

2017-18

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
MINISTRY OF PLANNING
IMPLEMENTATION, MONITORING & EVALUATION DIVISION



BANGLADESH WATER DEVELOPMENT BOARD

PROJECT COMPLETION REPORT
IMED 04/2003 (Revised)

Emergency 2007-Cyclone Recovery & Restoration
Project-ECRRP (BWDB Part) (3rd Revised)

SEPTEMBER 2018

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

PROJECT COMPLETION REPORT: IMED 04/2003 (Revised)

A. PROJECT DESCRIPTION:

01. **Name of the Project** : Emergency 2007 Cyclone Recovery & Restoration Project (ECRRP- BWDB Part) (3rdRevised)
02. **Administrative Ministry/Division** : Ministry of Water Resources
03. **Executing Agency** : Bangladesh Water Development Board
04. **Location of the Project** :

Division	District	Upazila	Polder name
1	2	3	4
Barisal	Patuakhali	Kalapara, Dashmina, Rangabali and Galachipa.	44/P, 46, 47/1, 47/4, 47/5, 54/A, 55/1, 55/2C, 55/2B, 50/51, 52/53B, 55/4, 55/2D, 55/3, 52/53A
	Barguna	Barguna Sadar, Patharghata, Amtali, Bamna, Taltoli and Betagi.	39/2A, 39/1D, 39/1A, 40/1, 41/6B, 41/7B, 41/4, 43/1, 41/5, 45, 42, 44B
	Pirojpur	Mathbaria and Bhandaria.	39/1B, 39/1C

05. Objective of the Project:

The main objectives of the project are to:
Rehabilitate/repair of the BWDB infrastructures of 29 Polders damaged by Cyclone Sidr on 15 November 2007 and Cyclone Aila on 25 May 2009, in 12 (Twelve) worst affected Upazilas of 3(Three) coastal districts to bring them to pre-cyclone condition so as to bring the damaged structures in operational condition to ensure the desired benefits of the sub-projects

Carry out 4 (four) separate studies:

1. Formulate a long term Coastal Embankment Improvement Program in order to increase safety against cyclonic surge of certain degree taking consideration of sea level rise and global warming and prepare detailed design of infrastructures of economically important polders;
2. Technical studies for River Bank Improvement Program that would focus on reconstruction of Brahmaputra Right Bank Embankment (BRE) starting from Sirajgonj town upwards Kazipur with preparation of detailed design & tender documents;
3. Consultancy Services for Bangladesh River Improvement and Conservation (BRIC) Project.
4. Consultancy services for Environmental and social studies for the Gorai River Restoration Project.

06. Estimated Cost:

(In lakh Taka)

	Original	Latest Revised
(a) Total	18064.89	75050.00
(b) Foreign Currency	--	--
(c) Project Aid	18064.89	74942.49
(d) RPA	16370.11	74925.15
(e) GoB	-	107.51

07. Date of Approval :

	PCP	DPP
(a) Original	--	23 October, 2008 (ECNEC)
(b) Latest Revised	--	05 April, 2018

08. Implementation Period:

	Date of Commencement	Date of Completion
(a) Original	August, 2008	June, 2013
(b) RDPP(1 st Revised)	August, 2008	June, 2014
(c) RDPP(1 st Re-appropriation)	August, 2008	June, 2014
(d) RDPP (2 nd Revised)	August, 2008	December, 2017
(e) RDPP (3 rd Revised)	August, 2008	December, 2017
(f) RDPP (2 nd Re-appropriation)	August, 2008	June, 2018
(g) Actual	November 2008	June, 2018

09. Financing Arrangement (Source-wise):

9.1 Status of Loan/Grant

a) Foreign Financing :

Source (s)	Currency as per Agreement	Amount in US \$ (Million)	Nature (Loan/Grant/supplier's/credit)	Date of Agreement	Date of Effective -ness	Date of Closing	
						Original	Revised
1	2	3	4	5	6	7	8
IDA-Credit No. 4507 BD	US\$	21.18	Loan	23.11.08	24.12.08	31.12.14	--
IDA-Credit No. 4819 BD	US\$	4.95	Loan	11.11.10	04.01.11	31.12.16	--
IDA-Credit No. 5342 BD	US\$	62.10	Loan	09.06.14	10.08.14	31.12.17	30.06.18
Total	US\$	86.82					

b) GOB:

(In lakh Taka)

Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
107.51	--	107.51	--

9.2 Utilization of Project Aid: (Source wise)

(In millions)

Source (s)	Total Amount		Actual Expenditure		Unutilized Amount	
	In US \$	In Local Currency	In US \$	In Local Currency	In US \$	In Local Currency
1	2	3	4	5	6	7
IDA-Credit No. 4507 BD	21.18	1652.06	21.17	1652.06	--	--
IDA-Credit No. 4819 BD	4.95	392.39	3.22	251.50	1.73	140.89
IDA-Credit No. 5342 BD	61.34	4902.11	61.34	4902.11	--	--

9.3 Reimbursable Project Aid (RPA) :

(In lakh Taka)

P A Amount		Amount Spent	Amount Claimed	Amount Reimbursed	Remarks
As per DPP	As per Agreement				
1	2	3	4	5	6
74942.49	7356.17	68056.72	68056.72	68056.72	

B. IMPLEMENTATION POSITION

01. Implementation Period:

Implementation Period as per DPP		Actual Implementation period	Time Over-run (% of original implementation period)	Remarks
Original	Latest Revised			
1	2	3	4	5
August/2008 to June/2013	August/2008 to June/2018	August/2008 to June/2018	101.65%	Due to increased scope of works

02. Cost of the Project:

(In lakh

Taka)

Description	Estimated Cost		Actual expenditure	Cost over-run (% of original cost)	Remarks
	Original	Latest revised			
1	2	3	4	5	6
TOTAL	18064.90	75050.00	68122.42	277. 10%	The Donor agency increased the scope of works & extended Loan amount thereafter
TAKA	0	107.51	65.70		
PA	18064.90	74942.49	68056.72		

03. Project Personnel:

a) PD office

Sanctioned strength as per DPP	Manpower employed during execution	Status of the existing manpower			Manpower Employed	
		Manpower requirement for O&M as per DPP	Existing manpower for O & M	Others		
1	2	3	4	5	Male	Femal e
Officer (s)	8	O& M of this project will be carried out by the existing manpower of BWDB	O& M of this project will be carried out by the existing manpower of BWDB	--		
Staff (s)	9			--		
Total :	19			--		

In field level, the project works has been implemented by the D& S Consultants as well as with the help of existing manpower of concerned divisions of BWDB.

b) Consultant Manpower

Officer (s)	21	--	--	--	18	03
Staff (s)	66	--	--	--	63	03
Total :	87	--	--	--	81	06

04. Training of Project Personnel (Foreign/ Local)-There was no provision of training in this project.

Fild of Training /Study tour/Workhop/Seminer etc.	Provision as per DPP		Actual		Remarks
	No of person's	Man month	No of person's	Man month	
1	2	3	4	5	6
a. Forign	N/A				
b. Local					

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

	Items of work (as per DPP)	Unit	Target (as per DPP)		Actual progress		Reasons for deviation (±)
			Financial	Physical Quantity	Financial	Physical Quantity	
1	2	3	4	5	6	7	8
(a) Revenue component:							
	Pay of Establishment(Hired Person)	mm	43.11	280	37.33	228 mm	lack of sufficient applicant in freedom fighter kota
	Other allowances		85.00		52.17		Man-power was not as per set-up all the project period
	Supplies and Services		0.00		0.00		
	Travelling Allowance	L.S.	12.00		12.00		
	Overtime	L.S.	6.40		5.75		
	Other Taxes(Environmental Taxes/Fees etc)	L.S.	1.00		0.00		
	Postage	L.S.	3.00		1.25		As per actual requirement
	CNG & Fuel	L.S.	7.00		6.92		
	Petrol & Lubricant	L.S.	55.00		52.59		
	Printing & Publication	L.S.	18.00		17.96		
	Stationary	L.S.	28.00		27.93		
	Publicity and advertisement	L.S.	20.00		11.31		As per actual requirement
	a)Engagement of Individual Consultant for preliminary assessment of damages, social survey, environmental survey &data collection .	mm	24.22	18.00	24.22	person=3 mm=18	
	b)Consultancy services (consulting firm/Individual consultant) for Project Management, Design & supervision of rehabilitation of infrastructure damaged by cyclone SIDR & AILA in 3(three) district of Southern Bangladesh	mm	3577.34	3151.00	3399.28	person=87 mm=3151	As per actual requirement
	c) Engagement of Sr. Individual Consultant to assist the Project Director (BWDB Part) for different project activities throughout the project implementation period.	mm	65.00	60.00	55.98	Person=3 mm=60	As per actual requirement

d) Engagement of 3(three) Nos.Sr. Consultant as Design Engineer for doing design works of SIDR & AILA rehabilitation Works (Civil Works). (Above consultancy services included all kinds of Taxes)	mm	20.51	24.00	20.51	Person=3 mm=24	
Consultancy service (consulting firm/Individual consultant) for (i) Technical studies & detail engineering for River Bank Improvement Program (ii) Technical studies & detail design for Coastal Embankment Improvement Program (Above consultancy services included all kinds of Taxes) (iii) Consultancy Services for Bangladesh River Improvement and Conservation (BRIC) Project. (iv) Consultancy services for Environmental and social studies for the Gorai River Restoration.	mm	7422.00	1472.50 mm	7347.97	Person=14 7 mm=1467. 06	As per actual requirement
v) Consultancy Services for International Procurement Expert as Individual Consultant to assist PMO Office on the Procurement of Consultant (Main Consultant) of RBIP and others contract related matters. vi) Independent Consultant to help the Project Director in Managing RBIP Consultants.						
Honorium for different committee members	L.S.	20.00	L.S.	11.68		As per actual requirement
Survey & Investigation(Soil Test, Bore log etc)	L. S.	100.00	L. S.	100.00		
Others	L. S.	7.00	L. S.	4.38		As per actual requirement
Repair, Maintenance & Rehabilitation						
Motor vehicle(maint)	L. S.	24.00	L. S.	23.69		
O&M of Computer & office equipments	L. S.	8.00	L. S.	7.88		
Office Maintenance, Decoration and operational cost	L. S.	22.00	L. S.	21.96		
Others	L. S.	8.00	L. S.	8.00		
(a) Sub-Total of Revenue Component :	0.00		11576.58	11250.82		
(b) Capital Component:						
Acquisition Asset :				0.00		
Motor vehicle- 6(six) nos.	No.	327.71	6	327.71	6 Nos	
Motor Cycle -25(Twenty Five) nos.	No.	30.99	25	29.99	25 Nos	

	Items of work (as per DPP)	Unit	Target (as per DPP)		Actual progress		Reasons for deviation (±)
			Financial	Physical Quantity	Financial	Physical Quantity	
1	2	3	4	5	6	7	8
	Speed boat with engine & other accessories -4 (Four) No.	No.	80.00	4	29.88	2 Nos	Dropped procurement of 2 nos. speed boat as per World Bank advice.
	Engineering Instrument -1item.	L. S.	20.00	L. S.	19.99		
	Laptop and Desktop Computer brand/clone (Intel Dual core-2 processors, Ram 4 GB) with accessories including UPS, Computer Table -25 sets.	sets	25.00	25	23.85	25 set	



Sl. No.	Items of work (as per DPP)	Unit	Target (as per DPP)		Actual progress		Reasons for deviation (±)
			Financial	Physical Quantity	Financial	Physical Quantity	
1	2	3	4	5	6	7	8
	Office equipment with accessories (Photocopier -8 nos., Fax- 6 nos., Scanner A3 size -5 nos., Spiral Binding Machine-6 nos., Color/black & White Printer A3/A4 size-6 nos., IPS-5 Nos. Air Conditioner- 2nos).	L. S.	18.00	L. S.	18.00		
	Furniture 1 item	L. S.	10.00	L. S.	9.71		
	Plantation for erosion protection of the embankment due to wave action of sea.	km	20.00	2.00	20.00	2 km	
	Acquisition/ Purchase of land : Landed properties assets						
	Land Acquisition and other compensation for squatters & affected person	ha	95.00	3061.00	3061.00	89.38	As per actual requirement
	Construction of works:						
	Embankment	km	19757.44	514.24	14407.77	513.04	Embankment of 1.20 km length remain incomplete due to land acquisition & re-settlement problems.
	Water Control Structure	Nos	12154.05	365	11905.57	358	Due to land acquisition & re-settlement problem.
	Bank Protective Work	Km	27908.74	19.77	26957.64	18.405	1.20 km length remain incomplete due to land acquisition & re-settlement problem.
	Development Import Duty & VAT						
	CDST for vehicle	1 item	60.49	1 item	60.49		
	(b) Sub-Total of Capital Component :		63473.42		56871.61		
	Total Cost (a+b):		75050.00		68122.42		
	(C) Physical Contingency :		0.00		0.00	0.00	
	(D) Price Contingency :		0.00		0.00	0.00	
	Grand Total (a+b+c+d):		75050.00	100.00%	68122.42	90.00%	

06. Information regarding Project Director (s):

Name & Designation with pay Scale.	Full time	Part time	Responsible for more than one project	Date of		Remarks
				Joining	Transfer	
1	2	3	4	5	6	7
Md.Abdul Jalil Superintending Engineer/PD Pay scale:16800/- 20700/-	Full time	--	Yes	12.02.09	30.10.10	
Md.Abdul Jalil Add. Chief Engineer/PD Pay scale:29000/- 35600/-	Full time	--	Yes	30.10.11	21.11.10	
Md.Iqbal Hossain Superintending Engineer/PD Pay scale: 25750/- 33750/-	Full time	--	Yes	21.11.10	09.01.13	
Md. Sirajul Islam Superintending Engineer/PD Pay scale: 25750/- 33750/-	Full time	--	No	09.01.13	31.05.15 26.01.15	
Md. Sirajul Islam Add. Chief Engineer/PD Pay scale: 29000/- 35600/-	Full time	--	No	09.01.13 26.01.15	31.05.15	
Md.Habibur Rahman Superintending Engineer/PD Pay scale: 25750/- 33750/-	Full time	--	No	31.05.15	30.12.15	
Md.Habibur Rahman Add. Chief Engineer/PD Pay scale: 56500/- 74400/-	Full time	--	No	30.12.15	21.11.17	
Md.Habibur Rahman Chief Engineer/PD Pay scale: 66000/- 76490/-	Full time	--	Yes	22.11.17	30.06.18	

07. Procurement of Transport (in Nos.)

Type of transport	Number as per RDPP	Procured with date	Transferred to Transport Pool with date	Transferred to O & M with date	Condemned/damaged with date	Remarks
1	2	3	4	5	6	7
Jeep	3.0 nos	Memo No.361 Dated: 22.10.09	Document Attached	Document Attached	--	Annex I
Jeep	3.0 nos	Memo No.84 Dated: 07.08.12	Document Attached	Document Attached	--	
Motor Cycle	25 nos	Memo No.1913 Dated: 05.04.12	Document Attached	Document Attached	--	
Speed Boat	02 nos	Memo No.333 Dated: 09.06.10	Document Attached	Document Attached	--	



08. Procurement of Goods, Works and Consultancy Services:

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

Description of procurement (goods/work/consultancy) as per bid document	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per DPP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Goods						
01. Procurement of Motor Vehicles 4-WD Jeep/Cross Country (3 Nos) (Package Number: ECRRP/G-11)	2.10	2.09	20.12.2011	16.09.2012	20.11.2012	18.11.2012
Works :						
S-1 Works : Component- C						
01. Rehabilitation of Polders 47/5 and 52/53B in Patuakhali District (Package Number: ECRRP/BWDB/W-01)	Embankment 1.30Km	14.41	09.05.2010	7.11.2010	05.05.2012	31.03.2013
	Embankment 16.60 Km					
	Structure (New)-2 Nos					
	Structure (Repair)-3 Nos					
	Protective Work-90m					
02. Rehabilitation of Polders 41/6B and 41/7B in Barguna District (Package Number: ECRRP/BWDB/W-02)	Embankment 58.12Km	12.73	30.05.2010	25.11.2010	24.05.2012	30.04.2013
	Structure (New)-12 Nos					
	Structure (Repair)-5 Nos					

Description of procurement (goods/work /consultancy) as per bid document	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per DPP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
03. Rehabilitation of Polders 39/2A in Barguna District (Package Number: ECRRP/BWDB/W-03)	6.28	6.27(org) 5.67(rev)	08.08.2010	03.02.2011	02.08.2012	30.06.2013
04. Rehabilitation of Polders 55/2C,55/4 and 55/1 in Patuakhali District (Package Number: ECRRP/BWDB/W-04)	18.81	18.80	14.11.2010	03.03.2011	08.06.12	15.02.13
05. Rehabilitation of Polders 46, 52/53A, 54/A and 47/1 in Patuakhali District (Package Number: ECRRP/BWDB/W- 05)	18.72	18.71(org) 18.67(rev)	24.03.2011	25.07.2011	22.01.2013	15.04.2013
06. Rehabilitation of Polders 44(P) and 47/4 in Patuakhali District (Package Number: ECRRP/BWDB/W-06)	23.84 23.44(Rev)	23.84(org) 23.44(rev)	28.07.2011	09.02.2012	20.02.2013	20.02.2013

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Description of procurement (goods/work /consultancy) as per bid document	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per DPP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
07. Rehabilitation of Polders 42 in Barguna District (Package Number: ECRRP/BWDB/W-07)	8.22	7.89(org) 8.22(rev)	27.07.2011	19.01.2012	18.01.2013	15.03.2013
08.Rehabilitation of Polders 39/1D and 40/1 in Barguna District (Package Number: ECRRP/BWDB/W-10)	17.52	14.51(org) 9.07(rev)	20.09.2011	30.01.2012	29.10.2012	26.12.2012
09.Rehabilitation of Polders 55/2B and 50/51 in Patuakhali District (Package Number: ECRRP/BWDB/W-14)	14.19	10.07	06.09.2011	09.02.2012	20.02.2013	30.04.2013
10. Additional Rehabilitation of works under Polder Nos. 41/6B,41/7B,52/53B and 39/2A in Barguna and Patuakhali District (Package Number: ECRRP/BWDB/W-18)	103.16	69.48(org) 103.16(Rev)	09.12.2013	20.05.2014	26.08.2015	30.06.2018

Description of procurement (goods/work /consultancy) as per bid document	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per DPP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
11. Rehabilitation of Embankment and Related Structures under Polder Nos. 44(B), 41/4, 41/5, 55/2D, 45, 43/1 and 55/3 in Barguna and Patuakhali District (Package Number: ECRRP/BWDB/W-19)						
	239.11	239.11	03.11.13	18.08.2014	02.09.16	30.06.2018
12. Rehabilitation of Polders 39/1A, 39/1B and 39/1C (Package Number: ECRRP/BWDB/W-20)						
	145.75	132.39	10.02.15	30.06.2015	30.09.2017	30.06.2018

Description of procurement (goods/work /consultancy) as per bid document	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per DPP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Consultancy						
01. Consultancy services (consulting firm/ Individual consultant) for Project Management, Design & supervision of rehabilitation of infrastructure damaged by cyclone SIDR & AILA in (three) district of Southern Bangladesh (Package Number: BWDB/C2/S-1)	34.69	34.69	14.02.2009	12.11.2009	30.12.2017	30.06.2018
02. Technical feasibility studies and detailed design for River Bank Improvement Program (RBIP) Bridging Period of RBIP (Package Number: BWDB/D2.1/S-2)	39.68	39.68	25.05.2012	29.10.2013	30.06.2016	30.06.2016
03. Overall project and Preparatory studies under Bangladesh River Information and Conservation Program (BRIC) (Package Number: BWDB/D2.1/Bric-1 (PPF-1))	4.81	4.81	-	13.10.2011	30.06.2015	30.06.2015
04. (ii) Study on Geo-morphological Investigation and Plan form Analysis using Remote Sensing Techniques and Environmental and Social Study of the Gorai River Restoration Project(Package Number: BWDB/D2.1/Bric-2)	2.02	2.02	-	13.10.2011	30.06.2015	30.06.2015
05. (ii) Technical feasibility studies and detailed design for Coastal Embankment Improvement Program (CEIP) (Package Number: BWDB/D2.2/S-3)	19.33	19.33	19.04.2009	16.08.2010	15.03.2012	15.03.2012

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

Name of the Field	Approved man month		Actual man month utilized	Remarks
	As per DPP	As per contract		
1	2	3	4	5
01. D & S Consultant				
Foreign	89.0	89.0	89.0	
Local	3062.0	3062.0	3062.0	
02. Technical studies & detail engineering for RBIP, CEIP, BRIC & GRRP				
Foreign	112.5	110	107.06	
Local	1360	1360	1360	



09. Construction/Erection/Installation Tools & Equipment:

09.1 Construction/Erection/Installation Tools & Equipment from ECRRP Project Office:

Description of items	Quantity (as per RDPP)	Quantity procured with date	Transferred to O & M with date	Disposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7
Desktop Computer	18 Nos	18 Nos 30-06-09 30-05-10 23-03-12 18-06-13	Document Attached		13 nos.	Annex 2
Laptop Computer	7 Nos.	7 Nos. 23-03-12 18-06-13 21-06-16	Document Attached	--	5 Nos.	
Printer	11 Nos.	30-06-09 30-05-10 18-06-13 11-03-18 18-06-18	Document Attached	--	8 Nos.	
Photocopier Machine	10 Nos	10 nos. 30-06-09 04-06-10 16-06-15 27-06-18	Document Attached	--	3 nos.	
Fax machine	03 Nos	03 nos. 30-06-09 04-06-10	Document Attached	--	02 nos.	
Scanner	05 Nos	05 nos. 30-06-09 04-06-10 15-05-18	Document Attached	--	01 nos.	
Air conditioner	02 Nos	02 nos. 18-06-13	Document Attached	--	02 nos.	
Ips	03 Nos	03 nos. 31-03-12 18-06-13	Document Attached	--	01 nos.	
Survey and others equipments						
a. Hand GPS	02 Nos	02 Nos. 20-05-10	Document Attached	--	02 nos.	Annex 2
b. Leveling machine	08 Nos	08 Nos. 20-05-10	Document Attached	--	--	
c. Total station	03 Nos	03 Nos. 05-10-09	Document Attached	--	01 nos.	

9.2 Construction/Erection/Installation Tools & Equipment from Consultant Office:

Description of items	Quantity (as per RDPP)	Quantity procured with date	Transferred to O & M with date	Disposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7
Office Desk (Table Executive Graphite Light Grey, Otobi Brand) RBIP	18	18 Nos. From Consultant office	Document Attached	--	0 Nos	Annex 3
Office Desk (Table Chief Executive Pear Walnut) RBIP	3 Nos.	3 Nos. From Consultant office	Document Attached	--	0 Nos	
Book shelf (file cabinet book self) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
Executive Chair (Swivel Chair Black Big Black) RBIP	3 Nos.	3 Nos. From Consultant office	Document Attached	--	0 Nos	
Executive Chair (Swivel Chair Executive) RBIP	8 Nos.	8 Nos. From Consultant office	Document Attached	--	0 Nos	
Visitor Chair (Visitor Chair ST-Black Rex-Black) RBIP	36 Nos.	36 Nos. From Consultant office	Document Attached	--	0 Nos	
File Cabinet (Long Book Cabinet White Okh Color) RBIP	2 Nos.	2 Nos. From Consultant office	Document Attached	--	1 Nos	
Conference Table (Full Okh Color) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
Executive Chair (Partex Scientific Chair) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	

Description of items	Quantity (as per RDPP)	Quantity procured with date	Transferred to O & M with date	Disposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7
Desktop Computer (High End Desktop Computer) RBIP	9 Nos.	9 Nos. From Consultant office	Document Attached	--	0 Nos	Annex 3
Laptop (TOSHIBA) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
Laptop (Deol Laptop) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
Server (Full Lan equipped Server) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
Printer (EPSON STYLUS PHOTO 1390 INKJET Printer) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
Printer (studio 2051C Toshiba Multifunctional Printer) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
IP Phone set (IP Phone set black) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
Moving Fan (GFC Basket Moving Fan) RBIP	6 Nos.	6 Nos. From Consultant office	Document Attached	--	0 Nos	
Celling Fan (Pakistani Fan 56") RBIP	2 Nos.	2 Nos. From Consultant office	Document Attached	--	0 Nos	
Air Conditioner (Media 1.0 Tons) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	



Description of items	Quantity (as per RDPP)	Quantity procured with date	Transferred to O & M with date	Disposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7
Air Conditioner (General 2 Tons) RBIP	2 Nos.	2 Nos. From Consultant office	Document Attached	--	0 Nos	Annex 3
Air Conditioner (5 Tons) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
Air Conditioner (Media 1.5 Tons) RBIP	3 Nos.	3 Nos. From Consultant office	Document Attached	--	0 Nos	
Project Screen (Full big Screen White) RBIP	1 Nos.	1 Nos. From Consultant office	Document Attached	--	0 Nos	
Air Conditioner (Media 2 Tons) RBIP	3 Nos.	3 Nos. From Consultant office	Document Attached	--	0 Nos	



C. FINANCIAL AND PHYSICAL PROGRAMME:

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

(In lakh Taka)

Financial Year	Financial provision & physical target as per original DPP				Financial provision & physical target as per latest revised DPP			
	Total	Taka	P.A.	Physical %	Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9
2008-09	4077.18	-	4077.18	22.57	33.98	-	33.98	0.25
2009-10	3825.13	-	3825.13	21.17	486.79	-	486.79	2.22
2010-11	3587.63	-	3587.63	19.86	2499.82	-	2499.82	2.78
2011-12	3412.45	-	3412.45	18.89	5417.45	-	5417.45	8.33
2012-13	3162.50	-	3162.50	17.51	5983.59	-	5983.59	7.22
2013-14	-	-	-	-	4053.09	-	4053.09	5.48
2014-15	-	-	-	-	16921.91	-	16921.91	24.07
2015-16	-	-	-	-	11737.74	18.99	11718.75	22.22
2016-17	-	-	-	-	9771.99	60.92	9711.07	17.33
2017-18	-	-	-	-	18143.62	27.60	18116.02	10.10
Total	18064.89		18064.89	100.00	75050.0	107.51	74942.49	100.00

al

C. (b) Revised ADP allocation and progress:

(In lakh Taka)

Financial Year	Revised Allocation & target				Taka release	Expenditure & physical progress			
	Total	Taka	P.A.	Physical %		Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9	10
2008-09	229.00	-	229.00	0.25	34.73	33.98	-	33.98	0.25
2009-10	2000.00	-	2000.00	2.22	500.00	486.97	-	486.79	2.22
2010-11	2500.00	-	2500.00	2.78	2500.00	2499.82	-	2499.82	2.78
2011-12	7500.00	-	7500.00	8.33	7047.22	5417.45	-	5417.45	8.33
2012-13	6500.00	-	6500.00	7.22	6082.57	5983.59	-	5983.59	7.22
2013-14	4119.00	-	4119.00	5.48	4119.00	4053.09	-	4053.09	5.48
2014-15	19000.00	-	19000.00	24.07	19000.00	16921.91	-	16921.91	24.07
2015-16	20000.00	-	20000.00	22.22	21283.94	11737.74	-	11737.74	22.22
2016-17	10080.00	80.00	10000.00	17.33	10040.00	9771.99	40.00	9731.99	17.33
2017-18	16082.00	35.00	16047.00	10.10	11199.22	11216.04	25.70	11190.36	8.10
Total	88010.00	115.00	87895.00	100.00	81806.68	68122.42	65.70	68056.72	98.00

D. ACHIEVEMENT OF OBJECTIVE OF THE PROJECT.

Objective as per DPP	Actual achievement	Reasons for shortfall if any.
a. Rehabilitate/repair of the BWDB infrastructures of 29 Polders damaged by Cyclone Sidr of 15 November 2007 and Cyclone Aila of 25 May 2009, 12 (Twelve) worst affected Upazillas of 3(Three) coastal districts to bring them to pre-cyclone condition so as to bring the damaged structures in operational condition to ensure the desired benefits of the sub-projects	Rehabilitation of 29 polders have been completed and brought them to pre-cyclonic condition so as to ensure the desired benefits of the sub-projects. Component rehabilitated: Embankment = 513.04 km. WCS = 167 ³⁵⁸ nos. Bank Protection Works = 18.405 km	Due land acquisition and payment of compensation to the affected persons, 1.2 km slope protection works and 7 nos. of WCS could not be completed. For this, only a part of two polders may be affected. The overall objectives of ECRRP has been attained.
b. Formulate a long term Coastal Embankment Improvement Program in order to increase safety against cyclonic surge of certain degree taking consideration of sea level rise and global warming and prepare detailed design of infrastructures of economically important polders;	Feasibility study of CEIP has been completed from ECRRP. An investment programme has already been implemented from 2013 considering Climate Changes and is in progress.	
c. Technical studies for River Bank Improvement Program that would focus on reconstruction of Brahmaputra Right Bank Embankment (BRE) starting from Sirajgonj town upwards Kazipur with preparation of detailed design & tender documents;	Feasibility study of RBIP has been completed from ECRRP. DPP of an investment programme RMIP has been prepared and processed for approval from Competent authority and is under consideration of Planning Commission.	
d. Consultancy Services for Bangladesh River Improvement and Conservation (BRIC) Project	Feasibility study of BRIC has been completed from ECRRP and approved by BWDB.	
e. Consultancy services for Environmental and social studies for the Gorai River Restoration Project (GRRP).	Feasibility study of GRRP has been completed from ECRRP and approved by BWDB.	

E. BENEFIT ANALYSIS

01. Annual Out-put:

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-put during the 1st year of operation at full capacity (or during, real production for newly completed project).
Rehabilitation/ Improvement of Infrastructure:			
Rehabilitate/repair of the BWDB infrastructures of 29 Polders damaged by Cyclone Sidr of 15 November 2007 and Cyclone Aila of 25 May 2009, in 12 (Twelve) worst affected Upazilas of 3(Three) coastal districts has been completed and to bring them to pre-cyclonic condition so as to bring the damaged structures in operational condition to ensure the desired benefits of the sub-projects			

02. Cost / Benefit:

02. Cost/Benefit:

Item		Estimated	Actual
(1) Benefit cost ratio of the project			
(i) Financial		1:1.15	Will be Evaluated later by concern Directorate of BWDB and IMED
(ii) Economic		1:1.30	
(2) Internal Rate of Return			
(i) Financial		17.07%	
(ii) Economic		19.05%	

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

The project has almost attained the desired goal and benefit though there are some works left incomplete due to land acquisition problems.

F. MONITORING AND AUDITING

01. Monitoring:

Name & designation of the inspecting official	Date of Inspection	Identified Problems	Recommendations
1	2	3	4
(a) Ministry / Agency: i. Md.Moktar Hossain, Asstt Chief, MoWR	03.11.2017 to 04.11.2017		During 2017-2018 1 st 4(four) month elapse due to rain, It should be overcome by speed up the progress of work. Land acquisition process should be expedite.
(b) IMED: i) Birendra Nath Barmon, Director IMED	21.02.2011		Retired embankment should be constructed before up coming monson. Manpower mobilization should be increase to expedite the work progress. Name of the project in ADP should be same as per approved DPP by ECNEC.
i) Laşmi Chakma, Asstt Director, IMED. ii) Inter-ministerial committee a) Md. Siddiquir Rahman, DG,IMED b) Md. Habibur Rahman, Project Director, ECRRP, (BWDB Part) c) Md. Afzal Hossain, Director, IMED d) A.K.M. Safinul Hoque, Director, Processing, Chief monitoring, BWDB, Dhaka. e) Mohammad Abdus Salam Khan, Deputy chief (Irrigation Wing) Planning Commission, f) Kharun Nahar, Asstt Chief, MoWR	07.03.2017 to 08.03.2017 01.12.2016 to 03.12.2016		- Project must be completed within time. - In future, each package should be consisted of works of each Polder. - Provision for mechanical operation of Flap gates in future. - Embankment slope should be protected from any kind of vegetation. - O & M during construction should be included in future project. - Facilities for tourist at Protective work sites should be developed.



Name & designation of the inspecting official	Date of Inspection	Identified Problems	Recommendations
1	2	3	4
(c) Others: 1. Dr. Md Jahirul Islam DG/PD, ECRRP, PCMU.	22.11.2014 to 25.11.2014		Project office will take appropriate action in collaboration with the consultants to complete land acquisition process and resettlement issue according to relevant World Bank Guide line's in plder 41/7B PD BWDB in co-operation with the D&S consultants should strictly monitoring the progress of work for smooth & timely implementation.
2. Anjan Kumar Biswas DG/PD, ECRRP, PCMU. Md Khayrul Hasam Director ECRRP, PCMU.	03.11.2017 to 05.11.2017		PD BWDB in co-operation with the D&S consultant should take proper action to complete all physical works as early as possible. D&S consultant should enhance their supervision and monitoring activities for ensuring quality of the work. Land acquisition activities for the project should be expedited for timely completion of the project.

02. Auditing during and after implementation :

2.1 internal Audit : Not Conducted yet.

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

2.2 External Audit :

Period of Audit	Date of Submission of Audit Report	Major findings/objections	Whether objection resolved or not
1	2	3	4
FY 2008-2009	31-12-2009	Nil	Does not arise
FY 2009-10	30-12-2010	Loss of Tk. 42,44,734.00 for not depositing of realized Income Tax and VAT into Govt. account. Unauthorised transfer of project vehicle outside the project. Bank interest amounting to Tk. 6,98,104.00 was not deposited into Govt account.	Dropped
FY 2010-11	29-12-2011	Agreement signed for Cosultency service beyond the Delegation of financial power. Treasury challans not verified by the concered district accounts office (DAO)	Dropped

Period of Audit	Date of Submission of Audit Report	Major findings/objections	Whether objection resolved or not
1	2	3	4
FY 2011-12	31-12-2012	Excess payment made to contractors showing construction supervision facilities of consultants.	Dropped
		Contractor failed to perform works but action not taken as per condition of tender documents.	
		Un-due financial facilities given to the contractor for less deduction of retention money from progressive payment.	
FY 2012-13		Double payment made to contractors showing construction supervision facilities of consultants.	Dropped
		Dumping Hard Rock Valued Violation Govt. Order.	
FY 2014-15		Excess amount paid to the contractor showing excess manufacturing and supplying of CC Block than BOQ quantity.	Dropped
		Excess amount paid to the contractor due to wrong calculation of placing CC Block and not to deduct void.	
		Excess accommodation of CC Block of different sizes for manufacturing & supplying than the quantity accommodated in BOQ for placing and dumping.	
		Double payment made to the contractor showing excess manufacturing and supplying of CC Block than recorded in ledger.	
		Loss of Govt. Revenue due to non-deduction of IT from the bills of expatriate consultant.	
FY 2015-16	22-12-2016	Payment made to the contractors for earth work without ensuring the ownership of land.	BS Reply submitted vide this office Memo No.1831 Dated: 10.12.2017
		Excess amount was paid to the contractor for excess Manufacturing and supplying of CC blocks than the provision of BOQ quantity.	Dropped
		Progress of the project was not achieved as per time schedule.	
		Expenditure incurred for different purpose without supporting documents.	
FY 2016-17	31-12-2017	Loss of Tk 9,42,180.00 due to excess weight allowed to the contractor for supply of sheet pile.	Dropped

G. DESCRIPTIVE REPORT

1. General Observations/Remarks of the Project on:

1.1 Background

Cyclone is a recurrent natural hazard in Bangladesh. In the recent past, Bangladesh experienced severe Cyclones in different months of the years of 1960, 1961, 1963, 1970, 1985 and 1991. On 15 November, 2007, Bangladesh again faced the severe cyclone sidr..Lives and properties in the whole of the coastal Bangladesh and the adjoining regions become highly vulnerable by the cyclonic hazards.

The cyclone (sidr) 2007, hit the south and south-east coast of Bangladesh on 15th November night causing severe havoc including official death toll of more than 3200 human lives in 12 coastal districts. Packing winds over 220 km per hour, the fierce tropical storm roared across the shoreline after it hit landfall at the Khulna-Barisal coast at 7:30 pm cutting off all communications and utility services across the country. The highest wind speed of Sidr, meaning 'hole' or 'eye' in Sinhalese language, was recorded in Patuakhali at 223 kilometres per hour (kmph), compared to the 225 kmph wind speed of the 1991 hurricane and 222 kmph wind force of the 1970 hurricane. The cyclonic storm of hurricane strength, Sidr was one of the 10 fiercest cyclones that had hit the region of Bangladesh in the 131 years between 1876 and 2007. Entire standing crops, large number of houses, roads, embankment & other hydraulic structures were demolished by the cyclone sidr.

The Disaster Management Bureau (DMB) has classified 30 (thirty) SIDR affected Districts are as follows:-

A. WORST AFFECTED	8. <i>Barisal</i>	15. Munshiganj	23. Rajbari
1. <i>Bagerhat</i>	9. <i>Bhola</i>	16. Dhaka	24. Feni
2. <i>Pirojpur</i>	10. <i>Satkhira</i>	17. <i>Cox'sbazar</i>	25. Comilla
3. <i>Patuakhali</i>	11. <i>Jhalakathi</i>	18. <i>Chittagong</i>	26. <i>Jessore</i>
4. <i>Barguna</i>	12. Gopalganj	19. <i>Chandpur</i>	27. Narail
B. BADLY AFFECTED	C.MODERATELY AFFECTED	20. <i>Noakhali</i>	28. Moulvibazar
5. <i>Khulna</i>	13. <i>Laxmipur</i>	21. Narsingdhi	29. Kishoreganj
6. Madaripur	14. Faridpur	22. Narayanganj	30. Manikganj
7. Shariatpur			

Out of the affected districts, 12 were severely affected as shown under A & B of above table. The cyclone caused massive damages to Bangladesh Water Development Board (BWDB)'s infrastructures in the 15 coastal districts **as shown in bold and italics** in above table.

The cyclone SIDR have worst disrupted agricultural production in coastal districts of Bangladesh. SIDR damaged crops of 112879 hectares fully and 1399999 ha partially. The damages caused loss of production of 1295315 metric tones of crops and these affected 2224462 families in the coastal areas.

SIDR inflicted huge damage to the rice crop and worst affected other rabi crops, including pulse (Lentil, Khesari), banana and seasonal vegetables. As the storm surge inundated croplands with saline water, large areas can now only support salinity withstanding crop varieties. SIDR may cause of a loss of aman rice production of about 1.3 million tons and also in the boro seedling.

Immediate after the cyclone, BWDB carried out an in-house assessment of the damaged infrastructures and their rehabilitation cost. In assessing the rehabilitation cost, value of damaged infrastructures were first collected. Rehabilitation cost was then assessed as per present schedule of rates adding cost of Land Acquisition, cost of Engineering Administration, cost of Consultants and Plants & Equipment to bring the infrastructures to pre-cyclone condition.

Relevance:

The very nature and objectives of this project have direct relevance with the national objectives of attaining self-reliance in food grain production, generation of rural employment, poverty alleviation specially for rural poorer section, creation of social & environment balance and building economic infrastructures for the future generations to sustain.

Now, National Water Policy (NWP-1999) is the basic guide for sustainable development of water resources project. The policy indicates priorities for different multi- sectoral needs to be ensured in planning & development of water management projects. It also stressed the need for boosting-up agricultural production through execution of FCDI projects. Accordingly, National Water Management Plan (NWMP) has been prepared indicating portfolio of projects. The plan contains as 25 years long term nation-wide management plan & strategies (first 5- year-short term, onward 10 year- medium and last 10 year long term) for comprehensive as well as sustainable enhancement of water resources. Besides, the present “Three Years Rolling Investment Programme (TYRIP)” prepared with broad objectives of poverty alleviation as per directives of PRS (Poverty Reduction Strategy) of the Govt. stressed for creating employment opportunity in project planning, implementation, operation & maintenance through participation of the poor and gender lowered poverty reduction.

PRS Relevance:

PRS (Proverty Reduction Strategy) of Bangladesh focus on Water Resources Management Strategies, which would contribute to pro-poor agricultural growth and sustainable livelihood. PRS document was approved by competent authority on 16-10-2005

Relevance and linkage to Policy Matrix: Water Resources Development and Management of PRS document with proposed project are briefly below:

Sectoral Goal	Linkage to Policy Matrix Strategic Goal	Targets to be attained proposed project
Poverty Reduction Decent standard of living	1. Rehabilitation of Cyclone Damages, Improve damaged structure in operational condition to ensure the desired benefits of the sub-projects & reduce vulnerability. 2. Control erosion of major river and protect large and small towns	As an action plan, present project has been considered for implementation The Project will ensure the 165 sub-projects to be rehabilitation to ensure the original desired of these sub-projects. It will generate employment for skilled/unskilled labour during construction period & also in annual O & M phase in project performance. Also better employment access in business and tertiary sectors will be enhanced, river management will be commenced. Natural security against river bank erosion will be restored



The objectives of National Water Policy, BWDB Act (2000) and National Water Management Plan are described in brief to get a ready reference:

National Water Policy (1999):

The Water policy of the government aims to provide to all agencies working with the water sector and institutions that relate to the water sector in one form or another, for achievement of specified objectives. These are broadly.

1. To address issues related to the harnessing and development of all forms of surface water ground water and management of these resources in an efficient and equitable manner;
2. To ensure the availability of water to all elements of the society including the poor and the underprivileged, and to take into account the particular needs of women and child
3. To accelerate the development of sustainable public and private water delivery systems with appropriate legal and financial measures and incentives, including delineation of water rights and water pricing;
4. To bring institution changes that will help decentralize the management of water resources and enhance the role of women in water management
5. To develop a legal and regulatory environment that will help the process of decentralization, sound environment management and improve the investment climate for the private sector in water development and management.
6. To develop a state of knowledge and capacity that will enable to design future water resources management plans by itself with economic efficiency, gender equity, social justice and environmental awareness to facilitate achievement of the water management objectives through broad public participation.

Structural Function:

- River & river basin control & development and erection of reservoir, barrage, embankment, regulator & other infrastructure for flood control, drainage enhancement, irrigation & drought prevention;
- Augmenting water flows for irrigation, pisciculture, riverine transport, afforestation, wildlife conservation & overall environmental enhancement or re-excavation of river ways, canal/khal/creeks etc. for optimum changes of water way;
- River-bank erosion control & protection of towns, growth centres, localities of historical events & national important places from devastating river erosion;
- Erection & protection of coastal embankment;
- Prevention of salinity intrusion & reduction of the extent of desertification.

Non-structural Functions:

- Cyclone/Flood/drought forecasting & warning
- Performing hydrological investigation & collecting, generating, preserving related information & data;
- Implementation of afforestation, fisheries programme in compatible with relevant govt. agencies & viable in BWDB infrastructures developed lands for overall environmental conservation & enhancement.

National Water Management Plan (NWMP):

The National Water Management Plan (NWMP) has been prepared in a comprehensive and integrated way having due regard for the interests of all water related sectors and taking full account of other relevant sectorial policies of the government. The NWMP was guided with the objectives enunciated by National Water Policy, The Plan contains a 25 years long term nationwide management plan & strategies (first 5 year-short term onward 10 year – medium term & last 10 year long term) for comprehensive as well as sustainable enhancement of water resources. The Plan has been duly approved on 31.03.2004 by competent authority.

The present CDR Project is relevant with the immediate objectives following cluster programme of NWMP:

- Cluster EE02 (enabling environment) Development and Management of Water Sector Resources

- Cluster MR 01(Main Rivers): Bangladesh's main and regional rivers comprehensively developed for multi-purpose use.
- Cluster DM 01 (Disaster Management): Lives, livelihoods and national infrastructures protected or mitigated.

1.2 Justification/Adequacy

- ❑ There is clear evidence that embankments, though inadequate in some places, provided an effective buffer during the tidal surge due to Cyclone Sidr. Damages and losses are much lower and lives were saved, where embankments were present. Some embankments did not fail even when they were overtopped by the surge. The existing network is large with more than 6,000 km of coastal embankments and over 139 polders, many of them constructed more than 55 years ago. However, their effectiveness has been compromised by poor maintenance and inadequate management. With repeated storms, coastal embankments have weakened and are in need of restoration and upgrading.
- ❑ A systematic approach is needed to upgrade the coastal embankments to provide protection against future surge due to storms. Designs should protect against an appropriate return period and should be based on sound local risk and vulnerability assessments. An effective asset management plan will be critical. In addition, for some structures at the crest level of the embankment should simply be raised and slopes and material of construction improved. Moreover, the embankment improvement program has to be accompanied with afforestation program, particularly on the sea side. Forestation was shown to significantly reduce the damaging effects due to storm surges during Sidr. While a systematic approach would be undertaken under the long-term DRR, it is essential to repair the damages to the embankment system by Sidr as the area is exposed to surges and flooding even due to high tide and relatively low intensity storms leaving population extremely vulnerable. This subcomponent will support the highest priority repairs/ reconstruction identified under the JDLNA.
- ❑ Cyclone Sidr (2007) and Aila (2009) on November 15,2007, Cyclone Sidr made landfall across the southern coast of Bangladesh, causing extensive damage to lives and property. Overall, around 30 districts and 9 million people were affected by the cyclone. Damage and losses caused by cyclone Sidr were estimated to total about Bangladesh Taka (BDT) 115.60 billion (US\$ 1.70 billion). More than two-thirds of this was physical damage and one- third economic losses, focused on the coastal regions. The Joint Damage Loss and Needs Assessment (JDLNA) led by Government also developed a longer term program for disaster risk reduction and improving resilience to extreme events. The estimated cost of this plan which included both the recovery and rehabilitation of damaged infrastructure to a build back better design as well as the longer term improvements for disaster risk reduction was US S 4 billion. This is being undertaken under separate new operation exclusively designed for reducing the long term disaster risks.
- ❑ The ECRRP was designed to cover a portion of recovery and restoration costs and to target the most immediate need in the recovery and restoration of livelihoods and critical infrastructure damaged after Cyclone Sidr. ECRRP covered restoration of the agricultural sector in the cyclone affected areas, and reconstruction of public infrastructure, including reconstruction and improvement of multi-purposed shelters and rehabilitation of coastal embankment with "build back better" designs as well as strengthened disaster risk reduction and management system, and technical assistance, strategic and training to strengthen future emergency response and preparedness to disasters. ECRRP also supported planning and design of projects for long term disaster management such as (i) strategic study of the coastal embankment network, Providing recommendations for systematic upgrading over a period of twenty years (which formed the basis for the Coastal Embankment Improvement Project (Credit 52800-BD) that was recently approved by the World Bank); (ii) storage of food using modern silos; (iii) construction of new multipurpose disaster shelter; and (iv) ongoing River Bank Improvement Program studies to protect against flooding and river bank erosion, which are the main cause of loss of land poverty in Bangladesh.

1.3 Objectives

The Main objective of the project is to rehabilitate/repair part of the Cyclone SIDR damaged BWDB infrastructures in govt. declared 4(Four) worst affected districts. The Cyclone caused mass damages to BWDB's infrastructures in the 15 coastal districts. Among the damaged infrastructures of 15 (Fifteen) coastal districts the major damaged infrastructures of only 3(three) worst affected has been proposed under this DPP as availability of IDA fund.

1.4 Project revision with reasons

Reasons for 1st revision:

A) Increase of fund:

Out of total USD 109 million for ECRRP, USD 26.2 million was originally allocated for ECRRP (BWDB-Part) in which USD 20 million was allocated for component C and USD 6.2 million was allocated for Sub-Component D2. After Cyclone 'Aila' USD 8 million was allocated from F5 component (Emergency Support for Future Disasters) (Vide Ministry of Finance, ERD memo no- ERD/IDA-4/(P-3)/2008-(part-1)/100 dated 19/07/2009 and now IDA has provided additional amount of USD 15 million for component C of ECRRP(BWDB-Part) (Vide Ministry of Finance, ERD memo no- 09.214.024.02.04.011.2008-53 dated 12/04/2010, attached as Appendix B). Thus the total credit amount has stood USD 43 million (USD 8 mill + USD 15 mill + USD20 mill) for component C instead of original USD 20 million and 6.2 million for sub component D2. Total cost of original DPP was Tk. 18,064.90 lakh (26.2 million USD) and the total cost of revised DPP now becomes Tk. 33923.40 lakh (49.2 million USD). This changed has been reflected in RDPP. Present RDPP has been prepared and submitted vide PCMU reference no- PC/Prog/PCMU/PSC-ECRRP/38/2009/201 dated 20/05/2010.

B) Increase in amount of Land Acquisition:

As per the detailed engineering survey of 30 Polders under ECRRP (located in Barguna, Patuakhali, and Perojpur Districts), the land acquisition requirement has been increased significantly. The area of land acquisition has increased from 50.0 ha to 135.0 ha. The reasons of increase of land acquisition cost are primarily due to the followings:

B.1 Increase of Extent of Damages by Cyclone Aila:

The land acquisition requirement provisioned in DPP as 50 ha was made based in the estimation of rehabilitation requirements of damaged caused due to cyclone Sidr as DPP was prepared before the occurrence of cyclone Aila. The cyclone Aila occurred in May 2009 inflicted the further damages in same polders in new locations as well as increased the magnitude of damages in same locations. Consequently, the rehabilitation of embankment volume increased. This has also resulted into acquisition of additional land area in order to construct retired embankment. As per the recent estimate the total land area required for retired embankment is 135 ha. The cost of land acquisition will increase with the increase of land area for the ECRRP (BWDB part). Due to increase of land area, the cost of land acquisition will increase by more than 170%.

B.2 Increase of Per Unit Cost of Land Area

The unit cost of land estimated in DPP (prepared in early 2008) was made at BDT 10 lac per hectare. However, the present market unit rate of land area (2010) within the project area is BDT 15 lac per hectare. The increase of cost due to increase of unit rate is almost 150% in comparison to earlier estimate presented in approved DPP.

Based on the above two reasons, the cost of land acquisition for the implementation of ECRRP (BWDB- part) will increase from BDT 5 crore to BDT 22.25 crore. Hence, adequate amount for the land acquisition needs to be provisioned in revised DPP.

C) Increase in Civil works of the project:

In the original DPP the physical work was as follows (including new and repair):

- Embankment-570.50 km [Full damage 38.055 km and partial damage 532.445 km]
- Water Control Structures- 249 Nos[Full damage 119 Nos and Partial damage 130 Nos]
- Bank Protective work – 0.9 km [Full damage]

In the RDPP the following physical work has been included as per survey report of the Design and Supervision Consultants (including new and repair):

- Embankment-479.92 km [Full 51.06 km and Partial 428.86 km]
- Water Control Structures- 308 Nos. [New structure 146 and Repair of structure 162]
- Bank Protective work -3.290 km

There are three major reasons for increase in the cost of civil works in proposed RDPP. These are due to Cyclone AILA the additional damage (some partial damage turned into full damage), due to the increase of schedule rate from 2007-08 to 2010-11 and due to additional water control structures.

C.1 Additional Damage due to AILA

ECRRP project was undertaken to mitigate the damage done by Cyclone Sidr that hit on the southern part of Bangladesh. The polder system of southern part was partially and in some places fully damaged by Cyclone Sidr. Quickly the initial assessment was done and initial assessment of damage of embankment is calculated to be 570.50 km. Without the engagement of consulting firm civil works of the project could not be initiated. Meanwhile another Cyclone named as Aila hit the coastal belt. The later mentioned cyclone cause devastating damage. As rehabilitation work after the cyclone Sidr was not initiated, the cyclone Aila made some partial damage of the Embankment to full damage[38.055 km to 51.06 km] and in many places partial damage though not turned into full damage but volume of damaged abruptly increased. The Design and Supervision Consultant has carried out detailed engineering survey after cyclone Aila, so the actual damage length is considered in proposed RDPP. As a result the length of the partial damage decreased in the proposed RDPP, but to mention, the partial damaged embankment still suffers lowering of crest height to danger level and losing of the side slopes.

In the approved DPP length of partial damaged embankment was proposed 532.445 km which is now proposed of 428.86 km. Although the length is decreased by 103.585 km but due to Cyclone Aila the volume

of damage is actually increased, hence the earthwork volume is increased significantly. [Typical calculation showing the cross section and earth work volume is enclosed as **Appendix D in DPP**]

C.2 Rate schedule

The cost estimate of approved DPP was prepared as per schedule rate of 2007-08. As the civil work have been implementing now, the cost estimate for rehabilitation of the polders embankment should be based on schedule of rates of 2010-11.

C.3 Increase of Additional Structures (New) to protect the Embankment in future

Design and Supervision Consultant has identified the requirement of some new essential structure. The essential structures include Drainage/Flushing sluices, Irrigation Inlets, etc. The total numbers of such essential additional structures covered within the updates estimate are 61 numbers of Drainage Sluices, which requires significant amount for constructions (in average BDT 150.00 lakh per structures). This has also contributed in increase of cost.

Total rehabilitation cost of the 30 Polders is attached as **Appendix- E in DPP**.

D) Increase in number of Motor Vehicle and reduction of number of Speed Boat-

In the original DPP the cost of 6 motor vehicles was estimated Tk. 120.00 lakh. But on the basis of tendered price and also the available market price, the cost has been shown in RDPP as Tk.240.00lakh. Provision of 25 motor cycles has been added in the RDPP as one of the new items as this is the main mode of transport in project area. Because of the new provision of Motor Cycle the number of speed boat is reduced from 10 to 4.

E) One Year extension of the Project Period:

The loan agreement was signed between the IDA (World Bank) and the Government of People's Republic of Bangladesh (GoB) in 23 November 2008. As per signed agreement, the loan closing date was June 2013. As per original DPP, the project was scheduled to be completed in June 2013.

Using total fund of USD 49.2 million (including additional fund of USD 23 million) requires one year (i.e. July 2013 to June 2014) extension of project period. IDA has provided the concurrence to utilize this fund and also provided "no objection" to extend the project implementation period for one year up to June 2014. (Copy enclosed as **Appendix- G**).

F) Proposal of Formation of Committee:

F.1 Provision for two nos. study under Component D2 was included in the approved DPP for BWDB part and accordingly consulting firm for one package [Package No. BWDB/D2.2/S-3] for study of "Coastal Embankment Improvement Program (CEIP)" have been selected. Another consulting firm will be selected soon for study of "River Bank Improvement Program (RBIP)". As these two study is of highly technical in nature, so for this reason a "Technical Committee of RBIP & CEIP Study" is proposed in this RDPP. The composition of committee is proposed as follows:



1. One teacher from WRE Department of BUET.
2. One Hydraulic model specialist from IWM.
3. One representative from Design Directorate of BWDB.
4. One representative from M & E consultant under PCMU.

This committee will examine and review the study results done by the consultants at different significant stages.

F.2 Besides above a Sub-Steering committee under Ministry of Water Resources headed by Secretary, Ministry of Water Resources is hereby proposed. The composition of the committee is proposed below

1. Secretary, Ministry of Water Resources	Convener
2. Additional Director General, O & M -2, BWDB	Member
3. Joint Chief, Ministry of Water Resources	Member
4. PD/DG, ECRRP:PCMU, Programming Div, Planning Commission	Member
5. Chief Planning, BWDB	Member
6. Chief Engineer, Design, BWDB	Member
7. Project Director, ECRRP (BWDB-Part), BWDB	Member-Secretary
8. The Team Leader of Consulting team will be invited in the Sub-Steering committee as observer when needed	Member

F.3 Cost for honorarium has been provided in the RDPP (Code no 4883)

G) Tree Plantation to protect the erosion of Sea Facing Embankments from wave action:

Sea facing embankments are prone to damages from high wave action. To withstand the negative impacts of wave action of sea, provision for afforestation along the riverside of the embankment is provided. The width of the afforestation area is 13 m of the side slope and 5 m of beach. Trees with high tolerance limit of salinity, cyclone and not harmful to environment will be chosen and will be planted in zigzag way [2m X 2m]. Also, the plants will be nurtured for at least one year providing regular watering, fertilizer, guard etc. Cost estimated for tree plantation along the 50 km sea facing embankment is 512.5 lakh. Detail of the estimation is shown in **Appendix-H.**

H) Provision for Other Taxes (Code- 4814)

This project is categorized as red category by the Department of Environment. To start the civil work, environmental clearance is required. For environmental clearance a government fee will be required as per Environmental Law, 1993. Amount of 20 lakh is provided in the RDPP for taxes of Environmental Clearance for the 30 Polders in the three district and other relevant necessary taxes.

I) Survey and investigation Cost (Code no-4886)

Number of Water Control Structures has been increased, as a result number of soil investigation (soil test, soil capacity test, Bore log report etc) have increased.



Reasons for 1st Re-appropriation of RDPP (1st revised) :

- 1) **Engagement of Individual Consultant for preliminary assessment of damages, social survey, environmental etc. under Code No.4874 (a):**

Cost of the item has been decreased by Tk.2.78 lakh on actual expenditure.

- 2) **Consultancy services (consulting firm/Individual consultant) for Project Management, Design & supervision of rehabilitation of infrastructure damaged by cyclone SIDR & AILA in 3(three) district of Southern Bangladesh Code No.4874 (b):**

The Design and Supervision Consulting Service for rehabilitation works of Component-C was planned and resources requirement was estimated soon after the occurrence of cyclone Sidr (at the end of year 2007 or early 2008) together with the preparation of project paper. The resource of US\$ 20.00 million was estimated primarily to cater the need for the rehabilitation of damages caused due to cyclone SIDR, which occurred in the month of November 2007. After the launching of project in early 2008, another cyclone AILA hit the same area and inflicted further damages. Considering this, the World Bank agreed to provide additional USD 8.0 Million for the rehabilitation of damages caused due to Cyclone Aila. However, no additional resources for Design and Supervision Consulting Services to execute the rehabilitation work due to cyclone Aila was considered prior to award of the contract.

In addition to the damages caused due to cyclone Aila as well as based on the detailed rehabilitation requirement prepared by the project, the World Bank has agreed to increase the fund by additional USD 15 million. Considering the additional work volume in terms of survey, design, construction supervision, etc, the resources provisioned in terms of human resources and logistics provisioned in the contract of Design and Supervision Consultant has become inadequate. In this context, consulting services contract needs to be reviewed and increased and amended as per the increased volume of works. Provision for additional requirement of Design & Supervision Consultant has been provided in the re-appropriation.

- 3) **Engagement of Sr. Individual Consultant to assist the Project Director (BWDB Part) for different project activities throughout the project implementation period under Code No.4874 (c):**

Cost of the item has been increased by Tk.50.00 lakh to assist Project Director on procurement, financial and land acquisition aspect.

- 4) **Consultancy service (consulting firm/Individual consultant) for**

- (i) **Technical studies & detail engineering for River Bank Improvement Program under Code No.4874 :**

Under Component- D there are two studies: One is the Consultancy Services for Technical Feasibility Studies and Detailed Engineering Design for River Bank Improvement Program (RBIP) and the other is Consultancy Services for Technical Feasibility Studies and Detailed Engineering Design for Coastal Embankment Improvement Program (CEIP).

RBIP: Expression of interest for RBIP was first invited on 12.04.2009 and RFP was issued to 9 (nine) firms. The procurement method followed was QCBS. After evaluation and through various communications with World Bank, decision was taken to issue fresh EOI & Procurement Method to be QBS. The provision in RDPP for RBIP Study was Tk. 1614.97 lakh. Due to change in TOR & Procurement Method the estimated cost is Tk. 3778.00 Lakh. Provision has been kept to accommodate any increase in the financial proposal of the consulting firm.

On the other hand Bangladesh River Improvement and Conservation (BRIC) Project Preparation Facility (PPF) Advance Agreement for the Brick Project (Advance no. IDA Q7160-BDof US\$ 3 million) dated July 20, 2010 between the People's Republic of Bangladesh and International Development Association, closed on August 31, 2011. Since only US\$ 750.00 million are actually required to support the two ongoing preparation studies, World Bank proposed to finance these activities from the ongoing Emergency Cyclone Recovery and Restoration Project (ECRRP). As the studies of BRIC has a close nexus with RBIP it was decided in 1st sub-steering committee under MoWR and the Project Steering Committee meeting under Ministry of Planning to finance two studies of BRIC under ECRRP. As such cost under the above head has been increased.

(ii) Technical studies & detail design for Coastal Embankment Improvement Program Under Code No.4874 :

As per agreed decision of Video conference held on 20th June 2012 to review the progress of the Consultancy Services for "Technical Feasibility Studies and Detailed Design for Coastal Embankment Improvement Program (CEIP)" with World Bank to initiate procurement of one Independent Reviewer for Environmental Impact Assessment (EIA) Study and one Independent Reviewer for Social Studies & Resettlement Action Plan carried out under CEIP with the budget of ECRRP. Also to accommodate further engagement of consultant, additional allocation has been proposed.

5) Increase in the cost of Motor Vehicle under code no. 6807:

In the RDPP the cost of 6 Motor Vehicles was estimated at Tk. 270.00 lakh but on the basis of already procured and the available market price due to increase in taxes for the new procurement of Motor Vehicle, the cost has been shown in the proposed RDPP as Tk. 327.71.

6) Decrease in the cost of Motor Cycle under code no. 6807:

In the RDPP the cost of 25 nos. Motor Cycle was estimated at Tk. 40.00 lakh but on the basis of procurement made, the cost is reduced to Tk. 33.00 lakh.

7) Change in the cost of Construction Works:

Under Component C, DPP is approved for re-habilitation of 30 polders in the District of Patuakhali, Barguna & Pirojpur. The work was divided into 17 packages. Contract has been signed for 9 (nine) packages. Re-assessment of damages of all 30 polders shows that Tk. 58398.00 lakh is required for rehabilitation of 29 polders against the original cost of Tk. 26055.00 lakh (one polder has been included in CEIP). The costs for 19 polders in the already contracted 9 packages require Tk. 27621.00 lakh. The World Bank in their Aid Memoire of implementation Review Mission under "Improved Design to Build- Back -Better Policy" has

suggested preparing packages for the 19 polders where contract had already been made and remaining polders to be financed in future CEIP. This has been approved by 1st Sub-Steering Committee Meeting and 8th PSC Meeting. So cost in the different items of construction work has been re-appropriated as per requirement.

The Reasons for 2nd revision:

A) Change in financing arrangements and additional financing:

Out of total USD 109 million for ECRRP, USD 26.20 million was allocated for component C and Sub-Component D2 after approval of original DPP, the World Bank was agreed to provide fund for the Project with the revised total of 220.96 million USD of which 49.20 million was allocated for Component C & Sub-component D2. Upon the approval of first Revised DPP and subsequent re-appropriation on it, the project was going on. The approval letter was transmitted by the MoWR on 07 August 2012. During implementation of the project, with regard to clearance of work in 19 polder instead of 30 polders as recommended in Aide Memoire (BWDB Part) was taken into account with the condition that remaining 11 polders would be allowed to rehabilitate after successful completion of these 19 polders. On the other hand polder 39/2C has been included in Coastal Embankment Improvement Project, Phase-I (CEIP Phase I). As per agreed upon Component Wise Financing arrangement in million US Dollars which is related to the changes in financing arrangements and additional financing for the components are given below:

Component	Original DPP	1 st Revised DPP	2 nd Revised DPP Proposed
C: Rehabilitation of Coastal Polders (BWDB)	20.00	43.00	81.00
D2: Preparation of Future Projects for the River Bank Improvement, Coastal Embankment Improvement Program and Gorai River Restoration (BWDB)	6.20	6.20	8.00
Total	26.20	49.20	89.00

According to the decisions (4.7) of the Meeting of 8th Steering Committee (PSC) of the project held in 11 April, 2012 that BWDB could complete tendering process with the available fund and would prepare a plan for the rest of the polder for discussion in the Mid Term Review Mission of the World Bank. In compliance with decision of the said Project Steering Committee meeting the tendering processing has been completed. A plan for the rest of 10 polders has been completed, which has been included in the proposed 2nd RDPP. Therefore the proposed 2nd RDPP consist of 29 polders with total cost of Tk.70310.00 lakh (USD 89.00 million)

It may be mentioned here that the first RDPP with re-appropriation containing Tk. 33923.40 BDT equivalent (USD 49.20 million) was approved by the competent authority, the approval letter was issued on 07 August 2012.

B) Change in Scope of work:

In compliance with decision of the above mentioned Project Steering Committee meeting, a plan consists of 29 polders instead of 19 for rehabilitation, which leads to increase the scope of work of the project. Consequently quantities of civil work and cost have been increased. Sample technical drawing of civil works (Embankment, WCS & Bank Protective work) is attached in the proposed DPP.

C) Change in Unit Price of Work:

The unit cost of the civil work has been increased due to price escalation of the materials, labor and others. Moreover, the total cost of the civil item has been increased due to increase in quantity of work. A summary of comparative quantity and unit cost of major items of civil works is given below:

Item of works	1st Revised Provision		Recast 2nd Revised Provision	
	Quantity	Unit Cost in lakh Taka	Quantity	Unit Cost in lakh Taka
Embankment	480 Km.	17.82	514.24 Km.	37.70
Water Control Structure	310 Nos	26.62	317 Nos	36.49
Bank Protective Work	3.70 Km.	1361.89	19.00 Km.	1350.73

As per field requirement the quantity of bank protective work has been increased, however the cost of the work has been decreased due to cost effective technical design. The changes of the quantity of civil work and escalation in prices of materials, labor which lead to increase the cost of these items.

D) Increase of Salary and Office Operation Cost:

Salaries of the Project officer and staff have been increased due to implementation of new pay scale with enhanced pay and allowances, and inclusion of 30% allowance of basic pay for arduous job in the project along with enhanced implementation period. Moreover incremental operation cost of the project has been increased due to increase in implementation period.

E) Change in Supervision/ Consultancy cost:

The Consultancy cost of the project in the proposed 2nd revised DPP has been increased over the provision made in approved 1st revised DPP due to increased man-month from 2178 to 3648 for Component C. Moreover, the consultancy cost of Sub-component D2 has been increased due to consideration of present tax rate and other revenue of the Government as well as increased man-months from 986 to 1066. As a result total Consultancy cost has been increased from BDT 8049.22 lakh to BDT 9884.04 lakh.

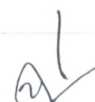
F) Change in the Implementation Period :

Due to providing additional funds for rehabilitation work by the World Bank and rescheduling their loan agreement the implementation period has now been extended up to December 2017 out of which all the rehabilitation works will be completed by June 2017.

Other Useful Information

PEC Meeting of 10-11-2013:

The 2nd Revised DPP of the ECRRP Project (BWDB Part) costing Tk. 70310.00 lakh (entire cost under Project Aid) was discussed in the PEC Meeting held on 10-11-2013. After detailed discussion in the meeting it was decided to form a cost rationalization committee to review the cost of items of the project and also recommended for approval of the project subject to review the 2nd Revised DPP. Accordingly, a committee in this respect was formed as per Memo. No. 20.522.015.00.00.024.2013/305 dated 09/12/2013 of the Planning Commission. The meeting was held in 12-12-2013 in the Programming



Division of the planning Commission. The committee in its meeting on 12/12/2013 rationalized the costs of BWDB Components and Circulated vide its Memo No. 20.522.015.00.00.024.2013/330 dated 05/02/2014.

Reasons for 3rd Revision:

The 2nd Revised DPP of the project costing Tk. 70310.00 lakh was approved in the ECNEC meeting circulated vide ECNEC memo no.20.00.0000.411.14.037.14-506 dated 30/06/2014 and accordingly the Ministry of Water Resources (MoWR) issued the administrative order on 10 July 2014.

An Implementation Review Mission of the World Bank reviewed the status of the implementation of the project from February 22-03 March 2015. According to the recommendation of the Aide Memoire (AM) of the Mission in addition to USD 20 million that included in the 2nd revised DPP, another amount of USD 3.50 million has been allocated for this project (ECRRP: BWDB Part) for consultancy services. To include this amount of USD 3.50 3rd revision of DPP is needed.

As per need based assessment, initially BDT1849.77 lakh is estimated to be required for consultancy services, BDT 61.05 lakh for land and other compensation and BDT 854.18 lakh for works. It was discussed in the review meeting held at Planning Commission on 27 July 2015. In the 3rd revised DPP, the Price and Physical contingency of BDT 113.09 lakh is also proposed to reallocate for works.

But in the meantime, man-days for Procurement Panel for RBIP projects needs to increase by 135 days involving BDT 165.00 lakh. As a result, total cost for consultancy services now stands BDT 2014.50 lakh. The World Bank has given consent for USD 2.55 million (BDT 2014.50 lakh) for consultancy. The World Bank has also accepted the re-allocation of BDT 63.20 lakh for land and other expenses but as per field requirement BDT 61.05 lakh is kept in the proposed 3rd RDPP. The World Bank reduces the allocation for works from BDT 854.18 lakh to BDT 687.30 lakh. As a result price and physical contingency of BDT 113.09 required to re-allocated for physical work. Now additional allocation of physical stands $(687.30+113.09) = \text{BDT } 800.39$ lakh in physical work. In Polder No. 41/7B due to breach of original embankment (5.945 km) proposed for retiring, now retired embankment same length is required. For this, cost increases without increase of length.

Cost for Consultancy Services and related man month for Project Management, Design & supervision Consultants have been increased by 724 mm due to increase of scope of works. This is because of increase of Donor's credit USD 26.20 million to USD 92.50 million for which project implantation period also increases from June 2013 to December 2017. As such, contract period of D & S Consultant has already been increased up to December 2017. Moreover, for assisting Project Director (BWDB Part) for Land acquisition and resettlement activities, an individual consultant is required for 24 mm within the project duration. Additional consultancy services for bridging period for main consultants from January to December 2015 is also required. The following additional services are assigned to the consultant to be carried out in the bridging phase i) Continuation of Project Management, ii) Revision of Reports during World Bank Processing, iii) Land acquisition RS: Assistance to land acquisition process for resettlement sites , iv) Land acquisition embankment Assistance to land acquisition process for new embankments, v) Resettlement sites, village development, works contracts: Design and bidding

documents for resettlement sites, assistance during bidding process, vi) Social preparation phase for relocation planning and community consultation, vii) Assistance to selection of NGOs, viii) Identification, definition and assistance to bidding of emergency riverbank protection measures, ix) Continuation of Market Study and Completion of pre-qualification documents depending on result to the market study, x) Assistance during pre-qualification period, xi) Assistance during bidding process for work contracts & xii) Preparation of “dry season environmental study”. Moreover International Panel of Expert (IPOE), Procurement Panel, Environment specialist and others have been increased by 164.5 mm. Accordingly overall consultancy services have been increased by 912.5 mm and it will involve BDT 2014.50 lakh. The Independent Panel of Experts (IPOE) should consist of internationally renowned and vast experienced individuals/engineers who are widely acknowledged to be experts in their respective field. The members of the IPOE should possess among them acknowledged expertise and requisite experience in the field for which they would be engaged. It is proposed that the Panel comprises of 4 renowned experts in the following fields: i) River morphologist and expert in river engineering work and/or Design expert in Embankment and Hydraulic Structures, ii) Social Expert, iii) Environment, Water Management, and Flood Expert, iv) River Engineering Expert. Scope of work of IPOE are given below i) The IPOE is required to provide expert advice and suggestions in connection with the project as required from time to time by BWDB, and to carry out periodic reviews of the procedures followed specifically approach & methodology and the reports produced by the consultants throughout the project, ii) The IPOE shall organize itself under the leadership and guidance of its chair so that any comments, suggestions or advice from any of its members are assembled, reviewed and agreed upon by all its members and submitted to BWDB as comments, suggestions, or advice from the IPOE as a whole, iii) Members of the IPOE will each receive from BWDB copies of Inception Report, draft feasibility reports, EIA Reports, draft detailed engineering design report, Completion reports and selected other reports prepared by the consultants. Any comments and observations on these reports made by the individual members of the IPOE as a result of their review shall be assembled by the chairman and submitted to BWDB, iv) The IPOE will also carry out periodic reviews of the sub-consultant's activities specifically monitoring program and results, the mathematical model study and the environmental study. A Procurement Panel will consist of three members; out of which two are international experts (one procurement and one technical), and one national procurement expert. This procurement panel will ensure the quality assurance of the bidding process and implementation of large value contracts under RMIP-1. The cost will be boned by ECRRP Project before approval of DPP of RMIP-1.

The Scope of Procurement Panel would provide the procurement function under the project in a way that procurement and contract management for large value contracts as specified in the procurement plan under project is carried out in an effective and transparent manner in accordance with the Procurement Guidelines of the World Bank and the Government's Public Procurement Act/ Regulations/ Rules (PPA/ PPR), as is applicable. This panel is authorized and empowered by BWDB, on behalf of the Recipient, to conduct the procurement and oversee the management of those contracts for goods, works and services financed under the Project which shall be specified in the Procurement Plan for such purpose, and shall take all measures as shall be necessary to enable the said panel to discharge its functions in an efficient, transparent and independent manner. The International Procurement Specialist as Individual

Consultant will work in respect to procurement of specific high value Consulting Services, Goods and Works right from preparation of EoI and assessment for short listing, preparation of RFP and the evaluation of technical proposals, evaluation of Prequalification Application for selection of Contractor for Works, evaluation of Bids (ICB) for Works and Goods under the component of the project. This three member procurement panel will act as the Proposal Evaluation Committee (PEC) and Tender Evaluation Committee for the large value contracts as specified in the procurement plan. According to the World Bank loan financing criteria, there is no scope to execute any project without Design & Supervision Consultant and the consultants should be the Engineers of the project. According to the loan agreement with GoB and IDA, consultants are engaged for Design, Supervision & Monitoring of the project.

As per recommendation of the Aide Memoire of the Implementation Review Mission the additional USD 3.5 million has been allocated only for consultancy services. But according to the actual requirement, the World Bank has agreed to re-allocate USD 3.5 million .

According to the decision of the PEC meeting, recast DPP was prepared in time. But in the meantime, the World Bank by re-structuring, reallocated 2.5 million US\$ to BWDB for slope protection work in polder no.39/2A (chainage in between 7.085 km. to 7.850 km. at Bamna). The World Bank informed ERD vide memo no.09.214.024.02.04.051.2013-239 dated: 14 December, 2015 that salaries, travel and daily allowances and honorarium of officials of the Recipient's civil service and/or other honorarium of any other nature will not be permitted from the credit no. 5342-BD". To discuss the issue, a meeting was held at the office of the Project Director, ECRRP-PCMU, Planning Commission on 11 January 2016. As per the decision of the meeting, provision for cost of travel and daily allowances and other honorarium amounting Tk. 107.51 lakh has been kept in DPP as GoB contribution. It was mentioned that previously there was no GoB contribution in the DPP/RDPP of BWDB part. The cost of said salaries and other honorarium (Tk. BDT 107.51 lakh) will be managed from the saving of consultancy services.

It is necessary to mention that the 3rd Revised DPP has been prepared with a total cost of Tk. 75050.00 lakh, which is 6.74% above than that of 2nd approved DPP.

Reasons for 3rd RDPP (Inter item cost adjustment):

Thirty (30) coastal districts in Bangladesh were severely affected by the cyclone 'SIDR' on 15 November, 2007. For restoration and rehabilitation of the most affected infrastructures of Coastal Embankment Project (CEP) under BWDB in Perojpur, Barguna and Patuakhali districts, Emergency 2007 Cyclone Recovery and Restoration Project (ECRRP BWDB Part) was approved by the ECNEC on 23/10/2008. The 3rd Revised DPP of the project was approved in the ECNEC meeting on 31/05/2016 with an investment cost of Taka 75050.00 lac and circulated vide ECNEC memo no.20.00.0000.411.14.16.16-286 dated 13/07/2016.

The objective of the project was to restore the damaged Polders to their pre-cyclonic condition with the prevention of saline water inundation/intrusion and sustained crop production. Again Cyclone AILA hit the Southern Coastal belt on 25 May 2009 with further damages to the ongoing ECRRP Polders. The AILA damages were re-assessed and the project was revised accordingly. ECRRP (BWDB part) is financed by the World Bank through the loan agreements namely IDA Credit Nos. 4507-BD, 4819-BD



and 5342-BD. Two Credit have already been completed and the closing date for the third one, IDA 5342-BD has been extended up to 30 June 2018. Accordingly, Programming Division of Planning commission has extended the Project Implementation Period up to 30 June 2018 vide memo no. 20.06.0000.612.00.015.15 (Part-1)/113 date: 31/12/2017.

There were provision for rehabilitation of 29 polders in Patuakhali, Barguna and Perojpur districts. Out of that 15 polders were completed in June 2014 and remaining 14 polders in three contract packages started after June 2014 and targeted for completion in November 30, 2017. Overall Progress of contract package W-18 is about 95%, W-19 – 91% and W-20 – 70% up to December 2017.

Extreme Rainfall Delayed Work

The rainfall had high concentration inundating work sites and standing still construction work activities throughout the rainy season affecting the scheduled work plan target of the contractors. The frequent rainstorm delayed earthwork in new embankment construction and in repair of embankment, and in the construction of new and repair of sluices. The Protective works sites were also affected by high rainfall intensity affecting CC blocks manufacturing and placing on embankment slope. The rainfall data collected from BWDB Hydrology processing Division supports the abnormality in this years' rainfall. As an example there has been a total precipitation of over 200 mm recorded in consecutive two days in the month of March and April 2017 and over 1600 mm in the months of June & July 2017 recorded at the Barguna rainfall station.

In spite of the fact that the three contractors were ready to start work after the monsoon months, they were standstill with their crews, materials, equipment and labors. The rainfall appears to be ceaseless and unending up until October 22, 2017. This weather condition is extremely unusual and negatively impacted the completion of pending works. The condition deteriorated by the ongoing depression in the Bay causing high tidal waves that already breached an embankment at Tetulbaria in ECRRP Polder 45, Choto Baliatali in Polder 41/5 and Dalbhanga area in Polder 41/4, Barguna Districts (ref: video link from Somoy Television, dated 20 October 2017 <http://www.somoynews.tv/pages/video/90383/>)

Due to continuous rainstorms, coupled with high tidal surge, the water level in Bishakhali and Pyra Rivers are flowing much higher than the danger level as recorded in both Barguna and Patherghata water level stations. This continues up to the end of November 2017. The inclement weather conditions paused activities at all ongoing pending work sites and it appears that the contractors may not be able to fully mobilize at the work sites of 39/1A, 39/1B and 39/1C under Package W-20 and in Polder 55/2D in Dasmina area before 2nd week in December 2017. Thus the working window is further shortened. In addition, in a number of locations, the embankment opened up by river erosion as reported by Executive Engineer, BWDB Barguna O&M Division and D&S field Engineers on 22 October, 2017. These openings are to be closed immediately to save the community and their cash crops from flooding.

High Tidal Level Delayed Work

Along with the extreme rainfall event, there were extremely high tidal water levels associated with tidal waves that interrupted ongoing works and threatened erosion of completed embankment. For example, a large length of completed embankment built about more than 500 meter from the river edge in Polder 55/3 (Char Kajal), Patuakhali District, was eroded by Kajal River requiring a new alignment with new land acquisition need. In the same Polder, the Double Vent Matibhanga Sluice location was shifted

twice after completion of foundation excavation and the second location is under threat of erosion and the site was abandoned. The erosion is a continuous process and people and their personal effects are at the mercy of nature.

Extreme high tide levels eroded embankment and inundated construction stack yards of the contractors compelling them abandon work sites. There develops severe erosion of 300 meter embankment at Bamna area in Polder 39/2A immediately after the completed 1000 meter bank protection works. The local people made a strong demand to extend protective works of this 300 meter length to protect the existing passenger and Launch Terminal and to protect the embankment from breaching. Again there has been severe river erosion and bed scour at Gulishakhali area in Polder 41/6B where part of the embankment is already engulfed into the river with the eminent collapse of the Gulishakhali market area. Protective works are needed for around 100 meter of this embankment to save the market area and local peoples' personal effects. There also develops severe erosion of 400 meter embankment at Kalomegha area in Polder 39/1A immediately after the completed 1600 meter bank protection works and needs immediate protection.

Land Acquisition Delayed Work

Land acquisition process has taken long time beyond expectation. In polder 55/3 of Patuakhali district, construction of Embankment around 600m and in Polder 41/7B of Barguna district, about 600m of new Embankment remain incomplete due to presence of habitations along the alignment and the compensation for this not yet made to the affected persons. In polder 39/1B and polder 39/1C, about 920m length & 300m length of embankment with slope protection work yet to start due to delay in land acquisition and payment for homestead and habitation. Now, land acquisition proposals got approval and the concerned Deputy Commissioner has started payment to the affected land owner. It is expected that all projected activities could be completed by June 2018. Therefore, the World bank has given concurrence and the Government has approved the extension of the Project Implementation period up to 30 June 2018.

After getting last estimate of land acquisition from Deputy Commissioner, Pirojpur through Executive Engineer, Pirojpur O&M Division, total land acquisition cost stood to Taka 3061.00 lac but there were RDPP provision of Taka 2800.00 lac only. For payment of this additional amount of Taka 261.00 lac, 3rd RDPP (Inter item cost adjustment) is necessary. It is to mention here that land cost after RDPP formulation has been increased manifold due to implementation of the project. This cost will be accommodated from different consultancy services related to River Bank Improvement Program. Some minor changes in costs of some items arise due to 6 (six) month extension of the Project Period. As per the decision of the meeting, provision of Land Acquisitions and other compensation for squatters & affected persons amounting Tk. 261.00 lakh, Bank Protective Work (Polder no. 41/6B at Gulshakhali) amounting Tk. 80.00 lakh, Repair & Maintenance of Motor vehicle amounting Tk. 4.00 lakh, Others (Code no. 4899) amounting Tk. 2.00 lakh and O&M of Computer & office equipment's amounting Tk. 1.00 will be managed from the saving of consultancy services as recommended in PEC meeting held on 7 March 2018.

The ECRRP has been revised 3(three) times and inter item cost adjustment 2 time due to change of scope of work as well as additional financing by Donor agencies and increased of project period from



June 2013 to June 2018. As per agreed upon Component wise Financing arrangement in million US Dollars which is related to the Revision is given below:-

Component	Original DPP Amount & Year 2008-2013	1 st Revised (Re-appropriation) Amount & Year 2008-2014	2 st Revised Amount & Year 2008-31-12-2017	3 st Revised (2 nd Inter item cost adjustment) Amount & Year 2008-2018
C: Rehabilitation of Poldes (BWDB)	20.00	43.00	81.00	86.00
D2: Preparation of future Projects for the River Bank Improvement, Coastal Embankment Improvement Program and Gorai River Resoration Project(BWDB)	6.20	6.20	8.00	9.00
Total	26.20	49.20	89.00	95.00

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

Rationale:

Cyclone in Bangladesh is a recurrent phenomenon. Natural disasters can be sudden or slow in onset. Sudden onset of disasters such as Cyclone, Flood, river bank erosion can destroy the country's infrastructures, commercial and industrial activities and environment. Cyclone causes enormous damage to lives, properties, commercial establishment, installation and various kinds of infrastructures. Thus for restoration of damaged infrastructures, the Cyclone Damage Rehabilitation works undertaken by BWDB is inevitable. To bring desired level of stipulated benefits from the significant works established in the past, the present state of Cyclone Damage Rehabilitation is fully justified and it will help contribute in regaining the loss in food production. The left out damaged works should also be taken up from other source for the same.

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

◆ Project Identification

- The Cyclone name SIDR hit the southern costal region of Bangladesh on 15th November, 2007. Following the cyclone SIDR a report of Joint Damage, Loss and Needs Assesment (JDLNA) for Disaster Recovery and Reconstruction was prepared by the Government of Bangladesh in the Month of March, 2008. At the request of the Government of Bangladesh (GOB), The World Bank/International Development Association (IDA) negotiated a Credit with GOB for an amount of US \$109 millions for the implementation of the Emergency 2007 Cyclone SIDR Recovery and Restoration Project (ECRRP), Designed on the basis of the recommendations of the JDLNA.
- The GOB has obtained a Credit from the IDA to meet the cost of implementation of the ECRRP. The development objective of the Project is to support the Government of Bangladesh to facilitate restoration and recovery form the damage to livelihoods and

infrastructure caused by Cyclone SIDR and build long-term preparedness through strengthened disaster risk reduction and management.

- Implementation Arrangements. The project will be implemented by six agencies, the Ministry of Food and Disaster Management (through DMB), the Ministry of Agriculture and the Ministry of Fisheries and Livestock Government (through FAO), the Ministry of Water Resources (through BWDB), the Ministry of Local Government (through LGED) and Ministry of Planning. A Project Steering Committee (PSC) will be established in the Ministry of Planning. The PSC will be chaired by the Secretary of Planning Division and include Secretaries of the Ministries of Water Resources, Agriculture, Fisheries and Livestock, Food Disaster Management, Local Government, and Director General of BWDB and Chief Engineer, LGED. The PSC will provide oversight and coordination in implementation of the Project. A small Project Coordination and Monitoring Unit (PCMU) will be established in the Ministry of Planning to coordinate and manage the project. The PCMU would be headed by a Project Coordinator and supported by a Technical Specialist a Procurement Specialist, a Financial Management Specialist, and Accountant and support staff. BWDB will be responsible for components C and sub-component D2.
- The Ministry of Water Resources (MoWR), through Bangladesh Water Development Board (BWDB) would implement selected components of the project related with the rehabilitation and improvement of coastal embankment and preparation future long term Projects for coastal zone embankment improvements and river restoration. To implement these activities, a Project Director's office for ECRRP-BWDB part would be established in the BWDB, Dhaka; this office will monitor and coordinate the activities under BWDB in the Project.

◆ **Project Preparation:**

The reviewing the damages to the coastal embankment systems due to cyclone Sidr, prioritizing the works that should be included in the proposed project (under component C1), (ii) carrying surveys and preparing designs management documents; (iii) preparing environmental and social assessment, and environmental management; and (iv) carrying out construction contract management and support in project management.

Preparation of a Rehabilitation/Improvement Program. The Consultant will assist BWDB to develop an emergency program for carrying out repairs to the coastal embankment/section damaged during the 2007 cyclone that need immediate repairs. The rough estimate is that component budget would allow rehabilitation; reconstruction and improvement of over 514.24 km of embankments system in the costal areas affected the Cyclone Sidr. The repair works will be designed with improved standards so that protection can be provided in these sections in future for storms with equivalent strengths. The embankments will be designed with milder slopes on the seaside which will be covered with forestation/vegetation. Where possible, roads would be construction on the embankment, in order to provide access and improve the maintenance programs. In selection of polders/embankments, priority will be given to



rehabilitation sections which do not involve any social issues such as land/ environment issues. The subcomponent will also support forestation/vegetation along these embankment for improved protection of these assets.

The consulting services of the project would cover surveys, design and construction supervision of rehabilitation/improvement of coastal embankments. This would include facilitating consultations with the local communities in identifying sites, needs and suitable design of the polder as well as with the other government agencies which stakeholders such as education ministry, local government, upazilla and union level government. As part of the designs of the construction activities, social assessments (SA) and environmental assessment (EA) will be required. The consultants will prepare a design report for a package of embankments that will be included in a contract. The design report would also include Social Management Plans (SMP), Resettlement Action Plans (RAP) and Environmental Management Plans (EMP). These will have to be prepared following Environmental Management Framework (EMF) and Resettlement Policy Framework (RPF) that the project will develop for this component in accordance with World Bank Safeguard Policies. The SMP/RAP and EMP will be reviewed and cleared by the Monitoring and Evaluation and SMP/EMP consultants, working with PCMU.

Review Damage Assessment Reports and Finalize Scheme/Polder List for Rehabilitation:

Immediately after the cyclone, BWDB carried out initial assessment of the damages. Subsequently, individual consultants identified damaged systems and recommended schemes/polder for rehabilitation following the selection criteria given in Annex 2. This information and other assessments would be made available to the consultants. The consultants would carry out, but not limited to the following activities:

- (i) review and update the screening criteria for damage assessment and selection of the schemes to be included in the project;
- (ii) Review the findings of the preliminary cyclone SIDR damage assessment report prepared by BWDB and other reports prepared by Disaster Management Bureau and the World Bank. Carry out sample, surveys as needed to estimate the damages;
- (iii) select schemes/polders following the selection criterion which could be implemented with the available budget and time for project implementation;
- (iv) Prepare a phased program of works for rehabilitation which can be completed within the project period to make the selected polder system/polders function; and
- (v) Prepare draft Procurement Plan for the rehabilitation works in light of the guidance in the Project Paper of October 6, 2008 and update the plan once in every six months or as directed by the Project Director

The project formulation events from appraisal to approval are given below:

Appraisal	The Appraisal Mission appraised the project on August 21, 2008.
Credit Negotiation	Held on September 04, 2008.
Credit Agreement	The credit agreement IDA-Credit No. 4507 BD signed on November 23, 2008. The credit agreement IDA-Credit No. 4819 BD signed on November 11, 2010 and Amended on June 27, 2013. The credit agreement IDA-Credit No. 5342 BD signed on June 09, 2014.
Credit Effectiveness	The credit effectiveness IDA-Credit No. 4507 BD was from December 24, 2008 to December 31, 2014. The credit effectiveness IDA-Credit No. 4819 BD was from January 04, 2011 to December 31, 2016. The credit effectiveness IDA-Credit No. 5342 BD was from August 10, 2014 to December 31, 2017 and amended up to April 30, 2019..
Loan Disbursement (Up to September 2018)	IDA Credit No. 4507-BD: BDT 1,652,060,036.37 IDA Credit No. 4819-BD: BDT 251,500,000.00 IDA Credit No. 5342-BD: BDT 4,902,112,212.41 Cumulative : BDT 6,805,672,248 .78
Loan Conditionalities	
IDA-Credit No. 4507- BD	1% (commencing February 1, 2019 to and including August 01,2028) 2% (commencing February 1, 2029 to and including August 01,2048)
IDA-Credit No. 4819- BD	-1% (commencing January 10, 2011 to and including February 01, 2021). 2% (commencing February 1,2022 to and including August 01,2050)
IDA-Credit No. 5342- BD	1% (commencing February 1,2024 to and including August 01,2033) 2% (commencing February 1,2034 to and including August 01,2053)
Project Approval	The project was approved by ECNEC on October 23, 2008 ; RDPP (3 rd Revised) Inter item cost adjustment: January 2018; Recast: March, 2018 was approved on by the Planning Ministry on April 02, 2018
Others (if any)	N/A

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

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

The Polders for rehabilitation under ECRRP have been selected through consultations with the beneficiaries based on the Guidelines for People's Participation. The polders

have been proposed by the local stakeholders i.e. from inception to project completion stage beneficiary participation & their recommendation has been taken. So the beneficiaries of the project have clear knowledge about the Target/ Objectives of the project.

4.2 Programme for use of created-facilities of the project

The implementation of 29 Polders under ECRRP has created improved facilities through construction / re-construction/repair of embankment, construction/ re-construction/repair of WCS, construction of protective works, afforestation, and studies for river bank improvement, CEIP, Gorai Restoration etc.

4.3 O & M programme of the project.

In ECRRP, O&M performance improvement of the project has been carried out to ensure the sustainability of the polders. To achieve this four simplified steps followed viz (1) selection of schemes (2) mobilization and planning (3) implementation. and (4) need based operation and maintenance. Stakeholders' participation at all stages were ensured, and proper O&M based on need based assessment and beneficiaries involvement will result in success of the project.

4.4 Impact of the project

4.4.1 Direct

Due to the project, there is additional income of the farmers by increasing crop production and to the marginal and landless farmers by creation of employment opportunities after execution of the project.

4.4.2 Indirect

The neglected part of the society especially those who are marginally poor will be greatly benefited by the long-term effect of the project. Moreover, diversified, employment opportunity will be generated in the field of agriculture, fisheries, livestock, and forestry for the poor class, Education, health, communication, industries, business sectors will be benefitted through protection against diurnal tidal flooding, cyclonic surges and storm inundation, enhanced safety to infrastructures by river protection etc.

4.5 Transfer of Technology and Institutional Building through the project

The institutional capacity building of BWDB through training programs both local and foreign has been implemented. Moreover, maintenance, updating & dissemination of NWRD and additional activities for updating NWMP have been carried out in the project.

4.6 Employment generation through the project

Labours from polder area & adjoining area got the opportunity of direct employment in different construction activities at different stages of construction works. It also increases an ample employment opportunity and cash income of the people of the area during the project implementation as well as O&M stage of the polders. Large number of skilled



labourers needed for river bank protection works were brought from northern area of Bangladesh. This had appreciable contribution towards poverty alleviation in those distressed areas. The project reduces vulnerability and enhances livelihood opportunities of the rural households living in the polder area. Moreover, with the implementation of the project, the main target of poverty reduction being fulfilled and by the influence of community development programme in the polder area, permanent employment generation and income generating programme in micro-level has increased and will have positive impact on national economy.

4.7 Possibility of Self employment

Since the project involved labour intensive works, surplus labour force in the project area on outside the project area, was utilized during the construction and it will be utilized during O&M works after completion of the project. Avoiding recurrent damages to crops and infrastructures by embankment create scope of continued professional activities within the polders.

4.8 Possibility of women-employment opportunity

The BWDB projects mostly involve labour intensive works like earthwork, brick & stone breaking, sand filling of geo-bags, concrete casting, curing, turfing work on finished embankment, plantation/afforestation etc. The general practice developed around 50% of the labourers engaged are female, thereby creating great opportunity for employment of the the poor/ultra-poor, landless, widow, divorce, destitute women in the concerned area. This has helped empowerment of women in development as well as poverty alleviation. At O&M stages, bulk of the labourers for repair and maintenance of embankment and structures/protective works, agricultural activities from trans-plantation to paddy processing are drawn from the women folk thereby resulting in sustainable women development.

4.9 Women's participation in development

On completion of the project, the accelerated agricultural activities in the project area have appreciable employment to women on home-based activities and agro-based cottage industries. Women folk in the project area belonging to farm families are accustomed to participate in accelerated agricultural activities at family level.

4.10 Probable Impact on Socio-Economic activity.

The rehabilitation of the polders has enhanced the socio-economic condition of the project people. The poor people particularly the women would be benefitted through employment generation in agriculture and other sectors. The miseries of the people from flooding and drainage congestion have been eliminated/ reduced through improved water management and protected environment. It also enables better health ease, education, improved communication facilities and safety of the people.

4.11 Impact on environment

The Environment Impact Assessment (EIA) of the project has been carried out for each of the polders. For each of the 29 polders, the direct and indirect effect of the project on the factors like human beings, the fauna, the flora, the soil, water, air, the climate etc. have been identified under impact sensitivity analysis. Moreover, as per provision kept in the project, implementation of EMP (with proper mitigation measure) was carried out during implementation stage for the environmental safeguard. Considering above, the completed project is considered as environment friendly project.

4.12 Sustainability of the project

In ECRRP BWDB Part Project, 29 polders have been rehabilitated by repair/reconstruction/improvement of infrastructures damaged by cyclone SIDR and AILA based on need assessment, beneficiaries and other stakeholders' discussion and following GOB' Guidelines and World Bank's Safeguard measures. The beneficiaries' now have developed deep sense of ownership of the polders infrastructures, and realized the importance of embankment, sluices and protective works for their safety, both lives and properties in the event of natural hazards of cyclone, flood salinity etc.

Hence EMP with adequate environmental safeguard along the post O&M beneficiaries' participation will ensure the project sustainable.

4.13 Contribution to poverty alleviation/reduction

Poverty is now increasingly acknowledged to be a multidimensional concept that encapsulates deprivations in several dimension and key such include income, poverty, hunger, malnutrition, gender bias, social exclusion, health services, lack of access to education etc. Moreover the growth in agriculture is an important driver of poverty reduction in developing country.

In ECRRP Polders, the construction activities create job facilities to jobless ultra-poor, destitute women, widow and other female labourers. Moreover, rehabilitation of polders contributes more agriculture activity which ensures job opportunities, food security and generating more income that improve the livelihood of the poor and also improves other poverty indices.

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

ECRRP Polders are selected by involving the beneficiaries' participation which involves peoples from all walks living in the project area. Here opinion all the stakeholders have been taken in every stage of the project, from identification to its implementation completion. The formation of polder committees is concept basic need in this project where beneficiaries like farmer, fisherman, women etc. can be member. The operation of the structures for drainage and irrigation are fully handled by these polder committees that ensures peoples participation in the project.



4.15 Contribution of Micro-credit programmes and Comments on overlapping with any

NGO activities.

The project being funded by the World Bank and GoB, no micro-credit programmes were there in the project. Moreover there is no overlapping with any NGO activities in the project.

The effective functioning of the polders rehabilitated under ECRRP and developing sense of security against natural hazards has increased economic activities within the polders attracting investors and micro-financing entities leading to the scopes of enhanced economic development

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

5.1	Project Management	: Not Applicable
5.2	Project Director	: Not Applicable
5.3	Land Acquisition	: 1.200 km Retired Embankment with slope protection and a 2-vent sluice in Mothbaria Upazila (Polder-39/1B and 39/1C) could not be implemented due to non-payment of compensation of land. New embankment in different polders under Barguna and Patuakhali Districts was constructed on mutual understanding with the land owners due to delay in paying compensation
5.4	Procurement	In all, procurement of twelve (12) work, twenty-three (23) goods and forty-two (42) services contracts were successfully completed. Procurement Plans were drawn in time, and subsequently, periodic updating were made incorporating any changes.
5.5	Consultancy	: Engineer of each contracts should be from BWDB.
5.6	Contractor	: Not Applicable
5.7	Manpower	: Not Applicable
5.8	Law & Order	: Not Applicable
5.9	Natural calamity	: During implementation of the project BWDB infrastructure was damaged severely due to flood 2007 and also by cyclone 'AILA-2009'. These damaged infrastructures have been rehabilitated under Component-C of ECRRP. During project implementation, a number of cyclonic hazards (Nargis-2008, Mohasen-2010, Mora-2017 etc) , frequent spring tides with record rise of water levels and higher duration of flooding, untimely prolonged precipitation, erosion of river banks at unpredicted locations caused damages in terms of both costs and loss of time. Essential rehabilitation works needed for mitigation against these natural events could be done within the respective unused funds in the ICB contracts. Time, however, remained the

problems beyond the project control, and had to be covered considered by extending the project period 2018 within the said respective contracts keeping expenditure at minimum.

5.10 Project financing, allocation and release

: Does not arise.

5.11 Design formulation/approval

: The scope of works of the project has been changed on different aspects due to practical situation at the time of implementation of works which were assessed and designed in consultation with beneficiaries, World Bank and GOB.

5.12 Project aid disbursement and re-imbursment

: Not applicable.

5.13 Missions of the Development Partners :

During implementation, several World Bank Missions visited the project. The list of WB Mission visits with period is shown below:

SI No.	Name of the Mission	Period
1.	Implementation Support Review Mission	June 10 to 14, 2018
2.	Implementation Support Mission	November 12 to December 14, 2017
3.	Implementation Support Mission	November 12 to 22, 2017
4.	Implementation Support Mission	October 02 to 15, 2017
5.	Implementation Support Mission	July 09 to 16, 2017
6.	Implementation Support Mission	April 05 to 10, 2017
7.	Implementation Support Mission	March 20 to 24, 2016
8.	Implementation Review Mission	February 22 to March 03, 2015
9.	Pre-Identification Mission	September 15 to 30, 2014
10.	Implementation Review Mission	September 03 to 12, 2014
11.	Implementation Review Mission	January 28 to February 06, 2014
12.	Mid Term Review/ Restructuring Mission	November 08 to 19 2012 and January 08 to 16, 2013.
13.	Implementation Support Mission	February 19 to March 07, 2012.
14.	Implementation Review Mission	February 20 to March 05, 2012.
15.	Implementation Review Mission	April 25 to May 04, 2011.
16.	Combined Mission (Padma-ECRRP)	April 09 to May 07, 2010.
17.	Implementation Review Mission	November 25 to December 22, 2010.
18.	Implementation Review Mission	November 10 to 25, 2009.
19.	Combined Mission (Padma-ECRRP)	August 27 to September 18, 2009.
20.	Partial Implementation Review Mission	April 05 to 17, 2009.
21.	First Implementation Mission	February 01 to 15, 2009.

5.14	Time & Cost Over-run	: Not applicable in case of cost. Increased time was needed for various reasons as stated earlier.
5.15	Project Supervision/Inspection	: Not Applicable
5.16	Delay in Decision	: Not Applicable
5.17	Transport	: Not Applicable
5.18	Training	: Not Applicable
5.19	Approval	: Not Applicable
5.20	Others.	: Not Applicable

6 Remarks & Recommendations of the Project Director:

- For any infrastructural works in water sector, requisite land shall have to be acquired well ahead of contract awards.
- The project did not have provisions of O&M expenditure during implementation. Many of the rehabilitated works in fifteen (15) polders under nine (9) contracts completed by June 2014 needed regular O&M, routine maintenance, periodic maintenance and rehabilitation due to annual wear and tear, damages by natural hazards like rains, river flows, flooding and cyclones. On the other hand, the polder embankments and structures that were considered operable during damage assessment became vulnerable in different locations. As the BWDB did not have any fiscal provision to take care of necessary measures in aided project areas, the polders remained at no body's care during vulnerable situations created at extreme events of natural hazards. As such, any future project shall be developed with adequate provisions for covering O&M costs during project implementation.
- For BWDB projects, the Engineer should be from BWDB officials in the field, not from the Consultants. Consultants may be engaged only for top supervision to help the project authority.
- BWDB should be equipped with proper resources for routine maintenance, periodic maintenance and rehabilitation of damages by natural hazards.
- Implementation of the rehabilitation works that could not be materialized due to various reasons as well as any other requirements should be assessed at the earliest and necessary repair/rehabilitation works need be carried out to ensure polder benefit.



- For donor assisted projects, physical works should be completed at least 6 (six) month before the date of completion mentioned in the Project DPP and the consultant provision must be kept during that period to finalize financial matters & FPCs, PCR etc.

Date: 30/09/2018



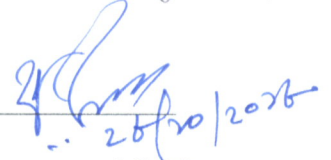
Signature and seal of the Project Director/Manager

Md. Habibur Rahman
Chief Engineer/
Project Director
ECRRP (BWDB-Part)
BWDB, Dhaka.

7. Remarks/Comments of Agency Head

This project was taken to restore cyclone Sitra & Aila damaged BWDB infrastructures to operationally functional condition and the project has served it's purpose. 29 Polterers across 12 cyclone affected upazillas of Patuakhali, Barguna & Pirojpur district have been rehabilitated. All these enhanced facilities have contributed to restoration of coastal livelihood from post cyclone damaged conditions. Implementation of this project has supplemented Bangladesh's effort to achieve MDG goals and currently it is contributing to achieve SDG goals. Thus this project is a huge success.

Date:


28/10/2018

Signature and Seal

(মোঃ মাহফুজুর রহমান)
মহাপরিচালক
বাপাউবো, ঢাকা।

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

Date:

Signature and Seal

LIST OF ASSETS OF ECRRP, BWDB-Part.

List of Vehicle of ECRRP

Annex-1

Sl. No.	Name Goods	Received statement			Issued statement			Present position	
		Ref.	Date of Received	Value (Tk. lac)	Quantity (nos.)	Quantity (nos.)	Balance (Qty)		Ref.
1	2	3	4	5	6	7	8	9	10
01	Jeep	Memo: 361 dt.22.10.09	14.11.09	178.50	3	3	-	i)PD memo no-528 dt. 07.12.09 ii) HR no-5 dt.20.12.09 (CE Barisal)	i) PD ECRRP Dhaka metro-gha-13-2782 ii) CE Barisal Dhaka metro-gha-13-2833 iii) ADG O&M-1 Dhaka metro-gha-13-2832
02	Speed Boat	Memo: 333 dt.09.06.2010	30.06.10	29.98	2	2	-	i)PD memo no-460 dt. 24.06.10	1-Patuakhali WD division 1- Barguna O&M Div.
03	Motor cycle	Memo: 1913 dt.05.04.12	05.04.12	29.993	25	25	-	i) HR no-2 dt.24.04.12 ii)PD memo no-1913 dt. 05.04.12	1-Director Program, Dhaka. 9-Patuakhali WD division 3- Patuakhali O&M Div. 4- Perojpur O&M Div. 8- Barguna O&M Div.
04	Jeep	Memo: 84 dt.07.08.12	27.11.12	209.70	3	3	-	i) HR no-6 dt.29.11.12 ii) HR no-7 dt.02.12.12 iii) HR no-8 dt.02.12.12	i) SE Gangs Barrages study & Project co-ordinator CEIP Dhaka metro-gha-13-6967 ii) DPD ECRRP Study/PD Planing-2 Dhaka metro-gha-13-6966 iii) Executive Engineer Patuakhali WD Division Dhaka metro-gha-13-6965

List of ECRRP Equipments

Annex-2

Sl. No.	Name Equipments	Received statement			Issued statement			Ref.	Present position
		Received year	Date of Received	Value (Tk.)	Quantity (nos.)	Quantity (nos.)	Balance (Qty)		
1	2	3	4	5	6	7	8	9	10
01	Desktop Computer	2008-09	30.06.09	4.48	7	2	5	Memo: 1365dt 29.06.09(DC-2)	3-Design Circle-2
		2009-10	30.05.10	3.10	5	1	4	2)	1-Director CPC
		2011-12	23.03.12	3.175	5	1	4	Memo: 1748 dt 20.02.12	1-RAC Patuakhali.
		2012-13	18.06.13	0.475	1	1		HR no-1 dt 23.4.12(DC-2)	13-PD Office
		Total			18	5	13	HR no-6 dt 19.10.10(CPC)	
								Memo: 240 dt 17.05.10(DC-2)	
								HR no-3 dt 26.4.12(RAC-P)	
02	Laptop Computer	2011-12	23.03.12	2.370	3	2	1	Memo: 1365dt 29.06.09	2-DPD Study
		2012-13	18.06.13	1.260	2		2	HR no-4 dt 31.5.12(DPD-St)	4-PD Office(EXN-1, EXN-2,
		2015-16	21.06.16	1.990	2	-	2	HR no-9 dt 03.12.12(DPD-St)	DD, & SAE-Hamid)
		Total			7	2	5		1-PD ECRRP.
	Note PAD	2014-15	20.06.15	0.546	1	-	1	NOTE PAD	PD ECRRP
03	Printer	2008-09	30.06.09	0.64	2		2	Memo: 1365dt 29.06.09	2-Design Circle-2
		2009-10	30.05.10	0.64	4	2	2	Memo: 267 dt 05.05.10	8-PD Office
		2012-13	18.06.13	0.56	2		2	HR no-1 dt 28.6.18	1-Ministry of Water Resources
		2017-18	11.03.18	0.867	3	1	2		
		Total	18.06.18		11		8		
04	Photocopier machine	2008-09	30.06.09	5.80	4	3	1	i)PD memo no-450 dt.	1-Barguna O&M division
		2009-10	04.06.10	3.52	4	4	0	26.06.10	1-SE Barisal
		2014-15	16.06.15	2.495	1	-	1	ii) HR no-11 dt 7.07.10	3 - PD Office.
					(scanner-cum Ph)			iii) HR no-1 dt 23.4.12	1-Sangsadio Committee.
								iv) HR no-1 dt 23.4.12	1-Patuakhali WD division
		2017-18	27.06.18	2.50	1	-	1	v) HR no-6 dt 08.12.16	1-Director O&M, Dhaka.
		Total			10	7	3		1-Director Program, Dhaka.
05	Fax machine	2008-09	30.06.09	0.286	2	0	2	Memo: 450 dt 21.06.10	1-Peroipur O&M Division
		2009-10	04.06.10	0.150	1	1	-		1-Patuakhali WD division
		Total			3	1	2		2-PD Office
06	Scanner	2008-09	30.06.09	0.149	3	2	1	HR no-6 dt 19.10.10(CPC)	1-CPC
		2009-10	04.06.10	0.100	1	1	-	HR no-9 dt 03.12.12(DPD-St)	1-DPD-Study
		2017-18	15.05.18	0.105	1	1	0	Memo: 450 dt 21.06.10	1-Patuakhali WD division
		Total			5	4	1	HR no-1 dt 28.6.18(Ministry)	1-PD Office
									1-Ministry of Water Resources

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Sl. No.	Name Goods	Received statement		Issued statement				Present position
		Received year	Date of Received	Value (Tk.)	Quantity (nos.)	Quantity (nos.)	Balance (Qty)	
1	2	3	4	5	6	7	8	9
07	GPS	2009-10	20.05.10	0.72	2	-	2	Memo: 266 dt.05.05.10
08	AC	2012-13	18.06.13	1.490	2		2	Memo: 451 dt.02.06.2013
09	IPS	2012-13	31.03.12	1.416	2			1- DD Office & General section 1-Cumputer room. 1-PD Office.
		2012-13	18.06.13	1.90	1			Memo: 451 dt.02.06.2013
		Total			3	2	1	
10	Survey equipments Total Station	2009-10	05.10.09	12.46	3	2	1	1 no Perojpur O&M Div. 1 no Patuakhali O&M Div. 1-PD Office.
11	Survey equipments(Level machine with tape)	2009-10	20.05.10	2.26	8	8	0	3- Barguna O&M Div. 1- Perojpur O&M Div. 1- Patuakhali O&M Div. 3- Patuakhali WD Div.

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Annex-3

River Bank Improvement Program Inventory List																				Delevary status up to-17 January-2017					Annex-3	
Sl.	Items Name	Category	Details	Unit	Distribution												Remarks									
					Design Circle-6	PD Office	Director Personal	Director Program	Director Discipline	Ministry WR	patuakhali pirojpur O&M	Barguna O&M	CE Monitoring	D/S Finance	Baradi kustia	RAC/DHA	Balance									
1	Office Desk	Furniture	Table Executive Graphite Light Grey, Otobi Brand	18			1		5			3	3	3	1	2	0									
2	Office Desk	Furniture	Table Chief Executive Pear Walnut	3							1	1	1				0									
3	Bookshelf	Furniture	file cabinet book self	1							1															
4	Executive Chair	Furniture	Swivel Chair Black Big Black	3					1			1	1				0									
5	Executive Chair	Furniture	Swivel Chair Executive	8		5					1	1	1				0									
6	Visitor Chair	Furniture	Visitor Chair ST-Black Rex-Black	36		11			10			3	4	4	2	2	0	3-damaged (PD office)								
7	File Cabinet	Furniture	Long Book Cabinet White Okh Color	2										1		1	1 no required for ficine									
8	Conference Table	Furniture	Full Okh Color	1							1						0									
9	Executive Chair	Furniture	Partex Scientific Chair	1		1											0	1-Partial damaged(PD office)								
10	Desktop Computer	Equipment	High End Desktop Computer	9		1	1				1	1	1	4			0	1-Partial damaged(CE office)								
11	Laptop	Equipment	TOSHIBA Laptop	1		1																				
12	Laptop	Equipment	Doel Laptop	1		1											0									
13	Server	Equipment	Full Lan equipped Server	1										1			0									
14	Printer	Equipment	EPSON STYLUS PHOTO 1390 INKJET Printer	1		1											0									
15	Printer	Equipment	estudio 2051C Toshiba Multifunctional Printer	1		1											0									
16	IP Phone set	Equipment	IP Phone Set Black	1		0								1			0									
17	Moving Fan	Equipment	GFC Basket Moving Fan	6		2					2				2		0	1-damaged (PD office)								
18	Celling Fan	Equipment	Pakistani Fan 56"	2							2						0									
19	Air Conditioner	Equipment	Media 1.0 Tons	1			1										0									
20	Air Conditioner	Equipment	General 2 Tons	2				1	1								0									
21	Air Conditioner	Equipment	5 Tons	1													0									
22	Air Conditioner	Equipment	Media 1.5 Tons	3	1		1			1						1	0									
23	Project Screen	Equipment	Full big Screen White	1		1											0									
24	Air Conditioner	Equipment	Media 2 Tons	3	2	1											0									

Index Map

