Khals and Ponds) of 4 Polders under the guidance of the Fisheries. The department fingerlings species include Koi (Climbing perch), Shing (stinging catfish), and Kali baus (Calbasu). The fish fingerlings were released into suitable water bodies, which will be taken care of by the local WMO representatives for their growth and propagation. In addition, there is a proposal to release further 100,000 fingerlings in other suitable water bodies of 4 Polders of Package-1, CEIP-1.

4.17.2 Fish Conservation Initiative by Contractor of Package 02

The Contractor, Package-2, also has various activities related to farm survey and improvement of aquatic resources (mainly fish) within the Polder areas, according to the contract document. They have been instructed by PMU and DDCS&PMS Consultants to take the necessary step to carry out the works, which they agreed to start. However, considering the given situation, the Contractor of Package-02 is recommended to start fish conservation activities as soon as possible.

4.18 EMP Implementation Budget

As part of the implementation of EMP, approximately BDT 6 crore (about $750,000) is earmarked for each Package-01 and Package-02, though many more items for environmental monitoring and mitigation are included in Package-02. Expenditures are being incurred for:

- Emergency works for breach of the embankment and damaged structures.
- Crop compensation to the direct loser, landowner/sharecropper of construction site/ damaged due to dredging spoils.
- Waste disposal arrangement at a construction site.
- Water quality monitoring.
- Air and noise quality monitoring analysis;
- Soil and water salinity monitoring cost;
- Conservation and stocking of threatened fish species;
- Management of soil health by replacing agricultural land;
- Reducing erosion through proper compaction, turfing;
- Afforestation along the dyke side minimizes erosion and the threat of climatic events.

For Package 01, the total expenditure for EMP cost is Tk. 55,791,359out of a maximum budget of Tk. 60,200,000, meaning 92.70% of the total budget has been expended. This included the cost of works consisting of emergency breach closing, minor earthworks, compaction, and positioning of geo-bags (175 kg) and other items of EMP components in various stages of utilization. For Package 02, the total paid cost for EMP implementation is Tk. 2,115,728 out of a maximum budget of Tk. 64,364,491 amounting to 3.30% of the total budget. From discussion with the PMU, it has been revealed that one payment against EHS of items is being paid after a

long time. However, since there is a lack of EHS personnel at the polder level of each polder of Package02 and there are shortfalls in EHS compliance, the EHS-related payment needs to be made smoothly if the items comply with the contractual obligation of the Contractor of Package-02.

4.19 Coordination and collaboration to implement EMP

The EMPs of the project outlined the institutional arrangement to implement the environmental mitigation measures. In line with that, the EMPs suggested BWDB coordinate with relevant stakeholders such as PAPs, BIWTA, WMOs, FD, DoF, DoE, DAE, BADC, SRDI, LGED, BEDC DC DLS, LGI, and NGOs. The PMU and CEIP-1 should coordinate with all the stakeholders and agencies. The Project has a steering committee of persons from different agencies to facilitate this coordination. MoU has been made with the Department of Forest, and coordination has been made with the Department of Fisheries. PMU, with the help of DDSC &PMSC, identified the issues and the relevant agencies/ stakeholders for EMP implementation and continued coordination with them as applicable.

4.20 Polder-wise recommendations made on environmental issues by annual environmental audits.

Since the beginning of CEIP-1, thethird-Party M&E Consultants have carried out six Annual Environmental Audits. Each audit identified both the strengths and complained with the gaps in environmental requirements concluded with recommendations for the project. All the offers up to the fifth audit have been complied with by the project, and the guidance of the sixth audit is under implementation. The following figurerepresents the number of recommendations from the annual environmental audits.

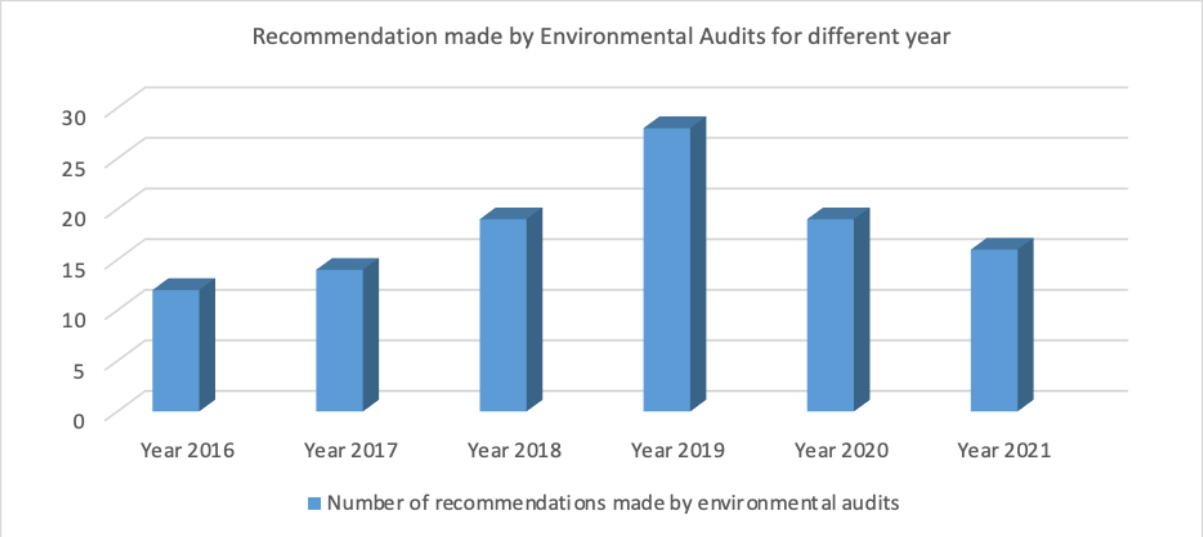


Figure 8: Year-wise recommendations of the audits

4.21 Positive Environmental Impacts from CEIP-1 activities

The physical work of polders 32, 33, 35/1, and 35/3 under Package-1 is almost complete. It is now observed that remarkable positive Environmental changes have taken place in the above polder area. We know Bangladesh is one of the world's most disaster-prone and climate-vulnerable countries, especially the package-1 area in the vicinity of the Bay of Bengal. The area was often subjected to natural disasters, which caused loss of lives and properties, and suffered from severe deterioration of agriculture due to saline water intrusion. These areas also experienced riverbank erosion, resulting in the loss of agricultural lands, lives, and other hazards. The successful implementation of the project through its intervention, such as

sustainable flood embankment, proper drainage structures, and good riverbank protection work, created an opportunity for an environmentally friendly,more productive, safe and disaster-resistant area. The area significantly improved agriculture production by reducing saline water intrusion and draining excess water. The riverbank protection work confirmed the protection of lives and properties of the local communities. The work method and mitigation/ enhancement measure also ensured the conservation of biodiversity of the area.

Interventions of CEIP-1 have been showing their impacts. Focus Group Discussions with community residents conducted recently by Third Party M&E Consultants revealed effects, that have already employed.Some of them are:

i. The intervention of CEIP-1 has increased are cropped. Earlier, embankment height was a bit low, and Rabi crops used to sustain damage due to overflow at high tide and from storm surges that discouraged farmers from cultivating in Rabi season. As the height of the embankment has increased, farmers are planting more land in Rabi, and it is further increasing gradually;

ii. Reduced saline intrusion in the soil led to the increase of cropped area in the Rabi season, and Soil salinity has been reducing gradually;

iii. Water management activities have been improved;

iv. In many cases, the water of the channel, which is surrounded by a pond for fish culture to help the farmer with cultivation in the rabi season.

4.22 A few lessons learned from the environmental safeguard aspect

- The fish conservation activities under package-01 were an excellent initiative to conserve the local fish biodiversity. This activity under package-02 should be started as soon as possible.

- The EMP budget expenditure for the package-02 contractor is deficient, which is also a root cause of poor environmental safeguard performance. This expenditure needs to be expedited.

4.23 Resettlement and Livelihoods

4.23.1 Package 01

A total of 80.74% of non-titled EPs have been compensated to date and 98.66% of these EPs have relocated so far. See the table below for details.

SN	Status of relocation	Resettlement Status					
		P-32	P-33	P-35/1	P-35/3	Total	%
1	Resettled on own land	680	723	635	136	2174	50.12
2	Resettledon purchased land	97	42	273	47	459	10.58
3	Resettledon other's land	246	173	214	65	698	16.09

4	ResettledTemporarily at nearby area/Govt. land	208	190	105	3	506	11.66
5	Market Resettled	6	0	21	17	44	1.01
6	Group Resettled	29	30	29	0	88	2.03
7	Wage Labor	23	14	88	12	137	3.16
8	Tenant	83	44	38	9	174	4.01
9	**Total Relocated**	**1372**	**1216**	**1403**	**289**	**4280**	**98.66**
10	Not yet Resettled	1	53	2	2	58	1.34

4.23.2 Package 02

A total of 54.28% of non-titled EPs (squatters) have been compensated and 91.21% of these EPs have relocated. This means 49.5% of total non-titled EPs (whether compensated or not) have relocated. There had been no progress for ten months of implementation of the RAP due to the COVID-19 outbreak, but this activity has resumed since October 2021. Moreover, no payment for tenants and wage laborers have been done yet.

SN	Status of Relocation	As of 31 March 2022							
		P-39/2C	P-40/2	P-41/1	P-43/2C	P-47/2	P-48	Total	%
1	Relocated on own land	0	532	230	270	98	322	1452	45.12%
2	Relocated on purchased land	0	46	65	29	5	130	275	8.55%
3	Relocated on other's land	0	170	60	98	3	120	451	14.01%
4	Relocated Temporarily at nearby area/Govt. land	0	185	104	58	49	208	604	18.77%
5	Market Relocation	0	0	0	0	0	0	0	0.00%
6	Group relocation	0	19	10	0	0	124	153	4.75%
7	Total Relocated	0	**952**	**469**	**455**	**155**	**904**	**2935**	**91.21%**
8	Not yet relocated	0	15	153	12	5	98	283	8.79%

4.24 Gender and Social Inclusion

4.24.1 Package 01

33 % of Executive Committeemembers of both WMA and WMG are women in all the polders of package 01. See the table below for details.

Polder No.	WMA			WMG		
	Total Nos of Member to EC	**Total Nos. of Women to EC**	**% of Women to EC**	**Total Nos of Member to EC**	**Total Nos. of Women to EC**	**% of Women to EC**
32	12	4	33.33%	180	60	33%
33	12	4	33.33%	192	64	33%
35/1	12	4	33.33%	**336**	**112**	**33%**
35/3	12	4	33.33%	144	47	33%
Total	**48**	**16**	**33%**	852	283	33%

4.24.2 Package 02

Between 32% and 35% ofExecutive committee members of both WMA and WMG are women in the polders of package 02. See the table below for details

Polder No.	WMA			WMG		
	Total Nos of Member to EC	**Total Nos. of Women to EC**	**% of Women to EC**	**Total Nos of Member to EC**	**Total Nos. of Women to EC**	**% of Women to EC**
39/2C	12	4	33.33%	204	65	32%
40/2	12	3	25.00%	168	58	35%
41/1	12	4	33.33%	168	57	34%
43/2C	12	4	33.33%	96	31	32%
47/2	12	4	33.33%	108	35	32%
48	12	4	33.33%	96	32	33%
Total	**72**	**23**	**31.94%**	840	278	33%

5 ChapterFive: Impact

5.1 CEIP-1 Mid-line Data Sampling Approach

Collected midline data for Package 01 and Package 02; the physical progress of the work of Package 01 is 97%, and Package 02 is 84%. To allow some point of comparison that would capture the influence of non-project factors (weather, agricultural policy, general economic condition, etc.). Focus Group Discussions (FGD) were conducted to collect data for the impact assessment of the CEIP-1 project.

5.2 Survey Development and FGD Execution

A “Checklist” was developed to conduct the FGDs based on project monitoring parameters and indicators. A checklist is essential to keep the enumerators on the right track and help them with any missing required information to collect. We finalized the date by consulting with WMA, WMG members, farmers, and upazila representatives of each of the Polders of Package 01 & 02.Polder maps and other necessary materials wereused during the conduct of the FGDs.10 to 15 participants were present for each FGD; the participants had good knowledge of physical works, hydrology, environment, agriculture, and overall CEIP-1 activities of the entire Polder.

The M&E Consultant introduced and explained the objectives of the consultation at the start of the FGD. During a discussion of the FGD with the participants, the M&E Consultant asked them about past cyclone disaster conditions such as SIDR, AILA, etc., after implementation of CEIP-1, such as the conditions of cyclone-affected disasters, changes in their livelihood, causes of change in their farming and livelihood, etc. Participants were requested to sketch or mark on the map the effect of damage, such as erosion, overtopping of the embankment, flooding, etc., to understand the severity of the damage caused by cyclones and high tidal surges. The M&E consultants guided the discussion with the participants based on the prepared checklist and took notes. The consultant kept a record after validating or confirming the participants if there was any disagreement on any information.

Impact Assessment after Implementation of CEIP-1

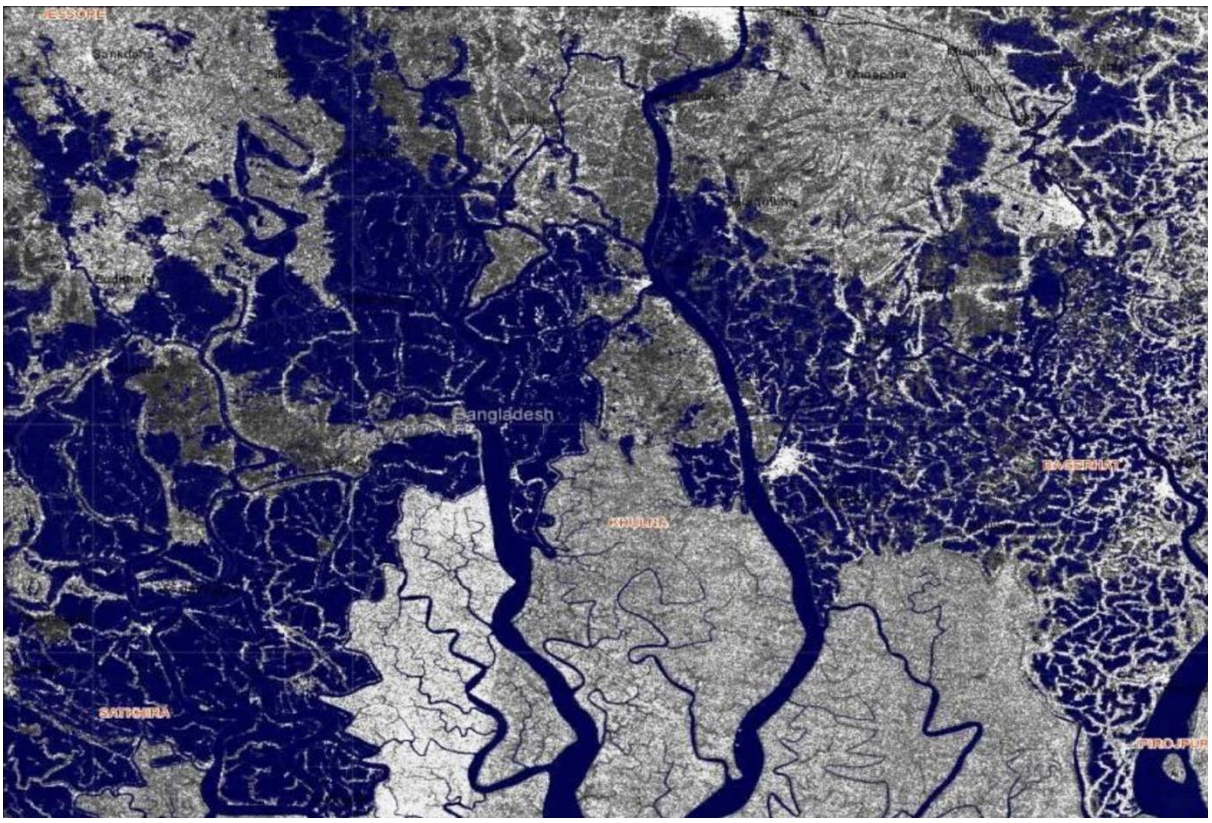


Photo: Flooded area in the Southwestern coastal zone as seen in satellite map after Aila hit the coast. The blue color shows the flooded area, and the map shows the situation on 30 May 2009. Satellite Data: COSMO-SkyMed © ASI 2009, Resolution: 30m, Map Production: ITHACA

5.3 Reduced Flooding Area of the Polders

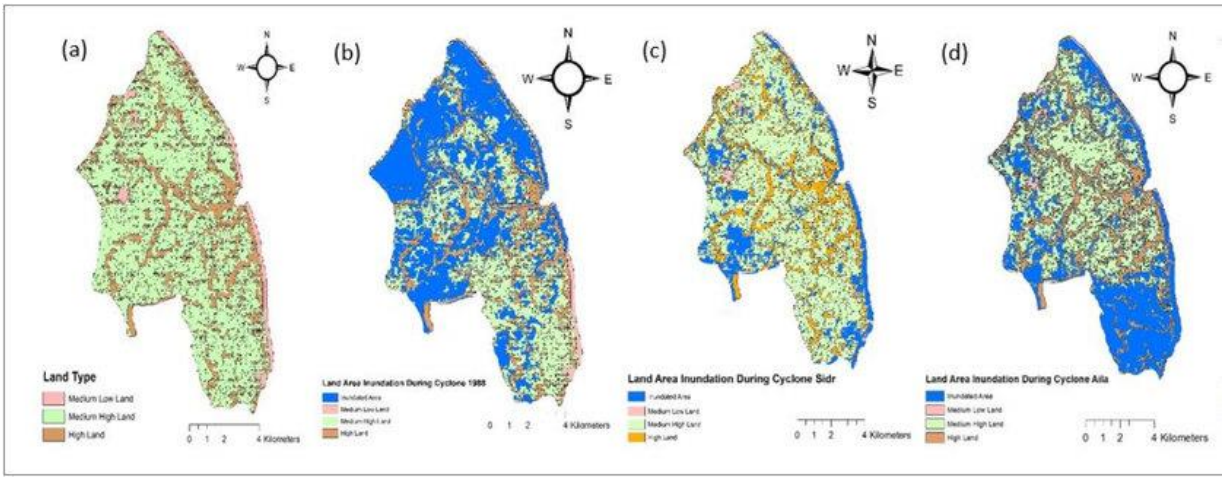
The flooding area of the polders has improved with the implementation of the projects as FGD's findings; there was no flood during Cyclone Yaas (May 2021), Ampahan (May 2020), and Bulbul (November 2019). On the other hand, before the project implementation, Cyclone SIDR, 25%-70% area of Package 01 and 60% - 90% area of Package 02 had been inundated, again during Aila, 20% - 85% area of Package 01 and 35% - 90% area of Package 02 had been flooded. The percentage of the flooding area of all polders of the CEIP-1 is presented in the tables below. We have the flooding area during the last 20 years of cyclones.

Table 3: Percentage of flooding area by cyclone, Package-1

Type	Polder 35/3	Polder 35/1	Polder 32	Polder 33
SIDR (year)	40-50	35-45	60-70	25 - 35
Aila (year)	30-40	45-55	80-85	20 - 30
Yaas: May 24-27, 2021	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0

Table 4: Percentage of flooding area by cyclone, Package-2

Disaster	Polder-41/1	Polder-40/2	Polder-47/2	Polder-43/2C	Polder-48
SIDR	60 - 70	60 - 70	60 - 70	80 - 90	10
Aila	90 - 95	35 - 40	40 - 50	50 - 60	0
Yaas: May 24-27, 2021	0	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0	0



Inundated areas due to storm surge flooding during the (b) Cyclone in 1988, (c) Cyclone Sadr, 2007, and (d) Cyclone Aila, 2009compared with the (a) inundation land types (source: Internet).

5.4 Reduced Overtopping of the Embankment of the Polders

The overtopping of the embankment of the polders has improved by the implementation of the project as FGD's findings; there was no overtop of the wall during Cyclone Yaas (May 2021), Ampahan (May 2020), and Bulbul (November 2019). On the other hand, before the project implementation, Cyclone SIDR, 10%-40% area of Package 01 and 17% - 35% area of Package 02 had been overtopped, again during Aila, 10% - 40% area of Package 01 and no place of Package 02 had been overtopped. The percentage of the overtopped embankment of all polders of the CEIP-1 is presented in the tables below. We have considered the flooding area during the last 20 years of cyclones.

Table 5: Percentage of over top of the embankment of the polders by cyclone, Package-1

Type of disaster	Polder 35/3	Polder 35/1	Polder 32	Polder 33
SIDR	15-25	10-20	30-40	10-15
Aila	10-15	10-20	30-40	10-15
Yaas: May 24-27, 2021	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	00	0

Table 6: Percentage overtopping of the embankment of the polders by cyclone, Package-2

Type of disaster	Polder- 41/1	Polder- 40/2	Polder- 47/2	Polder- 43/2C
SIDR	30 – 35	20	17	20
Aila	0	0	10	0
Yaas: May 24-27, 2021	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	00	0

Table 7: Percentage of flooding area of cyclones, package 1

Type of disaster	Polder 35/3	Polder 35/1	Polder 32	Polder 33
SIDR	40-50	35-45	60-70	25 - 35
Aila	30-40	45-55	80-85	20 - 30
Yaas: May 24-27, 2021	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0

Table 8: Percentage of flooding area of cyclones, package 2

Type of disaster	Polder- 41/1	Polder- 40/2	Polder- 47/2	Polder- 43/2C
SIDR	60 - 70	60 - 70	60 - 70	80 - 90
Aila	90 - 95	35 - 40	40 - 50	50 - 60
Yaas: May 24-27, 2021	0	0	0	0
Amphan: May 15-21, 2020	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0

5.5 Reduced Waterlogging (no. of the days) of the Polder

The waterlogged area of the polders has improved by the implementation of the project as FGD's findings; there was no waterlogged area of the polders of the embankment during Cyclone Yaas (May 2021), Ampahan (May 2020), and Bulbul (November 2019). On the other hand, before the project implementation, Cyclone SIDR, 10 – 200 days of Package 01 and 4 – 20 days of Package 02 had been waterlogged, again during Aila, ten days – 2 years of Package 01 and 2 – 8 days of Package 02 had been waterlogged. No of the days of waterlogged of all polders of the CEIP-1 are presented in the table belows. We have considered finding the flooding area during the last 20 years of cyclones.

Table 9: Nos of days of waterlogged area of the polder during cyclones, package 1

Type of disaster	Polder 35/3	Polder 35/1	Polder 32	Polder 33
SIDR	10 - 12	10 - 12	90 -100	180 - 200
Aila	15 - 20	4 - 5	700 -750	30 - 40
Amphan	4 - 5	0	storm only	0
Yaas: May 24-27, 2021	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0

Table 10: Nos of days of waterlogged area of the polder during cyclones, package 2

Disaster	Polder-41/1	Polder-40/2	Polder-47/2	Polder-43/2C	Polder-48
SIDR	7 – 8	2 – 3	15 - 20	6 - 7	4 - 5
Aila	7 – 8	5 – 7	2- 3	5 - 7	0
Amphan	0	0	0	0	0
Yaas: May 24-27, 2021	0	0	0	0	0
Bulbul:matmo: 28 Oct to Nov 11, 2019	0	0	0	0	0

5.6 Improved Drainage Condition of the Polder

The drainage conditions of the polders area have improved by the implementation of the project as for FGD's findings.There was a satisfactory level of drainage conditions of the polders area during Cyclone Yaas (May 2021), Ampahan (May 2020), and Bulbul (November 2019). On the other hand, before the project implementation, Cyclone SIDR, there were deplorable drainage conditions in Package 01, and there were deplorable drainage conditions in Package 02 as well, again during Aila, there were deplorable conditions of drainage conditions in Package 01 and Package 02. Drainage conditions in all polders of the CEIP-1 are presented in the table belows. We have considered the flooding area during the last 20 years of cyclones.

Table 11: Improving Drainage Condition of the Polders, Package-1 and 2

Disaster	Polder 35/3	Polder 35/1	Polder 32	Polder 33
SIDR	Very poor	Very poor	Very poor	Very poor
Aila	Very poor	Poor	Very poor	Poor
Amphan	Satisfactory	Poor	Poor	Satisfactory
Yaas: May 24-27, 2021	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Bulbul:matmo: 28 Oct to Nov 11, 2019	Satisfactory	Satisfactory	Satisfactory	Satisfactory

Disaster	Polder- 41/1	Polder- 40/2	Polder- 47/2	Polder- 43/2C	Polder- 48
SIDR	Very poor	Satisfactory	Poor	Very poor	Very poor
Aila	Very Poor	Poor	Poor	Poor	Very poor
Amphan	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Yaas: May 24-27, 2021	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Bulbul:matmo: 28 Oct to Nov 11, 2019	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory

5.7 Improvement of Salinity Intrusion within a couple of years

The soil salinity intrusion has been improving in the polder areas after the implementation of the project. It was impossible to cultivate any crop during the rabi season before the works of CEIP-1 were implemented.

Table 12: Reduction of Salinity Intrusion within a couple of years

Polder# 32	Soil salinity is reduced daily and by approximately 60 - 70% until the last dry season.
Polder# 33	Soil salinity is reduced daily and approximately 50- 60% until the last dry season.
Polder#35/3	No Rabi crop before the project started due to salinity. It is decreasing day by day. Soil salinity was reduced by 60% till the last dry season.
Polder# 35/1	Minimal Rabi crop before project start due to salinity. It is reducing daily, and soil salinity has been reduced by approximately 50 - 60% till the last dry season.
Polder# 40/2	Soil salinity is reducing day by day. Earlier, some 10 – 20% areas of the polder noticed saline effect during the dry season (late Rabi); now, 3 – 5% of sites have salinity problems in the Polder.
Polder# 41/1	Soil salinity is reducing day by day. Earlier, some 10 – 20% areas of the polder noticed a saline effect during the dry season (late Rabi), and now, there are no salinity problems in the Polder areas. The participants' perception is that salinity reduction is not due to project impact but natural.
Polder# 43/2C	Soil salinity is reducing day by day. Earlier, some 25% of areas of the polder noticed saline effect during the dry season (late Rabi), and now, 3 – 5% of sites have salinity problems in the Polder.
Polder# 47/2	Soil salinity is reducing day by day. Earlier, some 30% areas of the polder noticed saline effect during the dry season (late Rabi); now, 10 – 15% of sites have salinity problems in the Polder.
Polder# 48	Soil salinity is reducing day by day. Some 20% of the polder areas noticed a saline effect during the dry season (late Rabi); now, 8 - 10% of sites have salinity problems in the Polder.

5.8 Infrastructure Development of the Polders within a couple of years

5.8.1 Educational Institutes

There are educational institutes that have been established after the implementation of the CEIP-1. While these cannot be correlated to CEIP-1 interventions, they are potentially evidence of confidence in the stability of the embankments and the protection they offer. See the table belowfor number of educations institutes recently shown.

Table 13: Educational Institutes

Polder# 32	As a whole, 5% - 10% of educational institutes' structures have been improved during the last 3 - 4 years.
Polder# 33	In this Polder, structural improvement (Tin-shed to building) in almost 100% of educational Institutes has been made during the last 3 - 4 years. Besides, one new autistic school and one Madrasha have been established.
Polder#35/3	Three new primary schools, one new school for autistic children, and a new Madrasha have been established during the last 3 - 4 years. Besides, more than 90% of existing schools have been improved in terms of structural improvement, teaching facilities, and teaching systems.
Polder# 35/1	Construction of 1 primary school building and one college building (Matrivasha College, Dhansagar) have been done in the last 3 - 4 years. Besides, almost 100% of schools, colleges, and madrasahs had some improvement in classroom renovation and structural development.
Polder# 40/2	No new educational structure or structural improvement has been noticed or reported in this Polder by the FGD participants. **Note:** 5% of the tin-roof house have been modified into the building, and 30% tin made houses have been renovated during the last 3-4 years.
Polder# 41/1	In this Polder, structural improvement (Tin-shed to building) has been made in 6 educational Institutes during the last 3 - 4 years. Besides, two new primary schools have been established.
Polder# 43/2C	1 (one) new Technical School & College and 1 (One) new Madrasa have been established in the Polder area before 3 years. Besides, 70% – 80% of existing schools have been improved from tin structures to building in this Polder.
Polder# 47/2	No new school structure, but three new Madrasa have been established in this Polder during the last 3-4 years. But structural improvement has been noticed for one school in this Polder by the FGD participants.
Polder# 48	20 Madrasa and 1 Kindergarten school (at Purba Alipur) have been established in this Polder within 3 years. Besides, in 70% of educational institutes, structural improvement has been completed.

5.8.2 Growth Center, Weekly, and Daily Bazar

There are growth centers that have been established after the implementation of the CEIP-1; due to improvement of the polders' facilities. See the table belowwhich reports on the numbers of growth centers recently shown.

Table 14: Growth Center, Weekly, and Daily Bazar

Polder# 32	New structures (shops) and area expansion have been done in 9 Hats and Bazars. Besides, seven new Hats and five new Para (village) have been established.
Polder# 33	New structures (shops) and area expansion have been done in almost all Hats and Bazars. Besides, six new Hats have been established.
Polder#35/3	New structures (shops) and area expansion have been done in almost all Hats and Bazars. At Sannashir Bazar, a large open Tin-shed with a Pakka floor has been constructed by the LGED.
Polder# 35/1	New structures (shops) and area expansion have been done in almost all Hats and Bazars
Polder# 40/2	New structures (shops) have been increased by about 80% in almost all Hats and Bazars. Besides, one new Hat (Ram Bazar) has been established. Besides the growth center, some individual grocery shops have been found at the Para level.
Polder# 41/1	New structures (shops) have been increased by 40 -50% in almost all Hats and Bazars. Besides, one new Hat has been established. Besides the growth center, at the Para level, 1 – 2 individual grocery shops have been established.
Polder# 43/2C	New structures (shops) have been increased about 100% - 200% in almost 100% Hats and Bazars areas. Besides, 8 (Eight) new Hats (Sohari Taltola Bazar, Char Haridebpur Baburchi Bari Bazar, Sohari Bridge Bazar, Adam Bridge Bazar, Paschim Pol Bazar, Kalu Kha Bazar, Machir Sluice Bazar, and Giringi Bazar) has been established. Besides the growth center, some individual grocery shops have been found at the Para level. Note: In the Polder area, about 5% of houses have been converted into Building structures from Tin structure And about 0.5% of homesteads had new building structures as residences in the Polder areas.
Polder# 47/2	New structures (shops) have been increased by about 80% in almost all Hats and Bazars. Besides, one new Hat has been established.
Polder# 48	New structures (shops) have been increased by about 100 - 150% in almost all Hats and Bazars in the Polder. Besides, three new Growth Centers have been established in the Polder areas. Besides the growth center, some individual grocery shops have been found at the Para level during the last 3-4 years.

5.8.3 Road Network

Due to polders being functional, road communication has been improved after implementing the CEIP-1. See the table below.

Table 15: Road Network

Polder# 32	The Road network has been improved. Some new connecting rural road has been constructed.
Polder# 33	It improved the road network during the last 3 - 4 years in this Polder. Some new connecting roads (5% of the total road) have been constructed. About 10 - 15% of the route has converted into Pakka (Bituminous) road.
Polder#35/3	No new road is constructed, but the 3 km earthen road has improved to bituminous.
Polder# 35/1	The Road network has been improved. Carpeting works of about 6 km road has been going on Sannashir Launch Ghat to Palli-Mongal Bazar)
Polder# 40/2	It improved the road network during the last 3 - 4 years in this Polder. Some new rural connecting roads (a total of 5 – 7 km long) have been constructed. About 40 – 60 km long road has converted into Pakka (Bituminous) road during last 3-4 years.
Polder# 41/1	It improved the road network during the last 3 - 4 years in this Polder. Some new connecting roads (a total of 8 – 10 km long) have been constructed. About 15 – 20 km long road has converted into Pakka (Bituminous).
Polder# 43/2C	It Improved the road network during the last 3 - 4 years in this Polder areas. Some new rural connecting roads of 7 – 8 km have been constructed. About 5 – 7 km long road has been converted into Pakka (Bituminous) road, and about 7km long road has been converted into Haring bone road during last 3-4 years.
Polder# 47/2	No Improvement of road network during last 3 - 4 years in this Polder
Polder# 48	Road network has been Improved during the last 3 - 4 years in this Polder. About 7 – 8 km long new rural connecting roads have been constructed. Besides this, about 14.5 km long road has converted into Pakka (Bituminous) road during last 3-4 years.

5.8.4 Types of Vehicles

Since CEIP-1 intervention, motorized vehicles have increased inside the polders. While this cannot be provably attributed to CEIP-1, the improved security and improved ride-ability offered by the reconstructed embankments would clearly be a factor promoting economic activity and increased traffic. The table below shows the increased types of cars in the polders.

Movement of vehicle has been increased after complementation of embankment of the polders. Please see the table belowwhich estimates increased vehicle traffic by percentage.

Table 16: Types of Vehicles

Polder# 32	Increased Motorcycle 20% and Auto Riksa-van 10%
Polder# 33	Increased Motorcycle 25%, Easy Bike 20% and Auto Riksa-van 40%
Polder#35/3	Increased Motorcycle 10%, Easy Bike 20% and Auto Riksa-van 10%
Polder# 35/1	Increased Motorcycle 15%, Easy Bike 20% and Auto Riksa-van 15%
Polder# 40/2	Increased no. of Motorcycle about 100%, Easy Bike increased 1000%, i.e., ten times from original no at 3-4 years back. Battery Ricks 80 – 90%, no Nasimon – Karimon and manually driven Ricksa in this Polder.
Polder# 41/1	Increased Motorcycle 60 - 80%, Easy Bike 200 - 300%, Battery Ricksa 80 – 90% and Pick-up & Mahendra 10 – 15%. Sharp reduction of Nasimon – Karimon and manually driven Ricksa in the Polder areas.
Polder# 43/2C	Increased number. of Motorcycle about 100%, Easy Bike increased 200%. All Ricksa van has been converted into battery powered van for goods carrying No Nasimon – Karimon and manually driven Ricksa.
Polder# 47/2	Increased number of Motorcycle about 100%, Easy Bike increased 30%
Polder# 48	Increased no. of Motorcycle about 100%, Easy Bike increased 200 - 250%. Battery Ricksa & Auto-Van increased 100 – 150% and no Nasimon – Karimon and manually driven Ricksa.

5.8.5 Improvement Environment in the Last Couple of Years

The improvement of the Environment within 3 years in terms of the quality of surface water, safe drinking water, quality of groundwater, and fisheries diversity is shown in the table below.

Table 17: Percentage of polder having the qualitysurface water for irrigation

Polder name	**% of Polder Area Which are Water Bodies**	**% of surface water of good quality**
Polder# 32	15	60
Polder# 33	10	60
Polder# 35/1	15	80
Polder#35/3	20	100
Polder# 40/2	5 - 10	100
Polder# 41/1	5 - 10	100
Polder# 43/2C	5 - 10	100
Polder# 47/2	10	100
Polder# 48	20 - 30	100

Table 18: Percentage of the waterbody in the polder with fisheries diversity

Polder# 32	100% ponds and some water bodies are under fish culture which includes carps, tilapia, shrimp, Pangus, etc.
Polder# 33	100% ponds and some water bodies are under fish culture which includes carps, tilapia, shrimp, Pangus, etc.
Polder# 35/1	100% ponds and some water bodies are under fish culture which includes carps, tilapia, shrimp, Pangus, etc.
Polder#35/3	100% ponds and some water bodies are under fish culture which includes carps, tilapia, shrimp, Pangus, etc.Shrimp culture is more prevalent in this polder, about 50% more than other fish.
Polder# 40/2	80- 85% ponds and some water bodies are under fish culture which includes carps, tilapia, shrimp, Pangus, etc. In the interior waterbodies, species of natural fishes may be at risk due to pesticide use in crop fields.
Polder# 41/1	70 - 80% ponds and some water bodies are under fish culture which includes carps, tilapia, shrimp, Pangus, etc. In the interior waterbodies, species of natural fishes may be at risk due to pesticide use in crop fields.
Polder# 43/2C	90 - 95% ponds and some water bodies are under fish culture which includes carps, tilapia, Pangus, etc. In the interior waterbodies, species of natural fishes may be at risk due to pesticide use in crop fields.
Polder# 47/2	90 - 95% ponds and some water bodies are under fish culture which includes carps, tilapia, shrimp, Pangus, etc. In the interior waterbodies, species of natural fishes may be at risk due to pesticide use in crop fields.
Polder# 48	90 - 95% ponds and some water bodies are under fish culture which includes carps, tilapia, Pangus, etc. In the interior waterbodies, species of natural fishes may be at risk due to pesticide use in crop fields.

Some FGD photographs, Package-1& 2

A photograph during the FGD at Madardia, Polder-35/3, Package-1

A photograph during the FGD at sannasi bazar, Polder-35/1, Package-1

A photograph during the FGD at Haridebpur, Polder-43/2C, Package-2

A photograph during the FGD at UP Alipur, Polder-48, Package-2

6 ChapterSix: Issues and Recommendations

6.1 Key Recommendations

Specific key recommendations have emerged during the Mid-Term Evaluation based on the most critical issues identified and where substantial opportunities exist for improvement.

Overall, the CEIP-1 is delayed for about three years, Package 01 by three years, and Package 02 is two years. As per DDCS&PMS calculation, the work progress of Package 01 has been completed at 97.32, and Package 02 is 84.79% as of September 2022. The Mid-term Impact Assessment and Review Report have been prepared based on work done by both Packages of CEIP-1.

The recommendations have been developed based on FGD, spot checks on the ground, discussion with local stakeholders, data analysis, etc., to have the remaining works and tasks completed smoothly in CEIP-1 and to improve the implementation of future projects.

Polder Design

Design the polder with good run-off condition inside the polder area

Due to heavy rainfall, there is a tendency for waterlogging to occur inside many of the polders, damaging agricultural land. Good drainage is mandatory inside the polders in future projects.

Take special measures to protect the riverbank against erosion.

It has been found that riverbank erosion is a persistent problem in many polders, especially in Polder 32, and much money has been spent due to the riverbank erosion. Thus, a stable riverbank is essential to sustain the polder, and BWDB must consider a modern technique to prevent riverbank erosion; civil works are needed of course, but should be supplemented with such measures as planting mangroves.

Modern techniques to be used in Resettlement Action Plans and Land Acquisition Plans.

Using geo-referenced mouza maps had been included in the scope of works of DDCS&PMS to prepare the Land Acquisition Plan (LAP) and Resettlement Action Plan (RAP). Still, they didn't use a geo-reference mouza map, so it took time to prepare LAP and RAP. Drone images and geo-referenced mapping are the world's best practices for designing and then monitoring progress of LAP and RAP implementation.

Polder design should incorporate irrigation and drainage objectives.

While the principal objectives of CEIP-1 have been to protect the polders from flooding and salt-water intrusion resulting in increased cropping intensity, irrigation and drainage for crop production have not driven the design. Irrigation and drainage objectives may be elevated in future phases to provide an enhanced benefit stream.

Engineering

Abandoned hydraulic structures need to be demolished

Some of the abandoned hydraulic systems still need to be destroyed. These structures are non-functional – for example, having no flap gate, lift gate, etc. These abandoned structures should be eliminated immediately to protect the integrity of the embankment system.

Completed hydraulic structures need to be made fully functional.

In many places, hydraulic structures are reported as completed and need repairs, installation of missing parts, or adjustment. Missing features include missing hoisting systems, the missing wire, and the missing hand wheel. As for repairs and adjustments, some structures have damaged rubber seals, and the lift and flap gates need to be adjusted to function correctly. Given the short time remaining for the civil works contracts, immediate repair is necessary to ensure the proper functioning structures.

Construction faults like the clear cover were insufficient, and honeycomb and segregation were found.

Reinforcement bars of hydraulic structures are sometimes visible due to insufficient clear cover, honeycombing, and segregation in the hydraulic system. DDCS&PMS consultants must closely supervise the construction site and determine if corrective measures are required.

Some diversion canals of the hydraulic structures need to be re-excavated.

In some places, the diversion canal has become silted and narrow, and water is not passing through the canal properly. For the polder to function, the diversion canal must be re-excavated.

Embankment earthwork progress should be accelerated.

73.65% of earthwork has been completed as of September in Package 02. It would be challenging to achieve the earthwork in one dry season. So, land acquisition is needed before the start of the upcoming dry season.

Compaction of the embankment earthwork must be done as per specification, and during the compaction work, the Engineer must be present.

Compaction of earthwork of the embankment must be done as per the specification, such as the material or soil shall be placed as designed, paved evenly and smoothly, and the thickness of each layer and arrowhead of the clod’s diameter shall be ascertained in the site. The DDCS&PMS consultants supervise closely.

The slope's CC block has subsided in some places due to heavy rain and presumably inadequate slope compaction. To protect the polders' integrity, the embankment's pitch needs to be repaired.

Rain cuts of the embankment need to be repaired.

Due to heavy rain, rain cuts have been found in many places on the embankment site. These need to be repaired.

The drainage canal needs to be re-excavated as per specification due to siltation.

Water can't pass easily through the drainage canal. The cause of the slow movement of water through the channel is siltation, resulting in inadequate depth compared to specification.

Drainage canals must meet the specification to ensure sufficient water supply to the cropping areas.

Environmental Safeguards

During the construction work, the workers should maintain EHS measures.

The workers on the construction site don't use PPE all the time, and EHS measures are not consistently maintained though compliance is generally rated good. The Contractors should consistently enforce compliance, and the DDCS&PMS consultants should provide continuous feedback when lapses are observed.

Social Safeguards

The remaining compensation payment of land should be paid before the end of the project.

The land acquisition payment is 20.36% in Package 01 and 49.22% in Package 02, and the project has only 13 months as of November 2022. BWDB, DDCS&PMS, and the LAP team should work closely with DC office officials to find out the problem with the solution of the legal document of the landowner.

Compensation payment of land should be accelerated.

Progress of compensation payment of land 79.64% in Package 01 and 50.88% in Package 02 as of October 2022, and the project has remained 13 months more to do all compensation. DDCS&PMS consultant should take a crash program to finish the payment.

Legal advisers are needed for the titled EPs to prepare their papers to receive their compensation payment for each polder.

Some of the landowners in the project area don't have up-to-date documents or legal papers to get their compensation or don't know how to apply to receive their compensation payment. To solve this issue, a legal advisor may be arranged to help the titled EPs prepare their documents. This legal advisor may be either from each polder's DDCS&PMS team or NGOs.

Provide support for getting compensation payment for land from the DC Office.

There are many issues to paying compensation to the landowner of the project, such as the small amount of compensated money, court cases of ownership litigation, shortage of necessary documents of EPs, Scrutiny for vested property land, wakf land, etc. In this case, the titled EPs lose interest in receiving compensation. So, it is necessary to provide strong support for the titled EPs.

Need full-time consultants for the Resettlement Action Plan (RAP) and Land Acquisition Plan (LAP) required by DDCS&PMS and PMU side to mitigate current and future issues on RAP and LAP up to the end of the project.

Many issues will remain up to the project's end related to the Resettlement Action Plan and Land Acquisition plan. It needs a full-time consultant from the DDCS&PMS and the PMU side to solve all the remaining issues

Social Afforestation

Saline-tolerant tree needs to be planted.

It has been found mainly in Package 01; many trees didn't survive due to saline. So, more saline-tolerant trees should be planted in the remaining works and future projects.

Water-tolerant trees need to be planted.

Similarly, the early water-tolerant tree inside the polders didn't survive many places in both packages of CEIP-1. It is increased to plant water-tolerant in the next step.

More training is needed for the Social Forestry Group on the maintenance of trees.

The social forestry groups or beneficiaries aren't well-aware of their responsibilities in tree maintenance. Training has been done for the beneficiaries or groups about forestry. However, more exercise is needed and apprise them about their responsibilities.

Agricultural Aspects

A drone image may be used to find out Cropping Intensity. This would offer more precise information than the current approach of using satellite images.

Institutional Aspects

Water Management Organizations (WMO) need logistic support.

WMOs need logistic support, especially in office buildings with basic furniture. Water Management Organizations don't have an office to conduct organization activities, monthly meetings, take urgent decisions, etc. The members are becoming inactive. An office building with basic furniture and equipment is recommended to be an essential element in building a functioning WMO.

WMG and WMAs should be formed at the detailed design stage.

WMOs should be formed at the earlier stages, before the design completion, so stakeholders may be engaged and consulted in line with GoB policy and good international practice.

Increase subscription fees by the farmers to sustain the Water Management Association (WMA) and Water Management Group (WMG).

The collection of savings from the members is irregular, the amount of subscription fee is minimal, and most members are not interested in paying the subscription fee. WMA and WMG have no source of income other than subscription fees. Therefore, an awareness-raising campaign is needed to increase the subscription fee paid by farmers to sustain Water Management Associations (WMAs) and Water Management Groups (WMGs).

More Procurement Specialist support is needed.

The PMU employed only one Procurement Specialist to handle various procurement packages and staff replacement candidate evaluations. This has been an impossible task for a single individual resulting in long delays. In the future, it will be imperative to provide more than one senior Procurement Specialist or to support this professional with additional appropriately qualified staff.

6.2 Issues And Recommendations Log from QPRs

New Issues

Issue QPR28-X:

Status: Contract Amendments are pending for the Consultants and must be expedited to allow for required resources to continue to be committed.
Recommendation: PMU is already giving attention to this matter, but it may be expedited.

Issues from Prior Quarters

The issues from the prior Quarterly Progress Reports – whether red flag issues or otherwise – are summarized below along with the status of recommendations.

Issues	Recommendation in brief	Status Update	Follow-up Actions
From QPR27 (Apr-June 2022)			
Issue QPR27-1: Review of Replacement Candidates for Consultants is Much Delayed	Status: The Third Party M&E Consultants have not replaced any of their international personnel during the past seven years. However, in late 2020 and early 2021, it became necessary to propose the replacement of the Environmental Specialist and the Social Safeguards Specialist due to the impact of the risk of COVID on these senior staff. To date, there has been no decision on the CVs that have been submitted. Recommendation: PMU to expedite the review process.		
from QPR26 (Jan-Mar 2022)			
Issue QPR26-1: WMGs and WMAs Require Training on O&M Planning/ Budgeting	Status: The NGOs charged with the mobilization and formation of WMOs have generally fulfilled their mandates. They have also provided training to the WMOs in a variety of subjects ranging from Organizational Roles and Responsibilities (members and various committees), Participatory Water Management, Accounts Keeping and Audits, Gender and Leadership Development, Resource Mobilization, and Infrastructure O&M hands-on Training. NGOs had given theoretical training to the WMA and WMG because DS&FS was not completed during the training period. Recommendation: Without WMG-specific O&M plans, however, there will be limited success in sustainably managing the hydraulic structures, periodically re-excavating the khals, etc.		Re-fresh training is required to WMA and WMG.

Issues from QPR25 (Oct-Dec 2022)	Recommendation in brief	Status Update	Follow-up Actions
Issue QPR25-1: COVID-19 has proven to be unpredictable with both low and high infection rates due to the appearance of variants.	Status: Infection rates are highly variable. Recommendation: Contingency planning may be considered in case large numbers of staff and workers become infected. Staff replacement approvals may be expedited for the consultants and contractors so that individuals ready to work in-country under COVID uncertainties can be mobilized. Work-from-home may be considered where it is effective.	**In progress**	
Issue QPR25-2: Package 01 Group-Relocated PAPs Still Awaiting Promised Amenities	Status: There are seven group relocation sites in Package 01 for residents. PAPs have not yet received the access road, water tank and sanitary latrines that were to be provided by CEIP-1, despite having relocated since before 2020. For the 4 relocated markets, CEIP-1 was to provide a tubewell and sanitary latrines as well, but these are still awaited. PMU will be including an additional works package in the RDPP that is currently under development. The procurement of the new works contract is at risk of not being completed on time. Recommendation: Examine means to fast-track the procurement. Complete design work and bid documents in advance of tendering.	In Progress	
Issue QPR25-3: Contractors' Environmental Health and Safety Practices are Faltering	Status: Routine field visits by the M&E Consultants and the Annual Environmental Audit have found that environmental health and safety practices are not being complied consistently and have faltered compared to earlier years. This is especially evident in Package 02. Measures to limit COVID risk, use of PPE, use of flagmen, etc. are frequently not being implemented. Recommendation: DDCS&PMS Consultants tighten their oversight of the Contractors and issue non-compliance reports to ensure they take necessary corrective action. Contractor staff require effective re-training and senior management must direct their staff to comply with environmental		

Issues	Recommendation in brief	Status Update	Follow-up Actions
	safeguards.		
from QPR24			
Issue QPR24-1: **Non-titled EPs and possibly others are again encroaching on the newly completed embankments.**	Status: In many places of Polder 32, 33 and 35/1, squatters have been returning to the embankment and building structures and doing business. Some are causing damage to the embankments. Recommendation: BWDB should coordinate with local government to develop and implement the necessary actions to protect the integrity of the embankments.		BWDB should take necessary action.
Issue QPR24-2: **Qualification Level of Select Staff of Contractor**	Status: Contractor of Package 02 has deployed unqualified construction supervision positions. Recommendation: DDCS&PMS may be requested to check the Contactor's staff experience and qualifications as per their contract and/or assess the performance and take necessary action.		
Issue QPR24-3: **Some key international experts have not yet resumed travel**	Status: International key experts have not all resumed working physically in Bangladesh. Since the consulting work requires close coordination and has an element of capacity building, this is not ideal. Recommendation: With the wide availability of COVID vaccines, the Consultants and Contractors should mobilize staff to Bangladesh. PMU may request such mobilization.	**RESOLVED.** Many international experts have resumed their field inputs during the October-December 2021 quarter.	
from QPR23			

Issues	Recommendation in brief	Status Update	Follow-up Actions
Issue QPR23-1: Payment issue for LAP and RAP implementation in Package 01	Status: BDT 8.73 million for non-titled EPs, BDT 4.505 million for wage labor, BDT 6.432 million for Tenant, and BDT 7.5 million for group relocation have not been paid yet. Without these payments, civil works are being hampered and the social safeguard guidelines may be violated. Recommendation: Expedite payment and ensure payment is made before resettlement.	Partially RESOLVED RAP of Package 01 done, LAP of Package 01 almost done.	
Issue QPR23-2: Formation of WMA in Polder 43/2C and 47/2	Status: Formation of WMA in the polder 43/2C and 47/2 has not yet been achieved. Without WMA, sustainable polder functionality will be a major challenge, equity in water management is not likely and the agricultural benefits expected will not be achieved. Recommendation The NGO engaged for WMA formation in these two polders need to accelerate their work and consultations with local people to solve all the issues.	Partially RESOLVED all the WMA formation has been done, and three WMA 43/2C, 47/2, and 48) registration yet to be done.	
Issue QPR23-4: Afforestation disputes in Polder 32	Status: Secretary of WMA Polder 32 has asserted to the M&E Consultants that the Department of Forest (DoF) is planting low quality seedlings and in most of the places, no seedlings. Moreover, DoF is not paying the watchers properly. Recommendation PMU may request DoF to investigate and follow up.	Partially RESOLVED Due to the salinity of polder 32, surviving rate of the plant to low in polders 32, 33 and 33. DoF has replaced the survived plant.	
from QPR22			
Issue QPR 22-1: Additional Drainage Structure and Channels need to be Constructed	Status: Some structures of the polders have been taken up under AILA, like in polder 32 – DS 14. This DS with channel (Kamarkhola) are not included in CEIP-1. Due salinity, gate of Drainage Sluice is not being working properly (Shaft rod and rubber) and Kamarkhola channel has been silted up. Kamarkhola channel is one the main channel of this Union (Kamarkhola). Farmers have stated cultivation of watermelon and others crop in 2021, Rabi season, but, due to coming of saline water from DS 14, the local farmer has made cross dam over the channel and they did not get crops growth they expected.		

Issues	Recommendation in brief	Status Update	Follow-up Actions
	Recommendation: DDCS&PMS has to find out all the gates and channels, which Sluices have been taken up in AILA– repair all the gates and excavated all the channels before start next Kharif 1 season. It is noted that increasing cropping intensity is one the main objective of CEIP-1.		
Issue QPR 22-2: All the Drainage Channels need to be Excavated Immediately in Package 01	Status: Completion of construction of Embankment, Drainage and Flushing Sluice is critical. Local farmers are being not gotten proper benefit from project intervention. It has been found drainage channels are not sufficiently excavated and there is a shortage of water during cultivation of Rabi season. Recommendation: To achieve the project result of increased crop intensity, drainage channels excavation is essential. During cultivation of Rabi crop, drainage channel water has been used, also channels are used as water retention pond.	Partially RESOLED all the drainage channels in package 01 and 72% of works of package 02 have been done as per RDPP. For increasing cropping intensity, additional drainage channel excavation is demanded additional funding.	
Issue QPR 22-3: EHS practice is not being found in Package 01 & 02	Status: It has been found during field visit of M&E staff that Environmental Health Safety practices are not always followed and we have seen photos uploaded in WhatsApp – as part of our construction progress monitoring. Recommendation: It is recommended that EHS and COVID -19 guidelines must be maintained during construction of package 01 & 02. The DDCS&PMS Consultants to enforce.	As of December 2022, the compliance still needs improvement.	
from QPR21			
Issue QPR 21-1: The current CEIP-1 completion date of June 2022 will need to be extended.	Only 52.3% of the project budget has been expended as of 31 December 2020 – the original loan closing date and five years since notice to commence was issued for the first package. Given the slow rate of progress of works under Package 02, the need for additional Bank Protection Works and the delay in appointment of the CEIP-2 Feasibility Study Consultants, the current completion date of June 2022 will not provide adequate time to complete	**RESOLVED**	

Issues	Recommendation in brief	Status Update	Follow-up Actions
	the works and services.		
from QPR20			
Issue QPR20-1: Some Quality and Condition Issues Exist in the Construction Works of Package 1 & 2.	There are quality issues with some of the works. Due to excessive rain this year, many places of Package 1 & 2 have been found deteriorated where, for example, the top of the embankment is not in good shape and damaged, shaft rods are bent, etc. Further, undersized rods have been observed in several DS and FS and wheels of all sluices are oversized. The loose aprons of most of the sluices are damaged and existing slope protection works are also heavily damaged in some places. DDCS&PMS Consultants' team should perform a global check on the quality of construction works (condition assessment) and give a comprehensive report for recommendation of reconstruction.	Status as of 30 Jun 2021: 1. WMA members have told that both contractors are using sand instead of soil in many places of the embankment and put a thick cover of soils on top of the sand. 2. Many DS of polder 32 and 33 have been leaking and saline water coming inside the polder. Farmers have made cross dam over the channels to prevent saline water come to their field, crops like watermelon would be damaged. 3. During emergency works in P-32, it is reported that lower weight of geo-bags than specified are being used (source from WhatsApp group and WMA president informed over phone). RESOLVED Contractor has worked on the quality issues.	As of 30 Jun 2022: 1. A technical committee has also been formed for checking the engineering quality of polders, hence we recommend that the committee should do spot check on the embankment with respect to this WMA complaint.
from QPR19			
Issue QPR19-1: Attention Needs to be Focused on Actualizing Agricultural Benefit Stream where the DS&FS are operational	Five drainage sluices and ten flushing sluices in Package-01 have been theoretically operational for more than one year due to the physical works achievement and also the influence of local people but these DS & FS have not yet been handed over to BWDB and the WMOs are not yet functional. In addition, there are other newly constructed DS & FS that have problems with their gates. Physical works, institutional arrangements and extension support must all be in place to see increased agriculture cropping intensity – one of the key goals of the project and a key element in the economic justification of the investment.	Partially RESOLVED DS&FS are in operation, and the farmer benefits from the agriculture site.	

Issues	Recommendation in brief	Status Update	Follow-up Actions
	Generally, farmers are not being benefited yet with respect to cropping intensity in the polder area.		
Issue QPR19-2: COVID-19 Pandemic is a Continuing Risk to the Quality and Progress of Works	Progress of Package 1 and 2 was terribly slow during the March-June 2020 period and COVID-19 was a major factor. Progress was 2.84% and 1.53% respectively for the two packages in April-June 2020 quarter. Most of the foreign skilled labor are not present in the field area. Coronavirus is an unpredictable phenomenon and researchers cannot give any specific timeline for when a vaccine will be available. Travel restrictions and the need for social distancing mean that the both physical works progress and the level of supervision are being affected.	**In Progress** Pkg -1 contract has been extended up to 31 March 2022 Pkg-2 contract has been extended up to 30 June 2022	
from QPR18			
Issue QPR18-1: COVID-19 Pandemic Inhibits Field Visits and Physical Progress to Some Extent	Package 01 progress advanced from 81.51% complete on 31 December 2019 to 87.00% on 31 March 2019. With the public holiday in effect during part of March, all of April and now continuing into May, Package 01 progress advancing to completion by 30 June 2020 will be a bigger challenge than was already the case.	**PARTIALLY RESOLVED** Pkg -1 contract has been extended up to 30 March 2022 Pkg-2 contract has been extended up to 30 June 2022	
from QPR17			
Issue QPR17-2: Land Acquisition for Polder 35/1 Embankment Realignment is Stalled	Due to erosion of the river at Polder 35/1, the alignment of the embankment has been shifted, so a new 6.93 ha (1.8 kms) of land need to be acquired. The Consultant team has submitted the land acquisition proposal to DC office on 18 February 2019. For unknown reasons, the DC office has not yet sent the request to MoL for approval.	**RESOLVED** As of December 2021, the last request has been sent to MoL by the DC and the vast majority of land is already made available to BWDB.	
Issue QPR17-3:Public Awareness of Grievance Redress Mechanism Needs to be Enhanced	During the last 5 quarters for Package 02, no new grievances have been reported. This would be good news if there are actually no issues, however, this is highly unlikely as the construction work is going on and RAP and LAP are being implemented. During field visits of M&E team, it was found that most PAPs are not aware of the GRM or they may have	**NOT RESOLVED** The low level of grievances continues as of December 2021. While five grievances were lodged during the October-December 2021 period, there were no grievances lodged for the two years prior.	

Issues	Recommendation in brief	Status Update	Follow-up Actions
	forgotten because it has been a few years since the awareness raising campaign was done by the DDCS&PMS Consultant. Access to grievance redress is not only the right thing to have in place for the benefit of the project-affected persons and communities, it is a covenant of the loan agreement with the World Bank. Furthermore, such access benefits the project by bringing issues to the fore before they reach a crisis level or produce bad publicity that could in the most extreme cases halt the project altogether.		
Issue QPR17-4: Slow Formation of WMOs Will Adversely Impact Project Benefits	CEIP-1 seeks to provide coordination among the competing needs of various users and to ensure equity and sustainability by assigning operation and maintenance responsibility to the Water Management Groups (WMG) and polder-level Water Management Associations (WMA). As of 30 September 2020, 130 of 143 WMGs have been formed and 5 of 10 WMAs have been formed. There are several reasons including delays in mobilization, less experienced professionals or key staff vacancies, lack of support (or even opposition) from local community leaders and in some cases lack of the NGO's experience in consultancy work. Further delay of having trained WMOs in place will adversely affect the planned benefits from the project as effective water management must occur in parallel with the physical improvements that are put in place.	**PARTIALLY RESOLVED** (though lost time cannot be recovered) Formation of WMA target is being met and formation of WMG has seen a lot of progress as of September 2020. Now, as of December 2021, only two WMGs and one WMA remain to be formed.	
from QPR16			
Issue QPR16-1: NGO Package S01-C (Pirojpur District) and Package S01-E (Patuakhali District) - work progress is slow.	While the inception phase work has been done the tasks related to formation of WMOs have not sufficiently advanced. A revised realistic timetable for deliverables should be prepared within the original duration of the contract and the NGOs should commit to meet these new deadlines.	**RESOLVED**	
Issue QPR16-2: DDCS Key Staff Vacancies Are Likely to Impede Work	The RE of Package -1 has been absent for over a year, however RE of Package -2 is in place. The national Social Safeguard Specialist has also been absent for a long time.	**PARTIALLY RESOLVED** One RE is looking after both packages, given that Package 01 is winding down. The National Social Specialist position remains vacant.	
from QPR15			

Issues	Recommendation in brief	Status Update	Follow-up Actions
Issue QPR15-1: Communities Near Newly-Constructed Drainage Sluices that are In Operation Are Experiencing Problems	Five drainage sluices were visited in P-32 and 35/3 that have been completed and have been in operation now for nearly six months. At these locations, community members are report continuing salinity and/or waterlogging. The problem seems to be that the gates are not fully closing. While the problem appears physical, it may also be exacerbated by the lack of functioning WMGs. DDCS&PMS Consultants to check and have Contractor rectify.	**RESOLVED** all the DS of Package 01 are functional	
Issue QPR15-2: Long Term Monitoring Consultant's Progress is Weak	Consultant should accelerate and provide a revised realistic timetable for deliverables within the original duration of the contract and the Consultant should commit to meet these new deadlines. Phase 2 preparation will depend on the output from this Consultancy.	**NOT RESOLVED.** Action plans, detailed delivery plans and certain reports are past due. RESOLVED Draft report has submitted to PMU	
Issue QPR15-3: DDCS&PMS Consultants do not meet all tasks of LAP preparation as per contract	The Consultants should prepare a detailed action plan that is time-bound to meet the LAP-related part of their scope of work. LAP preparation generally involves the following: Multiple location-wise Land Management data; Digital representation of cadastral maps & revenue maps with the plot number; Central Repository of all the land related data, Owner details etc.; Pictorial representation of Land Map on Satellite image / Google map; Viewing of daily Land Acquisition status on color coded thematic map; Land Cost Estimation, Calculation & Payment to the Land owner; and others.	**PARTIALLY RESOLVED.** Progress in getting this started. **RESOLVED** Work progress is going smoothly.	
from QPR14			
Issue QPR14-1: Package 03 LAP/RAP will be obsolete unless the works are started promptly	▪ BWDB should take steps to get the works underway as soon as possible.	**IN PROCESS** While it has been decided that Package 3 will not be part of Phase 1, a project must be developed without delay. BWDB and World Bank have agreed to issue REOI in November 2019. RESOLVED	BWDB to take the lead.
from QPR13			
Issue QPR13-1: Decision is Needed on Project Restructuring and	▪ World Bank and BWDB to revise DPP and restructure the project as required	**RESOLVED** While it has been decided that Package 3 will not be part of Phase 1, additional funds are	

Issues	Recommendation in brief	Status Update	Follow-up Actions
Additional Financing if Pkg 02 Land Acquisition is to be Completed and Pkg 03 is to Proceed		still required to complete the land acquisition of Package 02. RDPP approved.	
from QPR12			
Issue QPR12-1: Package 02 Contractor physical progress is weak.	Resource-based detailed modular planning is required and Package 02 Contractor's senior management must continue to be engaged by DDCS&PMS Consultant and PMU.	**NOT YET RESOLVED** Current Progress of Pkg 02 Contractor's work stands at about 52.14% against the target of 67.09% as per the revised target **RESOLVED** As of 31 July 2022, Package 2 progress is 83.89	Close monitoring is needed from DDCS&PMS
Issue QPR12-2: Nalian Dam Work Is Now Urgent.	Pkg 01 Contractor has deferred work on Nalian Dam for two years. There is serious weakness in the ring dyke at the site of the Nalian Dam due to the hydrodynamic forces and its failure is increasingly likely. Construction cannot be deferred another year, without costly rehabilitation of the ring dyke to buy time so it should proceed immediately.	**RESOLVED** 90% of total work is done. Progress is slow. It should have been finished by June 2020	
from QPR9			
Issue QPR9-1: Functionality of PAVCs, PRACs and GRCs is At Risk.	Simply due to the lack of honoraria or allowance, committees that are critical to the Project are not well functioning and are at risk of losing the interest of participants. Participation in these committees represents additional duty and requires extra effort and expense for travel, which is not compensated. It is recommended that the BWDB and DDCS&PMS Consultants meet to devise a solution. The Consultants are responsible for RAP implementation, but the ToR does not specifically address this matter.	**RESOLVED** By default	1. PMU office has to create budget allocation for honoraria or allowance of all committees.
from QPR8			
Issue QPR8-1: Package 01 Work Program is not credible without the underpinning detail	DDCS&PMS Consultant to assist the Package 01 contractor to build up their resource-based work plan from detailed plans and then encourage the Contractor to use these plans to monitor progress and address delays on a weekly basis.	**RESOLVED, though level of detail could be improved.** Work Programme was submitted and subsequently accepted on 26 August 2018	
Issue QPR8-2: Package 02 EPs Awareness of RAP Provisions is Inadequate	The DDCS&PMS Consultant should appoint sufficient numbers of RAP team staff to Package 02 polders and ensure full coverage and disclosure of all the important information. The tools (such as Bengali language	**PARTIALLY RESOLVED.** FGD meetings have increased and compensation payments have begun	

Issues	Recommendation in brief	Status Update	Follow-up Actions
	pamphlets) have already been developed for Package 01, so this is simply a matter of staff allocation. Number of FGD meetings to be increased and held regularly during these months as release of compensation payments nears. Also, PRACs should be formed and made functional without delay.		
from QPR7			
Issue QPR7-1: Upcoming Absence of Supervision Consultant's Top Three Key Staff - Team Leader and Resident Engineers for Package 1 & 2	An interim Team Leader is currently in place, and the replacement has been accepted by World Bank and recommended to MoWR. RE for Package 01 and RE for Package 02 continue to be vacant. Qualified replacements must be identified and approved without delay.	**RESOLVED** DDCS&PMS Consultants proposed replacements for these three positions. All 3 (three) positions have been approved by competent authority. The new Team Leader joined, but RE did not join due to health reason.	Replacement staff have been approved and were in place. (However, see update in QPR#16.)
Issue QPR7-2: RAP Irregularities Have Been Alleged so Systems Must be Strengthened	The DDCS&PMS Consultant may look into the matter diligently and also make sure that systems and procedures of the RAP Implementation Consultants and DDCS&PMSC are strengthened for proper targeting, better oversight and greater transparency. For example: • EPs should receive advance notice of their compensation to be paid with detailed breakdown of the basis of calculating payment (square footage, type of structure, material of the structure, etc.); • The PAVC rates should be public knowledge and widely disseminated • EPs should continue to be clearly informed that they are not obligated to make any payment to FGD president or anyone else in order to receive their entitlement	**Status of Investigation – NOT KNOWN.** **Status of Improved Information Flows to EPs – NOT RESOLVED.**	May be investigated by DDCS&PMSC and system improvements enacted. Steps taken may be communicated.
from QPR6			
Issue QPR6-1: River Bank Protection Works Need Urgent Attention and Additional Resources	Some of these works are already foreseen and budgeted in Works Package 01, but additional BPW with estimated cost of about $80m are reported to be needed in the four polders as well. This has been subdivided into two roughly equal groups – those that are essential and those that would be useful. An economic analysis should be	**RESOLVED.** **Revised length is 4.25 km. 4.15 km is completed. Rest 0.1 km need to complete as early as possible**	Close monitoring is needed from DDCS&PMS

Issues	Recommendation in brief	Status Update	Follow-up Actions
	undertaken to examine best options/designs and value engineering done, source of funds to be arranged and procurement to proceed on an urgent basis.		
Issue QPR6-2: Engineer Needs to Deploy Additional Site Staff	With the signing of the works contract for Package W-02, the Engineer will need to deploy additional site staff in parallel with their mobilization. The DDCS&PMS Consultants have submitted a request for budget re-allocation for this purpose to the PMU.	**RESOLVED**	The DDCS&PMSC and PMU need to agree on the contractual aspects so that additional site staff can be deployed on time.
from QPR5			
Issue QPR5-1: Specifications Need Heightened Attention - In Particular Specifications 9.1 to 9.5 Dewatering of Subsurface and Surface Water	A dewatering plan needs to be developed based on know-how of the local conditions. Properly executed pumping tests and relevant geo-technical survey would provide such know-how which is needed in a timely fashion. The DDCS&PMSC may need to provide added attention and assistance to the Contractor to ensure compliance with specifications and timely completion of the foundation and other works before the monsoon.	**RESOLVED** While the first sand piling activities produced flooding of the excavated foundation of DS 1 of Polder 35/3, the DDCS&PMSC has worked closely with the Package 01Contractor to put in place a dewatering plan and also to undertake the needed surveys at all future DS sites.	To be monitored.
Issue QPR5-2: Better Planning to be Achieved in Work Program for Package 02	The DDCS&PMSC is to provide the Contractor with advice on time and equipment requirements of the aggregated work items. This information should form the basis for developing work break down structure and modular schedules for each of the BoQ items which could be aggregated as per the experiences under Works Package 01. Subsequently the Contractor is to subdivide works per polder into sections and develop work programs for each section. These sectional work programs would be aggregated to a realistic and final GCC 8.3 Programme. Next the work program should incorporate resettlement requirements and associated temporary hindrances. The work program should be prioritized accordingly and incorporating the schedules and risks of the resettlement program.	**PARTIALLY RESOLVED** Work Programme details submitted and reviewed by DDCS&PMSC.	Work breakdown structure for typical sections and items of work to be developed.
Issue QPR5-3: Embankment Seepage May Be Exacerbated by Adjacent Fish Ponds	The design should consider appropriate measures on the country side of the dyke if a pond has encroached near to the country side toe. This may include compaction and earthworks on the country side slope.	**RESOLVED** **No seepage found during later field visits.**	1. May be investigated by DDCS&PMSC 2. DDCS&PMS has to supervise closely.

Issues	Recommendation in brief	Status Update	Follow-up Actions
	In this way excessive seepage through the dyke is to be prevented.		
Issue QPR5-4: Review and Timeliness of Afforestation	The DDCS&PMSC should review the afforestation needs (there seems to be a potentially useful additional site in the vicinity of the cyclone shelter of polder 33). The NGO responsible for the afforestation effort under the project should be contracted as soon as possible.	**RESOLVED.** Agreements have been signed with BFD in some districts in late 2018. Plantation is going on and BFD has given plan for 2019-20.	CQS method of procurement is being used to expedite procure-ment of NGOs. Afforestation is being cut from TOR of NGOs and shifted to BFD.
Issue QPR5-5: Need for Project Implementation Manual / Updating and Completion of Method Statements	The contractor has provided a general description of methods on 22 April, 2016 but these do not reflect any re-survey. The method statement lists technical work steps but does not include aspects of measurements as basis for final billing. Further, method statements on dewatering, sand piling, sheet piling and other works have not yet been completed. The DDCS&PMSC should work with the Contractor to finalize method statements for the different works required. These statements should include methods of measurements as basis for billing and should identify work steps in a work break down structure. Overall method statements should be consolidated in a Contract specific (or overall) Project Implementation Manual.	**PARTIALLY RESOLVED**	
Issue QPR5-6: Micro-level Planning / Monitoring Requires Strengthening	Over time, micro-level planning in line with detailed work breakdown structures (WBS) would improve as experience would enhance knowledge of time requirements etc.	**NO EVIDENCE**	Contractors to prepare these plans with guidance of DDCS&PMS Consultants.
Issue QPR5-7: Early Prioritization of LA/Resettlement Concerns Is Needed	Certain cases of LA are more complicated due to various reasons such as lack of official title. The Consultants should review the time and effort required for processing particular LA/resettlement concerns and give early attention to those which proved most difficult to resolve in the past for.	**PARTIALLY RESOLVED** DDCS&PMS Consultant's RAP Team is adapting based on lessons, but a systematic review has not been provided.	
from QPR4			
Issue QPR4-1: Land Acquisition Cost Has Increased Dramatically	World Bank and GoB may consider and formally agree on the budget re-appropriation and financing to meet the increased land acquisition costs. The GoB has passed a law that compensation for land shall be at 3x market value, w.e.f. 01 July 2017. This will affect Package 02 cost.	**RESOLVED** The World Bank and GoB have agreed to re-structure CEIP-1 and provide the needed funds. RDPP approved.	Get approval for revised DPP and World Bank approval for restructuring that includes adequate resources for LA.

Issues	Recommendation in brief	Status Update	Follow-up Actions
Issue QPR4-2: Delay in Signing of Contract for Works Package 02	World Bank and GoB agree on way forward, given shortfall in land acquisition budget.	**RESOLVED** Notice of Award issued and contract signing proceeded with a proviso that full works on two polders will depend on obtaining LA financing.	
Issue QPR4-3: Relocation Planning and Assistance to be Improved	1. The DDCS&PMS Consultants (through their RAP team) should develop a tally of each and every PAH as to where they are moving, whether temporary or permanent, etc. and verify this information. 2. PRAC should begin to function immediately and be given an orientation by DDCS&PMS Consultants and PMU's Senior Social Specialist as to their mandate and operation guidelines and some logistic support provided so they can execute their responsibilities. Make sure that the PRAC for Package 02 is operational before the resettlement process advances to relocation stage. 3. DDSC&PMS Consultant and the PRACs should monitor and report any cases where squatters are having difficulty identifying a place to relocate. 4. EPs to be informed in advance of the total estimated amount of compensation they are to receive under the entitlement framework specified by the RAP and not left to guess how much they will get until the day they receive their check. Such advance information would allow the EPs to know how much they have to work with when looking for a new place to live. 5. Group relocation needs to come with civic amenities.	1. **RESOLVED** 2. **PARTIALLY RESOLVED as Package 01 PRACs have convened, yet functionality to be improved.** 3. **IN PROCESS** 4. **AGREED, BUT NOT YET IMPLEMENTED.** 5. **PARTIALLY RESOLVED** Group relocation area has been isolated due to access road in polder 32, 33, 35/1 in package 1 and 48 in package 2 Partially RESOLVED As of 30 June 2022	1. To be followed going forward 2. PRACs need to convene and some modest honorarium is required. 3. To be followed going forward 4. To be implemented by RAP Consultants and/or PMU and reported. 5. DDCS&PMS to take action to achieve their civic amenities.
Issue QPR4-4: Livelihood Restoration Program Needs Attention	There is no plan for the livelihood restoration program. The DDCS&PMSC should develop a training program and oversee its implementation. A needs assessment must be conducted of each PAH, taking into account their skills, resources, risk tolerance, desires and business/ livelihood opportunities at the sites/ locations where they are relocating. Then a relevant training program (having relevant tailored content, sequencing of a series of topics, and refresher trainings) must be developed and delivered with outcome-based targets. The training	**NOT RESOLVED** Based on assessment survey for livelihood by DDCS&PMS, PMU has prepared report on livelihood restoration and submitted to World Bank for review. The finding is 5% EPs livelihood have gone downward. In principle, PMU has agreed to pay to the effected EPs. RESOLVED As of 30 June 2022,	DDCS&PMSC to report on the actions it is taking. The Consultants are responsible for implementing the RAP and, per their TOR, the RAP includes "…[an] implementation schedule including timelines for land acquisition mile-stones, relocation and **livelihood restoration** of

Issues	Recommendation in brief	Status Update	Follow-up Actions
	should commence prior to relocation and continue afterwards.		PAPs…." PMU to take action.
Issue QPR4-5: PMU Team Needs Assistance	All the required PMU staff should be recruited.	**RESOLVED** 13 of 14 individual consultants for PMU are in place. In addition, Deputy PD has been recruited.	
Issue QPR4-6: Environmental Monitoring Capability Must be Strengthened Further	1. Environmental monitoring and mitigation training must involve a series of sessions. The training program must be developed and implemented without delay since the 2016/2017 construction season has commenced in late September. 2. As already recommended by the DDCS&PMS Consultants, the Contractor should appoint at least one Environmental Officer and polder-wise environmental monitors should be in place that carry no other responsibility.	**1. RESOLVED** The training program has not been laid out, though training is taking place. **2. PARTIALLY RESOLVED** One Environmental Officer has been appointed, but the polder-wise environmental staff carry additional (non-environmental) duties.	Training program (plan) to be outlined. Polder-level environmental staff to be monitored as to effectiveness. Though training is taking place which are on job but formal/ classroom-based training should be conducted both by the Environ-mental Specialists of DDCS&PMS Consultants & PMU.
Issue QPR4-7: Preparation of CEIP-Phase 2 Should Commence Soon Given the Serious Need	Since project preparation and appraisal takes a substantial amount of time and the need for embankment improvement in the coastal polders is apparent, it is recommended that the World Bank and GoB begin planning for the preparation of CEIP-2 as soon as practically possible.	**1.RESOLVED** The new Procurement Plan prepared in the quarter ending 31 March 2017 projects TOR preparation for August 2017. DDCS&PMS Consultants preparing background material for Phase 2. **2.PARTIALLY RESOLVED** Recruitment of Consulting service is under evaluation process – 3 firms have submitted the proposal	
from QPR3			
Issue QPR3-1: Security is a Growing Concern	The security situation in Bangladesh has not directly affected the works or services as of this time, but judgment and caution must be exercised for any travel within the country. Signage at campsites may be made inconspicuous. Consultants and Contractors may wish to develop and put in place a security plan for their Dhaka staff and field staff.	**RESOLVED for now, but CAUTION required.** The Contractor has actually suggested they wish to avoid erecting certain signboards at campsites so that the presence of foreigners is not so conspicuous. PD has written to the police in the project area and they have standing orders to accompany staff to the field when requested. The building in Dhaka where the DDCS&PMSC hold office has been guarded	Security risks should continue to be monitored as they could constrain field activities of international staff. Police guards at the Dhaka office of the Consultants should be maintained through 2017.

Issues	Recommendation in brief	Status Update	Follow-up Actions
		by armed police since August 2016.	
Issue QPR3-2: Equipment Mobilized on Contract W-01 is Inadequate	Given that the monsoon season precludes earthwork, the Contractor should use this season to fully equip its operation so that work can begin without delay and in earnest in October.	**RESOLVED.** UPDATE (30 Sep 2018): Due to the acceptance of the revised Work Program, the equipment in hand may well suffice.	If required, additional equipment should be procured or rented immediately.
from QPR2			
Issue QPR2-1: Overall Reporting System Needs Attention and Improvement	Reports should be submitted on time by all consultants, otherwise this consolidated report will be delayed or incomplete. It is essential that reports segregate current period accomplishments and activities from cumulative numbers and compare monthly/ quarterly progress against monthly/quarterly plans. Explanations of deviations from plan should be provided.	**RESOLVED.** The M&E Consultants and PMU have provided guidance on the content and presentation of reports and continue to work with the DDCS &PMS Consultants in a collegial manner. Report content continues to improve and is now at a very good standard. Reports continue to be late, however.	DDCS &PMS Consultant reports have improved in segregating activities and accomplishments by quarter, showing plans, being more succinct and graphic. Timeliness has improved since 2019.
Issue QPR2-2: DPP (GoB Authorizing Document) and Loan Agreement Amount Requires Amendment	The project is now estimated to cost more than planned due to a number of reasons – higher land acquisition costs, additional bank protection works, additional consultancy costs, and increased taxes. Also, the USD/SDR exchange rate has changed resulting in a budget shortfall of at least $27 million. A DPP revision should be prepared without delay capturing whatever changes are required utilizing savings from the elimination of package 03.	**RESOLVED** Final Revised DPP has been prepared and submitted to GoB in September 2020 that takes CEIP-1 through June 2022. It has been approved. Earlier, in September 2017, a proposal for DPP revision was prepared in and shared with the World Bank. It did not cover all cost increase areas, but focused on additional Bank Protection Works and increased Land Acquisition costs.	
Issue QPR2-3: JVS on Polder 35/1 and Land Valuation in Package 01 Appears Stalled	BWDB may request the DC to give priority to completing (i) the compensation rates for non-titled PAPs and thus enable updating of the RAP, payment calculations and issuance of checks by the PD, and (ii) the JVS of Polder 35/1.	**RESOLVED.** JVS for remaining section of Polder 35/1 completed in September 2016.	
Issue QPR2-4: There may not be a consistently systematic approach to document processing and control	Each survey or technical report needs submission through a formal process. Copy should be provided to IPOE and the M&E Consultant. A table of reports and review status should be provided by the DDCS&PMS Consultants at the end of every quarter.	**ESSENTIALLY RESOLVED.** Improvement is noted as technical reports are generally being submitted to PMU and M&E Consultant. A table of reports is being provided by DDCS&PMSC.	DDCS&PMSC will consistently follow the recommendation.
Issue QPR2-5: Measure of physical progress needs to be	Currently, the S-curve presented in the DDCS&PMSC reports shows cumulative physical progress (actual	**RESOLVED.** DDCS&PMS Consultant has prepared and adopted a	DDCS&PMSC to propose methodology and

Issues	Recommendation in brief	Status Update	Follow-up Actions
developed	versus planned) only in financial terms. De facto, this will always show physical progress ahead of financial disbursement and will not provide any alert as to potential cost overrun. A weighting of physical progress is required, building up from the BOQ elements and not directly related to the cost of these items. The DDCS&PMS Consultants to propose an approach and meet with PMU and M&E Consultants to discuss and finalize.	percent progress formula for embankment works that is based on physical works.	organize a meeting with PMU, IPOE and M&E to finalize the weighting of physical elements of the works.
Issue QPR2-6: Environmental Concerns may need attention – mitigation for fish migration	DDCS&PMSC to study the question and inform their plans for satisfying the require-ment for free passage of migrating fishes from three perspectives – 1) physical design; 2) construction work methods; 3) hydraulic structure operation guidelines. In addition, the question must be answered as to who (what agency) will practically ensure (and how) that fish spawning needs are looked after in the operational planning and decision-making with respect to water control structure operation.	**PARTIALLY RESOLVED.** M&E Consultants met with the Fisheries Expert of DDCS&PMSC to elaborate the concern and provide guidance.	DDCS&PMSC to explain options and make their recommendations to PMU. DDCS&PMSC and PMU to monitor the fish migration issues with the relevant structures from design level to construction level.
Issue QPR2-7: Periodic Environmental Reports Required	DDCS&PMS Consultants to prepare Environ-mental Compliance Monitoring Reports and quarterly, semi-annual and annual environmental reports. PMU to provide guidance on the content and format of these reports.	**RESOLVED.** PMU, M&E Consultants and World Bank have provided some guidance on the content of various environmental reports.	
Issue QPR2-8: Recently Procured Project Vehicles Have Not Been Assigned to the Field	It is observed that none of the 11 project vehicles recently procured by PMU and delivered to the project have been allocated to the field. While currently the vehicles provided by the Contractor for PMU field staff appear to be adequate, the works have barely gotten underway. Procurement of a few more vehicles is planned and it is recommended these vehicles be made available to the implementation staff in the field offices as the field work will soon intensify.	**RESOLVED.** Vehicle availability is assured. PMU in the field has been provided with 2 vehicles by the Contractor for Package 01, so there is sufficient transport available for the time being.	
Issue QPR2-9: Construction Supervision Systems to be Strengthened	Given the transition from Survey and Design Phase to Construction Supervision Phase, Construction Supervision Management Systems need to be put into place (or strengthened), including Quality Assurance System, Contract Supervision and Management, Daily Site Reporting Formats, Safety Manual, Safety training, Registration	**PARTIALLY RESOLVED.** DDCS&PMS Consultants continue to elaborate and improve their systems.	DDCS&PMS Consultants will report on the status of their systems by system element in their monthly and quarterly reports.

Issues	Recommendation in brief	Status Update	Follow-up Actions
	Formats for all Workers and ID system, Billing Formats and Procedures, Variation Management and Procedures, and training of DDCS& PMSC site supervisors and Contractor's Site Construction Managers, etc.		
Issue QPR2-10: Capacity Building and Independent Advice Needed for PMU/BWDB in FIDIC and Contract/Claims Management	The PMU staff, and BWDB more generally, are not conversant with FIDIC Conditions of Contract, Contract Management and Claims Avoidance/ Management. While Consultants have been hired to serve as Engineer, the Owner needs to understand the roles, authorities and responsibilities of each party in order to effectively manage the Project. Training may be provided and would be of great use given the upcoming award of two additional large construction contracts under CEIP-1. Currently, the PMU has no in-house expertise for advice on contract issues. With respect to advice on contract issues, the PMU should recruit an independent specialist for this purpose.	**PARTIALLY RESOLVED.** The World Bank, during its June 2016 mission, signaled its willingness to consider whatever support PMU might need. The WB provided an experience-sharing opportunity in the first week of October 2016 for the PD CEIP-1 with other PDs. Another FIDIC overview was offered by the WB in April 2018. The DDCS&PMSC who also has the responsibility to provide project management support to the Client may be tapped for some capacity building on-the-job. The M&E Consultants could provide such expertise, with an amendment to the ToR and resources.	PD to decide on appropriate option to pursue in consultation with the BWDB, Ministry and then World Bank.
from QPR1			
Issue QPR1-1: Physical Progress on Works Package W-01 is in danger of being delayed.	i. Contractor to hire equipment until their own equipment is available. ii. Administration of the works would best be managed polder-wise, meaning that a deputy PM or someone in authority should be posted at each polder to permit simultaneous works in four polders.	**i. RESOLVED** **ii. RESOLVED** i. The Contractor complied after delay and only after replacement of the PM. ii. Complied	DDCS&PMSC should continue to review adequacy of equipment available at site especially for Works Package 2.
Issue QPR1-2: Contractor for Works Package W-01 has a limited ability to communicate due to language barrier.	i. Contractor should bring in additional bilingual (Chinese-English) staff or make interpreters available. ii. The Contractor may also bring in a qualified Bengali sub-contractor to assist not only with works, but with communication and cultural understanding.	**i. RESOLVED** **ii. RESOLVED** i. Contractor has appointed interpreters to serve on each of the four polders. ii. Contractor has hired a Bangladeshi sub-contractor.	Consider requiring communication as an explicit part of bid requirement for Package 03.
Issue QPR1-3: Procurement of Works Contractors by ICB has failed to attract broad international interest	i. For future packages, the Pre-Qualification criteria should be reviewed and possibly adjusted (for example, to better specify the meaning of experience in similar projects to include physical, logistic and complexity aspects relevant to the Bangladesh coastal zone) and past performance references should be checked. ii. Exceptionally low-priced bids should be eliminated from consideration.	**i. RESOLVED.** **ii. NOT RESOLVED.** **iii. RESOLVED.** i. DDCS&PMSC have agreed to review for Package 3 works. ii. Pending, but may not be possible under procurement rules. iii. Discussed with World Bank and declined.	Procurement completed for all packages.

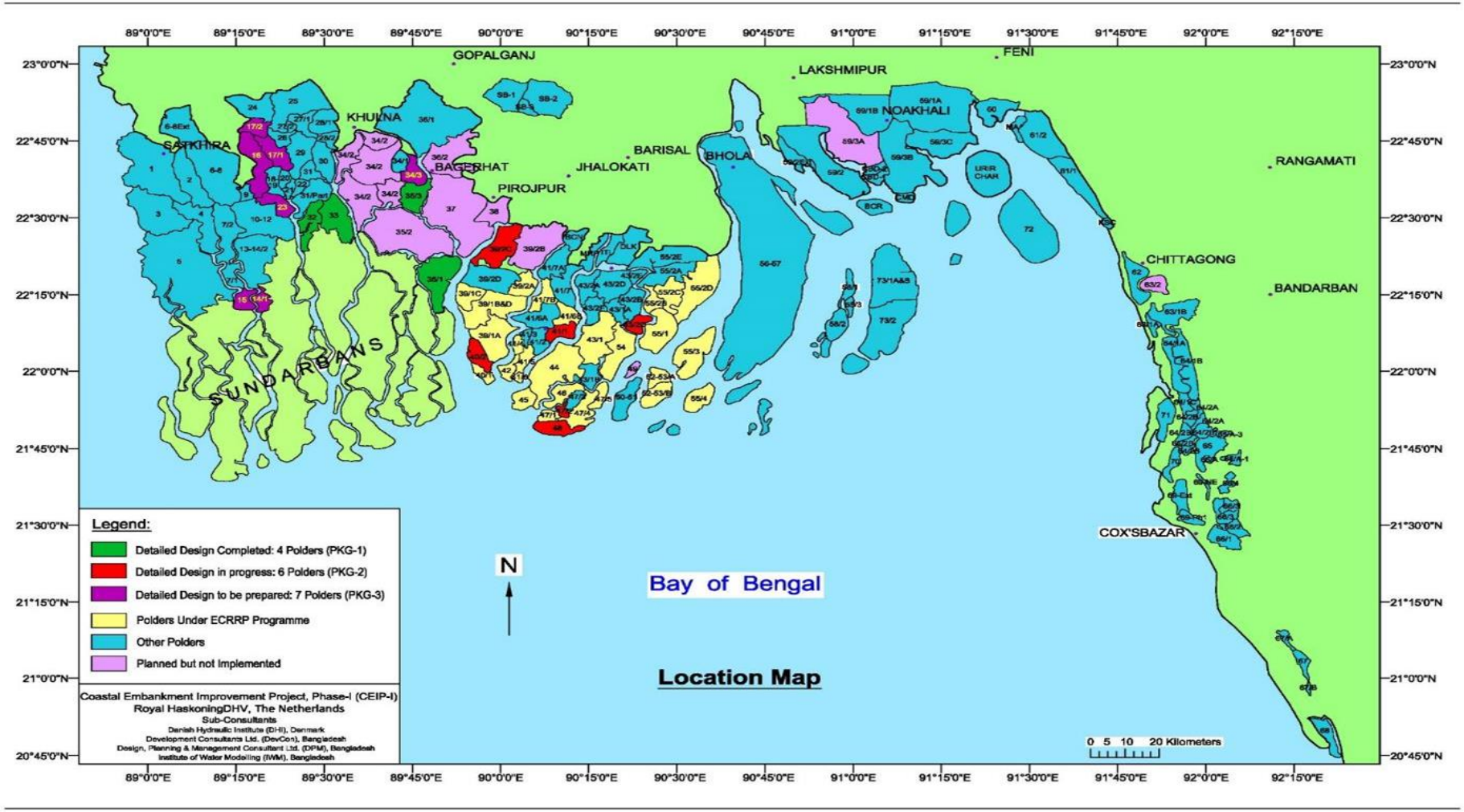
Issues	Recommendation in brief	Status Update	Follow-up Actions
	iii. Consider the option of issuing bid packages of 2-3 polders each for the remaining works.		
Issue QPR1-4: **LAP and RAP and the compensation payments must be expedited so that work sites can be handed over to the Contractor**	i. Appointment of PAVC members must be completed quickly. ii. PAVC must finalize the compensation rates for various types of losses without delay. iii. Handing over of the sites to the contractor should be done in sections as areas become fully unencumbered. The DDCS&PMSC/RAP Consultants will have to maintain a calendar projecting when certain sections of the embankments will be free of hindrances to allow the Contractor to plan their works.	**i. RESOLVED FOR PKG 01 and PKG 02** **ii. RESOLVED FOR PKG 01 and most of PKG 02** **iii. PARTIALLY RESOLVED** i. PAVC appointed for Package 01 in December 2015 and for Package 02 in 2017. ii. Rates for various assets set by PAVC. Land valuations are now done for Package 01 and for 4 polders of Pkg 02. iii. M&E Consultant has requested DSC for a detailed risk assessment approach. Accordingly, they have prepared a section-wise approach to construction planning. The DDCS &PMSC are to provide LA requirement details for each of the works items separately so as to better assess risks. **IN PROGRESS** Due to erosion in some places, new land must be acquired for retired embankments of Package 01. It will be a challenge to handover these 14.5 hectares of land to the contractor because compensation will have to be paid by DC office. RESOLVED As of 30 June 2022 RAP – PKG 01: Done LAP – PKG 01: Proper document of EPs payment done. RAP – PKG 2: Progress satisfactory LAP – PKG 2: Work in progress	PAVC members for Package 02 may be appointed and begin their work without delay. System for tracking unencumbered sections by way of a calendar yet to be developed. DDCS&PMS to take immediate action to achieve the target and PMU may follow up to DC office to get land before beginning of dry season 2019/20.
Issue QPR1-5: **Recruitment of NGOs and Additional PMU Staff is to be phased in during the next two quarters**	PMU to develop a time-bound plan for procurement/ recruitment of these consultants and services – e.g., IPOE, Afforestation/WMO NGO, Specialists for PMU field offices, FIDIC/Contracts Specialist, etc.	**RESOLVED** Recruitment and procurement process had taken much time. 13 of 14 individual consultants have been recruited. Deputy PD position vacant.	
Issue QPR1-6: **The M&E Consultants will be required to expend additional resources given the need for multiple baselines and large sample required**	The M&E Consultants to prepare a detailed justification for the additional resources required and submit to BWDB and World Bank for approval.	**RESOLVED** A preliminary draft justification has been shared with PMU, followed by a proposal. Finally, the M&E Consultants have managed to meet requirements within existing budget.	

Issues	Recommendation in brief	Status Update	Follow-up Actions
Issue QPR1-7: Reporting Formats of implementing partners do not consistently provide needed information	M&E Consultant will continue to work with the other consultants to develop a clear format for the reporting of all project inputs, processes and outputs.	**ESSENTIALLY RESOLVED** DDCS&PMSC have substantially and progressively improved their monthly progress reporting over time.	

ANNEXES

Annex 1 : Map of the Project Area
Annex 2 : Basic Characteristics of the Project Area
Annex 3 : Overview of PMU Staff
Annex 4 : Budget and Disbursements
Annex 5 : Procurement Status and Plans
Annex 6 : GAAP Report
Annex 7 : Key Performance Indicators and Targets as per PAD/DPP

Annex 1: Map of the Project Area



Annex 2: Basic Characteristics of the Project Polders as per PAD

Sl No.	Polder No,/ Polder Name	Location Thana	District	Gross Protected Area (HA)	Cultivable area (Ha)	Existing Project Feature				Av. Existing level of Embankment (m PWD)	Polder Population
						Embkt. (km)	Regulator (No)	Flushing Inlet (No)	Drainage Channel (km)		
1	14/1	Koyara	Khulna	2,933	2,350	30.50	4	-	30	3.75	20,578
2	15	Symnagor	Satkira	3,441	2,925	30.78	5	-	40	4.00	31,788
3	16	Paikgacha, Tala,Dumuria	Satkira, Khulna	10,445	8,102	45.00	12	31	21	3.00	118,616
4	17/1	Dumuria	Khulna	5,020	4,000	38.50	11	0	43	3.50	23,919
5	17/2	Dumuria	Khulna	3,400	2,700	11.00	6	0	21	3.50	34,070
6	23	Paikgacha	Khulna	5,910	4,872	37.00	11	39	36	3.30	23,888
7	32	Dacope	Khulna	8,097	6,500	49.50	16	35	45	3.75	38,397
8	33	Dacope	Khulna	8,600	7,600	52.50	13	19	100	3.80	62,305
9	34/3	Bagerhat	Bagerhat	3,656	2,930	16.75	3	6	35	2.80	65,399
10	35/1	Sharankhola, Morelgonj	Bagerhat	13,058	10,700	62.50	14	25	56	4.35	99,182
11	35/3	Bagerhat Sadar, Rampal	Bagerhat	6,790	5,090	40.05	4	11	75	2.70	31,075
12	39/2C	Matbaria, Bhandaria	Pirojpur	10,748	8,500	59.25	-	4	57	2.50	84,853
13	40/2	Pathargatha	Barguna	4,453	3,300	35.58	12	21	50	4.30	41,317
14	41/1	Barguna Sadar	Barguna	4,048	3,440	33.81	6	28	84	4.00	41,051
15	43/2C	Galachipa	Patuakhali	2,753	2,000	25.70	6	16	24	4.00	14,851
16	47/2	Kalapara	Patuakhali	2,065	1,850	17.55	3	6	30	4.25	5,411
17	48	Kalapara	Patuakhali	5,400	3,715	37.88	8	3	45	5.30	26,260
				100,817	**80,574**	**624**	**134**	**244**	**792**		**762,960**

Source: Project Appraisal Document 2013

Annex 3: Overview of PMU Staff

PMU Office Mobilization & Contact Numbers
PABX-9899320, 9899373
Fax: +88-02-9899325

PMU Staff

Sl	Designation	Name of Persons	First Mobilization Date	Mobile Number
1	Project Director	Syed Hasan Imam, PEng.	January 2021	01720 - 015064
	Project Director	Dr. Md. Mizanur Rahman	February 2020	
	Project Director	Mr. Akhil Kumar Biswas	20 Jan 20	01716-362472
	Project Director	Mr. Md. Habibur Rahman	29 Jan 18	01745-650854
	Project Director	Mr. Md. Delwar Hossain	09 Feb 16	01745-650854
	Project Director (former)	Mr. Md. Sarafat Hossain Khan	Nov 2013	01715-038519
2	Deputy Project Director			
5	Executive Engineer	Mohammad Samiul Hoque		0172-6233262
	Project Manager/Executive Engineer Khulna	Mr. Md. Abdul Hannan		01712-101250
6	Project Manager/Executive Engineer Bagerhat	Mr. Mashiur Rahman	Apr-Jun 2017	
7	Deputy Director (Accounts)	A.M.M Farid Uddin Chowdhury		01711-370421
	Additional Director (Account)	Mr. Md. Kabir Ahmed		01712-062333
8	Deputy Director (Audit)	Vacant		
	Sub Divisional Engineer (former)	Mr. Md. Safiqul Islam Sheikh		01734-601836
	Sub Divisional Engineer (former)	Mr. Md. Rezaul Karim		01868-555198
	Sub Divisional Engineer	Mr. Md. Abdullah Al Mamun		01727-002788 01715-145975
9	Assistant Engineer	Md. Salauddin		+88-029899373
	Assistant Engineer	Mr. Md. Samiul Hoque	01 Feb 16	0172-6233262
10	Assistant Engineer	Mr. Md. Mustafizur Rahman	10 Nov 16	0171-5418687
11	Sub Assistant Engineer	Md. Moyez Uddin		
	Sub Assistant Engineer (former)	Mr. Biplob Kumar Gun		01715-007621
12	Sub Assistant Engineer	Mr. Md. Kabirul Islam	16 Feb 14	01711-943281
13	Accountant	Mr. Md. Badarudduza	24 Mar 14	0174-9044491
14	Cashier	Mr. Md. Kajal Hawlader	27 Aug 15	0181-6223451
	Secretary	Ayesha Salam		01816-365597
15	Account Assistant	Mr. Swapan Kumar Sarker		_
16	Office Assistant Cum Computer	Md Bellal Hossain		+88-029899373
17	Office Assistant Cum Computer	Md. Jakaria Islam		_
18	Driver	Md. Rashedul Islam Rashed		_

Sl	Designation	Name of Persons	First Mobilization Date	Mobile Number
19	Driver	Anup sewli		_
20	Driver	Md. Sumon		_
21	M.L.S.S	Md. Mohiuddin		_
22	M.L.S.S	Shimul Islam		_
23	M.L.S.S	Md. Azad Ali		_
24	M.L.S.S	Md. Alhaj Sheikh		_
Certain vacancies to be filled once the work commences in Package 02 including the following for each Bagerhat and Barguna: Sub-Divisional Engineer, Assistant Engineer, Assistant Director, Deputy Assistant Engineer, Office Assistant cum Computer Operator and support staff.				
1	IPoE	Dr. Ainun Nishat	23 Mar 15	04478-444093 01819-228245
2	Procurement Specialist	Mr. A.K.M Bodruddoza	21 Nov 13	01718-666946
3	Procurement Panel Chairman (International 1)	Mr. Narayan Sharma	25 Nov 13	
4	Procurement Panel Expert (International 2)	Mr. I.A Khan Daniel Thirion	01 Apr 15 13 Apr 13	
5	Procurement Panel Expert (National)	Mr. Aminul Haque	25 Nov 13	01966-464646
6	Sr. Revenue Specialist	Mr. M. A. Saleque	12 Aug 14	01199-001112
7	Sr. Social Specialist	Mr. Mustafizur Rahman	07 Aug 17	
	Sr. Social Specialist	Mr. Hasanur Rahman	02 Oct 14	01712-780176
8	Financial Management Spec.	Mr. Michael Gomes	24 Apr 17	
	Financial Management Spec. (former)	Mr. Nasser Ahmed	02 Mar 15	01924-274567
9	Sr. Environmental Specialist	Dr. Ashadul Alam	13 Apr 15	01747-215770
10	Sr. Forestry Specialist	Mr. Md. Akbar Hossain	Jul 17	01711-543475
11	IPoE Social Expert	Dr. Hafiza Khatun	Jul 2017	0177-7817001
12	IPoE Panelists (3)	Vacant		
13	Communication Officer	Kamal Najmus Salehin	Jul 2018	

Annex 4 Project Input: Budget and Disbursements- September 2022

Annex 4.1: Financial Progress (Expenditures) – Capital Component of the 4th Quarter of the FY(2021-2022) [April-June 2022]

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All BDT in Lakh Taka ("00,000")

		Total Project		Planned for the current FY	Progress							Achieved (%) against	
	Major items of action				Cumulative up to Last FY	Q-1	Q-2	Q-3	Q-4	Current FY	Cumulative up to this Qtr.	Year's Plan	Project Target
		BDT	US$	BDT	BDT	BDT	BDT	BDT	BDT	BDT	BDT	%	%
1.	**Acquisition of Assets**	-	-	-			-	-	-	-	-	-	-
1.a	Equipment and goods under Comp. B, C, D (6800)	1,074.60	13,60,253	30.00	762.44	0.22	0.07			0.29	762.73	0.97%	70.98%
1.b	Afforestation	3,280.00	41,51,899	800.00	1,800.00	-	-			-	1,800.00	-	54.88%
2.	**Acquisition/Purchase of Land**	-	-	-			-	-	-	-	-	-	-
2.a	Acquisition of Land (544.16 ha)	35,866.70	4,54,00,886	2,300.00	28,832.57	1,468.47	4.16			1,472.63	30,305.20	64.03%	84.49%
3.	**Works Contract Packages 1 to 3**	-	-	-			-	-	-	-	-	-	-
3.a	Construction & Re-constructions of Drainage Structures (7041)	29,052.33	3,67,75,101	8,000.00	16,800.00	-	-			-	16,800.00	-	57.83%
3.b	Others (7081)	1,83,445.39	23,22,09,354	15,870.00	1,26,842.83		766.22			766.22	1,27,609.05	4.83%	69.56%
4.	**CD & SD**	20.00	25,316	-	-	-	-	-			-	-	-
	Sub-total Capital Component	**2,52,739.02**	**31,99,22,809**	**27,000.00**	**1,75,037.83**	**1,468.69**	**770.45**		**-**	**2,239.14**	**1,77,276.97**	**8.293%**	**70.14%**

Source: IMED-05 report December, 2020 of CEIP-I

Annex 4.2 Financial Progress (Expenditures)

All BDT in Lakh Taka ("00,000)

				Planned for the current FY	Progress / Achivement							Achieved (%) against	
	Major items of action	Total Project			Cumulative up to Last FY	Q-1	Q-2	Q-3	Q-4	Current FY	Cumulative up to this Qtr	Year's Plan	Project Target
		BDT	US$	BDT	BDT	BDT	BDT	BDT	BDT	BDT	BDT	%	%
1.	**Implementation of SAP and EMP**	-	-	-	-	-	-	-	-	-	-	-	-
1. a	Resettlement / Compensation Payments other than Land Acquisition	12,700.00	1,60,75,949	1000.00	10,408.32	16.82	181.75			198.57	10,606.89	19.86 %	83.52%
1. b	Consultancy service to ImnIcinent (a) Social afforestation;(6) social action plan (incl. setting up WMOs)	1,987.21	25,15,456	300.00	1,374.23	-	-			-	1,374.23	-	69.15%
2.	**Construction Supervision, M&E, Delta Monitoring**	-	-	-	-		-	-	-	-	-	-	-
2. a	Consultancy Services for Constructin Supervision & Detailed Engineering Design of remainining 12 Polder under CEIP, Phase-1	17,987.94	2,27,69,544	1847.00	15,430.06	-	161.25			161.25	15,591.31	8.73%	86.68%
2. b	Third Party Monitoring & Evaluation (M&E) of overall project implementation. RAP & EMP	3,479.77	44,04,772	500.00	2,822.15	-	-			-	2,822.15	-	81.10%
2. c	Consultancy Service for Long term monitoring, rescach of Bangladesh Coastal Zone	12,792.03	1,61,92,443	2000.00	8,561.67	-	202.50			202.50	8,764.17	10.13 %	68.51%
3.	**Project Management, TA, Training, Strategic Studies**	-	-		-		-	-	-	-	-	-	-
3. a	Project management support and audits	5,329.14	67,45,747	340.00	3,360.36	8.44	18.45			26.89	3,387.25	7.91%	63.56%
3. b	Consultancy Services for Institutional Capacity building, technical assistance and trainning to BWDB personnel	100.00	1,26,582	0.00	-	-	-			-	-	-	
3. c	Consultancy Services for Feasibility studies and preparation of design for the following Phases of CEIP	4,323.64	54,72,962	2000.00	1,631.38	-	-			-	1,631.38	-	
4.	**Overseas Training**	500.00	6,32,911	10.00	302.20	-	-			-	302.20	-	60.44%
5.	**Honourium/fees/Remuneration**	35.00	44,304	3.00	31.67	0.07	0.53			0.60	32.27	20.13 %	92.21%
	Sub-total Revenue Component	**59,234.73**	**7,49,80,670**	**8,000.00**	**43,922.05**	**25.34**	589.74			**589.81**	**44,511.86**	**7.37%**	**75.14%**

Source: IMED-05 report December, 2020 of CEIP-I

Annex 4: Project Input Procurement Status and Plans

Annex 5.1 Project Input Procurement Status and Plans – Services

At present there are 56 procurement items of service categories(Packages). Among them, 11 (eleven) consulting services has been planned to be contracted through firms and 45 consulting services would be recruited though individual consultant. "Procurement progress tracking" is discussed below separately: - firms and Individual Consultant (IC).

Consulting Service through Firm:Out of 11, nine (9) were contracted out and services are going on.The procurement of the services under Package No. CEIP-1/D3/S23 is ongoing. Package No. CEIP-1/D2/S22 would not be required. Detail procurement process statistics are shown in the Tables 5.1a.

Recruitment of Individual Consultant (IC):The recruitment of 23 (twenty three) Individual Consultants (IC) in different positions is being managed through 45 contract packages. Services of 27(twenty seven) Packages have been completed. Procurement process of 3 Packages was cancelled. 4 Packages (Package No..CEIP-1/D1/S17, Package No..CEIP-1/D1/S18, Package CEIP-1/D1/S24 and CEIP-1/D1/S25) have been dropped. Recruiting of 1 package is under process.Detailed procurement process statistics are shown in Table 5.1b.

Note: *Amounts shown below in USD converted as follows: 1 USD = 79 BDT and 1 Euro = 94.34 BDT.*

Table 5.1a: Procurement Process Tracking Report Consulting Services (Firms) as on 31 December 2022

A. Serial number 1 Package (CEIP-1/A2 & B1/S01) has been divided in 5 Sub-Packages and Procurement Method has been changed from QCBS to CQS (Selection Based of Consultant's Qualification). Details status of procurement of those sub-packages of Package 1 are as Follows:

Sl	1									
	1a		1b		1c		1d		1e	
Description of Services	Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan		Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan		Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan		Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan		Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan	
Package No	CEIP-1/A2 & B1/S1-A		CEIP-1/ B2,B3 & C1/S1-B		CEIP-I/ C2/S1-C		CEIP-1/ C3/S1-D		CEIP-1/ D2/S1-E	
Reference #	CEIP-1/A2 & B1/S1-A		CEIP-1/ B2,B3 & C1/S1-B		CEIP-I/ C2/S1-C		CEIP-1/ C3/S1-D		CEIP-1/ D2/S1-E	
Location / District	Khulna		Bagerhat		Pirojpur		Barguna		Patuakhali	
P.P. - Executing Agency:	2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB	
Method:	CQS (Consultant Qualifications Selection)		CQS (Consultant Qualifications Selection)		CQS (Consultant Qualifications Selection)		CQS (Consultant Qualifications Selection)		CQS (Consultant Qualifications Selection)	
Estimated / Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	
Amount in US$	531,232		619,489		459,287		457,830		398,992	
Preparation of ToR	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17	21-Aug-17
NOL on ToR & REoI	24-Aug-17	24-Aug-17	24-Aug-17	24-Aug-17	24-Aug-17	24-Aug-17	24-Aug-17	24-Aug-17	24-Aug-17	24-Aug-17
Approval on TOR and REOI	30-Aug-17	24-Sep-17	30-Aug-17	24-Sep-17	30-Aug-17	24-Sep-17	30-Aug-17	24-Sep-17	30-Aug-17	24-Sep-17
List of NGO from DC	14-Sep-17	02-Nov-17	14-Sep-17	12-Nov-17	14-Sep-17	04-Dec-17	14-Sep-17	01-Nov-17	14-Sep-17	03-Jan-18
Receipt of REoI	01-Oct-17	22-Nov-17	01-Oct-17	27-Dec-17	01-Oct-17	27-Dec-17	01-Oct-17	22-Oct-17	01-Oct-17	
Evaluation of EOI and Approval	31-Oct-17	Completed	31-Oct-17	Completed	31-Oct-17	Completed	31-Oct-17	18-Dec-18	31-Oct-17	18-Dec-18
Receive of Combined Proposal from 1st ranked NGO	07-Nov-17	RFP was issued and last date of proposal submission is 16-Aug-18.	07-Nov-17	RFP was issued and last date of proposal submission is 16-Aug-18	07-Nov-17	RFP was issued and last date of proposal submission is 16-Aug-18 See remarks	07-Nov-17	RFP was issued and last date of proposal submission is 02-Feb-19	07-Nov-17	RFP was issued and last date of proposal submission is 02-Feb-19
Negotiation	28-Nov-17	29-Oct-18 11-Nov-18	28-Nov-17	25-Oct-18	28-Nov-17	19-Nov-18	28-Nov-17	27-Mar-19	28-Nov-17	27-Mar-19
Notification of Intention of Award										
Contract Signature Date		24-Feb-19		24-Feb-19		24-Feb-19		2 May 2019		2 May 2019

Sl	1									
	1a		1b		1c		1d		1e	
Description of Services	Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan		Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan		Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan		Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan		Consultancy service to Implement (a) Social action plan (incl. setting up WMOs) (b) Social afforestation and c) Integrated Pest Management Plan	
Total days of Process (Bid Opening to Contract Signing Date)		192 days		192 days		192 days		259 days		259 days
Commencement of Services		18 Mar 19		18 Mar 19		18 Mar 19				
End of Contract (Completed)										
Remarks	1st Negotiation Meeting was held on 29 October 2018. 2nd one was held on 18 November 2018. Negotiation was successful. Purchase Proposal was sent to Ministry on 27 December 2018 for approval. Contract signed on February 24, 2019. The Consultant has commenced the services from March 18, 2019.		1st Negotiation Meeting was held on 29 October 2018. 2nd was held on 18 November 2018. Negotiation was successful. Purchase Proposal was sent to Ministry on 27 December 2018 for approval. Contract signed on February 24, 2019. The Consultant has commenced the services from March 18, 2019.		RFP was issued to the 1st ranked NGO. The last date of submission of proposal was 16-Aug-18. The 1st rank NGO didn't submit the Proposals. So, 2nd rank NGO was issued with the RFP on 25-09-18 with deadline for submission up to 21-10-18. The 2nd rank NGO submitted Proposals. Technical Proposal was evaluated and the TER was sent to Board on 31-10-2018 for approval. TER approved by DG, BWDB and subsequently negotiation was carried out by TEC with the 2nd rank NGO on 18-12-2018. Negotiation was successful. Financial Report and Draft Contract have been submitted to Board on 27 December 2018. Contract signed on February 24, 2019. The Consultant has commenced the services from March 18, 2019.		Only 2 (two) EoIs were received. As per World Bank's Guidelines for Procurement of Consultants, PEC recommended for cancellation of the existing process and to go for fresh invitation of REoI after obtaining additional list of effectual NGOs from DC, Barguna.. The NGOs that had submitted EoIs would be eligible for submission of fresh REoI. Additional list of NGOs was received form DC, Borguna. REoIs were issued to the listed NGOs on 23-10-2018 with deadline for submission of EoI is up to 15 November 2018. Within the deadline 4 (four) EoIs were received. EoIs were evaluated by the PEC on 18 December 2018. Evaluation Report along with the Draft RFP has been submitted to Board on 27 December 2018 for approval. Draft Contract signed on 08 April, 2019**. Contract signed on 02, May 2019. The Consultant commenced the services on 12 May 2019**		List of effective NGO received from DC Patuakhali but it contains only one (1) NGO. The DC Patuakhali was requested on 07 February 2018, to furnish required numbers of effective NGOs, but yet to be received. List of effectual NGOs was received form DC, Patuakhali. REoI was issued to the listed NGOs on 16-10-2018 with deadline for submission of EoI up to 08 November 2018. 4 (four) Nos. EoI were received within the deadline. EoIs were evaluated by the PEC on 18 December 2018. Evaluation Report along with the Draft RFP has been submitted to Board on 27 December 2018 for approval. Draft Contract signed on 08 April, 2019. **Contract signed on 02, May 2019. The Consultant commenced the services on 12 May 2019.**	

B. Details status of procurement of other Packages (Consulting Services - Firm) are as Follows:

Sl	2		3		4		5		6		7	
Description of Services	Consultancy Services for a) Construction Supervision & Detailed Engineering Design for remaining Polders, b) Preparation of EIA of remaining Polders and c) RAP		Third Party Monitoring & Evaluation (M&E) of overall project implementation, RAP, EIA and EMP		Consultancy Services for Long Term a Monitoring, Research and Analysis of Bangladesh Coastal Zone.		Consultancy Services for Institutional Capacity building, technical assistance and training to BWDB personnel		Consultancy Services for Feasibility studies and preparation of design for the following Phases of CEIP		Consultancy Services for conducting Internal Audit of CEIP-1	
Package No	CEIP-1/ B2,B3 & C1/S02		CEIP-I/ C2/S03		CEIP-1/ C3/S04		CEIP-1/ D2/S22		CEIP-1/ D3/S23		CEIP-1/ D1/S26	
Reference #	CEIP-1-6-SBC-CF-CEIP-1/ B2,B3 & C1/S02		CEIP-1-7-SBC-CF-CEIP-I/ C2/S03		CEIP-1-42--CF-CEIP-1/ C3/S04		CEIP-1-40-SBC-CF-CEIP-1/D2/S22		CEIP-1-41-SBC-CF-CEIP-1/D3/S23		CEIP-1/S26	
Location / District	Dhaka		Dhaka		Dhaka		Dhaka		Dhaka		Dhaka	
P.P. - Executing Agency:	2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB	
Method:	QBS		QBS				QBS		QBS		QCBS	
Estimated / Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Amount in US$	17,290,228	17,319,577	3,302,646	3,447,175	8,602,564		909,000		5,273,000		15,400.00	
Preparation of ToR		ToR was finalized		ToR was finalized		01-Jan-15	01-Aug-17	Dropped	01-Aug-17	28-May-19	10-Jun-19	10-Jun-19
NOL on ToR							20-Aug-17		20-Aug-17	11-Jun-19	25-Jul-19	25-Jul-19
Advertisement of EoI		19-Jul-13		19-Jul-13		05-May-15	24-Aug-17	N/A	24-Aug-17	31-Dec-19	05-Au-19	05-Aug-19
Receipt of REoI		22-Aug-13		22-Aug-13		22-Jun-15	25-Sep-17	N/A	25-Sep-17	30-Jan-20	26-Aug-19	26-Aug-19
Evaluation of REoI		Evaluation done		Evaluation done		Evaluation done		N/A		18-May-20	17-Oct-19	13-Oct-19
SL submitted to WB												23-Oct-19
Shortlist gets WB NOL						18-Nov-15						
Preparation of RFP and Short List	20-Jan-14	15-Dec-13	06-Jan-14	15-Dec-13	30-Oct-14		30-Nov-17		30-Nov-17			
No Objection to RFP and Short List	03-Feb-14	28-Jan-14	03-Feb-14	20-Feb-14	20-Nov-14		14-Dec-17		14-Dec-17			
Issuance of RFP	27-Feb-14	19-Feb-14	27-Feb-14	26-Feb-14	30-Nov-14	19-Nov-15	18-Dec-17	N/A	18-Dec-17	28-Jun-20		11-Nov-19
Deadline for proposals & Bid Opening	17-Apr-14	17-Apr-14	12-May-14	08-May-14	29-Jan-15	28-Dec-15	29-Jan-18		29-Jan-18	29-Jul-20		
Technical Evaluation	19-May-14	Evaluation done	30-Jun-14	Evaluation done	31-Mar-15	31-Dec-15	26-Feb-18	N/A	26-Feb-18	15-Aug-2020		02-Mar-20
Technical Evaluation Report submitted to WB				Dec-14			26-Feb-18		26-Feb-18	27-Aug-2020		
No Objection to Technical Evaluation	09-Jun-14		21-Jul-14	Jan-15	30-Apr-15	03-Mar-16	12-Mar-18		12-Mar-18	14-Sep-2020		
Financial proposal opening				05-Apr-15		17-Apr-16	25-Mar-18		25-Mar-18	04-Oct-2020		28-June-2020
Financial evaluation and combined Tech/Fin evaluation report completed							09-Apl 18		09-Apl 18	NA		02-Jul-2020
Combined Evaluation Report submitted to WB							10- Apl-18		10- Apl-18	NA		NA
WB gives NOL on combined evaluation							24- Apl- 18		24- Apl- 18	NA		NA
Final Evaluation and Negotiation	07-Jul-14		25-Aug-14		28-May-15		30-Apl-18		30-Apl-18	NA		02-Jul-2020
Negotiation		21-Aug-14		09-Apr-15		29-Jan-18	07-May-18		07-May-18	20-Dec-2020		02-Jul-20 20
Negotiated draft contract sent to WB		31-Aug-14		19-Apr-15		29-Jan-18	08-May-18		08-May-18	11-Jan-2021		NA

Sl	2		3		4		5		6		7	
Description of Services	Consultancy Services for a) Construction Supervision & Detailed Engineering Design for remaining Polders, b) Preparation of EIA of remaining Polders and c) RAP		Third Party Monitoring & Evaluation (M&E) of overall project implementation, RAP, EIA and EMP		Consultancy Services for Long Term a Monitoring, Research and Analysis of Bangladesh Coastal Zone.		Consultancy Services for Institutional Capacity building, technical assistance and training to BWDB personnel		Consultancy Services for Feasibility studies and preparation of design for the following Phases of CEIP		Consultancy Services for conducting Internal Audit of CEIP-1	
Package No	CEIP-1/ B2,B3 & C1/S02		CEIP-I/ C2/S03		CEIP-1/ C3/S04		CEIP-1/ D2/S22		CEIP-1/ D3/S23		CEIP-1/ D1/S26	
WB gives NOL on draft contract	28-Jul-14	30-Sep-14	15-Sep-14	28-Apr-15	22-Jun-15	25-May-18	20-May-18		20-May-18	17-Jan-2021		NA
GOB Purchasing Committee (CCGP) approval				27-Aug-15		12-Sep-18	10-Jun-18		20-Jun-18			NA
Contract Signature Date	18-Aug-14	30-Dec-14	27-Oct-14	01-Oct-15	08-Sep-15	04-Oct-18	20-Jun-18		30-Jun-18	19-Jul-2021		06-Aug-2020
Total days of Process *(Bid Opening to Contract Signing Date)*	123	257	168	511	222		152		162	355		
Commencement of Services				01-Nov-15								
End of Contract (Completed)	30-Jun-20		30-Jun-20	30 June 2021	30-May-20	30-Jun-20	30-Jun-18		30-Jun-20			
Remarks	Negotiation meeting with 1st ranked Consulting Firm was concluded and minutes were signed on 21 Aug 2015. Draft contract and Financial Evaluation Report was sent to WB on 31 August. NoL received on 30 Sept and Contract was signed on 30 Dec, 2014. Consultants mobilized on 21-Jan-2015. The Consultant is on board and carrying out its assignment.		Negotiation meeting with 1st ranked Consulting Firm was concluded on 09 April, 2015. Draft contract and Financial Evaluation Report was sent to WB on 19 April 2015. NoL received on 28 April and Purchase Proposal was approved by CCGP on 27 August 2015. Contract was signed on 01 Oct, 2015. Consultants mobilized on 01 Nov 2015. The Consultant is on board and carrying out its assignment.		Tax obligation of the Consultant as per RFP, delayed the procurement process that was solved in the meeting held on September 30, 2017. Government of Bangladesh approved the Contract on recommendation of CCGP in its meeting of 12 September 2018. Contract signed on 04 October 2018. The Consultant is on board and carrying out its assignment.		The provision of this Package is planned to use for training purposes of BWDB officer in different renowned Training Institutes in home and abroad. The BWDB has concluded that this service would not be required.		Final negotiation has been done with 2nd ranked of proposal submission. Contract was signed on 19 July 2021 with 2nd ranked.		Consultant submitted the Draft Final Report on 01-10-2020. It is now under review by the World Bank.	

Table 5.1b: Procurement Process Tracking Report Consulting Services (Individual Consultants) as on 31 December 2022

Sl No	**1**		**2**			**3**		4		**5**	
Description of Services	International Procurement Expert (Panel)		International Technical Expert (Panel)			Procurement Expert (National) for Panel		Procurement Expert (National) for Panel		Individual Consultant as Procurement Specialist PMU (Nat'l)	
Package No	CEIP-1/ D1/S05		CEIP-1/ D1/S06			CEIP-1/ D1/S07		CEIP-1/ D1/S7-A		CEIP-1/ D1/S8	
Reference #	CEIP-1-8-IC-CI-CEIP-1/ D1/S05		CEIP-1-9-IC-CI-CEIP-1/ D1/S06			CEIP-1-10-IC-CI-CEIP-1/ D1/S07				CEIP-1-11-IC-CI-CEIP-1/ D1/S08	
Location / District	Dhaka		Dhaka			Dhaka		Dhaka		Dhaka	
P.P. - Executing Agency:	2014-1-BWDB-BWDB		2014-1-BWDB-BWDB			2014-1-BWDB-BWDB				2014-1-BWDB-BWDB	
Method:	IC		IC			IC		IC		IC	
Estimated / Actual	Estimated	Actual	Estimated	Actual 1st	Actual 2nd	Estimated	Actual	Estimated	Actual	Estimated	Actual
Amount in US$	1,104,590	0.642 million	1,104,590	0.17 million	0.490 million	225,641	0.111 million; 0.134 million		0.134 million	384,295	0.121 million[4] ; 0.054 million[5]
Preparation of ToR		Both ToR & EoI Finalized		Both ToR & EoI Finalized			ToR Finalized				ToR & REoI Finalized
NOL to the TOR	14-Oct-13	27-Jul-13	31-Oct-13	31-Jul-13		31-Oct-13	11-Jun-13		25/02/2016	31-Oct-13	02-Jul-13
Advertisement of EoI		31-Jul-13		06-Aug-13			No Advertisement		N/A		28-Jul-13
Receipt of REoI		25-Aug-13		29-Aug-13			Only CV of were collected	N/A	N/A		20-Aug-13
Evaluation of REoI		Evaluated and concurred by WB		Evaluation done			Evaluated and concurred by WB	N/A	N/A		Evaluated
Shortlist submitted to WB											
Shortlist gets WB NOL											
Combined Evaluation Report submitted to WB											concurred by WB
WB gives NOL on combined evaluation											
Negotiation											
Negotiated draft contract to WB									10/04/2016		
WB gives NOL- draft contract											
Contract Signature Date	31-Dec-13	25-Nov-13	30-Jan-14	05-Mar-14	13-Apr-15	31-Dec-13	25-Nov-13		14/06/2016	31-Dec-13	23-Nov-13; 14-Mar-17; 03-May-18; 14-Jan-19
Total days of Process		92		188							93
End Date of Activity	28-Feb-17		31-Mar-18			30-Jun-18			30/06/2018		13-Jun-20
Remarks	Contract Agreement between BWDB and Mr. Narayan D. Sharma was signed on 25 Nov, 2013. Contract Agreement was sent to WB. Period of contract expired on 30 October 2016 which was extended up to 31 January 2017. 3rd time extension up to 28-02-2018 with increase of inputs by 50 days has been approved. Contract was completed on Feb 28, 2018		Original Contract with Mr. Daniel ended on March 04, 2015. He expressed his unwillingness to continue his service in CEIP-1, Bangladesh. So, fresh Contract was initiated. Fresh Contract with Mr. I.A. Kahn entered on April 13, 2015 and completed on April 30, 2018.			Mr. M. Aminul Haque signed Contract Agreement on 25 Nov, 2013. Allotted 300 days input of Mr. Haque was consumed in October 2015.		Fresh contract for 200 days was signed on 14 June 2016 over a period of 32 (thirty-two) months [FY 2015-2016 to FY 2017-2018]. Contract was completed on June 30, 2018		Original Contract with Mr. A.K.M. Bodruddoza ended on 31 October 2016, but has been extended successively.	

Sl No	6	7	8	9	**10**			11	
Description of Services	Individual Consultant as Procurement Specialist PMU (National)- 1 No				Individual Consultant as Financial Management Specialist (National)			Individual Consultant as Financial Management Specialist (National)- 1 No	
Package No	CEIP-1/ D1/S8-A	CEIP-1/S8-B	CEIP-1/S8-C	CEIP-1/S8-D	CEIP-1/ D1/S09				CEIP-1/ D1/S9-A
Reference #					CEIP-1-27-IC-CI-CEIP-1/D1/S09				
Location / District					Dhaka				
P.P. - Executing Agency:					2014-1-BWDB-BWDB				
Method:	IC	IC	IC	IC		IC			IC
Estimated / Actual	Actual	Actual	Actual	Actual	Estimated	Actual 1st	Actual 2nd		
Amount in US$	0.054 million	0.051 million	0.092 million	0.142 million	247,000	0.113 million	0.101 million		0.0289 million
Preparation of ToR				20/06/2020		Fresh REoI	Fresh REoI		
NOL to the TOR	18/11/2016	08/11/2017	04/10/2018	25/06/2020	31-Dec-13	11-Dec-13			28/08/2019
Advertisement of EoI	Procured through SSS Basis	Procured through SSS Basis	Procured through SSS Basis	Procured through SSS Basis		03-Nov-14	16-Mar-16		N/A
Receipt of REoI	N/A	N/A	N/A	N/A		01-Dec-14	14-Apr-16		N/A
Evaluation of REoI	N/A	N/A	N/A	N/A		Evaluated	Evaluated		N/A
Shortlist submitted to WB				N/A					
Shortlist gets WB NOL				N/A					
Combined Evaluation Report submitted to WB				N/A					
WB gives NOL on combined eval'n				N/A		by WB	13-Apr-17		
Negotiation				27-07-2020					
Negotiated draft contract to WB	13/02/2017	10/04/2018	17/12/2018	N/A					27/09/2019
WB gives NOL- draft contract				N/A					
Contract Signature Date	14/03/2017	03/05/2018	14/01/2019	31-Dec-2020	29-May-14	02-Mar-15	24-Apr-17		27/09/2019
Total days of Process (Bid Opening to Contract Signing Date)						187	375		
End Date of Activity	31/10/2017				30-Oct-19		31-Oct-19		
Remarks	Fresh contract for 12 months was signed on 14 March, 2017 with retroactive commencement date from 01 November 2016 for 1 year.	2nd contract with Mr. A.K.M. Bodruddoza for a period of 12 months commencing from 01 November 2017, was signed. Contract ended on 31 October 2018.	3rd fresh Contract with Mr. A.K.M. Bodrudddozza was signed on 14-Jan-2019 for 18 months from 1-Nov-2018.	Procurement in process through Direct Selection Method. Draft Contract signed on 27-07-2020. Signing of Contract is awaiting approval of RDPP	The original Consultant Mr. Md. Nasser Ahmed signed a Contract Agreement on 02 March, 2015 but he resigned on 29 Feb.2016. So, fresh Contract was initiated. Fresh 35 REoI were received on 14 April 2016. Negotiation with 3rd ranked candidate Mr. Michael Gomes was carried out by PEC on 06 April 2017 and contract with Mr. Michael Gomes was signed on 24-04-2017. The contract ended on 29-09-2019 and recruitment of a replacement is underway.			Selected on Direct Selection Method upon WB's approval. Draft contract was signed on 09-09-2019. It was expected to sign the contract by 27-9-2019. The Consultant expressed his unwillingness on 24 Sep 2019 to work in CEIP-1, on the plea on getting better offer. This Package cancelled and other Package No..CEIP-1/D1/S9A has been created and World Bank provided NoL to it. But this Package ultimately dropped.	

Sl No	12		13	14		15		16		17
Description of Services	Individual Consultant as Financial Management Specialist (National)- 1 No			Individual Consultant as Sr. Environment Specialist (PMU/Dhaka)		Individual Consultant as Sr. Environment Specialist (PIU/Dhaka)- 1 No		Individual Consultant as Sr. Environment Specialist (PIU/Dhaka)- 1 No		Individual Consultant as Sr. Environment Specialist (PIU/Dhaka)- 1 No
Package No	CEIP-1/ D1/S9A		CEIP-1/ D1/S9-B	CEIP-1/ D1/S10		CEIP-1/ D1/S10-A		CEIP-1/ D1/S10A		CEIP-1/ D1/S10-B
Reference #				CEIP-1-28-IC-CI-CEIP-1/D1/S10						
Location / District				Dhaka						
P.P. - Executing Agency:				2014-1-BWDB-BWDB						
Method:	IC		IC	IC		IC		IC		
Estimated / Actual	Estimated	Actual	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	
Amount in US$		0.045 m	0.142 million	212,000	0.101 million		0.08 million		0.08 million	0.142 million
Preparation of ToR			20/06/2020		ToR & REOI finalized				28/10/2018	20/06/2020
NOL to the TOR		29/10/2019	25/06/2020	24-Jun-14			04/06/2018		12/11/2018	25/06/2020
Advertisement of EoI		N/A	25-01-2021		21-Oct-14		N/A		06/12/2018	05/08/2020
Receipt of REoI		15/12/2019	31-01-2021		18-Nov-14		N/A		24/12/2018	10/08/2020
Evaluation of REoI		22/12/2019	15-02-2021 (Exp.)		Evaluated		N/A		28/01/2019	07-09-2020
Shortlist submitted to WB			NA							NA
Shortlist gets WB NOL			NA							NA
Combined Evaluation Report submitted to WB			NA							NA
WB gives NOL on combined evaln			NA		WB concurred					NA
Negotiation			28-02-2021 (exp.)							11/10/2020
Negotiated draft contract to WB		20/02/2020					09/07/2018		15/02/2019	NA
WB gives NOL- draft contract			15-03-2021 (exp.)							NA
Contract Signature Date		23/02/2020	23-09-2021	27-Nov-14	13-Apr-15		08/10/2018		12/03/2019	31-Dec-2020 (Exp.)
Total days of Process (Bid Opening to Contract Signing Date)					146					
End Date of Activity										
Remarks	Procurement through 3 CV Approach is in process.Due to COVID-19 situation, procurement could not be completed. Ultimately this procurement was cancelled		Procurement done through Limited Market Approach Method. Expert commenced work 30-Sep-21	Dr. Md. Asadul Alam signed contract on 13-Apr-2015 and continued upto 19-Jun-2018.		The Consultant failed to sign the contract within the final extended time up to 15 Oct 18. So, after obtaining permission from WB, fresh procurement in processes under Pkg No..CEIP-1/D1/S10A. This Pkg has been cancelled in STEP		Contract completed		Procurement in process through Limited Market Approach Method. Draft Contract signed on 11-10-2020. Signing of Contract is awaiting approval of RDPP Contract completed

Sl No	18			19		20	21		22		23
Description of Services	Individual Consultant as Sr. Social Specialist (PMU/Dhaka)			Individual Consultant as Sr. Social Specialist (PIU/Dhaka)- 1 No		Individual Consultant as Sr. Social Specialist (PIU/Dhaka)- 1 No	Individual Consultant as Sr. Forestry Specialist (PMU/Dhaka)		Individual Consultant as Sr. Forestry Specialist (PIU/Dhaka)- 1 No		Individual Consultant as Sr. Forestry Specialist (PIU/Dhaka)- 1 No
Package No	CEIP-1/ D1/S11			CEIP-1/ D1/S11-A		CEIP-1/ D1/S11-B	CEIP-1/D1/S12		CEIP-1/D1/S12-A		CEIP-1/ D1/S12-B
Reference #	CEIP-1-29-IC-CI-CEIP-1/D1/S11						CEIP-1-30-IC-CI-CEIP-1/D1/S12				
Location / District	Dhaka						Dhaka				
P.P. - Executing Agency:	2014-1-BWDB-BWDB						2014-1-BWDB-BWDB				
Method:	IC			IC			IC		IC		
Estimated / Actual	Estimated	Actual 1st	Actual 2nd	Estimated	Actual		Estimated	Actual	Estimated	Actual	
Amount in US$	212,000	0.0884 mio	0.0648 mio		0.041 million	0.142 million	212,000	0.083 million		0.0359 million	0.142
Preparation of ToR		ToR & REOI finalized	19-Jan-17			20/06/2020		01-Jan-17			20/06/2020
NOL to the TOR	29-Apr-14	15-Apr-14	25-Jan-17		25/07/2019	25/06/2020	29-Dec-15	12-Jan-17		03/07/2019	25/06/2020
Advertisement of EoI		21-Apr-14	14-Mar-17		N/A	03/08/2020		14-Mar-17		N/A	03/08/2020
Receipt of REoI		15-May-14	12-Apl-17		N/A	08/08/2020		12-Apr-17		N/A	08/08/2020
Evaluation of REoI		Evaluated	23-May-17		N/A	11/10//2020		23-May-17		N/A	11/10//2020
Shortlist submitted to WB						N/A					N/A
Shortlist gets WB NOL						N/A					N/A
Combined Evaluation Report submitted to WB						N/A					N/A
WB gives NOL on combined evaln		WB concurred				N/A					N/A
Negotiation						15/11/2020					15/11/2020
Negotiated draft contract to WB					06/08/2019	N/A				06/08/2019	
WB gives NOL- draft contract						N/A					
Contract Signature Date	17-Jul-14	02-Oct-14	02-Aug-17		15/09/2019	31-Jan-2021(exp.)	28-Apr-16	02-Aug-17		25/08/2019	06/09/2020
Total days of Process (Bid Opening to Contract Signing Date)		140	147					71			
End Date of Activity		03-Jan-17	19-Sep-19					01-Aug-19			
Remarks	Mr. Md. Hasanur Rahman signed a Contract Agreement on 02-Oct-2014 and resigned on 03-Jan-2017. Fresh contract was entered into with Mr.Mustafizur Rahman and the contract ended on 17-09-2019.			Selected on Direct Selection Method after obtaining WB concurrence.		After approval of RDPP, 2nd position of this	Contract completed		Selected on Direct Selection Method after obtaining WB's concurrence.		Procurement through Limited Market Approach

		Contract completed	specialist to be done soon		Contract completed.	Method.Draft Contract signed on 15/11/2020 . Signing of Contract is awaiting approval of RDPP.

Sl No	24			25	26		27		28		29	30
Description of Services	Individual Consultant as Communication officer (PMU/Dhaka) -1 No				Individual Consultant as Senior Revenue Officer (PMU/Dhaka)		Individual Consultant as Senior Revenue Officer (PIU/Dhaka) - 1 No					
Package No	CEIP-1/ D1/S13			CEIP-1/ D1/S13-A	CEIP-1/ D1/S14		CEIP-1/ D1/S14-A		CEIP-1/ D1/S14-B		CEIP-1/ D1/S14-C	CEIP-1/ D1/S14-D
Reference #	CEIP-1-31-IC-CI-CEIP-1/D1/S13				CEIP-1-32-IC-CI-CEIP-1/D1/S14							
Location / District	Dhaka				Khulna							
P.P. - Executing Agency:	2014-1-BWDB-BWDB				2014-1-BWDB-BWDB							
Method:	IC				IC		IC		IC		IC	
Estimated / Actual	Estimated	Actual 1st& 2nd	Actual 3rd		Estimated	Actual						
Amount in US$	131,000	0.067 million		0.13 million	131,000	0.0847 million		0.0644 million		0.059 million	0.035 million	0.142
Preparation of ToR		ToR & REOI finalized		20/06/2020		Prepared						20/06/2020
NOL to the TOR	17-Aug-14			25/06/2020	23-Dec-13	22-Dec-13		19-12-16 & 28-12-16		16-05-18 & 24-05-18	11-Aug-19	25/06/2020
Advertisement of EoI		23-Nov-14 (1st); 24-Jan-16 (2nd)		03/08/2020		30-Dec-13		N/A		N/A	N/A	22/07/2020
Receipt of REoI		15-May-15 (1st) 24-Feb-16 (2nd)	30-Jun-17	08/08/2020		06-Feb-14		N/A		N/A	N/A	28/07/2020
Evaluation of REoI		Evaluated	Evaluated	11/10//2020		Evaluated		N/A		N/A	N/A	07-09-2020
Shortlist submitted to WB				N/A								NA
Shortlist gets WB NOL				N/A								NA
Combined Evaluation Report submitted to WB		concurred by WB	concurred by WB	N/A		concurred by WB						NA
WB gives NOL on combined evaluation				N/A								NA
Negotiation			10-Apr-18	15/11/2020								11/10/2020
Negotiated draft contract to WB				N/A				27-Apr-17		09-Jul-18	12-Sep-19	NA
WB gives NOL- draft contract		19-Oct-17		N/A								NA
Contract Signature Date	31-Dec-14	Did not take place	**01-Jul-18**	31-Jan-2021	29-May-14	12-Aug-14		10-Dec-07		25-Jul-18	09-Oct-19	31-Dec-2020

				(exp.)								(Exp.)
Total days of Process			**366**			187						
End Date of Activity			**30-Jun-20**			22-Dec-16						
Remarks	Two (2) EOI were received at first invitation. So, fresh EOI was invited and 6 Nos. were received on 24 Feb 2016. Contract Agreement between BWDB and Mr. A K M Rahmat Ali Howlader was signed on 28 March 2017. But he didn't join. Negotiation with 2nd candidate failed. So, fresh procurement was initiated through collection of CVs as per suggestions of WB. Draft Contract with 1st ranked candidate was signed on 19 Oct 2017, but Mr. Akhtaruzzaman didn't sign the contract due to his personal problems. The 2nd ranked candidate Mr. Aktar Uddin was invited on 08 March 2018 to attend contract negotiation meeting on 14 March 2018. But he didn't attend. Consequently, on obtaining WB's concurrence, the 3rd ranked candidate Mr. Kamal Najmus Salehin was negotiated on 10 April 2018 and contract was signed on 01 July 2018. Contract completed			Procurement via Limited Market Approach Method. Draft Contract signed on 15/11/2020. Signing of Contract is awaiting approval of RDPP.	Contract Agreement between BWDB and Mr. M A Saleque was signed on 12 Aug, 2014. Contract ended on 22 Dec 2016.		In order to keep continuation of the services of land acquisition and other related activities, the services of Mr. M A Saleque procured on sole source basis under a fresh Contract for 18 months that ended on 22-Jun-2018.		Another fresh contract with Mr. M.A. Saleque on Single Source Selection (SSS) Method for a period of 15 months was signed on 25 July 2018. Consultant is on board. The Contract ended on 08-10-2019	Mr. M.A. Saleque was selected as fresh contract on Direct Selection Method on obtaining WB's concurrence . Contract completed.	Procurement in process through Limited Market Approach Method. Draft Contract signed on 11/10/2020 . Signing of Contract is awaiting approval of RDPP.

Sl No	31		32	33	34		35		36	37	
Description of Services	Individual Consultant as Social Specialist/Economist (PMU/Field) - 1 No				Individual Consultant as Environment Specialist (PIU/Field)- 1 No					IPoE for Coastal Morphologist and Estuarine/Tidal Hydraulics Expert	
Package No	CEIP-1 /D1/S15		CEIP-1/ D1/S15-A	CEIP-1/ D1/S15-B	CEIP-1/ D1/S16		CEIP-1/ D1/S16-A		CEIP-1/ D1/S16-B	CEIP-1/ D1/S17	
Reference #	CEIP-1-33-IC-CI-CEIP-1/D1/S15				CEIP-1-34-IC-CI-CEIP-1/D1/S16					CEIP-1-35-IC-CI-CEIP-1/D1/S17	
Location / District	Khulna				Khulna					Dhaka	
P.P. - Executing Agency:	2014-1-BWDB-BWDB				2014-1-BWDB-BWDB					2014-1-BWDB-BWDB	
Method:	IC		IC		IC		IC			IC	
Estimated / Actual	Estimated	Actual			Estimated	Actual				Estimated	Actual
Amount in US$	131,000	0.0578 million	0.0257 million	0.13	131,000	0.0481 million		0.021 million	0.13	181,600	
Preparation of ToR		01-Jan-17		20/06/2020		Prepared			20/06/2020		28-Nov-16
NOL to the TOR	24-Sep-14	03-Jan-17	03-Jul-19	25/06/2020	24-Sep-14	28-Dec-16		18-Aug-19	25/06/2020	24-Sep-14	13-Dec-16
Advertisement of EoI		14-Mar-17	N/A	22/07/2020		12-Feb-17		N/A	22/07/2020		30-Jul-17
Receipt of REoI		12-Apl-17	N/A	28/07/2020		14-Mar-17		N/A	28/07/2020		14-Sep-17
Evaluation of REoI			N/A	07-09-2020				N/A	07-09-2020		
Shortlist submitted to WB				NA					NA		
Shortlist gets WB NOL				NA					NA		
Combined Evaluation Report submitted to WB				NA		N/A			NA		
WB gives NOL on combined evaluation				NA					NA		
Negotiation				11/10/2020					11/10/2020		
Negotiated draft contract to WB			06-Aug-19	NA		07-Sep-17		18-Sep-19	NA		
WB gives NOL- draft contract				NA		05-Oct-17			NA		
Contract Signature Date	31-Dec-14	20-Jul-17	25-Aug-19	31-Dec-2020 (Exp.)	31-Dec-14	30-Oct-17		29-Oct-19	31-Dec-2020 (Exp.)	31-Dec-14	
Total days of Process (Bid Opening to Contract Signing Date)		100				231					
End Date of Activity	30-Jun-17	19-Jul-19			30-Jun-17	29-Oct-19				30-Jun-20	
Remarks	EoI received on 12 April 2017 and evaluated. The contract was signed on 20-Jul-17 and the contract is ended on 27-Jul-2019.		Selected on Direct Selection Method after obtaining WB's concurrence . Contract completed	Procurement in process through Limited Market Approach Method. Draft Contract signed on	EoI received on 14 March 2017. Only 2 (two) applications were received. PEC in its meeting on 06 April 2017, recommended for fresh invitation. WB suggested to collect CVs through direct approach and to evaluate including the 2 EoIs received earlier. Procurement completed and the Consultant		Selected on Direct Selection Method after obtaining WB's concurrence. Contract is signed on 29-10-2019 with Mr. Amir Faizal. The		Procurement in process through Limited Market Approach Method. Draft Contract signed on	PMU, CEIP-1 with the assistance of existing IPoE member, TL-DSC and TL-M&EC, has reviewed the ToR of the remaining four IPoE members and are of the opinion that positions of Coastal, Estuarine and River Morphologist and Sediment/Tidal Management Expert might be merged and	

			11/10/2020. Signing of Contract is awaiting approval of RDPP.	is on board from 30-Oct-2017 and Contract ended on 29-Oct-2019.	consultant on Board. Contract completed	11/10/2020. Signing of Contract is awaiting approval of RDPP.	named as Coastal Morphologist and Estuarine/Tidal Hydraulics Expert. Accordingly, restructured proposal was sent to WB on 28 Sept 2016. WB accepted the proposal on 07 Nov 2016. It is opted that the IPOE would not be required.

Sl No	38		39		40		41		42		43
Description of Services	IPoE for Hydrodynamics & Coastal Modeling Expert		IPoE for Design Expert in Embankment and Hydraulic Structures		IPoE for Social Expert		IPoE for Social Expert		IPoE for Environment, Water Management and Polder Expert		
Package No	CEIP-1/ D1/S18		CEIP-1/ D1/S19		CEIP-1/ D1/S20		CEIP-1/ D1/S20-A		CEIP-1/ D1/S21		CEIP-1/ D1/S21
Reference #	CEIP-1-36-IC-CI-CEIP-1/D1/S18		CEIP-1-37-IC-CI-CEIP-1/D1/S19		CEIP-1-38-IC-CI-CEIP-1/D1/S20		CEIP-1-38-IC-CI-CEIP-1/D1/S20		CEIP-1-39-IC-CI-CEIP-1/D1/S21		
Location / District	Dhaka		Dhaka		Dhaka		Dhaka		Dhaka		
P.P. - Executing Agency:	2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		2014-1-BWDB-BWDB		
Method:	IC		IC		IC		IC		IC		
Estimated / Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Actual
Amount in US$	181,600		165,000		165,000	0.124 million	0.138 million		165,000	0.154 million	0.138 million
Preparation of ToR		28-Nov-16		01-Jan-17		Prepared				10-Dec-14	
NOL to the TOR		13-Dec-16	24-Sep-14	19-Jan-17	24-Sep-14	07-Nov-16	01-Apl-2021		24-Sep-14	08-Jan-15	01-Apl-2021
Advertisement of EoI		30-Jul-17		30-Jul-17		N/A	15-Apl-2021			N/A	15-Apl-2021
Receipt of REoI		14-Sep-17		14-Sep-17		N/A	22-Apl-2021			N/A	22-Apl-2021
Evaluation of REoI						N/A	30-Apl-2021			09-Feb-15	30-Apl-2021
Shortlist submitted to WB							N/A				N/A
Shortlist gets WB NOL							N/A				N/A
Combined Evaluation Report submitted to WB							N/A				N/A
WB gives NOL on combined evaluation							N/A				N/A
Negotiation							15-May-2021				15-May-2021
Negotiated draft contract to WB						31-May-17	N/A				N/A
WB gives NOL- draft contract						07-Jun-17	N/A			09-Mar-15	N/A
Contract Signature Date			31-Dec-14		31-Dec-14	17-Jul-17	30-May-2021		31-Dec-14	23-Mar-15	30-May-2021
Total days of Process (Bid Opening to Contract Signing Date)											
End Date of Activity	30-Jun-20				30-Jun-20	30-Jun-20			30-Jun-20	31-Jan-18	
Remarks	Proposal for inclusion of one new IPoE member as "Hydrodynamic and Coastal Modelling Expert"		ToR was sent to WB on 1-Jan-17. Bank approved ToR on 19 January 2017. It is opted that the IPOE		WB provided NoL on ToR on 07 November 2016 and concurred 3 CV approach for the selection of the		Presently IPoE is not required		Contract completed		Presently IPoE is not required

	was sent to WB on 28 September 2016. WB accepted the proposal on 07 November, 2016. It is opted that the IPOE would not be required.	would not be required.	social IPOE on 28 November 2016. Contract completed			

Sl No	44		45	
Description of Services	Accounting and Financial Management System Specialist (AFMSS) (National)		Procurement of Individual Consultant as Information Technology Specialist (ITS) (National)	
Package No	CEIP-1/ D1/S24		CEIP-1/ D1/S25	
Reference #				
Location / District	Dhaka		Dhaka	
P.P. - Executing Agency:				
Method:	IC		IC	
Estimated / Actual	Estimated	Actual	Estimated	Actual
Amount in US$				
Preparation of ToR				
NOL to the TOR		14-Feb-16		14-Feb-16
Advertisement of EoI		Through collection of 3 CVs		Through collection of 3 CVs
Receipt of REoI		10-Mar-16		10-Mar-16
Evaluation of REoI				
Shortlist submitted to WB				
Shortlist gets WB NOL				
Combined Evaluation Report submitted to WB				
WB gives NOL on combined evaluation				
Negotiation				
Negotiated draft contract to WB				
WB gives NOL- draft contract				
Contract Signature Date				
Total days of Process (Bid Opening to Contract Signing Date)				
End Date of Activity				
Remarks	This is a new Package concurred by World Bank and entered into Revised Procurement Plan (PP- 2016-1). But it was decided that this service will be procured through GoB's revenue budget. This Package was dropped.		This is a new Package concurred by World Bank and entered into Revised Procurement Plan (PP- 2016-1). But it was decided that this service will be procured through GoB's revenue budget. This Package was dropped.	

Annex 5.2a: Procurement Status and Plans - Works

As per the DPP, there are 4 packages of Works under the project. But these packages were reviewed and decided that works contract will be three packages. Package-01 and Package-02 have already been contacted out. Package-03 is yet to initiate due to shortfall of fund.

Detail status of procurement of works as on **31 March 2022** is described below:

Sl. No	1		2 (Revs.)		3 (Revs.)		4
Description of Works	Rehabilitation / Reconstruction & Upgrading of Polder 32, 33, 35/1 and 35/3 under CEIP-1.		[3] Rehabilitation and upgrading of Polder 14/1, 15, 16, 17/1, 17/2 & 23 (Actual Nos. of Polder in package are 39/2C, 40/2, 41/1, 43/2C, 47/2 and 48)		[4]Rehabilitation and upgrading of Polder 48,47/2 & 43/2C (Actual Nos. of Polder in this Package are 14/1, 15, 16, 17/1, 17/2, 23 & 34/3)		[5]Rehabilitation and upgrading of Polder 40/2, 41/1, 34/3 and 39/2C
Package No	CEIP-1/W-1		CEIP-1/W-2 (revised)		CEIP-1/W-3 (revised)		
Reference #	CEIP-1-12-LPIPQ-O-CEIP-1/W-01		CEIP-1-13-LPIPQ-O-CEIP-1/W-02 (Rvsd.)		CEIP-1-13-LPIPQ-O-CEIP-1/W-03 (Rvsd.)		
Districts	Khulna		Patuakhali, Barguna and Pirojpur				
P.P. - Executing Agency:	2014-1-BWDB - BWDB		2014-1-BWDB - BWDB		2014-1-BWDB - BWDB		
Method:	ICB with post-qualification[6]		ICB with post-qualification		ICB		
Estimated / Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	
Amount in US$	104,276,026.00	88,216,800.37[7]	150,355,767.20	137,969,172.60[8]	86.66 million USD		
Preparation of Document							
Tender Docs Submitted to WB		02-Mar-15		14-Oct-15, 09-Nov-15			
Bank's NOL	30-Jun-14	09-Mar-15	03-Jan-16	03-Dec-15			
Publication / Invitation	15-Jul-14	10-Mar-14	10-Jan-16	04-Dec-15			
Deadline tenders & Bid Opening	14-Sep-14	25-May-15	14-Mar-16	24-Mar-16			
Evaluation of Bids	18-Oct-14	13-Jun-15	18-Apr-16	19-Jun-16			
WB gives NOL on evaluation		19-Jul-15		04-Aug-16			
Negotiated draft contract sent to WB							
No Objection to Evaluation Report	10-Nov-14		09-May-16				
GOB Purchasing Committee approval		09-Sep-15		20-Aug-16			
Issuing NOA		21-Sep-15		15-Dec-16			
Contract signed	09-Jan-15	01-Nov-15	28-Jun-16	08-Mar-17			
Advance Issued							
Commencement of Services		26-Jan-16		12-Jul-17			
Total days of Process	117	160	106	349			
End of Contract (Completed)	31/12/2017	25-Jan-19	30/06/2018	11-Jan-21			
Remarks	7 Nos. Bids were received and M/S TheFirst Engineering Bureau of Henan Water Conservancy of China was awarded the contract. Contract was signed on 01 Nov 2015. Works are going on.		7 Nos. Bids were received. Chongqing International Construction Corporation was awarded with the Contract. Contract was signed on 08 March 2017 and Notice to Commence issued on 12 July 2017. W**orks are going on.**		Due to shortfall of fund, it is being discussed whether to drop this package. Meanwhile, the activities of this Package have been limited up to preparation of bidding document.		This Package is treated to be void since the polders under this package have been incorporated in the packages 2 & 3 (*re-arranged*)

[3]Nos. of Polders for this Package have been changed as '39/2C, 40/2, 41/1, 43/2C, 47/2 and 48' instead of previously included Nos of '14/1,15,16,17/1,17/2 & 23'

[4]All the three (3) Polders of this Package (43/2C, 47/2 and 48) have been included under Package No.CEIP-1/W-02. So, this Package has been rearranged in terms of inclusion new Polders from Package #2 and # 4

[5]Out of four (4) Polders, three (3) (40/2, 41/1 and 39/2C) have been included under Package CEIP-1/W-02. The remaining one (1) is included in Package #3 and this Package has been declared void.

[6] Method has been changed from ICBPQ (International Competitive Bidding with pre-qualification) to ICB (with post qualification)

[7] Original Contract Value of W-01 is BDT 6,969,127,229.

[8] Original Contract Value of W-02 is BDT 10,899,564,634.65.

Annex 5.3a: Procurement Status and Plans - Goods

As per the DPP, 14 items of Goods would be procured. Among them, procurement for the 7 items were deferred as per the statement of "Status of Procurement" as on **31March 2022**, which is described below:

Contract Approving Authority	Package No	Description of Procurement as per TAPP/DPP Goods	Unit	Quantity	Procurement Method & (Type)	Source of Funds	Estimated Cost/ Contract Price (Million USD)	Invitation for Tender	Signing of Contract	Completion of Contract	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
HOPE	CEIP-1/G-01	Procurement of Motor Vehicles a) 4-WD Jeep/Cross Country (Total 15 Nos.) b) Micro Bus-(Total 2 Nos.)	Lots	Motor Vehicle-10 Nos, Microbus-2 Nos	OTM(ICB)	WB/IDA	0.7500	25-Dec-14	18-Nov-2015 & 07-Jan-2016	January,2016	Contract for 1 No. Microbus (Lot No.2) executed on 18 November 2015 and supply completed. Contract for 10 Nos. 4WD (Lot No.1) vehicle executed on 07 January 2016 and supply completed
PD	CEIP-1/G-02	Procurement of 10(ten) Nos. Motor Cycle (125 CC) with accessories and related Services	Nos.	Motor Cycle-10 Nos	OTM(NCB)	WB/IDA	0.0234	09-Jul-15	04-Oct-15	October,2015	Tender was evaluated by BWDB TEC members. Contract executed on 04 October 2015. Supply completed
PD	CEIP-1/G-03	Procurement of Speed Boat with engine & other accessories (Total 9 nos.)	Nos.	Speed Boat-5 Nos	OTM(NCB)	WB/IDA	0.0609				This Package has been excluded from the RDPP.
PD	CEIP-1/G-04	Procurement of a) Computer - (Total 35 Nos, Laptop-10+Desktop-25), b) Colour/Black & White Printer-A3/A4 (Total 20 Nos), c) UPS= (Total 25 Nos), d) IPS = 10 Nos with ancillaries	Nos.	Computers - a) Laptop-5 Nos, Desktop-20 Nos, b) Printer-10 Nos, c) UPS-20 Nos, d) IPS = 10 Nos with ancillaries	OTM(NCB)	WB/IDA	0.0650	19-Mar-14	08-Jun-14	June, 2014	3 Tenders received on 09 April, 2014 and Evaluation done. Work Order issued on 12 May 2014. All Desktop Computer, Laptop, Printer, & UPS with Accessories were received 8-Jun-2014.
PD	CEIP-1/G-05	Engineering Equipment- a) Levelling instrument with accessories (Total-10 Nos), Total Station (Total-5 Nos)	Nos.	a) Levelling instrument - 5 Nos.; b) Total Station-3 Nos	OTM(NCB)	WB/IDA	0.0103	09-Jul-15	04-Oct-15	January,2014	Tender was evaluated by BWDB TEC members. Contract executed on 04 October 2015. Supply completed.

Contract Approving Authority	Package No	Description of Procurement as per TAPP/DPP Goods	Unit	Quantity	Procurement Method & (Type)	Source of Funds	Estimated Cost/ Contract Price (Million USD)	Invitation for Tender	Signing of Contract	Completion of Contract	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
PD	CEIP-1/G-06	Office equipment with accessories a) Multimedia Projector (Total 4 Nos), b) Air cooler- (Total-10 Nos), c) PABX Intercom System -1 Set, d) Photocopier 10 Nos. e) Fax- 10 Nos., f) Scanner A3 Size- 4 Nos., g) Spiral Binding machine 4 Nos, h) Plotter A0 Size-1 No	Nos.	a) Multimedia Projector- 2 Nos, b) Aircooler- 5 Nos, c) PABX Intercom System- 1 set d) Photocopier- 5 Nos, e) Fax-4 Nos, f) Scanner-2 Nos, g) Spiral Binding Machine- 2 Nos, h) Plotter A0 Size - 1 No	OTM(NCB)	WB/IDA	0.0280	01-Apr-14	09-Jun-14	June,2014	Tender was evaluated by BWDB TEC members. Work Order issued on 01 June 2014. All office equipment was supplied on 9-Jun-2014
PD	CEIP-1/G-07	Fumiture (For Project Director, CEIP-1 BWDB, office)	LS	LS	OTM(NCB) /RFQ	WB/IDA	0.0064	Procurement through RFQ	24-Feb-14	February, 2014	All the furniture was supplied on 24-Feb-2014.
PD	CEIP-1/G-08	Procurement of Motor Vehicles a) 4-WD Jeep/Cross Country (Total 15 Nos.) b) Micro Bus- (Total 2 Nos.)	Nos.	Motor Vehicle-05 Nos	OTM(ICB)	WB/IDA	0.4490				This Package has been excluded from the RDPP.
PD	CEIP-1/G-09	Procurement of Motor Cycle- Total= 20 Nos	Nos.	Procurement of Motor Cycle-10 Nos	OTM(NCB)	WB/IDA	0.0190				This Package has been excluded from the RDPP.
PD	CEIP-1/G-10	Procurement of Speed Boat with engine & other accessories (Total 09 nos.)	Nos.	Speed Boat-4 Nos	OTM(NCB)	WB/IDA	0.0510				This Package has been excluded from the RDPP.
PD	CEIP-1/G-11	Procurement of a) Computer- (Total 36 Nos, Laptop-10 + Desktop-25), b) Colour/Black & White Printer(Total 20 Nos), C) UPS= (Total 15 Nos), d) IPS = 10 Nos with ancillaries	Nos.	Computers- a) Laptop-5 Nos, Desktop-5 Nos; b) Printer-l0 Nos, c) UPS-5 Nos, d) IPS-5 Nos with ancillaires	OTM(NCB)	WB/IDA	0.0410	06-Jul-17	12-Sep-17	November, 2017	Supply completed on 20 November 2017.
PD	CEIP-1/G-12	Engineering Equipment -a) Levelling instrument with accessories (Total - 10 Nos) Total Station-) Total- 5 Nos)	Nos.	a) Levelling instrument - 5 Nos.; b) Total Station-2 Nos	OTM(NCB)	WB/IDA	0.0150				This Package has been excluded from the RDPP.

Contract Approving Authority	Package No	Description of Procurement as per TAPP/DPP Goods	Unit	Quantity	Procurement Method & (Type)	Source of Funds	Estimated Cost/ Contract Price (Million USD)	Invitation for Tender	Signing of Contract	Completion of Contract	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
PD	CEIP-1/G-13	Office equipment with accessories a) Multimedia Projector (Total 4 Nos), b) Air cooler- (Total-10 Nos), c) PABX Intercom System -1 Set, d) Photocopier 10 Nos. e) Fax- 10 Nos. f) Scanner A3 Size 4 Nos., g) Spiral Binding machine 4 Nos, h) Plotter Ao Size-1 No.	Nos.	a) MultiMedia Projector- 2 Nos, b) Aircooler- 5 Nos, c) Photocopier- 5 Nos, d) Fax-6 Nos, e) Scanner- 2 Nos, f) Spiral Binding Machine- Mos	OTM(NCB)	WB/IDA	0.0230				This Package has been excluded from the RDPP.
PD	CEIP-1/G-14	Procurement of Motor: Micro Bus – 1 No	Nos.	Micro Bus – 1 No			0.0600				This Package has been excluded from the RDPP.

HOPE=Head of the Procuring Entity *PD=Project Director* *N/A = Not Applicable*

Annex 5: Governance Accountability and Action Plan

Issues/Risks/ Objective	Actions	Agency respon-sible	Timeline - Plan	Early Warning Indicators to Trigger Additional Action	Timeline - Actual	Remarks
Institutional Risks						
Need to **strengthen capacity** to handle large volume procurement, financial management, contract management, communications, and monitoring functions	Establish PMU with internally or externally hired staff as per the agreed Organogram.	BWDB	Key staff recruited 3-6 months after project effectiveness.	Delays in conduct of procurement, execution of contracts and processing of payments.	Effectiveness date Nov 2013. **PMU Staffing** Project Director – Dec 2013 appointed Deputy PD– appointed Jan 2020 Procurement Spec – Nov 2013 Financial Management Spec- originally March 2015-Feb 2016; filled again Apr 2017-Sep 2019. Currently appointing a replacement. Sr. Environment Spec –April 2015 – July 2018; Contract signed with the replacement 12 Mar 2019, but expired 30 June 2020. Sr. Social Spec – original expert in place Oct 2014-Jan 2017. Contract signed with the replacement in Aug 2017. Sr. Revenue Officer – August 2014 Communication Officer – July 2018. Sr. Forestry Spec. –August 2017. Social Spec./Econ (Field) –July 2017 Environment Spec. (Field) – Oct 2017	All of the PMU staff have been recruited, including Deputy PD. Financial Management Specialist position became vacant on 30 September 2019 and replacement is being appointed. Sr. Environmental Specialist, Sr. Forestry Specialist, Communications Officer, Sr. Revenue Officer and Sr. Social Specialist being recruited or re-signed as incumbents concluded their contracts on 30 June 2020. Same for Environmental Specialist and Social Specialist.
	Retain existing consultants or engage new consultants for design, construction supervision	BWDB	Contracted 1st year;		**Consultancies:** Procurement Panel – fully in place between 2014 and mid-2018 when the last of the 3 contracts was completed and not renewed. DDCS&PMSC contracted January 2015	
		BWDB	Contracted 2nd year			
	Contract Third Party M&E functions	BWDB	Contracted 2nd year			

Issues/Risks/ Objective	Actions	Agency respon-sible	Timeline - Plan	Early Warning Indicators to Trigger Additional Action	Timeline - Actual	Remarks
	Increase frequency of Bank supervision missions, especially during the first 2 years.	WB	At least twice a year		M&E Consultant contracted Oct 2015 IPOE – 2 of 5 were hired; remaining 3 viewed by PMU as not needed. IPOE Social contract completed 30 June 2020 and not being renewed. IPOE Environment, Water Management and Polder Expert completed 31 Jan 2018 and not renewed. IPOE/Social Expertwas on board since July 2017, but contract expired; currently under recruitment. IPOE Chairman/Environment, Water Management and Polder Expert was in place from Mar 2015 –30 June 2020 when contract expired. **World Bank Missions:** Start (FY 2013/14)– 1 mission PY1 (FY 14/15)– 1 mission PY2 (FY 15/16)– 2 missions PY3 (FY 16/17)– 2 missions plus sector-specific missions PY4 (FY 17/18)- 2 missions (Jul/Aug and Feb) plus sector-specific missions PY5 (FY 18/19) – 3 missions (Oct 2018, Feb & May 2019) plus sector-specific missions. PY6 (FY 19/20) – 2 missions (Oct and Dec 2019) PY7 (FY 20/21) – 2 missions (Aug 2020 and March 2021) PY8 (FY 21/22) – 2 missions (Sep 2021 and Feb/Mar 2021)	

Issues/Risks/ Objective	Actions	Agency respon-sible	Timeline - Plan	Early Warning Indicators to Trigger Additional Action	Timeline - Actual	Remarks
Need for proactive provision of **information** and enhanced transparency	Appoint a Communication Specialist as part of the PMU to act as RTI officer (until BWDB engages an RTI officer) in accordance with the RTI Act.	BWDB	3 -6 months after project effectiveness	Lack of information officer or frequent replacement	Communication Officer signed on, but then withdrew before joining (March 2017). NOL given to draft contract on 19 Oct 2017 for new candidate, but he also withdrew. 2nd ranked candidate cleared by WB but did not appear at negotiations. 3rd ranked candidate signed draft contract on 10 Apr 2018 and final contract on 01 July 2018. Contract signed 06 Sep 2020 with most recent selected candidate and now contract has been completed and PMU has not renewed the position.	
	Quarterly Reporting on Project Implementation by PMU	BWDB	Quarterly		First QPR submitted in Feb 2016 for quarter of Sep-Dec 2015. Consolid-ated QPRs being prepared routinely.	
	Set up a website and provide regular information on project performance as well as procurement information	BWDB	Website set up by end of Year 1. Website regularly updated	Delays in establishment of website/ publishing information	From inception, notices and procurement results being posted on BWDB website and CPTU website (Ministry of Planning) or UN Development Business. New, easier-to-navigate BWDB website is under development. M&E Consultants have piloted a partial beta version of a web-based PMIS in November 2016, updated in Sep 2017 and improved version available for users as of late 2017. Improvements are continually being made.	
Procurement Risks						
Reduce risk of corruption in **procurement**.	Retain design of few contracts processed in Dhaka to enhance scrutiny	BWDB	On-going	Procurement red flags in ex ante and ex post review	Procurement packages have been aggregated in size to facilitate scrutiny.	

Issues/Risks/ Objective	Actions	Agency respon-sible	Timeline - Plan	Early Warning Indicators to Trigger Additional Action	Timeline - Actual	Remarks
	Publish/agree detailed mapping of procurement processes, including finite list of who has access to documents when in the process	BWDB	On-going	Inconsistencies with "need to know" prin-ciples in procurement mapping, evidence of unauthorized access to information	Documentation and mapping of processes completed December 2015.	PMU understands and follows procedures that safeguard procurement processes.
	Enforce ICB procurement guidelines for documentation, timelines, and transparency	BWDB, Bank	On-going		ICB guidelines are enforced.	
	Appoint a Procurement Panel	BWDB	3-6 months after project effectiveness	Panel members not recruited	Int'l Proc. Expert – Nov 2013 Nat'l Proc. Expert – Nov 2013 Int'l Technical Exp. – 2013, with replacement in April 2015	Contracts of PP expired in 2018 and not renewed as this work is now minimal and being handled by PMU team.
	Enhance complaints mechanism with reporting established and follow-up guidelines	BWDB	On-going	Nature and frequency of complaints	GRC membership composition confirmed in Dec 2015. Fifteen (15) GRC formed in Package 01 area and 21 in Package 02. As of 31 March 2022, Pkg 01: A total of 187 complaints / grievances have been reported. Out of these, 51 complaints have been resolved at the entry level and 134 cases have been resolved through investigations and formal hearing by GRC. The remaining 2 lodged grievances have been referred to a higher level by the GRC. Pkg 02: A total of 56 grievances have been lodged – 34 complaints have been resolved at the entry level and the remaining 22 cases resolved by GRC	
Potential for or	Declarations of no conflict of	BWDB	BWDB personnel by		Complied on rolling basis as staff,	Periodic renewal of COI

Issues/Risks/ Objective	Actions	Agency respon-sible	Timeline - Plan	Early Warning Indicators to Trigger Additional Action	Timeline - Actual	Remarks
reduce risks of **conflict of interest** among participants in procurement	interest by BWDB personnel, including members of PP and bidders Review statements of financial interests encompassing key project staff Require bidders' statements concerning agents and other possible connections to persons involved with procurement.	 BWDB BWDB	effectiveness; bidders at submission Within one month of submission At bidding stage		consultants and contractors join. Not a separate declaration from COI above. Complied on ongoing basis.	declaration may be considered.
Contract Execution and Project Management Risks						
Avoid collusion of parties involved and ensure transparent management of contracts	BWDB website includes information on contract execution (e.g. gross estimate of completion of works etc.) Establish enhanced complaints mechanism, including ICT Numerous levels of scrutiny: - PD serve as Employer's representative - Construction Supervision Consultant as Engineer - Nominate Resident Engineers at the site - M&E Consultant to oversee project performance	BWDB BWDB Super-vision Consult-ants, M&E	As information becomes available By project effectiveness	Website does not include updated information	Complied on ongoing basis, as information is available. Please see cptu.gov.bd website. Select "Contract Award Notices", MOWR, BWDB. Services have not been uploaded here, but were uploaded to UN Development Business. GRM established in Pkg 01 and 02. In place: PD – Nov 2013 to Feb 2016 New PDs appointed – Feb 2016, Jan 2018, Jan 2019, Jan 2020, Feb 2020 and Jan 2021. DDCS&PMSC – Jan 2015 REs nominated – Jan 2015; RE position for Package 01 vacant for over one year as of September 2019. RE position for Package 02 appointed – Nov 2018, but position remains vacant.	Services are also be uploaded to cptu.gov.bd website within the 30-day window after contract signing. The lack of REs for an extended period represents a substantial risk.

Issues/Risks/ Objective	Actions	Agency respon-sible	Timeline - Plan	Early Warning Indicators to Trigger Additional Action	Timeline - Actual	Remarks
					M&E – Nov 2015	
Fraud and Corruption in Delivery of RAP Benefits						
Potential for improper targeting of beneficiaries and/or false delivery	Contract out implementation of RAP to experienced NGOs, with reputable track record for similar programs	NGOs	Contract in place	Reviewers (BWDB, WB) receive plausible complaints borne out by frequency or other corroboration	DDCS&PMSC has KMC on its team, charged with looking after the RAP implementation (since Jan 2015).	There were some complaints of irregularities. DDCS&PMS Consultant has under-taken preliminary investigation.
	Ensure third party monitoring by the M&E Consultants	M&E	Contract in place		M&E Consultants in place Nov 2015 and developed a Comprehensive M&E Strategy which is being implemented.	
	Conduct survey among beneficiaries	M&E	Unit in place by effectiveness or before	Survey results identify improprieties	Field-level consultations held regularly	
					Baseline survey designed and implemented in early 2016 for Package 01 and early 2018 for Package 02 along with a midline for Pkg 01.	
	Enhance complaints mechanism, including use of ICT	M&E			In place and in process of being improved.	
	Suo moto disclosure of information	BWDB	Designated office in place by effectiveness, begin implementing expanded disclosure plan three months after effectiveness		Communication Officer REOI re-advertised in January 2016. Contract signed in March 2017, but expert withdrew before joining. After additional rounds of procurement, officer signed contract on 01 July 2018. Contract concluded on 30 June 2020 and position has been discontinued.	

Annex 6: Key Performance Indicators and Targets per PAD/DPP

Results Framework and Monitoring as of 30 June 2022

Project Development Objectives																
Indicator Name	**Core**	**Unit of Measure**	**Base line**	**Cumulative Target Values**									**Fre-quency**	**Data Source/ Meth.**	**Respon-sible for Data Collection**	**Remarks**
				YR1 14/15	**YR2 15/16**	**YR3 16/17**	**YR4 17/18**	**YR5 18/19**	**YR6 19/20**	**YR7 20/21**	**YR8 21/22**	**End Target**				
Gross area protected		1000 x ha	-	-	-	-	19.1	35.5	40.8	52.8	66.012	66.012	Annual	BWDB	M&E	Target area for Pkg 1 & 2 are 66.012 (1000 x ha)
Achievement				-	-	4.7	9.9	28.7	31.79	41.38	55.91					
Direct project beneficiaries from increased resilience to climate change (number) of which female (percentage) %	**X**	1000 x person	0	0	0	0	208	389	448	579	724 (50%)	724 (50%)	Annual	BWDB	M&E	The beneficiaries are counted in proportion to the share of embankment with earthwork completed.
Achievement				0	0	39	76	248.9	348.75	399.53	582.64					
Increase cropping intensity		(%)	140	-	-	-	-	158	167	171	180	180	Annual	BWDB	M&E	Will be calculated via end line survey, though mid-line survey may also show results.
Achievement				-	-	-	-	-	-	178.20	178.20					Based on DAE data Pkg -01: 148.7 Pkg -02: 198.9 Per satellite data, and assuming cultivable area is equal to Khari-2 area as agreed, the 2021-22 year saw: Pkg 01: 167; Pkg 02: 205 (not including P-39/2C)
Contingent Emergency Appropriation		Triggered, if requested [Y/N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BWDB	NA	Not triggered.
Achievement				NA	NA	NA	NA	NA	NA	NA	NA					
Intermediate Results Indicators																
Indicator Name	**Core**	**Unit of Measure**	**Base line**	**Cumulative Target Values**									**Fre-quency**	**Data Source/ Meth.**	**Respon-sible for Data Collection**	**Remarks**
				YR1 14/15	**YR2 15/16**	**YR3 16/17**	**YR4 17/18**	**YR5 18/19**	**YR6 19/20**	**YR7 20/21**	**YR8 21/22**	**End Target**				

Length of upgraded embankment		km	0	-	11	68	173	254	309	350	408	408	Annual	BWDB	M&E	
Achievement				-	0.8	27.9	44.25	164.93	197.11	244.04	324.96					Pkg 01: 197.882kms done Pkg 02: 127.073 kms done
Drainage structures replaced		No.	-	-	2	13	34	52	66	75	88	88	Annual	BWDB	M&E	
Achievement				-	0	0	19	35	38	56	70					All Pkg – 70 fully done; and 16 are in progress Pkg 01: 38 fully done Pkg 02: 32 fully done; 16 in progress
Drainage structures repaired		No.	-	-	-	-	1	2	4	6	8	8	Annual	BWDB	M&E	
Achievement							0	0	2	2	2					Pkg 01: 2 done Pkg 02: 0 done; 2 in progress
Flushing structures replaced		No.	-	-	3	14	33	47	57	66	77	80	Annual	BWDB	M&E	
Achievement				-	0	0	15	28	29	41	49					All Pkg – 49 fully done; 16 in progress Pkg 01: Revised target 29 and 29 nos done Pkg 02: Revised target 51 nos. 20 nos fully done and 16 are in progress
Flushing inlets repaired		No.	-	-	-	-	8	15	25	35	44	44	Annual	BWDB	M&E	
Achievement							0	12	14	15	15					Pkg 01: 14 of 14 Pkg 02: 1 of 32 done; 26 in progress
Indicator Name	**Core**	**Unit of Measure**	**Base line**	**Cumulative Target Values**									**Fre-quency**	**Data Source/ Meth.**	**Respon-sible for Data Collection**	**Remarks**
				YR1 14/15	**YR2 15/16**	**YR3 16/17**	**YR4 17/18**	**YR5 18/19**	**YR6 19/20**	**YR7 20/21**	**YR8 21/22**	**End Target**				
Length of River Bank Protection		kms				4.25	5.95	7.70	9.00	9.17	9.37	9.37				
Achievement						0.40	1.81	5.95	8.18	8.67	9.52					9.524 kms done Pkg 01: 4.250 of 4.25 kms Pkg 02: 5.274 of 5.12 kms
Length of Slope Protection		kms				2	5	9.33	18.00	24.00	29.136	29.136	Annual	BWDB	M&E	

Achievement					0.117	3.73	9.33	14.17	18.503	24.027					24.027 kms done Pkg 01: 19.606 kms (out of 19.776 kms) Pkg 02: 4.421 kms (out of 9.36 kms)
Length of Drainage Channels upgraded		kms	0	-	9	52	125	178	224	261	305	305	Annual	BWDB	M&E	
Achievement				-	-	11	27.5	134.34	157.80	215.46	258.13					258.13 kms done Pkg 01: 150.299 kms done (of 150 kms) (100 % of Pkg 1) Pkg 02: 107.831 kms done (of 155 kms) (59.77 % of Pkg 2)
Area restored re/afforested	**X**	ha	-	-	-	-	-	150	300	450	600	600	Annual	BWDB	M&E	
Achievement				-	-	-	-	208	208	416.6	473.8					Pkg 01: 298.8 ha Pkg 02: 175.0 ha
Indicator Name	**Core**	**Unit of Measure**	**Base line**	**Cumulative Target Values**									**Fre-quency**	**Data Source/ Meth.**	**Respon-sible for Data Collection**	**Remarks**
				YR1 14/15	**YR2 15/16**	**YR3 16/17**	**YR4 17/18**	**YR5 18/19**	**YR6 19/20**	**YR7 20/21**	**YR8 21/22**	**End Target**				
Water Management Organization (WMO)		Nb.	0	-	-	-	-	-	4	8	10	10	Annual	BWDB	M&E/NGO	
Achievement				-	-	-	-	-	5	7	10					WMG: 141 formed. Remaining in Polder 33 = 2 WMA: 10 formed. 7 registered
Improved coastal monitoring		Studies	Limited data					1		2	2		Annual	BWDB	M&E	Consultant contract signed October 2018.
Achievement				-	-	-										Both studies in progress with interim reports received
BWDB person-days of training provided	**X**	No.	0	160	320	480	640	800	960	1080	1200	1200	Annual	BWDB		

Achievement			341; 66 for women (33)	341; 66 for women (33)	341; 66 for women (33)	461; 66 for women (45)	461; 66 for women (45)	461; 66 for women (45)	536	679 (81)						Number of participants in parentheses
Grievance Redress Committee (GRC)		No.	0		15	15	36	36	36	36	36	36	36	Annual	BWDB	M&E/NGO	
Achievement					15	15	36	36	36	36	36						
Detailed designof future 7Polders (including EIA,RAP/LAP)		No.	0						7	7	7	7	7	Annual	BWDB	M&E	
Achievement																	All designs completed, with approval of a single structure pending. EIAs approved pending National Disclosure Consultation.